AGEING AND SOCIAL EXCLUSION IN PAKISTAN

By
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This is to certify that we have read dissertation submitted by Mr. Aftab Ahmed entitled "**Ageing and Social Exclusion in Pakistan**" as partial fulfilment for the award of Doctor of Philosophy in Department of Sociology, Quaid-i-Azam University, Islamabad. We have evaluated the dissertation and found it up to the requirement in its scope and quality for the award of Ph.D. degree.

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ABBREVIATIONS

AAI:	Active Ageing Index
AARP:	American Association of Retired Persons
ADL:	Activities for Daily Living
AJK:	Azar Jammu and Kashmir
APA:	American Psychological Association
BC:	Before Christianity
BHPS:	British Household Panel Survey
CDA:	Capital Development Authority
CDC:	Center for Disease Control
CII:	Council of Islamic Ideology
CSO:	Community Support Organization
DCUs:	Day Care Units
DECCs:	District Elderly Community Centers
DEs:	Day Care Centers for The Elderly
DSS:	Department of Social Security
DTA:	Disengagement Theory of Ageing
EHC:	English Housing Condition
EHCCS:	Enhanced Home and Community Care Services
ELSA:	English Longitudinal Study of Ageing
ESCAP:	Economic and Social Commission for Asia and the Pacific
EU:	European Union
EU-SILC:	European Survey on Income and Living Conditions
GAWI:	Global Watch Index
GB:	Gilgit Baltistan
GP:	General Practitioner
GWI:	Global Watch Index
HARC:	Healthy Ageing in Rural Communities
HDI:	Human Development Index
ICT:	Information and Communication Technology
ICU:	Intensive Care Unit
IHCS:	Integrated Home Care Services
ILO:	International Labor Organization
IWS:	Internet World Stats
KP:	Khyber Pakhtunkhwa
LTCFs:	Long-Term Care Facilities
MIPAA:	The Madrid International Plan of Action on Ageing
NCDS:	National Child Development Study
NECs:	Neighborhood Elderly Centers
NGOs:	Non-Governmental Organizations
NHPPS:	Nursing Home Place Purchase Scheme
NHs:	Nursing Homes
OASE:	Old Age Social Exclusion
ODPM:	Office of Deputy Prime Minister
OECD:	Organization for Economic Co-operation and Development

OPs:	Older Persons
PA:	Physical Activity
PBS:	Pakistan Bureau of Statistics
PNCA:	Pakistan National Council on Aging
PRB:	Population Reference Bureau
PRC:	Pew Research Center
RCHEs:	Residential Care Homes for the Elderly
SARS COVID-19:	Severe Acute Respiratory Syndrome Coronavirus 19
SDGs:	Sustainable Development Goals
SEs:	Social Centers for the Elderly
SEU:	Social Exclusion Unit
SPSS:	Statistical Package for Social Sciences
UCLA:	The University of California, Los Angeles
UN:	United Nations
UNDESA:	United Nations Department of Economic and Social Affairs
UNDP:	United Nation Development Programme
UNECE:	The United Nations Economic Commission for Europe
UNFPA:	United Nations Population Fund
USA:	United States of America
USSR:	Union of Soviet Socialist Republics
VIPAA:	Vienna International Plan of Action on Ageing
WHO:	World Health Organization
WRVS:	Women's Royal Voluntary Service (UK)

"...growing old's like being increasingly penalized for a crime you haven't committed..."

(Anthony, 1973)

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All praise for the Allah Almighty who taught knowledge through pen to the human when he knew nothing, and He is the one who is most merciful to humankind. After Allah Almighty, offer Darood o Salah for Prophet Muhammad (PBUH), whose prayers and guidance are for humanity.

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"I dedicate my PhD Research to my father, and my mother."

Abstract

Despite being a young nation, Pakistan is one of those countries facing demographic changes. Global data reveal a consistent increase in population at age 60 and above. The study was divided into three objectives: firstly, exploring socio-economic and demographic profile of respondents, secondly, studying the patterns of social exclusion among the elderly, and thirdly, observing the relationship between age phenomenon and levels of social exclusion. For data collection, *Sohan* in Islamabad was selected. A quantitative research approach was applied for data collection, such as face-to-face interviews. A sample of 97 respondents were interviewed for this research. After data collection, data editing, code planning, data entry, data cleaning, and analysis were performed in CSPro and SPSS. The data show 37 percent respondents belonging to age 60-64 years, 25.8 percent were 65-69 years old, and rest were all 70 years and above. Regarding seven dimensions of social exclusion, regression analysis revealed that five out of seven dimensions had non-linear effects regarding age (excluding neighborhood/community and digital exclusion). It was concluded that the mean occurrence of these five dimensions varied not only among age groups but also for age distribution variation (Annexure - B). Inferential analysis of study represents that age and social exclusion had a statistically significant relationship (calculated p-value of MANOVA as .004 in the test Wilks Lambda effect). The age factor mean level was significantly different from each other across all responses in the model, which also concluded that the assumption was approved in the study that prevalence of social exclusion was significantly dependent on age. In contrast, on the next level, Leven's test of equality of error variances showed that excluding services' exclusion, all six dimensions of social exclusion error variance were equal among all age groups. Few major findings of the study are; ageing as an independent variable significantly affects social exclusion in old age, covariance matrices of the dependent variables are dependent are equal across age groups, the civic exclusion was disproportionality faced by different age groups – linear line has a positive slope, exclusion from social relations was disproportionality faced by different age groups with highest SD reported by 80 years and above OPs – linear line has a positive slope. This research recommends collecting national-level data of OPs to get a more precise picture, including socio-cultural, economic, political, service provision, health, and well-being, food, housing sections, etc. Without primary numerical or empirical data on this critical topic, it is impossible to develop a national-level policy to handle this issue effectively and efficiently and provide friendly opportunities to the elderly in the country.

Chapter No. 1

INTRODUCTION

Ageing is a worldwide demographic trend. Developments in medical sciences have enabled people to live longer by improving the endurance of life, but it has led to certain inevitable socio-cultural consequences which stay unaddressed. The ageing population is in serious need of public and private interventions to ensure their well-being in contemporary societies. Ageing in Pakistan is a grave matter of concern that is neglected at the state level and in the research field. Social exclusion while ageing is a crucial issue all over the world. It is not merely a current matter; rather could be the most vital social issue soon, which needs to be tackled cautiously. The developing nations need to focus more on this highly neglected social dimension of ageing.

1.1 BACKGROUND

While it is a widely known fact that the global population is aging, not many realize that countries in the East and Southeast Asian region are some of the most rapidly gaining ones in the world (Cheng, Chan, and Phillips 2009). Moreover, European and American societies that are today considered ones with aging citizens will be surpassed by these societies. In areas such as Mainland China and Hong Kong, Macau, and Singapore, between 2005 and 2050, the aging population is expected to rise by 243% compared to the world average of 113% (Cheng et al. 2009).

Since ageing is the conventional and natural progression of life, there is a resultant decrease in these individuals' activities and healthy body cells. The number of older citizens is rising significantly, and during the years 2015 to 2050, the older population is expected to rise 2.60 times more (608 million to 1.6 billion). Around two-thirds of this projected increase is expected to be in Asia, where the older population is calculated to rise three times more (330 to 0.96 billion) between

the years 2015 and 2050 (UN 2017). The world population is estimated at 7.6 billion in 2018, and it is projected to be 9.6 billion by the year 2050. Statistically, from 1960 to 2018, the older citizenry formed 5% to 9% of the world population projected to increase by 16% by 2050 (PRB 2018).

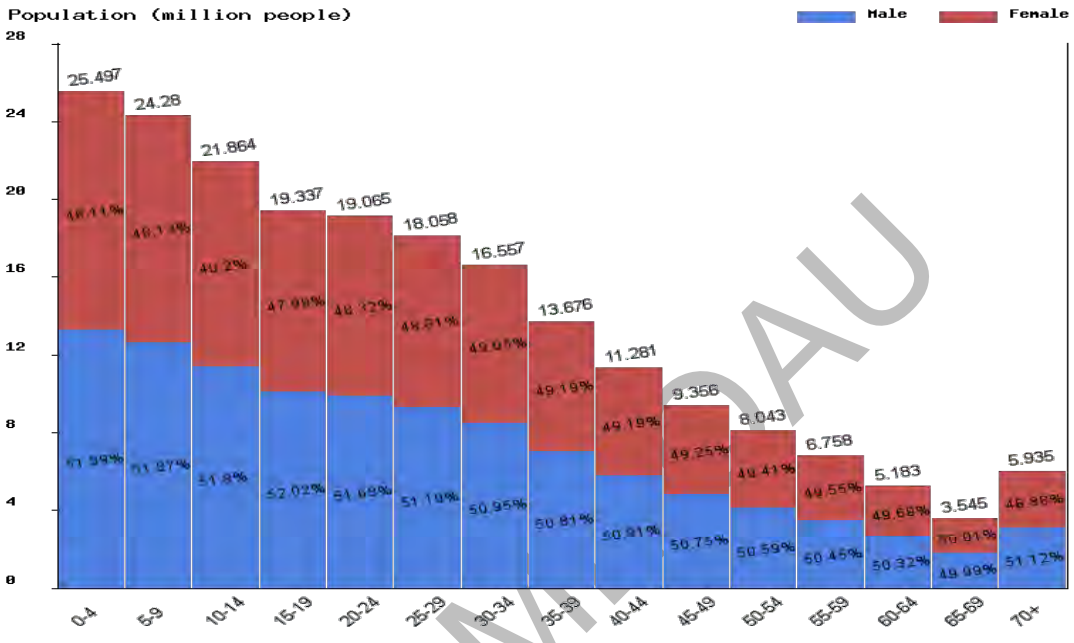


Figure 1.1 Pakistan's Population with Gender and Age Groups
Source: Population of Pakistan (2020)[1]

The trends of ageing vary widely across the globe; Europe, for instance, was the region with the highest population termed as older adults in the year 2015, with 18% of its population falling in that bracket, and North America was at the second-highest with 15% of its population in the older adults' age bracket. The expected rise in these percentages will be 28% and 23%, respectively. In comparison to these, Latin America, the Caribbean, and Asia, despite having comparative statistics in terms of ageing, are expected to maintain similar trends up to 2050. Aged population forms around 8% of the total population in these areas, namely Asia, Latin America, and the Caribbean.

1 https://www.livepopulation.com/country/pakistan.html 06 12 2020

That share is projected to be 18% for Asia and 20% for Latin America and the Caribbean by 2050 (UN 2017).

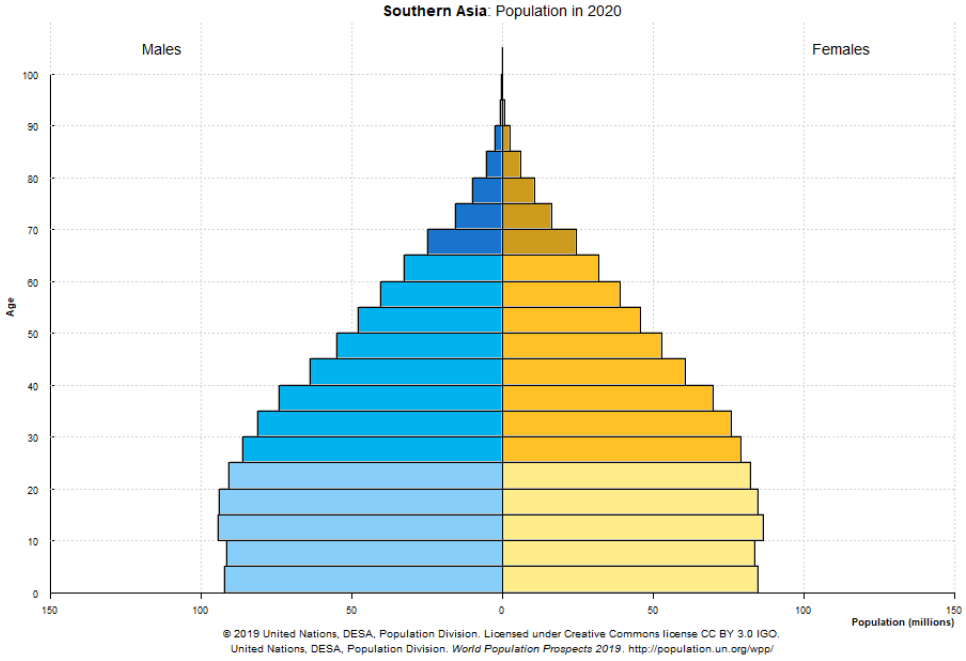


Figure 1.2 World Population Pyramid 2020 (Gender-Age)

1.1.1 Historical Background of Ageing

Prehistoric Concepts about Ageing: There is little record of how individuals progressed through their lives during prehistoric societies. Gerontologists believe that thirty-five was considered old in that era, and few people reached that age due to difficulties of survival; those who did reach beyond that age were considered old. However, while anthropologists and experts have been studying society through available avenues, there is not much data to make solid conclusions (Sokolovsky 2009). There are, however, societies and communities where the older citizens are respected and idolized for their experience, knowledge, and wisdom. For instance, in South Africa, Sans, the elderly are respected and appreciated for their wisdom. In general, however, the stature of the senior citizens in a society is based on two broad factors: the state of physical and mental health of the elders. Depending on the physical health, the elders are considered 'young-old' or

'old-old' in certain societies. Those belonging to a former category are respected and idolized, whereas the latter are seen as a liability. The 'young-old' are respected for wisdom and intuition about the afterlife, while the 'old-old' stand-out only for their physical and mental frailties. In some societies, these individuals are abused and left without any resources, killed through a ritualized sacrifice, or forced to commit suicide (Barker 2009).

Modern Era and Ageing: Through a cross-cultural study of seventy-one societies, anthropologist Leo Simmons (1945), a research pioneer studying the impact of modernization on the ageing population, concluded that the pre-modern era was better for the senior citizens. However, he did not elaborate on the factors that made him reach that conclusion. Cowgill (1972), however, studied the variations in the social aspects that negatively affected the status of senior citizens. He developed a theory on the relationship between modernization and senior citizens' changing social status and position.

Cowgill (1979:56) defined modernization as "the transformation of a whole society from a relatively rural way of life based on animate power, limited technology, relatively undifferentiated institutions, parochial and traditional outlook, and values. Towards a predominantly urban way of life based on the inanimate source of power, highly developed scientific technology, highly differentiated institutions matched by segmented individual roles, and a cosmopolitan outlook which emphasizes efficiency and progress."

Through his research, Cowgill (1979) isolated four other factors that negatively affect the stature of older citizens in society. These factors are technology advancement in the healthcare sector,

industrial technology, urbanization, and education. Building on the work of these researchers, other academics in the field of gerontology have used the modernization theory and aging model. These models have gained utmost importance in the research field since the experts have used these models to explain the deteriorative effects of older citizens in societies today (Hooyman and Kiyak 2008).

Although the stature of the senior citizens in modern societies seems to be deteriorating, researchers in the field believe that, for ensuring the well-being of the older citizens, it is essential to study and understand the concept of ageing (Tobin 1999). Academically, the process of ageing is now described as "maintaining one's identity despite the changes that come with aging and embracing opposites—being changed and feeling being the same" (Fischer, Norberg, and Lundman 2008:259).

Through a comparison of similarity indexes ranging from 1960 to 1969, Palmore and Whittington (1971) reached the conclusion that generally, modernization severely affected, in a negative manner, the social and economic status of the elderly citizens. In the same vein, Bengston et al. (1975) studied data gathered from 5,450 young males hailing from six developing countries. They concluded that the impact of modernization and the precepts of ageing in society was negative for the senior citizens.

Other studies in the recent past have also reached the same conclusions, that modernization has played a majorly negative role in the altering social and cultural values and has led to a decrease in the financial and physical support being extended to parents in the old-age bracket (Chow 1996;

Lai 2009). In rural societies, the models of modernization and ageing as developed by the researchers seem to be perpetrating the rural societies (Ding 2004; Wang 2004). However, with the same social environment and ongoing modernization and ageing in Chinese cities, the feelings of obligations towards elders and social behavior towards them have remained the same (Whyte 1997), specifically in terms of familial support (Lin 2002). Other researchers working in the same field, such as Cheung and Kwan (2009), have presented that education plays an essential role in enabling individuals to rise above the adverse effects of modernization. The more educated the citizens, the more likely to increase familial support.

Lin (2002) studied the phenomenon in terms of geographical areas and their level of economic development, segregating the areas into lower or poorly developed rural areas, middle-developed rural areas, or high-developed rural areas. The observations concluded that there is a u-shaped relation between how other individuals treat the elders in a society; in highly developed and poorly developed areas, the treatment received by the older citizens is much more respectful and supportive. However, in middle-developed areas, the older citizens received the lowest support. Likewise, some focus-group discussions studied the intergenerational link about the decision-making in the families. The results reflected that those older citizens who are more educated are more likely to be consulted for the decision-making processes in the family (Mehta and Lin 1999).

In East-Asian regions, including China, respect for senior citizens is ingrained in the social values and practices, within the families and without, which remarkably stands in disparity to the values observed in the Western society (Tsai and Lopez 1997; Yun and Lachman 2006). A comprehensive study of the status of senior citizens in Asian societies does reflect varying views. For instance,

some studies (Levy and Langer 1994; Yoon, Hasher, Feinberg, Rahhal, and Winocur 2000) show that older individuals are treated more favorably in eastern cultures than Western. Other studies contradict the findings. An experimental study by Harwood et al. (2001) concluded that with changing circumstances, the way the elders are treated in the East Asian societies and Hong Kong have also changed, and the elevated status that they enjoyed in previous times is no longer valid.

Post-modernization and Ageing: Due to the availability of better healthcare, healthier and improved styles of living, and amplification in the use of biotechnology, older citizens can enjoy longer and healthier lifestyles. During the 1990s, in the post-modern era, the discourse was therefore directed towards the creation of 'better lifestyles' for the said social demographic (Blaikie 1999; Featherstone and Hepworth 1993, Featherstone and Wernick 1995; Powell and Biggs 2000). Through his research, Jaber F. Gubrium (1975) presented a detailed analysis about the first detection of Alzheimer's disease in the USA. He presented his views about the difference between average and pathological aging. This work provided the foundation for the concept of 'post-modern gerontology.'

One overwhelming concern that holds much popularity about the aging process is that old age becomes a mask or a cloak for the individual and hides their essential identity, talents, and personality (Featherstone and Hepworth 1993). Featherstone and Hepworth (1993) have discussed the two main issues they consider to be at the foundation of the concept of post-modern gerontology. One is that the presence of a mask or a disguise indicates an underlying tension between the external physical appearance and internal capacities or the sense of self that comes from the experiences of a lifetime. The other fact is that the senior citizens are fixed in their roles,

irrespective of their resources, which is unfair because this concept disregards their multifarious experiences and the multilayered personality traits that they have acquired going through life. Therefore, the researchers, Featherstone and Hepworth, present that a post-modern view would facilitate the older citizens being viewed as comprehensive personalities with possibilities instead of being limited by medical decline discourse.

1.1.2 The Advance of Social Exclusion

During the past decade, social exclusion faced by older citizens has been discussed increasingly. Due to a lack of thorough research, some fields where the elderly face marginalization have not been mapped. It has led to an inability to estimate such exclusion's effect on senior citizens' value and worth of life (Torres et al. 2017).

According to the research by Sen (2000), social exclusion has long been practiced in society, even since the times of Aristotle. However, the scrutiny of the phenomenon has been taking place since 1947, when René Lenoir, a secretary in the French government in the department of social reform, formally coined the term 'social exclusion. The term was derived from the French word '*Les exclus*" and referred to the marginalized individuals who were not provided with social security (Frétigné 1999). However, the term social exclusion covers a myriad of meanings, covering a variety of nuances; the term cannot be limited to the marginalization of a particular group of people (Levitas et al. 2007).

The changing social circumstances have also affected and changed the perception of social exclusion. Analyzing the phenomenon of social exclusion, Townsend (1979) took the approach of

analyzing it from the angle of scarcity. It concluded that poverty causes marginalization for people of some factions. Further elucidating the concept, he presented the idea that the unequal distribution of assets and resources has also been reflected in living standards and social and cultural behaviors (Townsend 1979:32). He observes that poverty is also a measure of the lack of non-material assets and material assets and resources. Referring to 'social pleasure,' he further explains that only a few within a society are given those privileges, with or without material possessions.

Walker and Walker (1997:8) presented a functional view of 'social exclusion, taking into account the level of poverty and income. Studying British society, they concluded that social exclusion results from the lack of material assets and low income. They also said that social exclusion applies to a broader spectrum, including the economic, social, political, and cultural. If anyone is excluded from any of those spheres, it is considered a social exclusion. Based on these researchers' findings, it can be concluded that any explanation of the concept of social exclusion should include all the measures that affect it comprehensively (Nolan and Whelan 1996). While highlighting the concept of social exclusion, therefore, all measures, including the material and non-material dynamics, should be considered comprehensively (Room 1998).

1.1.3 Ageing and Social Exclusion

Social exclusions based on age lead to discrimination in the distribution of resources, power, and rights. It leads to individuals being forced to face inequalities in the socio-cultural domains of their services, material and financial resources, and other socio-cultural dom and civic activities. Therefore, social exclusion based on age involves all levels in society, from individuals to

communities and the states (Walsh et al. 2017). While the trend affects individuals, those individuals form the bulk in an aging society. Therefore, the effects are cumulative, creating inequity in the society (Levitas et al. 2007 in Walsh et al. 2017). Addressing the issue of social exclusion to ensure ageing friendly societies is of paramount importance, especially in the long term (WHO 2007).

According to statistics presented by ODPM and SEU (Office of Deputy Prime Minister and Social Exclusion Unit), around 70-90% of the senior citizens spend their time at home (SEU and ODPM 2006). If their living arrangements are excessively modest, it negatively affects the individuals. Studies on old-age citizens living in modest circumstances reflect the same result. In essence, even older citizens unable to traverse through their homes due to access problems face psychological difficulties and are adversely affected (EHC study 2001).

Many research studies in this regard reflect a connection between the process of ageing and the concept of social exclusion. Physical ailments and disabilities and their increasing financial dependencies and vulnerability to fiscal frauds cause social exclusion that affects the lives of older citizens in many ways. While outstanding in their own right, these problems cause increasing financial dependence for the senior citizens and cause them to face discrimination in society.

According to Barnes et al. (2006), there are several primary reasons why older citizens face exclusion based on old age. In old age, people face a decline in their social activities with their peers or being widowers/widowed, leading to feelings of loneliness. In comparison to the youth in particular and people of middle age in general, the lives of the older citizens are much more limited.

Social exclusion based on old age is multi-tiered. It ultimately leads to hurdles in material and non-material possessions and unfair distribution of resources between the older citizens and the rest of the society. Therefore, the process of aging is interlinked with the decreased social association and an increase in feelings of exclusion. The process cumulatively affects the lives of the older citizens and, in turn, society (Levitas et al. 2007). There are multiple factors, procedures, and consequences involved with social exclusion based on old age. The vulnerability of old age in all its different forms affects the forms and degrees to which social exclusion impacts the lives of senior citizens.

1.1.4 Ageing Around the World

Based on the 2020s, there would be 727 million people of age 65 or above around the globe. This figure would have doubled by 2050. It means that it will increase to 16% in 2050, from the current 9% now. Studies in the area of gender reveal that women live longer than men. Women account for up to 55% of the global old age population categorized as those above 65. Women comprise almost 62% of the age group 80 and above (UNDESA 2020).

However, in addition to estimating the numbers of the global old age population, there is a pressing need to formulate and implement policies for their welfare. Based on the estimates provided, there is a need to cater to this increasing demographic of society. Regions like North Africa and West Asia will witness a rise of over 230%, and Oceania and Sub-Sahara Africa are estimated to witness a rise of 190% and 220%, respectively. The Caribbean and Latin American regions will witness an increase of around 160%, and a 180% increase will be seen by the areas like South and Central Asia. South and East Asian regions will witness an increase of over 120% (UNDESA Population Division 2019).

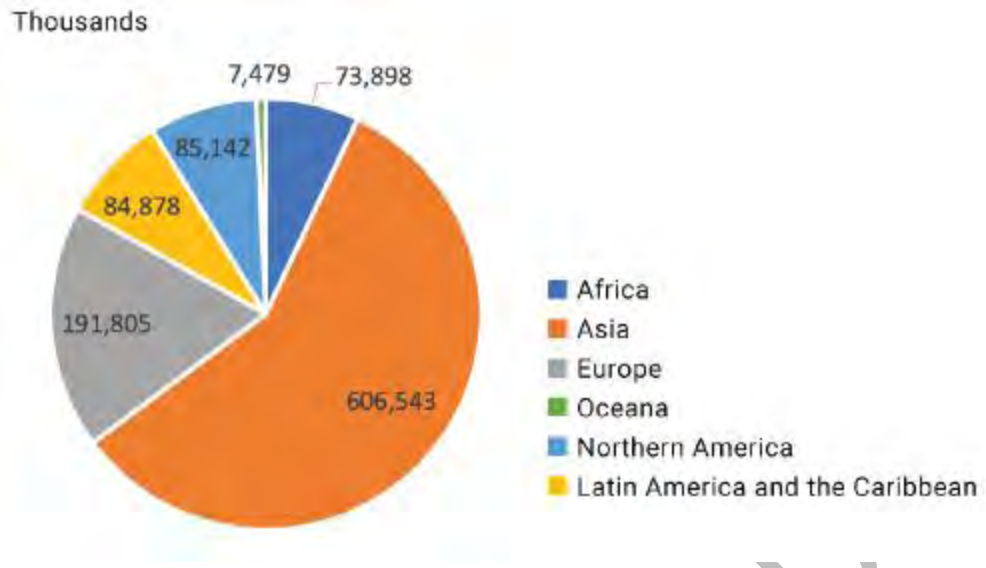


Figure 1.3 Number of Persons Aged 60 Years and Above [by region] 2020
Source: UN, World Population Prospects[2]

Based on the statistics presented by WHO (2018), in China alone, there would be 120 million people of old age by the year 2050, and 434 million people of the same age group would be living around the globe. Around 80% of this population will be residing in lower- and middle-income countries.

For 2017, the old age population, people above the age of 60 around the globe, was put at 962 million. Before that, in 1980, several populations above 60 were placed at 382 million, which meant a two-fold increase in the old age population. Forecasting based on the same stats shows that the number of old age individuals would be 1.41 billion by 2030, and by the year 2050, it will be 2.1 billion. In contrast, the number of children on or below the age of 10 will be around 1.35 billion. To put it succinctly, by 2050, the number of populations on or above the age of 60 will be 2.1 billion, and the young ones would come to around 2 billion.

[2] The 2019 Revision, available at https://populations.un.org/wpp/.

Table 1.1 The Top 15 Countries with Largest Population of Older Adults[3]

Rank	Country	# 65+ (in millions)	% 65+ (of total population)	# Total population (in millions)
1	China	166.37	11.9	1398.03
2	India	84.90	6.1	1391.89
3	United States	52.76	16	329.15
4	Japan	35.58	28.2	126.18
5	Russian Federation	21.42	14.6	146.73
6	Brazil	17.79	8.5	209.33
7	Germany	17.78	21.4	83.10
8	Indonesia	15.16	5.6	268.42
9	Italy	13.76	22.8	60.34
10	France	13.16	20.3	64.83
11	United Kingdom	12.24	18.3	66.83
12	Pakistan	9.31	4.3	216.57
13	Mexico	9.17	7.2	126.58
14	Spain	8.99	19.1	47.07
15	Bangladesh	8.35	5.1	163.67

Further, it was estimated that people above 80 were estimated to be around thrice the number than they were in 2017, which would amount to about 425 million from 137 million in 2017. Around two-thirds of the senior citizens globally reside in developing countries that lack the resources to support and provide for their dependent population. Since 8 out of every ten people from old age belong to developing countries, there is an urgent need to form welfare policies for the targeted population (UN 2017).

[3] Sources: United Nations Population Division, *World Population Prospects 2019,* https://population.un.org/wpp/Download/Standard/Population/, and Toshiko Kaneda, Charlotte Greenbaum, and Kaitlyn Patierno, *2019 World Population Data Sheet* (Washington, DC: Population Reference Bureau, 2019).

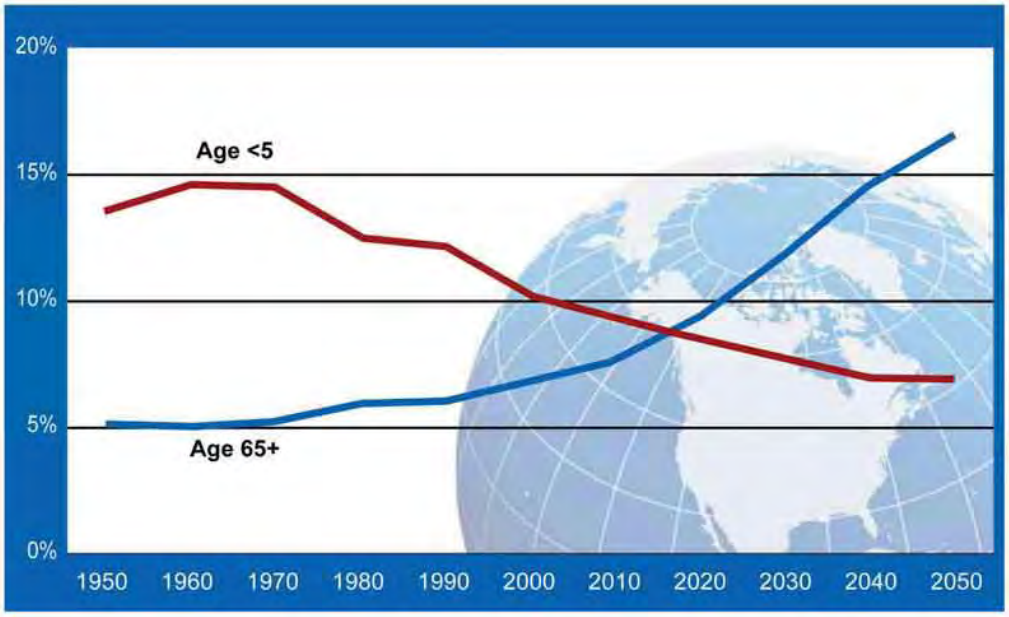


Figure 1.4 Young Children and Older People of Global Population (%): 1950-2050
Source: United Nations. World Population Prospects: 2010

1.1.5 Situation in Asia, Europe, and Northern America

In 2019, around 261 million people belonged to the age bracket of 65 and above in the South and East Asian regions, accounting for the highest number of people falling the old age bracket. The region with the second-highest number of people belonging to the old age population was North America and Europe. The number of people belonging to that age bracket was 200 million. In the South and Central Asian region, the total number of individuals in that age bracket was 119 million. In the Caribbean and Latin America, 56 million people were bracketed at old age. For the Sub Sahara African and West Asian regions, the number was 32 million and 29 million, respectively. 4.8 million old age people reside in Australia and New Zealand, while Oceania has 0.4 million people belonging to the old age bracket.

In the future, East and South Asian regions will witness a massive increase in old age population by around 573 million after 2020 and up to 30 years afterward. Europe and North America will see an increase of 296 million and South and Central Asia of around 328 million people (UNDESA Population Division 2019).

1.1.6 Ageing in South Asia

South Asian countries saw an increased fertility rate from the 1950s to the early 1960s, which declined in the late 1960s. Life expectancy rates also increased, going from 40 years in 1950 to 65 by 2000. These altering trends of mortality and fertility have affected the old age people in South Asia, which came down to 5.8% to 5.5% during 1950-1975. Then it increased to 6.3% (Mujahid and Siddhisena 2009:X).

Table 1.2 Population Increasing Trend in Asia[4]

Number of people aged 65 and above (in 1000s)

Regions/ subregions	2000	2050	% Increase from 2000 to 2050
Asia	206,822	857,040	314
East Asia	114,729	393,802	243
Southeast Asia	24,335	128,958	430
South Asia	67,758	334,280	393

Forecasts revealed that by 2025, there will be an increase of 10%, which will get to 19% by the year 2050. During 1950-2000, the number of elder citizens augmented by almost 66 million. However, during the years 2000-2050 numbers are expected to rise by 350 million, which means that the increase in these years is almost five times higher than the previous one. Estimates from

[4] Victor HH Goh, (2005).

2025-2050, project increase from 20% to 62% in the number of old-age citizens (Mujahid and Siddhisena 2009:X).

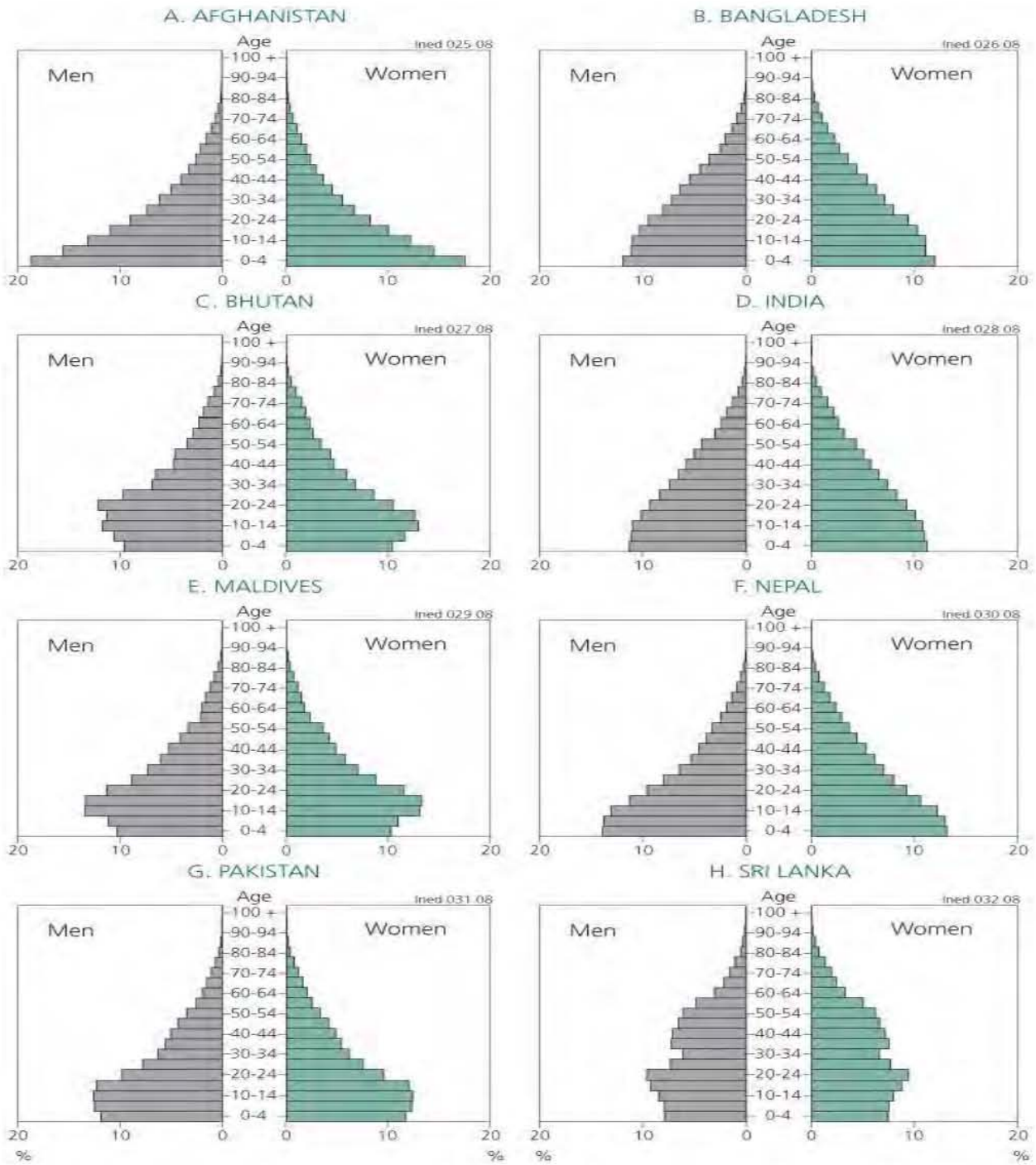


Figure 1.5 Gender and Age Pyramids of South Asian Countries

Source: United Nations, 2006. World Population Prospects, United Nations, New York.

1.1.7 Ageing Population by Religions

A critical factor in studying growth demographics is the population group for each religion and the age group that the followers of that religion fall into; those followers are young, of childbearing age, middle age, or old age. Elucidating on the ageing trends in 2010, around 27% of the global population was under 15, while 11% was on or above the age of 60. Demarking based on religion globally, around 20% of Jews, 15% of Buddhists, 14% of Christians, 14% of other religions' followers were 60 or older. On the other hand, only 7% of Muslims and 8% of Hindus were in this category.

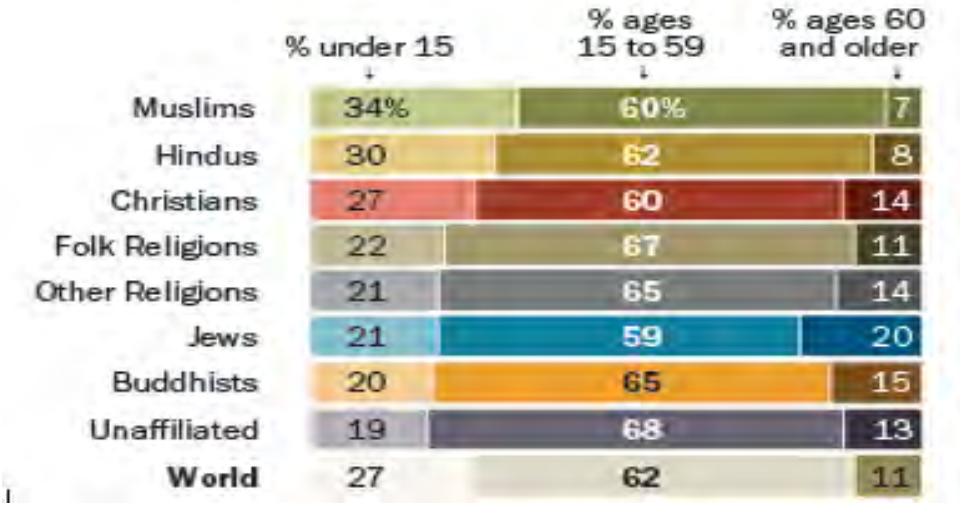


Figure 1.6 Population Age Distribution by Religion
Source: The Future of the world religions: Population Growth Projection, 2010-2050. PEW Research Center

1.1.8 Ageing in Pakistan

According to the UN, around 6% of the people above 65 reside in the Asian region (Ahmed, Chaudhry, and Farooq 2014). The stats of the US census board place Pakistan at the fifth position

based on the population with 233,500,636 people, and in 2006 the population was numbered at 166 million. At the same time, the average life expectancy in Pakistan is 62, around 4.48% live to the age of 65 or above. This number is bound to pose fiscal and social liabilities to the health sector (PDP 2018). In 2019, the total population of Pakistan, 7% or 15 million, was above 60. The number is forecasted to increase by 7-12%.

Table 1.3 Historical Background or Transitional Details [60 years and above]

Total population, both sexes combined, by five-year age group (thousands)											
Country	Reference date (as of 1 July)	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100+	Total
Pakistan	2010	3705	3045	2150	1359	707	269	64	8	1	11308
Pakistan	2011	3743	3093	2215	1397	737	291	75	10	1	11561
Pakistan	2012	3784	3136	2289	1434	762	306	82	13	1	11808
Pakistan	2013	3845	3179	2369	1474	784	314	86	15	1	12066
Pakistan	2014	3945	3225	2445	1521	804	317	84	14	1	12357
Pakistan	2015	4099	3279	2513	1578	824	315	76	10	1	12694
Pakistan	2016	4272	3308	2550	1632	857	340	88	12	1	13060
Pakistan	2017	4495	3342	2585	1690	883	357	96	15	1	13464
Pakistan	2018	4752	3393	2620	1750	907	365	100	17	1	13905
Pakistan	2019	5018	3483	2660	1805	933	367	97	16	1	14379
Pakistan	2020	5279	3623	2706	1853	962	365	85	11	1	14885

Source: *United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.*

As an individual's age progresses, the body and organs are subjected to deterioration. A less effective immune system leads to an increase in ailments at old age, such as visual or auditory impairments, diseases of bone, etc. The Human Development Index (HDI) stats place Pakistan at 150 from 189 countries globally. Out of the total old age population in Pakistan, only 2.3% are facilitated with a pension. The life expectancy rate is now reaching around 70 years of age and above; these circumstances demand that solid policies be formulated for the welfare of the old age population. Since the increase in the old age population means a rise in the dependent strata of the

society, it has direct bearings in the economy of Pakistan. In addition, problems such as shortage of food products, poor health facilities, and other prejudices faced by the senior citizens create further problems (HelpAge International 2012, 2015; ILO 2018; Pension Watch 2016; UN 2017:2019).

1.1.8.1 Key facts of Pakistan[5]

Below are the key statistics on Pakistan's population of older people:

	2019	2050
Population aged 60 and above (total)	14,885,000	40,572,000
Population aged 60 and above (% of the total population)	6.7	12.0
Older women aged 60+ (% of total population)	3.32	6.10
Life expectancy (males)	66.11	70.03
Life expectancy (females)	68	73.56
Old-Age Dependency Ratio (Age 65+ / Age 15-64)	7.1	11.8
Rural older people (% of the total population)	6.77	
Urban older people (% of the total population)	6.38	
Older persons living alone aged 60 and above (% of total population aged 60+)	0.6	

1.2 RATIONALE OF STUDY

Standing at 92nd position out of 96 countries in the ranking of the GAWI, Pakistan's position is shallow (HelpAge International 2015a). While the problems of the old-age population are growing in Pakistan, the state has not done much to form policies or allocate resources for their welfare. Some welfare homes in Punjab and Sindh care for the elderly, but their services remain underutilized because of social attitudes. The major problems faced by the elderly in Pakistan are

5 AgeingAsia.org is an initiative of HelpAge International network members in Asia Pacific. It is coordinated by HelpAge International's Asia Pacific Regional Office. This website has received financial support from the European Union. Visit HelpAge International at www.helpage.org https://ageingasia.org/ageing-population-pakistan/ access date: 28-01-2020

their lack of financial resources, absence of any state facilities providing social security, and rampant health problems (Ashiq and Asad 2017).

Population aging has a profound effect in a broad range of domains, such as socio-cultural, political, and economic arenas. Although aging is a universal process of a society's evolution over the years, Pakistan stands at number 12, in the list of countries with the highest aging population. With advancing age and limited social activities, social exclusion inadvertently follows. However, this is not a well-researched domain within Pakistan, therefore the dearth of any policies in this regard. In Pakistan, not enough research has been done in this regard considering the different aspects such as the socio-economic, health, political, civics, and services that cause disruptions to the ageing community in the country. Research has been done mainly through psychologists, medical students, public health specialists, economists, and social scientists. These researches do not cover seven dimensions and other sub-dimensions of the subject, which gives way to the need for the present study to be researched in detail and presented as an addition to the research work on the subject.

1.3 RESEARCH PROBLEM

Many studies have discussed the population demographics of Pakistan that studied the increase in the age distribution structure in Pakistan. The increase in the number of old-age citizens or the dependent population means that there should be an increase in the allocation of resources and services. Through the present research, life patterns of old-age citizens (60 and above) in the village of *Sohan* were studied. Ageing is an independent variable in this study, and social exclusion is dependent.

In the recent past, globalization effects from the Western world also affected the Pakistani nation enormously regarding dress and food patterns, technological diffusion, and population lifestyle. It is felt that adopting foreign trends without analyzing them for compatibility to the local traditions is not always applicable. It is essential to address the policy vacuum for the increasing population segment falling into the old age bracket. There is a dearth of research in this regard. There are still many research studies that discuss the issues faced by the old-age population. There has been reciprocal advice made to policymakers and related authorities on this account. For example, in Pakistan, Pakistan National Council on Aging (PNCA) collaborates with the United States Education Foundation (USEF) – Pakistan for the welfare of senior citizens.

There is a need to add to the present research material about the dependent segment of the population. The issues and problems they face now could be presented to ensure their participation in community life. To this end, this research study analyzes the relationship between ageing and social exclusion in *Sohan* village. The situation in this regard is quite fluid, and the research was based on the experiences of the natural world and not on the ideal situation as it should be. One other factor considered for this study is that the concept of ageing and social exclusion is a relativist. Its implications differ depending on the regions' socio-economic position, among other factors.

1.4 STUDY OBJECTIVES

1. To analyze the socio-economic and demographic profiles of the respondents.
2. To explore the patterns of social exclusion among older adults.

3. To study the relationship between aging and levels of social exclusion faced by the older adults from the sample locale of *Sohan* in Islamabad.

1.4.1 Operationalization of Objective 1

S. No	Categories	Operationalization	
1.	Objective	To record the socio-economic and demographic profiles of the respondents.	
2.	Variables	Socio-Economic Profile, Demographic profile	
3.	Indicators	Socio-economic Personal Income Family income Mode of living Number of children Saving Property Currently employed Family expenses Social participation Cultural participation Membership	Demographic Age Sex Qualification Marital Status Province

1.4.2 Operationalization of Objective 2

S.No	Categories	Operationalization
1.	Objective	To explore the dimensions of social exclusion among older adults.
2.	Variable	Social exclusion
3.	Sub-Variable	1. Civic Participation 2. Social relations 3. Services, 4. Financial and Material resources 5. Neighborhood/community cohesion 6. Decent housing 7. Digital exclusion
4.	Indicators	1. Cultural participation, sports participation, volunteering participation, legal & political participation, 2. Social opportunities & participation, family contact/relationship, social isolation & loneliness, social networking, family support,

3. Health/care services, transport services, mobility services, leisure, and essential services
4. Currently earning, sources of income, material deprivation, expenses
5. Belonging and association/attachment, neighborhood and community cohesion, neighborhood enjoyment, local environment, and safety
6. House satisfaction, room temperature satisfaction, condition of bed, food
7. Smartphone, internet access, laptop, TV & cable connection

1.4.3 Operationalization of Objective 3

S.No	Categories	Operationalization	
1.	Objective	To establish the relationship between aging and levels of social exclusion among older adults.	
2.	Variables	Ageing, Social Exclusion	
3.	Sub-Variable	Ageing Chronological Age	Social Exclusion 1. Civic Participation 2. Social relations 3. Services, 4. Financial and Material resources 5. Neighborhood/community cohesion 6. Decent housing 7. Digital exclusion
4.	Indicators	Ageing 60 years and above	Social Exclusion 1. Cultural participation, sports participation, volunteering participation, legal & political participation, 2. Social opportunities & participation, family contact/relationship, social isolation & loneliness, social networking, family support, 3. Health/care services, transport services, mobility services, leisure, and essential services 4. Currently earning, sources of income, material deprivation, expenses 5. Belonging and association/attachment, neighborhood and community

	cohesion, neighborhood enjoyment, local environment, and safety 6. House satisfaction, room temperature satisfaction, condition of bed, food 7. Smartphone, internet access, laptop, TV & cable connection

1.4.4 Research Hypotheses

The primary hypothesis of the study is:

H_0 = there is no significant impact of age on multiple dependent variables (Social exclusion)
H_1 = there is a significant impact of age on multiple dependent variables (social exclusion)

This hypothesis is further divided into seven dimensions of social exclusion.

I. Civic participation
II. Social relations
III. Services
IV. Financial and material resources
V. Neighborhood and community
VI. Decent housing
VII. Digital exclusion.

Hypothesis: 2

H_0 = there is no systematic linear effect of age on civic exclusion

H_1 = there is a systematic linear effect of age on civic exclusion

Hypothesis: 3

H_0 = there is no systematic linear effect of age on social relations exclusion

H_1 = there is a systematic linear effect of age on social relations exclusion

Hypothesis: 4

H_0 = there is no systematic linear effect of age on services exclusion

H_1 = there is a systematic linear effect of age on services exclusion

Hypothesis: 5

H_0 = there is no systematic linear effect of age on financial exclusion

H_1 = there is a systematic linear effect of age on financial exclusion

Hypothesis: 6

H_0 = there is no systematic linear effect of age on neighborhood/ community exclusion

H_1 = there is a systematic linear effect of age on neighborhood/ community exclusion

Hypothesis: 7

H_0 = there is no systematic linear effect of age on decent housing exclusion,

H_1 = there is a systematic linear effect of age on decent housing exclusion

Hypothesis: 8

H_0 = there is no systematic linear effect of age on digital exclusion,

H_1 = there is a systematic linear effect of age on digital exclusion

1.5 SIGNIFICANCE OF THE STUDY

The current research study is of great significance because it analyzes the available research material regarding ageing and the patterns of social exclusion. This study is the first of its kind about ageing in Pakistan regarding the relationship between social exclusion and ageing. In terms of social exclusion, this is also the first effort that includes seven dimensions (civic, social relations, finances, services, community/neighborhood, housing, and digital exclusion) of social exclusion.

The premise is that through this research and its evidence-based recommendations, policymakers and other related authorities will be persuaded to form and implement policies that ensure the healthy inclusion of the elderly into society. To keep them as productive and active members of the society and facilitate the awareness and necessity of healthy ageing in Pakistan.

The current research is also significant in identifying the old age population's problems; Pakistan's sector is generally ignored. This work provides significant suggestions from the individual to the collective levels, from behavioral to lifestyle changes, and promotes active lifestyles, making healthy ageing possible in our society. This study also highlights further research related to social exclusion other than age, like gender and social exclusion in old age, qualification of OPs and social exclusion, family type and social exclusion among OPs, with whom OPs live, social exclusion, etc.

1.6 OVERVIEW OF THE STUDY

This thesis comprises seven chapters. Chapter 1 introduces the problem addressed by the thesis, followed by a critical definition and historical background of the problems stated, along with academic support from the existing body of knowledge. The research statement, the rationale of the study, research objectives, and operationalization of the objectives form the major components of the first chapter. Chapter 2 focuses on statistics of ageing, the various perspectives available on ageing. Various disciplines define ageing as a process, ageing related to different socio-cultural, legal, political issues, ageism, and ageing with gender, religion, culture, family structure, socio-economic conditions, loneliness, and health. In addition to this, detailed literature on social exclusion types, domains, causes regarding old age is discussed in light of previous knowledge. Convention, treaties, and policies of national and international level on ageing are also added in Chapter 2. Chapter 3 highlighted the theoretical grounds that will be utilized to discuss the present research results. Chapter 4 covers the conceptualization and operationalization of ageing and social exclusion. In the operationalization section, flow charts are added to explain the operations more self-understandable. Chapter 5 includes methodology, methods, tool, sampling, locale of study,

unit of analysis, data management, and measurement of social exclusion procedure. Results are given in chapter 6 in two sections. One is the descriptive analysis section, and the second is the inferential analysis section that mainly includes the relationships of different variables regarding OPs age groups. Chapter 7 is the final chapter of this research and mainly focused on debate and discussion of study finding, comparison with the previous body of knowledge, explanation of the differences and similarities of the present study with previous findings, discuss the results in the light of academic standing, and the learnings of the present study with recommendation for national-level policy making think tanks, along with the conclusion of the present research.

Chapter No. 2

REVIEW OF LITERATURE

This chapter provides a literature review on ageing and social exclusion. Along with different perspectives on aging and ageing defined by different disciplines, the chapter also explains the different socio-cultural, political, financial, and legal issues older persons face. Afterward, social exclusion was explained with its types and domain, causes, and relationship of social exclusion with old age and other socio-demographic variables. The chapter also includes laws, treaties, frameworks, and policies on ageing at the national and international levels.

2.1 AGEING

For developing and developed countries, tackling the ageing population is a struggle, conflict, and overcoming. An increase in the number of the dependent population means a burden on society's fiscal and social resources. This should, however, be seen in the context of the fact that the people in old age have already spent their lifetimes giving their energy to society and working efficiently for its strong foundation. Their lifetime's worth of efforts should not be ignored (WHO 2002). People aged 60 and above increased from 205 million to 606 million from 1950 to 200, and it is projected to reach 2 billion by the year 2050 (UN 2002).

2.1.1 Perspectives on Ageing

2.1.1.1 Historical perspective.

Gerontology includes the study of how change occurs in a human body due to old age or disease and the psychological and social aspects of aging. The more significant aspects of it include physiological conditions and the characteristics of those conditions in the future years. It integrates

the biology of ageing, the psychology of coping, and the social aspects of individuals' living environments (Ruiz 1990).

2.1.1.2 Biological perspective.

Over time, the effects on the physiological systems all fall under the purview of the biological approach to ageing (Kirkwood 1999). It is common knowledge and observation that ageing manifests itself in various physical forms, such as loosening skin and greying hair. These changes may also be attributed to influences of society and the environment to a large extent. Therefore, in theory, the effects of ageing can be controlled (Christina 2005).

2.1.1.3 Sociological perspective.

'Ageing' is a lifelong process, from growing up to growing old; the sociology of ageing, however, focuses on the later years of life. In order to comprehend the nuances of old age, it is essential to study and analyze the years leading up to it (Peter 2018). The phenomenon and process of ageing are fascinating in terms of research. At the same time, it is a universal phenomenon. Its effects on an individual and collectively on society depend on various dynamics, from the power structure and economic status to health status, accessibility to finances, gender, ethnicity, and geographical locations. As with every issue, there are two sides to this argument as well; one the one hand, the marvels of science are praised for providing longevity and quality to the lives of the elderly, and on the other hand, the old age population is considered a burden on the resources of their family, community and the society (Davidson 2011). For the field of ageing, the sociological perspective provides an outline for understanding the social, economic, and political forces' effects (Peter 2018).

2.1.1.4 Psychological perspective.

An examination of the individual's personality, mental capabilities, and view of self-worth and self-identity fall under the purview of the psychological approach of ageing. This approach is different from biologists and sociologists in that it focuses on studying changes of behavior within individuals and between individuals. Various subjects such as cognition, psychological health, mental illness, and personality adjustments are studied in this field. The biomedical model also affects this area of research, with a negative and loss-oriented approach to the subject (Victor 2005).

2.1.1.5 Social gerontological perspective.

While the sociological perspective aims to understand '*ageing*', Social Gerontology facilitates a broader angle at research. It approaches ageing intending to understand it, not for building other theories of sociology. There are three significant perspectives regarding Social Gerontology: individual, social, and societal, and all three of them are analyzed at a micro- and macroscale, which adds to the complexity of the subject matter. The microscale analysis focuses on understanding the 'ageing' as an individual's experience, their perception of the age identity and their progress through their life, and their place as a senior citizen in contemporary society. 'Ageing,' while it remains an individual experience, takes place within the social context of society and is not a solitary process. Thus, it requires a microscale and macroscale (Estes et al. 2004). The other approach to the study of ageing includes its examination from a social standpoint, analyzing and understanding the status and experience of the senior citizens in a society, as formulated by factors like class, gender, and ethnicity (Victor 2005).

Deprived of the socio-economic provisions of the past, the not so prosperous OPs may find themselves insecure and worried about their fundamental identity in a postmodern world, although the well-off OPs with the resources to consume postmodern society's increasing arrangement of medical measures, technological strategies, etc. may help from the manifold, fluctuating identities characteristic of postmodern philosophy. Without appreciation of what ageing has to communicate us about the human condition, several authors see a loss of existential/spiritual meaning in postmodern society (Polivka, 2000).

2.1.1.6 Life course perspective.

This perception of ageing considers the fact that although a collective phenomenon. Ageing is an individual process, and older people should not be treated as a standardized group since they are from different socio-economic classes, marital status and family background, religious and political affiliations, and living conditions. They are also unique in as much they respond to the different circumstances that they are in, in differing manners, from their hopes and needs to their fears and problems, they have unique reactions (Chaudhary 2004)

2.1.1.7 Cross-culture perspective.

Recently researchers have started studying the combined effects of cross-cultural psychology and attitudes based on age (Park, Nisbett, and Hedden 1999). There is a wide-held belief that the Eastern cultures, many of which are based on Confucian philosophy, are expected to respect their elders and hold them in high regard (e.g., Ng 1998:2002). Two recent trends have affected the status of senior citizens, namely, industrialization and an unprecedented increase in the number of senior citizens. The industrialization has decreased the value of senior citizens to society since

their traditional roles of storytelling and wisdom sharing are being lost in the modern era. In addition, the elderly lose their control over overproduction, which also lessens their authority in the long run (Nelson 2005; Schoenberg and Lewis 2005). An increase in the number of the aging population has placed great and extraordinary pressure on society and its resources in terms of the burden being placed on healthcare and labor resources (Börsch-Supan 2003; World Health Organization 2011). It has led to the elderly population being forced to face negative pressures in an industrialized and fast ageing society, regardless of social being and Eastern or Western. However, on the ground, the difference between the two cultures and the respect given to the elderly remains unclear (North and Fiske 2015).

2.1.2 Ageing in Various Disciplines

Estes and Binney (1989) have presented that the concept of 'ageing' is also seen primarily in terms of medical or healthcare problems with old age and its effects only in medicine and pathology. In this case, much importance is placed on identifying and understanding the so-called 'abnormal' traits rather than what is 'normal' in trying to comprehend the process of ageing.

The Sociological perspective of ageing concerns changes in an individual's circumstances and situation as a part of the family and the society. The said changes in an individual's circumstances could occur instantly with retirement and lower-income or gradually with increasing movement restrictions and, consequently, social activities (Clark 1963).

The scientific and systematic study of humankind's origin, biological and cultural dynamics, and humans' lifecycle, from conception to old age, falls under the purview of anthropology (Birut

2006). Ageing and senescence processes consider the intricate interactions between the biological, environmental, and cultural domains, and these anthropologists study bio-cultural and evolutionary perspectives (Ice 2006).

Gero-psychology is a sub-filed of psychology, which pertains to the study of ageing and the healthcare facilities that are available to them (APA 2014). Psychological ageing studies the central nervous system's changes, sensory and perception capacities, and the ability to organize and use the information (Anderson 1956; Birren 1959a). Recently, there has been much research in intellectual and motor performances; these also include the alterations in learning, memories, creativity, the speed of the input and output skills, and work performance (Welford 1958; Birren 1959b). Gerontology considers the four significant aspects: chronological, biological, psychological, and social aging (UCLA 1995).

Gerontology focuses on the study of the later years of life; it includes the physical effects of ageing such as hair loss, teeth loss, weakening of muscles and memory loss, reduced reproductive ability, or joint pains, collectively referred to as the illnesses of old age (Chaudhry et al. 2014; Kirkwood 1999; UN 2009).

Demographic is about studying the increase in the number of the old age population, among other things. It is also referred to as ‘demographic ageing’ and ‘population ageing’; such stats differ globally across countries (UNDP 2005; Chucks 2010; Issahaku and Neysmith 2013).

Geriatrics is about studying healthcare facilities and medical care available for older adults, an age group that is not precisely defined (Besdeine 2019). Evolutionary biologists primarily explain the concept of aging as a process where the internal physiological functions are negatively affected because of progressing age. Which in turn leads to an increase in mortality rate caused by advancing age, although it also causes a decrease in age-specific reproductive rate (Medawar 1955; Williams 1957; Rose 1991; Partridge and Barton 1996; Tatar 2001; Promislow and Bronikowski 2006; Flatt and Schmidt 2009; Bronikowski and Flatt 2010; Fabian and Flatt 2011; Rose 1991; Bronikowski and Flatt 2010).

2.1.3 Ageing as A Process

Gerontology is a multi-disciplinary field of study, including sociology and psychology. Gerontologist's study and analyze ageing in terms of four unique and distinct processes that are defined below (Hooyman and Kiyak 2011):

I- 'Chronological Ageing' refers to the chronological age. It begins at the child's birth and continues during the life span. For instance, on the 13th birthday, an individual's chronological age would be 13. However, due to many different reasons, the mortality rate has reduced in recent years, and there is much disparity in people's chronological age. An individual's biological or psychological age is not dependent on chronological aging; based on chronological aging, individuals are divided into three groups: the 'young-old' that fall between 65 and 75 years of age, the 'old-old' that are between 75 and 85 years of age, and the 'oldest-old' that are 85 and above, (UCLA, 1995).

II- ‘Biological Ageing’ refers to the decline of different body organs with the growing age, affecting the people entering old age as they become susceptible to diseases. ‘Senescence’ is the process of an individual’s body being physically affected due to ageing; however, the physical changes in an individual’s body due to some diseases are not included in it.

III- One more critical aspect of gerontology is ‘Social Ageing.’ It refers to the slow segregation of an individual from society, which leaves him aloof. With progressing age, the normal participation levels of individuals in social activities decline. For instance, with time, an older nurse is forced to take the role of an ordinary caretaker because she cannot move forward with the necessary social activities required of a younger nurse. As the old age citizens realize that they are not dynamic participants of the society, they retreat from social activities and face depression.

IV- ‘Psychological Ageing’ refers to the point when the depression levels of an older person start to increase with growing age, and they face memory losses and loss of other mental functions. Psychological gerontologists study the said process, and their job is to facilitate the elders in adapting to their new circumstances. For example, if an older person gets injured and faces damage to cognitive or physical abilities, the person-environment congruence would enable the individuals to adapt to the atmosphere (UCLA 1995).

2.1.4 Ageing and Social Issues

Due to their various life experiences and the different roles, they have played, old age individuals tend to be more divergent than the youth. Additionally, they are from distinct races, cultural and

social backgrounds, and economic and politico-religious groups. With the increase in the old age population, there is bound to be an increased discrepancy in the societies. These discrepancies in the old age population include the following: race, culture, their identity or gender differences, revenue or wealth, qualification, dissimilarity in matrimonial category (married, unmarried, separated, widow, etc.) of individuals in the older adults' population, family type, norms, physical aptitude, believes, nature of vocation or unemployment, etc.

Differences in social indicators of the old age population lead to a variation in the experience of ageing for every individual. The list of social issues facing the old age citizens also deviates depending upon several identities, including transgender, lesbian or bisexual individuals and so on, which add to the discrepancy within the same old age population of a particular society. Similarly, people belonging to different races are also different and respond differently, i.e., 'Caucasian' or 'White' people who receive differential treatment in the community and alter their behaviors depending upon the stereotypes about particular social indicators in society. People are seen as less flexible towards particular identities or races, creating a disparity in society. Thus, the adult population suffers more in a later period of their lives when they become more dependent (Cotter 2012).

2.1.5 Ageing and Legal Issues

More legal predicaments are faced by the old age population, for themselves and their families. An interview with a lawyer also brought forward the fact that the significant issue for the older population is in terms of its allocation of their property or assets. Furthermore, they are also subjected to permissible concerns that include a sanctuary, foodstuff, conveyance obstructions,

lack of access to active involvement, etc. They are also deprived of healthcare facilities. The old-age populace also faces inaccessibility to information—these impediments, accompanied by deterioration of bodily systems due to ageing, resulting from increased complications. Therefore, there is a need on the part of governments to undertake appropriate legislative measures to lessen the challenges of the old age population (Ahmed 2015).

2.1.6 Ageing and Social Participation

Involvement in social activities depends mainly on the individual's connection to society and interest in socializing. World Health Organization has conducted research studies that have pointed out a direct relationship between socialization and mental and physical well-being, thereby arguing in favor of ensuring active participation of old age population (WHO 2002). Further analysis between old age people of the same age group shows that those with active social lives have an increased probability of survival by 50%. An old age population without participation in society has adverse effects similar to smoking and misuse of drugs, including alcohol (J Holt et al. 2010).

2.1.7 Ageing and Immobility

Mobility is a prerequisite for availing several facilities for the old age population, in addition to which active participation in social activities is also ensured through mobility. However, with progression in ageing, free movement or mobility declines, and dependence on family or support required from the community increases. Thus, ageing not only deteriorates bodily function but also enhances dependencies over others (Clarke et al. 2009; Broome et al. 2009).

2.1.8 Ageing and Abuse

Mistreatment of the old age population is also determined based on the unavailability of opportunities to them, which may lead to a decrease in active social participation on the part of the old age individuals and lessens their value in the society (O'Brien et al. 2011). In a report titled 'Missing Voices – Views of older persons on elder abuse,' produced by WHO, a reference was made to the predicaments faced by the senior citizens. These included sentiments of seclusion, exclusion from activities and desertion, lack of availability to rights and inappropriate legislative measure leading to infringement of rights, lack to the right of equal decision making or its implementation, the disparity in financial assets and other social possessions, etc. (WHO 2002).

The ageing process is marked by ageism, which refers to the discrimination that one faces during their lifetime (Palmore 2004). Nevertheless, the concept of ageism is rarely included in research studies (Nelson 2005). Age and ageing are considered social rather than biological because they indicate social customs or values (Lemus and Exposito 2005). Ageism is a form of differentiation that is time-honored or accepted by people, unlike other concepts such as sexism or racism that are considered clear indicators of social oppression. Research in the United States referred to a total of about 84% of people who had witnessed ageism during one or the other stage of their life (Palmore 2004). Even though ageism exists and prevails in societies, analysts generally overlook it in their research studies (Nelson 2005).

2.1.9 Ageing and Gender

The average life expectancy of females is more than that of male members in the societies. Estimated globally between 2015 and 2020, it is generally 4.8 times more than men. The longer

lifespans of females were recorded to be more in the Caribbean region, constituting 6.5 years, while 6.1 and 5.3 years were found in American and East-Asian regions, respectively. While the longevity in the life of females was observed least in the South and Central Asian region, representing a numeral of 2.7 years, the sub-Saharan region accounted for 3.5 years, and the region of Oceania was marked by much less significant benefit of 3 years. These longevity patterns are similar for the old age population (UN 2019).

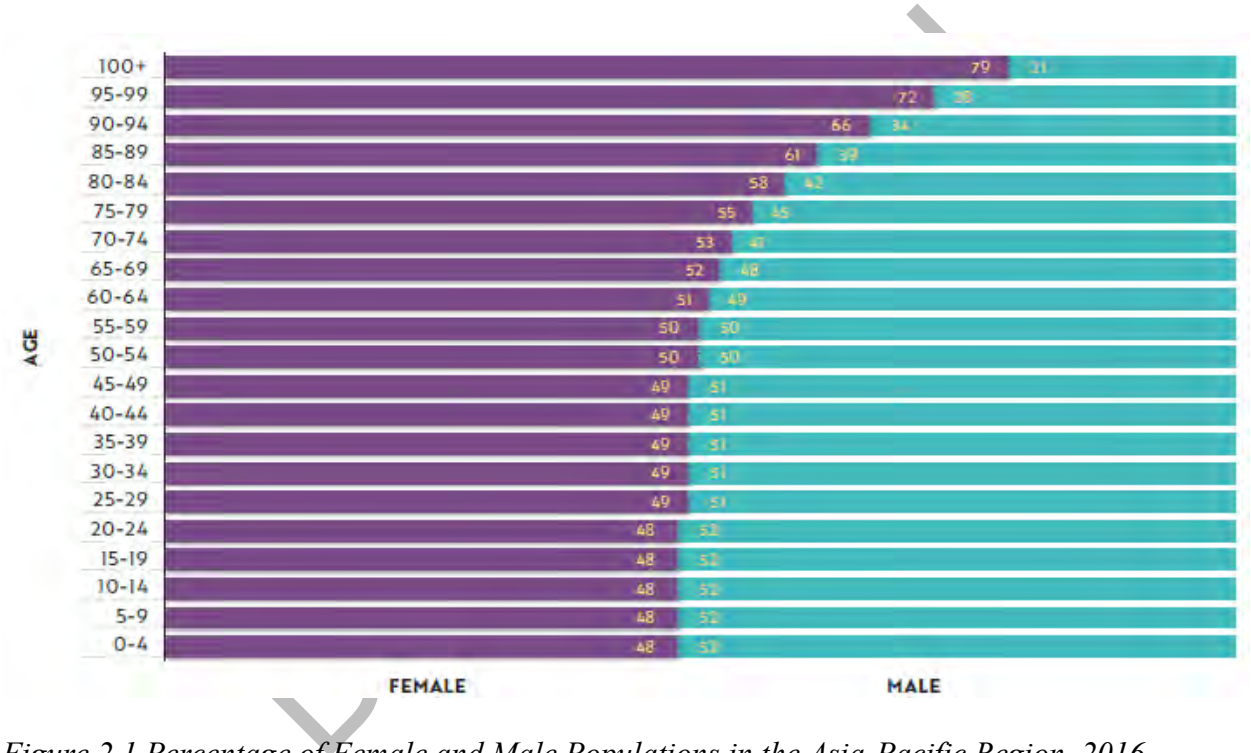


Figure 2.1 Percentage of Female and Male Populations in the Asia-Pacific Region, 2016

Source: ESCAP based on DESA, 2017

2.1.10 Ageing and Religion

Religion also plays a pivotal role in ensuring engagement with the community since there are many related activities such as prayer congregations, services, or volunteering based on religious activities. Participation in religious activities has been associated with better quality of life and

health outcomes in older persons (Netuveli and Blane 2008; Krause 2009; Keyes and Reitzes 2007).

'Old peoples' homes' are rare in Islamic societies since caring for elderly parents is considered an honor and a blessing bestowed by Allah. According to the Islamic conjunctions, the children must take care of their parents in old age with limitless compassion and seek spiritual growth and blessings in the hereafter. Mothers hold an even higher place and are given three times the importance ordained to fathers. Serving the parents is considered second only to prayers, and it is considered despicable to express any irritation when, through no fault of their own, the old become difficult (Peggy 2001).

God has said:

"Your Lord has commanded that you worship none but Him and that you be kind to your parents. If one of them or both of them reach old age with you, do not say a word of disrespect or scold them, but say a generous word to them. Moreover, act humbly to them in mercy, and say, 'My Lord, have mercy on them since they cared for me when I was small." (Quran 17:23-24)

This command is shadowed by the knowledge that adult kids display humility to their parents and appeal God's blessing on them in a credit of the give-and-take attention amid them by affirming, '*Lord, have mercy on them, just as they cared for me when I was little*' (Abdel Haleem, 2005: 176). Many of other Quranic verses counting chapter 4 verse 36, chapter 6 verse 151, chapter 29 verse 8, chapter 31 verse 14, and chapter 46 verse 15 strengthen the note of being obedient and

decent to your parents, in which commands for their kind treatment are emphasized repeatedly (Abdullah, 2016).

Quran stated another place that;

Would one of you like to have a garden of palm trees and grapevines underneath which rivers flow in which he has from every fruit? But he is afflicted with old age and has weak offspring, and it is hit by a whirlwind containing fire and is burned. Thus does Allah make clear to you [His] verses that you might give thought (2:226).

Quran further insisted that;

They said, "O 'Azeez, indeed he has a father [who is] an old man, so take one of us in place of him. Indeed, we see you as a doer of good (12:78).

The Holy Messenger of Islam vividly heralded the rights of the elderly people, saying: "*He is not one of us who does not have mercy on young children, nor honors the elderly*." (Al-Tirmidhi & Sunan Abu Dawud)

Further, narrated Abu Musa al-Ash'ari: The Prophet said: *Glorifying Allah involves showing honor to a grey-haired Muslim and to one who can expound the Quran, but not to one who acts extravagantly regarding it, or turns away from it, and showing honor to a just ruler* (Sunan Abu Dawud). In addition, Narrated Abdullah ibn Amr ibn al-'As: The Apostle of Allah said: "*do not pluck out grey hair. If any believer grows a grey hair in Islam, he will have light on the Day of Resurrection. (This is Sufyan's version). Yahya's version says: Allah will record on his behalf a good deed for it, and will blot out a sin for it*" (Sunan Abu Dawud).

In addition, Islamic philosophy and anthropology split old age into 2 stages. I- known as "Mobkerah," which is between 60 to 70 (Ibrahim 1997). II- "Moteakherah" or "dementia" which starts from 70 and continues until the end of life. The word "Ajouz" has been used in the noble Quran for four times to indicate a doddering old woman who is in a postmenopausal state including Hud.72, Ash-Shu'ara.171, As-Saffat.13, and Adh-Dhariyat.29. (Asadollahi, 2021)

The word 'elder' is derived from the Hebrew language, and *zaqen* is the primary word referring to elders. For instance, in Numbers 11:16 and Deuteronomy 27:1, the said terminology has been used for the 70 tribal leaders who helped Moses. Here, in particular, the word 'elder' is used for the old-age men who were considered the community's leaders and formed a sort of senate in Israel. *Sab* is a substitute word for elders in Hebrew, and it refers to maturity in a year. This word has been used in Old Testament five times and once in the book of Ezra, wherein it refers to the group of old age Jewish leaders in charge of building the temple after exile.

Bible puts forward many criteria about how old age people should behave. However, those perspectives do not hold in the current society. Pronouncements include the following:

I- Older people should be respected

II- Older men should be consulted

III- Older men should be considered solid citizens

IV- Older women should be the upholders of social values

V- Older men should dream, and the righteous shall flourish, even in old age (Peggy 2001).

In Hindu culture, one of the cornerstones is respect for the senior citizens, and through everyday rituals, the individuals reiterate this belief and value. These include touching their feet, sitting to the elder's left, refraining from contradicting their opinions, allowing them first choice, and serving them food first.

2.1.11 Ageing and Traditional Societies

Old-age citizens receive respect because they control the resources and knowledge through their social roles in a traditional society. Older citizens own the land and production resources. They are a source of helpful information to the younger generation, who require help to turn themselves into valuable society participants.

With the regression in their physical and mental functions, older adults can count upon their children and grandchildren for help with routine tasks. As described by Nana Apt: "Traditionally, the 'family' especially was the greatest force that gave security to its poor, its children, and its older members. Older persons formed an integral part of the civil society fabric and played an important role in harmonizing relations made tense through poverty, war, and conflict." The traditional care system is unique since it provides a two-way system for the old age generation, who receive care daily and fulfill an active role in providing the same care (Apt 2002).

2.1.12 Ageing and Culture

Based on the social constructs of a particular society, ageing is also influenced by the same, and according to research, these social cultures and constructs differ across cultures (Sung 2002). Sung (2004) evaluated various systems of elder's respect among young adults in Korea and the United

States. The results suggested that Koreans engaged in more varied forms of elder respect than individuals in the United States. Koreans performed certain styles of elder respect more than Americans, such as worshipping ancestors and being courteous. For his research, Sung (2002) analyzed forms of elder respect in the USA. He concluded that Latino- and Asian-American individuals said they received more compliance and respect (or obedience), and the same was the case for the Anglo- and African-American students. Sung (2002) proposed that for Latinos, this compliant respect was consistent with the Latino cultural norm of intergenerational harmony.

Palmore (2004) compared different cultures and concluded that Canadians reported experiencing more ageist situations than Americans (91% of individuals in Canada and 84% of individuals in the United States). Palmore presented three possible explanations for the results. These include: (a) ageism is more prevalent in Canada, (b) there is more willingness in Canadians to admit ageist experiences, and (c) awareness of ageism is more prevalent in Canada.

In the USA, according to the research, harmonious intergenerational living in Hispanic cultures is more common than in Anglo cultures. In Hispanic societies, the family, by definition, includes the extended family and the nuclear one (Fuller-Thomson and Minkler 2007). It is usual for larger families to reside together (Burr and Mutchler 1999). These traditions are based on 'familism,' a corresponding cultural value that inspires unity and loyalty. Familism refers to the "strong identification and attachment of individuals with their families (nuclear and extended), and strong feelings of loyalty, reciprocity, and solidarity among members of the same family." (Triandis, Marin, Betancourt, Lisansky, and Chang 1982). The mean scores of familism are higher for

Hispanics than White non-Hispanics (Sabogal, Marin, Otero-Sabogal, Marin, and Perez-Stable 1987).

2.1.12.1 Ageing in western culture.

The Greek and Roman civilizations have left behind a good number of art and writings that, among other things, reflect their experiences with and perceptions of ageing (Thane 2005; Minois 1989). In ancient times, 80% of the people died before they could reach old age, and those who did reach middle age were respected for their wisdom, and those in the council of elders formed part of the ruling elite.

By the end of the 5th century BC, this began to change; old age was seen as a sign of weakening in mental and physical capabilities. The Greek mythology from this time on also reflected these changing views of civilization. For example, in one myth, Eos, the goddess of dawn, fell for a human Tithonus and turned him into a grasshopper when he became old and weak. This situation reversed again when ancient Greece started to value its elders and their wisdom, and ancient Rome did the same (Hooyman and Kiyak 2011).

Several people died from the plague and other diseases during the Middle Ages, and very few reached old age. As a consequence of the rampant death and disease, there was a lack of food materials and healthcare facilities; consequently, old age citizens became a burden on the social resources and therefore lost their position of respect. During Renaissance, drawing on the Classical Greece traditions, the writers and artists began to portray old age in a negative light. This view

was turned around during the American Colonial period, and the older citizens were given respect. They were empowered, which was influenced by the thought process of the Puritans (Cole 1992).

2.1.12.2 Ageing in Asian culture.

The research studies on the topic suggest that Western cultures are more ageist than Eastern cultures because the values of the latter culture dictate that the old age citizens be respected and esteemed (Nelson 2009). Confucian values inspire most Eastern cultures, and therefore they encourage the young to respect and learn from the elders and care for them (Ng 1998; Sung 2001; Vauclair et l. 2017).

In the traditional values of Asians, family is held in high regard, and Asians are proud of these traditions as well. These traditions have been valued for thousands of years. Asian elderly have always been cared for by their children. However, with the advent of the modern era, these honorable traditions face the threat of becoming defunct. Overall, in the 1980s, around 75% of the old-age citizens were residing with their children. This percentage declined to 66% during the 1990s. As reflected in Table 2.1, the downward trend continues still. With decreasing number of elderly living with their children, the support the elderly used to receive from them is also declining. This trend can be attributed to the ever-decreasing size of families in Asian countries (Victor 2005).

Table 2.1 Elderly Staying with Children

Country	% Staying with children	% Staying with children
Japan	1950 – 80%	1990 – 50%
South Korea	1984 – 78%	1994 – 47%
Taiwan	1973 – 82%	1986 – 70%

2.1.13 Ageing and Family Structure

Analyzing the combined index, including socio-economic, health, autonomy, and happiness, researchers Syed Mubashir Ali and Mohammad Kiani concluded that elders who resided with extended or nuclear families had better life quality than those who lived alone. After incorporating other factors like gender, urban-rural residence, age, and financial status, the researchers reached the same conclusion. On a tangent, the quality of life of older men was better than that of the women in this multi-variate model (Ali and Kiani 2003).

Old-age citizens benefit from the financial department if they reside in joint families. Anjini Kochar conducted a World Bank Living Standards Measurement Survey, wherein he took Pakistan's econometric data on Pakistan from 1991-92. The survey concluded that as sons started working and earning wages, fathers had the facility of working fewer days and could benefit from their sons' wages. The survey also identified that this financial benefit could be because of mutual expenses incurred on consumer goods and bills (Kochar 2000).

2.1.14 Ageing and Socio-Economic Status

One widely recognized concept is that old age individuals with solid financial positions can withstand life's challenges with greater ease (Bolin and Klenow 1988).

There is extensive research available in the field regarding the old age population, studying the physiological, cognitive, and social liabilities that they face and the ability of this population segment to withstand and recover from the effects of all kinds of disasters. This literature encompasses global data, highlighting the population segment's vulnerability. While it also

emphasizes that old age does not pose liabilities, Hiller and Barrow concluded that an individual's ability resists common diseases that cause illness and death are based on genetic programming and behavior (Hillier and Georgia 2007).

On the contrary, the vulnerability is increased in the circumstances where the elder individuals lack support in social relationships. Klinenberg (2002) reported that old age individuals who live alone because of estrangement from family also face a lack of social support and inaccessibility to community resources, which is not the case with individuals who live within families and communities. Therefore, individuals who choose to distance themselves from family or community face the increased risk of getting cut off from the resources that could help in their sustenance (Thomas and Soliman 2002).

Burns, Lavoie do research, and Rose (2012) also showed that the old age population faces narrowing of spaces as the neighborhoods develop, which causes social exclusion for the elderly, even though there are other benefits of development. Barnes et al. (2006) concluded that with the senior citizens, part-renters and renters had the maximum ratio of individuals who faced severe exclusion.

The failure to establish connections can result in older populations feeling increased agitation, confusion, and increased psychological distress (Aldrich and Benson n.d). The decline in an individual's ability to move around also causes disparity, weakening motor strength, limited activities in daily routine, all of which leads to a requirement for help with the conveyance.

Limitation in sensory feelings can also cause limited night and marginal vision, reduced hearing, reaction to verbal directives, and failure to perceive spoiled foods (Fernandez et al. 2002).

Agulnik, Burchardt, and Evans (2002) concluded that the old age population faces an increased risk of lower incomes because of retirement. The research also points out a need for state involvement to ensure inclusivity for old-age individuals. The researchers also note that in absolute terms, pensioners are better off now than they were in the past; however, the risk of facing poverty post-retirement has deteriorated since 1979, and this is majorly driven by the government's policy to increase pensions following the costs rather than income.

2.1.15 Ageing, Loneliness, and Isolation

In today's aging society, social exclusion leading to isolation and loneliness increases public health officials' concern. However, such experiences can happen at any time during the life span of an individual. More than 50% of individuals at and above the age of 60 faces the risk of feeling or experiencing social isolation. At the same time, one-third of the population will also experience loneliness at that stage of life. Further, individual factors notwithstanding, loneliness is experienced by most old-age individuals in deprived areas (Victor and Pikhartova 2020). The projections for individuals above 65, between 5% and 16% reported feeling lonely, and 12% felt isolated. Due to multiple factors, including societal development and dispersal of families, the situation will worsen for the old age population. Statistically, the number of people above 80 is forecasted to triple in 20 years. People aged 90 and above will be doubled during that time (Greaves and Farbus 2006). Based on these research findings, it can quickly be concluded that a-n individual's life and its quality is impacted by social isolation and loneliness (Cattan et al. 2005;

Findlay 2003 and Pitkala et al. 2009) which consequently affects the physical health of the individual as well (Masi et al. 2011). Research in this field has also concluded that lonely individuals tended to have a higher blood pressure than their peers who felt less lonely. The research concluded that loneliness significantly affects blood pressure, irrespective of race, gender, age, cardiovascular risk factors, medication, or healthcare conditions (Hawkley et al. 2010). There is also evidence that individuals who feel lonely are more susceptible to depression (it may be the cause or the consequence) and might result in a higher mortality rate (Mead et al. 2010; Ollonqvist et al. 2008). Another meta-analysis conducted recently concluded that individuals with long-lasting social relationships had 50% greater chances of survival than those who had weaker relationships.

To understand the implication of these stats, for example, it implies that in a supposed sample of 100 individuals, five individuals on every half of this sample would continue to live if they had stronger social relationships (Holt-Lunstead et al. 2010). The researcher, in this case, has presented the argument that the risk of death being faced by old age individuals caused by social isolation is comparable to that caused by smoking and alcohol consumption. At the same time, it exceeds the mortality risk caused by lack of physical activity and obesity. These negative influences, in turn, affect the health of the individuals and lead to greater use of healthcare and social care services, which also means that individuals feeling loneliness and social isolation are more prone to seeking early admission to nursing homes for the elderly (Savikko et al. 2010).

Social isolation is often associated with loneliness; however, these are two separate concepts and do not automatically occur together. The absence of relationships is termed social isolation, and

its study reveals that independent features cause it. On the other hand, loneliness is created when a person is missing close or even distant relations, which is a subjective estimation of the level of their isolation or participation in society (Wenger et al. 1996). Research studies show that loneliness causes several mental and physical health effects, including depression and increased mortality risk (Conory et al. 2010; Hawkley et al. 2010; Grenade 2008; O´ Luanaigh 2008).

2.1.16 Ageing, Health, and Wellbeing

Globally the ageing population is increasing, and concerns about their relationship, societal issues, and problems of wellbeing are raised in the older people (Gulati and Rajan 1999; UN 2007; Gubhaju 2008; Agrawal and Keshri 2014). Regarding health concerns, a study shows that the prevalence of visual loss, immobility, dyspnea and urinary issues badly impacted the lives of aged citizens. Commonly reported prolonged illnesses in older persons are arthritis, hypertension, and diabetes mellitus, all of which require the use of resources (Zafar et al. 2006). Heart disease and stroke are significant reasons for disability and mortality in women equally in developed and developing countries and exclusively among women who lack financial resources (Leeder et al. 2004).

In addition to the biological and healthcare factors, the cultural, political, social, and physical conditions equally influence health and account for the way people live and grow old (Wilkinson and Marmot 2005). Research studies have also established strong links between the socio-economic position of old-age citizens and their health and well-being (Chaudhry et al. 2014; Nawaz, Maann, Akhter, and Ashraf, 2012).

The possibility of facing the weakness of old age and the accompanying disability is alarming angles of old age. Once faced with chronic illnesses such as stroke at 75 would ultimately mar the remaining years of one's retired life; however, with improving healthcare facilities, the newer groups of people entering the old age bracket are expected to live a better quality of life. Jim Fries, a physician and a researcher, came up with the concept, 'compression of morbidity' as he studied the old age population. This term compares the average age at which a person may experience disability and the average life expectancy, resultantly the time of infirmity, between the start of disability and mortality date can be reduced. These findings have been confirmed by other researchers as well.

Given that these trends continue, old age people that currently fall in the bracket and those that may follow can be expected to have decreased disability. Some of the significant causes of mortality in old age are cancer, stroke, heart, and respiratory problems. Diabetes, Alzheimer's, infections, and renal disease and falls because of weakness, resulting in frailty and loss of practical independence during old age. In order to avoid these said circumstances, a healthy daily routine should be followed along with a healthy diet and exercise, which can facilitate active life in old age and its disability (Fries 2003; Mor 2005; Kramarow et al. 2007).

Concerning wellbeing research studies conducted on these topics in the recent past have plotted how the concepts and experiences of health in old age vary across different cultures (Diener and Suh 2000; Sastre 1999; Kitayama and Markus 2000; Christopher, Christopher, and Dunnagan 2000; Taylor et al. 2004; Uchida, Norasakkunkit, and Kitayama 2004).

Researchers have established a correlation between health and well-being and the individuals being allowed a good deal of autonomy (Oishi 2000), as well as individual accomplishments (Uchida & Kitayama, 2009), self-respect, and self-worth (Diener and Diener 1995; Diener and Suh 2000), as well as the ability for self-motivation (Heine et al. 1999; Kitayama and Markus 2000).

On the other hand, in interdependent situations, well-being is forecasted based on factors of social relations such as social coherence (Kang, Shaver, and Sue 2003; Kwan, Bond, and Singelis 1997; Uchida and Kitayama 2009), as well as engaging emotions (Kitayama, Markus, and Kurokawa 2000), and the apparent emotive support from those in their social spheres (Uchida, Kitayama, Mesquita, Reyes, and Morling 2008).

2.1.17 Ageing and Social Security

The generation termed baby boom was under the impression that pensions after retirement and Social Security would facilitate them in old age. Extensive medical benefits and healthcare needs accompanied it at almost no cost in place of the job they did during their lifetime. While this concept was not genuine for the people of that generation, it is even lesser for the individuals now entering old age (Kramarow et al. 2007).

Defined benefits and defined contributions are two sources of retirement income. The former is a specific amount calculated based on years of services and salary, and the latter is the individual's contribution towards the former income. Any individual is bound to receive a pension from his previous employer throughout his life. Social security is society’s support to old age persons and an acknowledgment of their positive contribution towards society throughout their lives. On the

other hand, it is also a way for entrepreneurial ventures to make way for the younger workforce (Kramarow et al. 2007).

There are two sources of contributions to social security find trust fund that receives significant contributions from workers. The second is the contributions from the current workers, while there may be money left in excess to the payments being made, which is again put in a trust fund. Older workers are given payments through Social Security which comes from two sources. Firstly, a trust fund is used based on the considerable contributions taken from all the workers. The money left in excess after making out the payments to the recipients of Social Security is also used. These funds are disseminated to three groups of people. The first group is for support of older citizens through pensions and insurance. The second group supports workers who face disability due to an accident and who receive payments from disability insurance. The third group is the survivor's benefits group which is paid from the life insurance; the payments are made to the widow and the children of the casualty of an accident (Kramarow et al. 2007).

2.1.18 Ageing and Perception

Social representations theory presents the idea that (Moscovici 1984;1988) the perceptions of aging in culture reflect that culture. They are comprised of belief systems, traditional values, and customs that combined form the realities of those societies and their perceptions about aging. Opinions on ageing are multi-dimensional (Hummert 1990) since they encompass negative and positive attributes (Hummert 1990; McTavish 1971; Heckhausen, Dixon and Baltes 1989). They cover the rightful descriptions of age-related concepts and the slightly inaccurate views of old-age citizens (Kite, Stockdale, Whitley, and Johnson 2005).

Ageing with sustainable health is connected with anticipated natural changes (Digiovanna 2000). It leads to systematic symptoms as the age progresses and manifests itself in physical and cognitive abilities (Christiansen and Grzybowski 1999; Salthouse and Davis 2006), so much so that aging perceptions reflect such biologically based changes in working these remain almost similar across cultures. Based on advancing age, alterations in socioemotional features and social status depend more on inspirational instances (Fung, Rice, and Carstensen 2005) and less on biological ones (Eagly, Wood, and Diekman 2000). Much cross-cultural variation is reflected in the age-related concepts related to the above-said features.

The changes expected in old age align with the declining age and are consistent with the perceived age curve that affects cognitive ability (McArdle, Ferrer-Caja, Hamagami, and Woodcock 2002; Salthouse and Salthouse and Davis 2006) and bodily functions (DiGiovanna 2000). But comparative constancy in crystallized intellect (McArdle et al. 2002), socioemotional skills, and well-being (Charles and Carstensen 2007). The implication here is that in contrast to some of the culturally held labels, like the national character (Terracciano et al. 2005), there is a kernel of truth in the perceptions of the ageing process in the cultural level insights.

2.1.19 Ageing and COVID-19

The risk of contracting and suffering from COVID-19 rises with an increase in age, with old age people at the utmost danger. In cases of extreme illness, which old age people are more prone to, the individuals may need to be admitted to the hospital, kept in ICUs, or on a ventilator to facilitate breathing. For instance, individuals in their 50s are at a greater risk for extreme illness than individuals in their 40s. Likewise, persons in their 60s or 70s are, in general, at a greater risk for

facing severe illness than those in their 50s. People aged 85 or above are at the highest risk of getting infected by Covid-19; the more significant the age, the higher the risk of contracting Covid-19. Reportedly, individuals at or above the age of 65 constitute 8 out of 10 COVID-19-related deaths in the USA (CDC, Jun-25, 2020- center for disease control and prevention).

The COVID-19 disease posed problems to the emotional wellbeing of older adults who are susceptible, especially in high-risk areas (Fu et al. 2021). Senior citizens generally need overall emotional well-being (Carstensen, Shavit, and Barnes 2020). They might also feel intensified negative feelings under severe anxieties during the SARS pandemic (Lau et al. 2008). All researchers agree that the old age population is much more vulnerable to the COVID-19 disease; however, COVID is one of the many diseases known to cause more damage to the elderly. The same is the case with invasive pneumococcal disease and heat stroke. For cases such as those mentioned above, preventive measures are employed (Daoust 2020); however, this leads to the ethical question of whether the healthcare resources for intensive care should be spent on the elderly or the young in the population (Monter-Odasso et al. 2020). Age, however, remains one of the most critical factors that affect the chances of enduring the COVID-19 (Jordan, Adab, and Cheng 2020; Zhou et al. 2020).

According to research on the stats of the Indian population suffering from COVID, it was evident that the elderly was more vulnerable to the disease. Conclusions from an observational study by a Swedish researcher found that close association of the elderly to the household members and others working could lead to a higher mortality rate (Kaul 2020).

2.2 SOCIAL EXCLUSION

The concept of exclusion refers to those procedures wherein individuals and groups face discrimination from traditional culture and the adverse effect of such separation on the old age individuals' opportunities in life (Moffatt and Glasgow 2009). There is no single established definition of social exclusion, and its connotation is still being debated among academics (Morgan et al. 2007; Shucksmith 2004). The term typically refers to being debarred from primary institutions that design people's financial and societal incorporation (Walker and Walker 1997).

Social exclusion initiated as a sociological conception, evolving from European policy spheres, in the 1990s (Phillipson 2007; Scharf, Phillipson, and Smith 2005) and further stretched into gerontological research as well as public policy discussions, especially in the context of the United Kingdom (Paugam 1996; Merrien 1996; Byrne 1999; Scharf et al. 2001; Lessof and Jowellm 2000).

Social exclusion is a multifaceted and vibrant concept that eliminates a particular group of people from socio-economic, political, or cultural activities. The existing literature on exclusion is based on social relations, and resources and networks are all part of it (Burholt et al. 2019).

According to Silver, social exclusion is a multifaceted procedure; it is a developing process of social rifts, detachment of individuals and groups from societal relationships and organizations and avoiding contribution in the typically recommended activities in the society where they live (Silver 2007).

A comparative study conducted by Jehoel-Gijsbers and Vrooman in the EU states that social exclusion is studied in individuals based on four dimensions: the social rights of individuals and participation in social activities scarcity of material stuff normative integration. The researchers also explained that the former two of those values are structural, and the latter two are about the social settings and cultural factors (Jehoel-Gijsbers and Vrooman 2008).

Researchers are struggling to comprehend social exclusion in the setting of the natural lifespan (Elder et al. 2003), which means that individuals build their lives based on their priorities and actions. However, it is within the historical and social framework. Studying people's lives and the complexities they face enables researchers to understand the range of problems associated with social exclusion. Cumulative Disadvantage Theory also presents the idea that due to the various inequalities that one faces in life, the passage of one's life is affected (Dannefer 2003; DiPrete and Eirich 2006). Model of Cumulative Disadvantage, presented by Blau and Duncan (1967), reflects the effects of various status features such as gender, ethnicity, and socio-economic class on an individual's life and their inequitable influences on vulnerable groups. Bäckman and Nilsson's (2011) studies concluded that being faced with a lack of resources over a lifespan affects and exaggerates the feeling of social exclusion faced by individuals.

Jackson's (1999) analytic study of exclusion is applicable in the context of social exclusion based on age as well. Old age affects the forms of exclusion a person may face, and it does not include groups of people who do not face discrimination. The idea presented here is that older people should not be treated as a homogeneous group, mainly since they include sub-groups such as widows, older old, or those belonging to various ethnicities and religions. In another analytic study,

Victor and Scharf (2005) studied social exclusion and loneliness and the varying risks that the different people in these groups face. The study established a connection between individuals' marital status and feelings of loneliness. Conducting a study in different areas of Ireland, Prunty (2008) presented the idea that the older people residing in rural areas, or Border, Midland, and Western regions of Ireland, or individuals with lower education were more susceptible to poverty social exclusion. Barnes et al. (2006) presented the analysis of longitudinal data that concluded that numerous factors of the old age population cause an increased social exclusion, which is further affected by these individuals living alone without their families and children and susceptibility to mental health disabilities.

2.2.1 Types of Social Exclusion

Several types of social exclusions have been mentioned in the literature review above. There are three concentration levels of social exclusion in this context: wide, deep, and concentrated exclusion. Wide exclusion refers to a few indicators that cause several individuals to be barred from society. Concentrated exclusion is about the geographic concentration of difficulties and area exclusion. Deep exclusion is experienced by the elderly being barred on numerous overlying dimensions (Miliband 2006). Furthermore, social exclusion is divided into individual exclusion and collective exclusion.

2.2.1.1 Individual exclusion.

As the name indicates, individual exclusion refers to the oppression of an individual rather than members of the entire society. This type of exclusion may be derived from an individual's psychological or physical condition. An excluded person is destined to live in mediation between

two societies of dissimilar or diffused cultural norms (Robert 1937). Marginalization is when an individual faces being excluded from specific roles due to physical or mental disability. Multiple organizations prefer not to employ persons with disability since it might affect their productivity and the organizational environment, which may be chaotic. Organizations in Western countries are trying to implement laws to ensure that elderly citizens and people with disabilities are given opportunities similar to others (Leslie et al. 2003).

2.2.1.2 Community exclusion.

Community exclusion results in similar oppressive sentiments for a larger group of society. The similarity in the collective sentiment of exclusion may be derived from the workplace or racial faction disparities. People suffering from collective marginalization or exclusion are rarely understood by other members of the same or distinct society (Frederic 1927). Many of the societies, such as the aboriginals or nomads, have suffered from colonialism, during which time they were not given rights to property or work. Consequently, these communities were excluded from societies. They could not practice their culture and traditions, and aboriginal communities had to establish links with whites to be accepted since they were minority groups (Baskin 2003; Yee 2005).

2.2.2 Dimensions of Social Exclusion

Bristol Social Exclusion Matrix presents the comprehensive and multifaceted concept of social exclusion (Levitas et al. 2007). While the model does not explicitly discuss older people and the areas where they might face social exclusion, it lists some. Following are the three areas that present both as outcomes and risk factors when assessing social exclusion:

I- Resources include financial resources, accessibility to public and private services, and societal resources.

II- Participation involves financial, social, tradition, education, skills, political and civic involvement.

III- Quality of life covers Health and well-being, living situation, damage, and criminalization (Walsh et al. 2012).

A structure about social exclusion was presented by Guberman and Lavoie (2004), and it takes into account the susceptibilities that old age people can face. This framework was based on the essential gerontological tradition (Estes et al. 2003). This concept presents social exclusion as a comprehensive concept and not just as the opposite of inclusion. Therefore, the definition considers the geographical dimensions and the complexities of life.

On the same lines, Scharf et al. (2005) conducted a study about the old age citizens in underprivileged urban neighborhoods recognized five areas where the older people could face exclusion in rural communities (Scharf and Bartlam 2008). While an age-related model for social exclusion is not presented here, this is the closest available in the research literature. These areas are as follows:

i. Exclusion from material resources
ii. Exclusion from social relations
iii. Exclusion from civic activities
iv. Exclusion from basic services
v. Neighborhood/community exclusion

Grenier and Guberman (2009), on the other hand, define the domains as follows:

i. Symbolic exclusion
ii. Identity exclusion
iii. Socio-political exclusion
iv. Institutional exclusion
v. Economic exclusion
vi. Exclusion from meaningful relationships
vii. Territorial exclusion.

The data analysis presented in the English Longitudinal Study of Ageing (ELSA); Barnes et al. (2006) recognized seven main areas of exclusion:

i. Civic activities
ii. Social relationships
iii. Cultural and leisure activities
iv. Basic services
v. Neighborhood
vi. Financial products (bank account/pension); and
vii. Material goods.

These areas refer to various combined dilemmas that intervene in the social or communal exclusion of the old age population from the rest. Similarly, Van Regenmortel et al. (2017), in their study on old age social exclusion in Belgium, mentioned eight different dimensions of social exclusion. The basic concepts were taken from ELSA's domains. These dimensions included the following:

i. Civic involvement
ii. Social relationships
iii. Services, amenities, and mobility
iv. Material and financial resources
v. Neighborhood and community
vi. Decent housing
vii. Ageism
viii. Digital exclusion

2.2.2.1 Exclusion from civic participation.

Research on an old-age exclusion that engages with theories on citizenship ascertains age itself can become a dimension of difference among older people, like class, gender, ethnicity, and sexuality. Further, the literature on civic participation and exclusion presents the idea that older people should volunteer. In that manner, the neighborhoods can hinder or promote social participation in small-sized cities (Torres et al. 2017).

Exclusion from public events has become significant mainly in current government plans that focus on the principles of "the big society" and "localism." These policies aim to facilitate a transfer to a more decentralized society, limit state intervention in the lives of the individuals, and enable them to take responsibility personally. There is also a need to ensure significant activities for social engagement and community interactions and the appropriate dissemination of information so that people remain involved in social activities and decision-making processes (Kneale 2011a). There has been evidence to support the notion that engaging in civic activities and

volunteering positively impacts old age individuals' physical and mental health and enables them to maintain independence (Nazroo and Matthews 2012).

The literature studies civic participation amongst older refugees specifically. For example, it brought attention to the fact that asset-building (and sometimes even labor market participation) is one of the things older migrants tend to have been excluded. It has implications for their civic participation later in life (Yongwoo et al. 2014). Against this backdrop, it is perhaps understandable that scholars have argued that we must consider the heterogeneity of old age people and how varied social and material circumstances, among different age cohorts, influence patterns of civic participation in old age (Stephens et al. 2015; Walsh et al. 2014).

The literature on social exclusion in old age addresses voting and political participation. It takes for granted that older people may face a particularly intense degree of social exclusion in political issues. Old age people must increase their political participation, leading to increased social engagement, a decrease in discriminatory actions, and ageist attitudes. Political participation and civic engagements significantly influence individual well-being and health (Gele and Harsløf 2012) and gains in social cohesion and social capital (Torres et al. 2017).

An inability to participate in cultural activities in society is an essential dimension of social exclusion. Being barred from participating in cultural activities can be because of several reasons. Some could be a lack of financial resources or physical distance, which could negatively impact mental health and cause depression. Old age individuals can also find it hard to establish social

relations, making them susceptible to loneliness (Lennartsson and Silverstein 2001, Crowe et al. 2003).

2.2.2.2 Exclusion from social relationships.

Exclusion or marginalization from social relations can be analyzed from the respondents' views on the quality of their bond with their spouses, children, friends, or neighbors and how these relations are maintained daily. Therefore, a person's ability to maintain social relations is reflected in the level of social marginalization that he might face. Marginalization in social relationships indicates whether individuals can maintain relations and overcome other factors that might cause them to be marginalized. Social support in this domain lets individuals maintain their independence (Barnes et al. 2006).

Research has shown that women in the USA have more familial relations in their surroundings compared to men. There is, however, not much difference in the two genders in the non-familial relations in their environments (McPherson, Smith-Lovin, and Brashears 2006). Although social isolation is experienced more by women than men (Wenger, Davies, Shahtahmasebi, and Scott 1996), it is primarily because of changes in marital status whereby women might be widowed and might end up living alone (Burholt et al. 2017).

Research shows that male senior citizens experienced deterioration in relations after retirement in Australia. On the other hand, women had increased social relations (Patulny 2009). Across countries, scarcity of material possession and lack of financial resources restricts complete involvement of old age citizens in the communal activities, which in turn adds to the social

exclusion that they face (Ajrouch, Blandon, and Antonucci 2005; Fokkema, De Jong Gierveld, and Dykstra 2012; Ellwardt, Peter, Präg, and Steverink 2014; Lee, Hong, and Harm 2014; Tchernina and Tchernin 2002; Stephens, Alpass, and Towers 2010).

Earlier research showed that married individuals are not at risk of facing marginalization or exclusion from social relations (De Jong Gierveld, Broese van Groenou, Hoogendoorn, and Smit 2009). On the other hand, the demise of a spouse leads to severe trauma and loss of a significant relation, and an 'exclusive, close, and intimate tie' (Dykstra and Fokkema 2007:9), in addition to which separations between couples can also negatively impact social interactions (Wenger 1996). In essence, widowhood or divorce can also lead to social isolation (Dahlberg, Andersson, McKee, and Lennartsson 2015; De Jong Gierveld, Van der Pas, and Keating 2015; van Tilburg, Aartsen, and van der Pas 2015). Social relations can also be affected by the sexual orientations of a person (Burholt et al. 2017).

2.2.2.3 Exclusion from services.

According to recent research, the environment and the atmosphere in a primary care setting for old age individuals are also crucial; from transportation to other care services, these are especially important in marginalized communities (Draulans et al. 2017). Senior citizens who are marginalized and excluded are not likely to benefit from healthcare services. Inaccessibility to health services and other inequalities were recorded, especially for old-age men and women. Services and training should be provided to the relevant people to reduce these inequalities (Yong et al. 2004).

Old-age people can also not access healthcare facilities because of the unequal access to basic amenities. Old-age citizens are at a greater risk of being deprived of local facilities than young people because the former is more vulnerable to disease and disability, directly impacting their physical ability to reach the healthcare facilities. Other factors might also affect the situation, such as poor socio-economic conditions and increased susceptibility to the changes in the community. All these lead to a decline in the quality of life of the old-age citizens since they cannot access the local facilities (Barnes et al. 2006; Demakakos et al. 2010).

According to the European Quality of Life Survey (2007) taking into account accessibility to healthcare facilities or material deprivations, there is a worsening situation regarding social exclusion based on old age in Central and Eastern European countries (Hrast et al. 2013). According to the data gathered from the SHARE study and OECD surveys, regions such as Eastern and Southern Europe and Israel have poor standards regarding provision of access to healthcare facilities to old age individuals, which is one of the key aspects for the measurement of social exclusion (Jürges 2015; Draulans et al. 2017).

2.2.2.4 Exclusion from financial/material resources.

Lack of financial resources can have rather severe implications for the old age population since it increases the risk of substantial financial scarcity and inaccessibility to various facilities. The absence of financial resources may cause hurdles in preparing essential long-term healthcare. It may even cause old age people to limit the health expenditures from medicines and medical accessories (Hrast, Hlebec, and Kavčič, 2012).

Old-age people who face exclusion from financial resources cannot access resources that may facilitate them in managing their finances in the short- and long term. Fiscal resources in this regard can be the short-term ones such as current accounts or the long-term ones that may include life insurance and annuities. Suppose the old-age citizens are not able to manage their financial investments. In that case, they could face fiscal deficits, which could also result in the old-age citizens being barred from use of other local amenities as well (Barnes et al. 2006).

Research studies have been conducted in various countries that focused on the influence of the pensions system on the financial status of old age people and the inaccessibility to the material resources they may face. Between the two groups of the old age people, those who have the rights to pension in a governmental or private system, or the other group that are reliant on the state, the latter group is mainly susceptible (Ginn 1998; Lloyd-Sherlocka et al. 2012; Patsios et al. 2012; Price 2006; Zajiceka, Calasantib and Zajicekc 2007). Widowed women who fall into the old age category and live alone are considered the most marginalized group (Ginn 1998; Saunders and Lujun 2006).

2.2.2.5 Exclusion from neighborhood/community.

Researchers have recommended that with progressing age, a person's accessible area becomes progressively restricted in space (Clément et al. 1994; Clément et al. 1996; Clément et al. 1998; Lalive d'Epinay et al. 1983; Oswald et al. 2005; Wiles 2005).

The neighborhood is more important for older and deprived people than the younger and the resourceful ones, who tend to develop social networks more diffuse in space (Bridge et al. 2004;

Guest and Wierzbbicki 1999). Moreover, the neighborhood and the "home" become critical elements in social life—social relations gradually become limited to people who live nearby—and define one's sense of self because the neighborhood provides several identity markers (Clément et al. 2004).

2.2.2.6 Exclusion from decent housing.

Old age people residing in inadequate housing may not be able to avail themselves decent housing due to multiple factors:

i. Not having the substantial resources to avail comfortable housing or fix their own home,
ii. Not having the communication skills to fix housing issues with private or public landlords,
iii. Not having the resources and data that may help in correcting inferior housing.

Housing is essential in forecasting health and many other outcomes for senior citizens (for example, Donald 2009); for the younger generation, housing is seen as a factor that signifies social status. The neighborhood can also indicate that (Tunstall et al. 2011). It may also extend to old-age citizens (Barnes et al. 2006).

Wide-ranging housing gives these individuals the chance to reside in their houses for a more extended period (Peace and Holland 2001). The study conducted in Hungary has shown that with minimal adaptation at the homes, the need for nursing homes can be avoided (Széman and Pottyondy 2006). Another qualitative study, conducted in Ireland, analyzes the living arrangements of old-age people facing homelessness and housing exclusion. The studies focus on

how the loss of housing facilities would affect old-age individuals, emotionally and physically, and avoid this critical situation (O'Sullivan and Breen 2009; Draulans et al. 2017).

2.2.2.7 Ageism.

Ageism is the type of discrimination that almost all individuals may face during their life (Palmore 2004). Ageism is seldom the focus of communication research (Nelson 2005). Age is a *social* concept reflective of society's social values and norms (Lemus and Exposito 2005). Palmore (2004) has presented that ageism is different from racism or sexism because almost everyone is open to experiencing this socially accepted discrimination after they reach a certain age. 84% of old age individuals in the USA said they had observed ageism once (Palmore 2004). While it is a predominantly present form of bias, researchers generally neglect ageism (Nelson 2005).

Ageism is "a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, 'uselessness,' and death" (Butler 1969:243). It can cause one group to try to control another group by removing their former opportunities (Braithwaite 2002). Ageism is the 'process of stereotyping and discrimination against people because of their age, just as racism and sexism accomplish this for skin color and gender' (Butler 1987).

According to Bytheway (2005), two definitions of ageism hold water. Butler's definition, just described, presents ageism as analogous to sexism and racism since these employ labels to differentiate between members groups. Butler's definition characterizes ageism as perceiving that some people are old while others are not. Individuals considered old are routinely thought of as disorientated, old-fashioned, and stubborn, among several other ageists, typecasts (Bytheway 2005). The young adults view the older ones as members of a group they cannot identify with

(Butler 1975 as cited in Bytheway 2005). The second definition, according to Comfort, identifies ageism as different from other forms of discrimination (cited by Bytheway 2005). Comfort's definition reflects uniquely ageist beliefs that "(a) when people reach old age, they are no longer humans, (b) they are somehow different from before, or (c) they have become substandard versions of humans (cited by Bytheway 2005). Similar to racism, this definition incorporates fear of members of the target group and inaccurate beliefs regarding members of that group." By the way, (2005) observed that both definitions involve age and social influence, as well as an assumption that older adults are less human or nonhuman. Comfort (2005) also noted differences between the two definitions. Comfort's definition of ageism says that chronological age seems to catalyze ageism. According to Butler's definition, the classification of an individual as an "old" person incites prejudicial beliefs. Butler's definition will be employed in this research because in the United States' sample of self-referential, ageist talk, or "old talk, " persons of different ages contributed to "old talk" irrespective of age.

The recognition of ageist views causes damaging consequences for old age people. Senior citizens are considered as persons incapable of freedom (Nelson 2005). Older adults adopt these perceived prejudices and enforce these dependent characters on themselves. Consequently, their beliefs shape people's behavior, solidifying ageist behavior. This causes internalized bias, which creates feelings of dependence, leading to low self-esteem in older citizens (Nelson 2005).

In addition to psychological effects, ageist typecasts present old-age adults with adverse health-related effects (Reyes-Ortiz 1997). Medical professionals often consider their old age patients as

inflexible and confused. Some medical professionals expressed frustration when older adults showed mental and physical limitations (Wilkinson and Ferraro 2002).

Medical professionals do not see why older adults should be provided medical treatment wrongfully, thinking that diseases are the unavoidable consequence of old age. As a result, many offer insufficient treatment to older adults. Health professionals are generally more concerned with managing rather than treating certain illnesses common to older adults, such as diabetes or osteoporosis (Nelson 2005). Ory and colleagues (2003) presented a review paper that concluded that ageist stereotypes are present everywhere in our society, damaging older people's emotional well-being and physical and cognitive functions (Ory et al. 2003).

2.2.2.8 Digital exclusion.

Digital technologies cover almost all aspects of life today, and recently, there has been digitalization of all significant aspects of life due to extreme technological innovation (Seifert 2020). There is now global access to the internet, and most current studies now recognize a digital gap between the younger generation and the older generation (Hunsaker and Hargittai 2018). Recently, emerging and advanced economies of the world have come together in terms of internet facilities. However, old-age citizens still lag in using the internet (Pew Research Center 2018). However, the situation in different regions in Europe is also quite similar. According to a survey conducted across Switzerland and 16 European Union countries, around 49% of people at and above 50 used the internet (König et al. 2018).

In the US, 27% of individuals at and above the age of 65 refrains from using the internet (Anderson et al. 2019). Old-age individuals who are weak and do not have access to the internet face social exclusion on two fronts.

This struggle of the old age people in accessing the internet also impacts whether senior citizens can use services and content available through the internet; this includes healthcare data, digital social events, social networking, and online shopping. A survey conducted in the US during 2020 found that only 20% of people living in the community, at and above the age of 65, participated in online social events with friends or family (Vogels 2020). Especially in the time of physical distancing, older adults may feel isolated with the increasing use of the digital interface for communication (Xie et al. 2020).

2.2.3 Causes of Social Exclusion

In the case of older people, Phillipson and Scharf (2004) categorized the four conditions that cause social exclusion:

i- *Age-related characteristics:* it points to how senior citizens are excessively affected by losing income, worsening health, and lessening social ties. While this may happen at any point in life, the chances of it happening are more towards old age with income changes due to retirement, declining health, and death of age fellows.

ii- *Cumulative disadvantage* refers to when age fellows become incapacitated over time due to limited academic and professional opportunities early in life. However, which in the long-term may lead to lessened income in old age or restricted awareness regarding access to the social and healthcare services for the elderly.

iii- *Community characteristics:* this is about how older adults with solid bonding in their locality could be susceptible to changes linked to population turnover, economic regression, and increasing crime and anxiety within neighborhoods.

iv- *Age-based discrimination:* this is about the influence of ageism on the financial and social policies formulated for old age individuals. The discussion around ageism has challenged the link with age as a form of dependency. It emphasizes various forms of positive communication for the latter half of the life course.

2.2.4 Social Exclusion and Old Age

Several research studies have acknowledged that while age does not affect social exclusion, there is still a significant link between social exclusion and age. Phillipson and Scharf (2004) concluded that the critical causes for social exclusion of old-age citizens are age-related; these could be a physical or mental disability, lessening income, or loss of spouse or friends. Other than that, there could be a collective disadvantage when the age-fellows experience unequal resources due to economic circumstances. In addition, older people are susceptible to economic decline or crime in their area.

Barnes et al. (2006) used ELSA to figure out the phenomenon of social exclusion in the old age population. The study commenced by analyzing and indicating the attributes of ageing and social exclusion and attempted to bring forward the nature of the association between both based on previously described domains. It was found that the attributes or domains of both phenomena (ageing and social exclusion) are inter-connected. In the later phase of longitudinal research, the logistic regression method was introduced to indicate the correlation between both. In the old age

population, it was found that several characteristics are subjected to indicate marginalization or exclusion. These domains included an underprivileged condition in terms of psychological health indicating stress or despair and light bodily condition, transportation, housing, wages, pension, or even lack of access to the means of socialization gadgets. However, the study had not provided a direct connection between the characteristics of both phenomena. Nevertheless, regression techniques helped manage or contain exclusion, and its features could be subjected to control to some extent.

According to a study by the SEU and ODPM (2006), older people remain in their homes for 70-90% of their time, and in case they have poor lodging, it can have a significantly negative impact on them. Older people were most likely to reside in humble housing (English Housing Conditions study 2001), and for a majority of them, the lodging was inappropriate for them.

Several studies conducted in the past suggested that sentiments adversely affect the comfort or welfare of people at any age, specifically for the old age population. Such sentiments can have a pessimistic impact on the health of the old-age population. Isolation or exclusion is also marked by melancholy and increases the velocity of fatalities (Pitkala et al. 2009; Mead et al. 2010; Ollonqvist et al. 2008). Several other communities, including expatriate communities, are subjected to social isolation or exclusion, but amongst all, the old age population is more vulnerable (Age UK, 2011).

2.2.5 Social Exclusion, Ageing, and health

Social exclusion has been identified as one of the detrimental factors on an individual's health, in addition to which there are added risks of social exclusion in later life (Hong et al. 2011). Research shows that severe loneliness and isolation can affect health and quality of life. Loneliness has a hugely negative impact on an individual's blood pressure, and it also causes depression and an increase in mortality rate (Pitkala et al. 2009; Ollonqvist et al. 2008; Mead et al. 2010). Various social groups are susceptible to social isolation and the resultant loneliness. However, old age citizens have vulnerabilities because of 'loss of friends and family, mobility or income' (Age UK 2011).

Different guides to social exclusion explain its multifaceted nature; of the three dimensions, first is economical, second is social services, and third is limited social participation. The economic dimension denotes the income of older people. The social services point to the accessibility and affordability of healthcare and education. Finally, limited social activities denote limited participation in society and social networks (Global Human Development Report employed multidimensional poverty methodology in 2010 (UNDP 2010)).

Loneliness and social isolation are an issue that falls in public health, and the research in this domain found that social relations impact the health of older persons. Its mortality rate is comparable to that caused by alcohol and smoking (Ollonqvist et al. 2008).

2.2.6 Social Exclusion, Ageing, and Gender

The issue of social exclusion affects both the male and the female population equally, which is why there is a need for research in this area. While both genders experience old age in unique ways, it is observed that older women have better social links than older men. For instance, mothers receive more fiscal and social support than fathers (European Centre 2001; UNFPA and Help Age International 2012). While both genders face discrimination in different areas, women face discrimination their entire lives in limited academic opportunities, healthcare facilities, and limited access to property and income; this adds to their helplessness in old age. These factors cause age and gender discrimination for older women and leave them at greater risk of facing violence and exploitation (UNFPA and Help Age International 2012).

Western Feminist Movement aimed to raise a voice against the discrimination faced by white women in society, wherein the women were barred from the labor force and were not valued as homemakers. Feminists argued that both males and females should be equally represented in the public and private sectors and at home (Moosa-Mitha 2005). However, even in the 21st century, females are neglected for managerial positions and earn less for the same position (White House 2013). Research shows that social isolation is dangerous in urban areas, where communities are not tightly knit (UNDP 2009).

Elderly ladies are truly limited in their abilities due to the lack of resources. Since women are, in most societies, dependent on the status of their male relations, they remain predominantly vulnerable to poverty and exclusion (UNECE 2009).

2.2.7 Social Exclusion and Rural Older Persons

Africa and Asia house the highest number of old age rural population globally (United Nations Statistics Division 2010). Research in gerontology focuses on environmental contexts (Wahl and Weisman 2003). International researchers are focusing on aging in rural environments (Blume 1969; Burholt 2006; Burholt and Naylor 2005; Cribier 1973; Wenger 1984:2001), rural aging is still an underdeveloped field of research (Burholt 2006; Heenan 2010).

There is inadequate understanding of social and support networks (Wenger and Keating 2008). The rural population does not understand the link between healthcare and social services (Keating et al. 2011). There is little research done to understand the contribution of older people in rural areas (Dorfman and Rubenstein 1994; Skinner and Joseph 2007; Walsh and O'Shea 2008), and there is also little information about social exclusion in rural areas (Commins 2004; HARC 2010).

Rural ageing is a complex process and requires increased research. The complexity of family structure and distancing in the social networks, the deteriorating infrastructure of some areas and the development of others (Cloutier-Fisher and Skinner 2006; Hanlon et al. 2007; Joseph and Cloutier-Fisher 2005; Kearns and Joseph 1997; Ryan-Nicholls 2004; Skinner and Joseph 2007) requires intense research in this area.

2.3 LAWS AND POLICIES ON AGEING

Ageing is increasingly recognized as a global trend and analyzed as a significant element of population dynamics. Alongside population growth, increases in the youth population decrease

fertility and migration. Laws and policies influence theories of ageing and provide guidelines for more comprehensive global development approaches to policymaking.

2.3.1 International Laws

2.3.1.1 United Nations Principles for older persons

Adopted by General Assembly resolution 46/91 of 16 December 1991

Governments are encouraged by the UN to include the following principles into their national policies:

i. Independence: Governments must provide old age people with the necessities of life, including providing income and support for the family. Governments are also required to provide capacity building and training programs for older citizens, in addition to which they should be facilitated with healthy environments at the residence and abroad. The different factors used to measure social inclusion of old age persons include levels of poverty, loss of spouse, physical or mental ailments, or active participation in social activities.

ii. Participation: governments should create forums where the old age citizens could share their ideas and experiences with the younger generation. Elderly citizens should also be provided to utilize their capabilities to provide services to the community and form associations for society's progress and development.

iii. Care: old age citizens should be provided with care services and security according to the socio-cultural and ethnic values of the individuals. The older persons should also have access to mental and physical health services and services for emotional health to ensure a delay in the onset of diseases. The government should also ensure access to social and legal facilities. Psychological motivation and the security of fundamental human rights should also be provided.

iv. Self-Fulfillment: governments should also provide old-age citizens with opportunities to realize their potential in the academic, cultural, and religious arenas.

v. Dignity: governments should ensure that the old age citizens remain free of manipulation and physical violence and not be discriminated against based on gender, ethnic or religious background (Ahmed 2015).

2.3.1.2 The Madrid International Plan of Action on Ageing (MIPAA)-2002

MIPAA (2002) has presented a policy concerning implementation at different levels that address the aging population, their physical and mental well-being, and the active social roles that they should play. Two broad implications of the MIPAA are developing helpful age-specific policies that consider the old age population's fears and making such inter-generational policies that emphasize equality and fairness for people of all age groups. It is recommended that older persons be involved in policymaking rather than making policies without their consent. The significant diversities in the old age group would probably be based on Gender, cultural association, urban-rural lodging, fiscal position, physical condition, and functional capacity and literacy rate. These factors also affect the type and degree of diversity between old age groups. Gathered statistics about demography at the national level can cover local disparities in nations; a comprehensive analysis is essential to halt the inadvertent discrimination against any group of people. Governments have the responsibility to assess age-related risks and offer security despite these risks. Economic facilities and healthcare institutions are necessary for long-term care, and it is essential to have an inclusive policy to deal with inability, dependence, and situations connected with ageing. In addition to these, policies formulated by governments to deal with community issues are important (Ahmed 2015).

2.3.1.3 WHO Brasilia - Declaration on Ageing and Health in 1996

· Section 1 focuses on the growing elderly population in developing countries.

· Section 2 explains the idea of "active ageing" as an aim for policy formulation.

· Section 3 discusses the regulatory issues about whether inhabitants will enjoy a constructive way of life.

· Section 4 argues seven important tasks linked with the elderly for public and private sectors, NGOs, and educational institutions.

· Section 5 offers a policy schedule for active ageing and recommendations for significant policy proposals.

2.3.1.4 Legal Framework on Ageing

The legal framework of ageing specifies legal practice regarding problems that affect older persons (over 60 years). Some of these are:

I- Estate Planning; as old age individuals reach the culmination of their lives, there are concerns about what they will do to their property. The elderly should be facilitated in the composing and organization of their will. The elder client and his or her family should be made aware of the tax penalties of inheritance plans, counting inaugurating trusts, the determination of a living will, and other issues that could affect the elder's estate interests near the end of his or her life.

II- Medicaid, Disability, and Long-Term Care; the medical needs of the elderly should be fulfilled so that they be comfortable even while suffering from illness during their lifetime.

III- Guardianship: guardians take care of the elderly according to their psychological and physical problems and routine needs. In addition to these needs, the guardians can also act as custodians and manage the fiscal dealings. While the duty is given to a person from the family, the court can also assign someone outside the family to take care of the above-stated needs (Ahmed 2015).

2.3.1.5 Preamble of Vienna International Plan of Action on Ageing (VIPAA)

It is a well-known fact that the old age population is growing, and there are two dimensions to this as well. While, on the one hand, technological advances have afforded longevity to human life, it also carries with them the challenge of supporting these individuals through the resources of society. Individually and collectively for these individuals, the goals are to:

i. Develop and implement policies at regional, national, and international levels that are structured to improve old-age individuals' lives and enable them to enjoy the final years of their life with complete mental and physical security.

ii. Study the interconnection between ageing populations and development to fully realize the potential of the elderly population and mitigate, through suitable measures, any adverse effects resulting from this impact (Ahmed 2015).

2.3.1.6 Recent legislation in Asia[6]

National Legislation Adopted, Revised or Due for Adoption on Ageing, by Selected Government Responses, 2012–2017

Country	Legislation	Key Areas
China	2012 Revision and 2015 Amendment to the 1996 Law of the People's Republic of China on Protection for Rights and Interests of Older Persons	Maintenance and support by families, social security, social services, social preferential treatment, livable environment, participation in social development, legal liability and prevention of abuse.

[6] *Source:* ESCAP Survey, 2016c; a. *1996 Law of the People's Republic of China on Protection of the Rights and Interests of the Elderly (2015 Revision)*. Order No. 24 of the President of the People's Republic of China. Issued 24 April 2015. Available from: http://en.pkulaw.cn/display.aspx?cgid=252608&lib=law; b.Amyotha Hluttaw approves Elders Draft Law, Myanmar Ministry of Information, n.d. Available from: www.moi.gov.mm/moi:eng/?q=news/30/08/2016/id-8322'; P.T. Phyo: Policy for elderly citizens in the works, Myanmar Times, 3 October 2016. Available from: www.mmtimes.com/index.php/national-news/nay-pyi-taw/22854-policy-for-elderly-citizens-in-the-works.html; c. 1981 Welfare of the Aged Act (2013 Amendment), Republic of Korea. Available from WHO MiNDbank: www.mindbank.info/item/4096.

Macao, China	Elderly Law (due for adoption in 2017)	Rights of older persons, social participation, older persons' care mechanism, cooperation, coordination and supervision.
Mongolia	Law on the Elderly (2017)	Rights of older persons, promoting employment, social welfare services and financial benefits.
Myanmar	Elders Law (2016)	Health and well-being, social pensions, older persons' care and prevention of discrimination and abuse.
Republic of Korea	Revision to the 1981 Welfare of the Aged Act, 2012, 2013 and 2015	Health and welfare, older persons' care, promotion of family system, public recognition of older persons, promotion of employment, preferential treatment and promotion of social participation.

2.3.1.7 Recent policies on ageing

National policies and action plans on ageing adopted or revised, 2012–2016

Country	Policy
Armenia	The Strategy on Solution of Issues Arising from the Consequences of the Population Ageing and Social Protection of the Elderly, 2012; Action Plan on Implementation, 2012–2016
Bangladesh	National Policy on Older Persons, 2013
China	The 12th Five-Year Plan of the People's Republic of China's Ageing Development, 2011–2015; the 13th Five-Year Plan of the People's Republic of China's Ageing Development, 2016–2020; Plan of Constructing the System of Social Services for Older Persons, 2011–2015
Fiji	Fiji National Policy on Ageing, 2011–2015
Macao, China	The Ten-Year Action Plan for the Provision of Services for the Elderly, 2016–2025
Mongolia	National Strategy on Population Ageing, 2015–2030
Myanmar	National Plan of Action on Ageing, 2014
Nepal	National Senior Citizens Action Plan, 2012
Republic OF Korea	Second Basic Plan on Low Fertility and Aging Society, 2011–2015; Third Basic Plan on Low Fertility and Aging Society, 2016–2020
Russian Federation	The Strategy on Interests of the Older Generation in the Russian Federation until 2025, 2016
Singapore	Action Plan for Successful Ageing, 2015
Turkey	Healthy Ageing Action Plan and Implementation Programme, 2015–2020
Vietnam	National Plan of Action on Older People, 2012–2020

Source: ESCAP, 2016c.

2.3.1.8 SDGs and ageing

The Sustainable Development Goals (SDGs) of the UN mention the rights of older persons and ageing as a foundation of sustainable development. The SDGs have a broader commitment that 'all indicators should be disaggregated by sex, age, residence location (urban/rural) and other relevant characteristics.' Goal 3 states that governments or states should 'Ensure healthy lives and promote well-being for all ages. It is significant and relevant in particular as it addresses the old-age persons as the primary beneficiaries of development processes in the future (Zaidi, Stefanoni, and Khalil 2019).

2.3.2 National/Municipal Laws

2.3.2.1 Fundamental rights under the constitution of Pakistan.

The Constitution of Pakistan provides articles (from 9 to 38) to reaffirm the fundamental human rights of individuals. Article 9 emphasizes that every Pakistani should be guaranteed life security. Article 10 highlights the assurance of pensioners in custody. Article 10A specifies that freedom will be ensured to common people. Article 11 states that slavery or enforced labor is illegal. Article 12 protected against penalty. Article 13 is for protection against double sentences and self-accusation. Article 14 is about the dignity of man. Autonomy of movement is guaranteed to every person through Article 15. There is freedom of gathering guaranteed in Article 16. Article 17 provides the right to form organizations. Freedom of speech is reserved by article 18. Article 19A specifies every individual's right to information. Acknowledgment of religion and management of the religious institution is liberated, shown in Article 20. Article 21 guarantees the taxation system of a particular religion. Academic institutions should be safeguarded following Article 22. Article 23 shows that everyone should have the right to own property. Property rights are protected under article 24. Article 25 guarantees the right of every Pakistani to acquire education. Every citizen

has equality of rights following article 25A. Public places are equally accessible for every Pakistani under article 26. Language and culture are preserved under article 28. Article 29 promotes the social and economic well-being of its people. However, no article guarantees the rights of old-age citizens. Equal rights should be guaranteed to old-age citizens to protect against discrimination.

2.3.2.2 Policy framework on ageing.

An emphasis on policy regarding 'aging' implies that the focus has transferred from the construction of nursing care facilities for the elderly to raising awareness about the other, more basic needs of the old age population (MIPAA- UN 2008). An estimation of the social strategies and programs based on the MIPAA requirements are as follows:

i. Cumulative impact of programs,
ii. Cost-efficiency of programs,
iii. Governance problems related to programs
iv. Sustainability and affordability of programs (Ahmed 2015).

2.3.2.3 Social welfare policy of elders, Pakistan 2013-14.

The program aims to ensure the welfare of senior citizens by providing them with services that would facilitate them in spending their lives—at the same time, engaging them in community activities as much as possible. Moreover, providing similar facilities to all old age citizens in long-term care facilities.

This program includes providing community care and support services for elders supported by the government. The planned facilities include daycare units for the elderly (DCUs), daycare centers for the elderly (DEs), integrated home care services (IHCS) and home help services, district elderly

community centers (DECCs), social centers for the elderly (SEs), neighborhood elderly centers (NECs), enhanced home and community care services (EHCCS), support teams for the elderly, a holiday center and the Senior Citizen Card Scheme. It also contains sponsored housing care benefits for elders. These include self-care (S/C) hostels, houses for the aged (H/A), care-and-attention (C&A) homes, nursing homes (NHS), contract homes, homes participating in the conversion of S/C and H/A places, self-financing NHs participating in the Nursing Home Place Purchase Scheme (NHPPS) and private residential care homes for the elderly (RCHEs) participating in EBPS. There is a central computerized system for services that provides an easy entry point for old-age persons who have been assessed for their needs and requirements and should be provided access to nursing and residential care. The licensing system for RCHEs is also included (Ahmed 2015).

2.3.2.4 Health Policy.

The government of Pakistan formulated the National Policy for Health of older persons in 1999. The policy ensured training and guidance of primary care doctors, provision of domiciliary care, and dental care. A multi-tiered system of healthcare providers that includes social workers, and physical therapists for the elderly, are part of this policy (Azhar et al. 2010).

2.3.2.5 Old age regulatory framework.

First law	1972, never implemented.
Type of program	1976 (old-age benefits).
Current law	Social insurance system.
Coverage	Employees of firms with 5 or more workers. Exclusions: Family labor and self-employed persons. Special systems for public-sector employees; members of the armed forces; police officers; and employees of statutory bodies, local authorities, and railways.

Source of Funds	Insured person: 1% of the minimum wage. The minimum wage is 7,000 rupees a month. Self-employed person: Not applicable. Employer: 5% of the minimum wage.
Qualifying Conditions	Old-age pension: Age 60 (men) or age 55 (women) with at least 15 years of contributions; age 50 for miners with at least 15 years of contributions. Retirement from covered employment is not necessary. Early pension: A reduced pension is paid from ages 55 to 59 (men) or ages 50 to 54 (women). Old-age grant: Age 60 (men) or age 55 (women); age 50 for miners. The insured is ineligible for the old-age pension but has at least 2 years of covered employment. Disability pension: Assessed with a 67% loss in earning capacity. Must have at least 15 years of contributions or 5 years of contributions including 3 out of the last 5 years. Survivor pension: The deceased was a pensioner at the time of death. In order of priority, eligible survivors are the spouse, children younger than age 18 (no limit if disabled or for unmarried daughters), the deceased's parents, and other dependents. The surviving spouse must have been married pensionable age for the old-age pension.
Old-Age Benefits	Old-age pension: 2% of the average monthly earnings in the last 12 months multiplied by the number of years of covered employment is paid. The minimum old-age pension is 3,000 rupees a month. Early pension: The pension is reduced by 0.5% for each month that the pension is taken before the normal retirement age. Benefit adjustment: Benefits are adjusted on an ad-hoc basis. Old-age grant: A lump sum of 1 month of earnings for each year of covered employment is paid.

Source: SSPTW: Asia and the Pacific, 2010[7]

2.3.3 Empirical Measurement on Older Persons

2.3.1.1 Global Watch Index (GAWI).

The GAWI uses internationally available data to assess and analyze the fundamental aspects of the socio-economic status of old age people across the globe. It is based on the pattern of the UNDP's

[7] Social Security Program throughout the World; Asia and the Pacific 2010. https://www.ssa.gov/policy/docs/progdesc/ssptw/2010-2011/asia/pakistan.html Access date: 03-08-2021

Human Development Index and the AAI (Zaidi 2013). The GAWI considers health status, education and employment, income security, and facilitating systems.

Underpinning the GAWI are three main objectives: (1) the requirement to highlight the significance of comparable data on old-age individuals (2) presenting the data in a manner to connect with policymakers at the national and international level and (3) the need to recognize areas that require formulation and implementation of policy in various fields globally (Zaidi, Stefanoni, and Khalil 2019).

2.3.1.2 Active Ageing Index (AAI).

The AAI project was one of the European Year for Active Ageing and Solidarity activities between Generations in 2012. The active ageing definition used in the AAI project emphasized the environments where people can spend healthy lives with adequate independence as their age progresses and can still engage in communal activities and other productive activities.

The AAI is an empirical assessment system designed to monitor development across European countries, aimed at assessing ageing in a vibrant and healthy atmosphere for the older population, that is, people aged 55 and above (Zaidi and Stanton 2015). Utilizing around 22 key indicators, it assesses the new capabilities in the older people, which are grouped in four categories:

i. Employment

ii. Social participation

iii. Independent living

iv. Capacity building and facilitating environment

Since the experiences of men and women in the progression of age are supposed to be unique, AAI also gives a breakdown by Gender (Zaidi, Stefanoni, and Khalil 2019).

Chapter No. 3.

THEORETICAL FRAMEWORK

This chapter centered upon the research studies conducted in the past and elucidates perception of ageing by presenting and analyzing numerous theories. The theoretical framework helps us conduct our research based upon the grounds of earlier research and also assists the researcher in having a better understanding or clarity of the area of interest before going into the field.

The literature review, general observations, and analysis of people's experiences about the area of research have given rise to several questions for the researcher about ageing and social exclusion. These primary, secondary, or tertiary research questions include the following questions:

- What role do people of old age play in our lives, and what are the means that can be adopted to involve people of old age in several activities?
- How do people generally treat old inhabitants of society?
- What are the probable reasons behind the sentiments of the old age population or their marginalization?
- Do we need to address unequal participation or predicaments in the social or economic sphere faced by the old-age population?
- Are we implementing religious norms to deal with our older adults? Etc.

Many issues related to old age, such as healthcare issues, engaging in social activities, cultural involvement, economic functions and dependence, social exclusion, problems of lack of financial resources, social neglect, healthy and active aging, psycho-social apprehensions of elders, etc., are differently explained by scholars and researchers of ageing theories. Thus, being a sociologist, I

(researcher) am interested in exploring these questions by using two sociological perspectives that include functionalism and conflict.

There is a divide in society regarding age distribution structures, especially when addressing issues such as ageing. Many researchers estimated people of other age groups. They used the metaphor of a Centrifugal force, which puts the old age population in the periphery and detaches them from cores of acquaintance and power, etc. (Irwin 1999).

3.1 FUNCTIONALIST STANDPOINT

Many functionalists believe that people who maintained their identities and played their role effectively in non-family institutions and earned enormous assets could regulate their old age better than others and would be less subjected to predicaments like exclusion (Crosnoe and Elder 2002). In this regard, three distinct theories were designed to illustrate the population's experiences in old age and their perspectives. These included the following:

3.1.1 Disengagement Theory

A book entitled "Growing old" was published in 1961 by Cumming and Henry, presenting disengagement theory. It depicted the people advancing in age as weak, susceptible to disability and disease, and unable to work efficaciously like younger people. Disengagement theory presents the concept of a two-way process; as the older people voluntarily step away from engaging in economic and social activities, society responds by accepting this and bringing forward the younger ones for doing the same work. Consequently, society can evade the disorder that may be

caused when the death of elders leaves a vacuum at a position of power and authority (Tornstam 1994:204, Green 1993:58-59, 141-142; Zeev 1991:11-12).

Disengagement theory is an old theory from a functionalist point of view. It states that departure or abandonment from societal activities is one of the indicators of ageing. It was centered upon three primary analyses, which include the following: mortality is an inevitable reality, and after development or growth of body, it is also subjected to turn down with the time that results ultimately to the abandonment of individuals from society as they grow old, furthermore, due to abandonment the old age population are left with minor fortification to cultural values while it also reduces the anxiety. Another perspective about the very theory comprised that ageing, and abandonment are experienced differently by males and females. Due to this reason, females are more inclined toward family institutions.

In contrast, males are towards non-family institutions that depart from relevant or opposite spheres as they grow old (Cummings and Henry 1961). The pioneering research on the concept of ageing suggested it as a different course of life and subjected to create more vulnerability, which could be scandalous for the population. Disengagement is familiar to people because they observe more fatalities in old age marked by withdrawal from all participatory activities.

Slow removal of older people from work and social relations is 'inevitable' and 'natural process,'

'...withdrawal may be accompanied from the outset by an
increased preoccupation with himself:
certain institutions may make it easy for him.'
(Cumming and Henry 1961: 14).

Disengagement theory is centered upon two ways of disengagement. It is either willingly approved or volunteered by the older population. The other way suggests the abandonment by dynamic or relatively young members of society (Tomstam 1994:204; Green 1993:58-59, 141-142; Zeev 1991:11-12). In this way, one can prepare for the later phases of life and spend time in other societal activities after withdrawing from worldly responsibilities or organizing themselves for the ultimate abandonment, i.e., fatality (Cumming, Dean, Newell, and McCaffrey 1961; Pilcher 1995:103-104).

Major Claims of Theory

1. Disengagement theory suggests that the withdrawal of old-age citizens from work activities and social relations is a natural course of events.
2. The disengagement model gives the idea that as the old age citizens realize that they are nearing death, they naturally withdraw from social activities.
3. Removing themselves from their previously held roles in familial and social lives means that they experience a vacuum in their lives and experience demoralization and depression.
4. It further suggests that socially there is an acceptance of the withdrawal of elders from vital social activities and a realization that the elder will soon pass and society prepares itself to continue functioning in their absence.
5. The theory further suggests that society responds to the elder's disengagement with a sort of mutual recognition that the elder will soon pass and society must prepare to function in their absence.

Disengagement theory argues for a two-way process in which older people voluntarily withdraw from work and social responsibilities. Society responds by accepting their withdrawal and replacing them with younger, more productive people.

3.2 CONFLICT PERSPECTIVE

This perspective presents society as an unbalanced entity that creates inequality by providing privilege for one faction while the other is subjected to oppression or exclusion. The fundamental notion of conflict perspective is a societal dispute where different groups or people are competing to attain more resources or assets and engage in power manipulation due to the lack of commodities and other amenities. When we apply the grounded concept of conflict theory to the phenomenon of ageing or ageing population in comparison to the rest, it suggests that the population of the old age group compete with the relatively younger population to keep their hold on assured possessions in society. The antagonism found between the opponent people or groups can take adverse forms and increase conflicts.

3.2.1 Modernization Theory

Based on comparative national research conducted in the 1970s, Cowgill and Holmes concluded that with the advent of development and industrialization, the social status of the old age people declines as well (Cohen 1998; Cowgill and Holmes 1972). According to these researchers (1972), the industrial revolution has impacted social exclusion for the old age population. In the modern and post-modern era, social norms are shifting, and much importance is being placed on the material nature or productivity of the industrial period. Since the old age population lacks the skills required in the industrial era, as opposed to the youthful population, they face marginalization,

leading to physical and emotional solitude. Before the industrial era and technological innovations, the status of old age people was elevated, and young ones were bound to look after their elders. After the industrialization period and diffusion of cultures resulted in several changes, the family type and styles were also affected. In earlier times, people lived in joint family systems, which were substituted by 'Nuclear family type.' The modernization era brought a change to these norms; among other things, it led to the marginalization of the dependent population. Thus, in an individualist society, being concerned about older people is not a compulsion but considered one's generous act that can often be disregarded with no trepidation or feeling of apprehension.

Key Claim of Theory

1. The central concept of modernization theory is that if the preindustrial family structure continues and elders continue to live in extended families, they will maintain the status quo and keep their places in society.

3.2.2 Age stratification theory

Age stratification theory concerns the conflicting viewpoint of age; this theory states that the process of ageing impacts age-related factors or capacities (Riley, Johnson, and Foner 1972). In Sociology, age stratification points to the chronological standing of people in age groups in society and the discriminations that old age people face, which can be linked to old age. In Western countries, the old and the young are treated reasonably incompetent based on different factors and are barred from social life. Age stratification based on a recognized position is a significant source of disparity and may lead to Ageism (Andersen and Taylor 2006).

The age stratification theorists were the first researchers to suggest that the members of a society should be segregated by age, just like they were segregated based on race, class, and gender, were the age stratification theorists. Since age serves as a basis for segregation and control in society, accessibility to socio-economic and political power is also determined by age. There are established norms in societies based on age and the roles and behaviors that accompany them, and therefore what society's expectations are. For instance, based on the age of a female, society dictates whether she should be wearing a bikini since for an older woman to be wearing it would violate the norms of society about the sexuality of older females. These perceived norms are based on society's expectations and ideas about people in old age groups (Riley, Johnson, and Foner 1972).

In research specific to age stratification, the difference is conceptualized based on chronological age, such as older, middle-age, younger. Individuals falling in the same old age group form a separate group based on their chronological or biological age or social or psychological segregation (Riley et al. 1972:6). The group segregations based on age are different in size and composition and are also impacted by the contribution that each one of them makes to society. Age is standard based on which individuals are expected to take up and follow specific roles about the social structures and standards. An individual's behavior is judged (Riley et al. 1972:7).

Cohort flow is one of the most fundamental processes in age stratification perception (Riley et al. 1972). Riley and her colleagues suggested that cohort flow is the,

"Essential process underlying the changing size and composition
of the age strata [and] consists of the formation of successive cohorts,

their modification through migration and the gradual reduction and eventual dissolution of each cohort through the death of individual members (Riley and her colleagues, 1972:8)."

3.3 LIFE COURSE PERSPECTIVE

The theory of life-course-perspective analyzes the impact of multiple elements on the ageing phenomenon, which includes surrounding environment, social status, race, sexual orientation, the family set up, education, profession, and free-time (Schuster, Francis Connelly, Alford-Trewn, and Brooks 2003:844-845). Similarly, during this analysis, life-course-perspective considers entire life situations while emphasizing the "life-long of the interaction of person and social context " (Elder 2000:xii). Hence, old age is not a distinctive portion of life determined by time; instead, it is the last stage of life that takes a person from origin to demise (Sadler 2000:203; Hoyt, Whitbeck, & Yoder 1998). Old age can only be understood within the sphere of all life stages, such as childhood, teenage, middle period, and a sum of all, which have impacted a person's entire life (Blaikie 1999; University of Toronto 2003; Settersten 2005).

However, the direction and result of the life-course are understood as an outcome of a minimum of three interlinked effects such as time, history, place (Elder 2000), society (Schulz and Heckhausen 1996; Hechter, Opp, and Wippler 1990:4), and individual preferences (Hareven 1994:437-438). The preferences we make while living in a community at a particular time and our affiliation with community groups and their sub-cultures shape our individual experiences of ageing (Elder 2000:xxiii). As the life-course theory duly understands the significance of cultures and applies it to explain the situations and experiences related to older age, it is constructive to comprehend the overall impact of life's experiences on old age well-being.

Key Theme of Life Course Theory

- Glen Elder (1994) identified four dominant and interrelated themes in the life course approach: interplay of human lives and historical time, the timing of lives, linked or interdependent lives, and human agency in making choices.

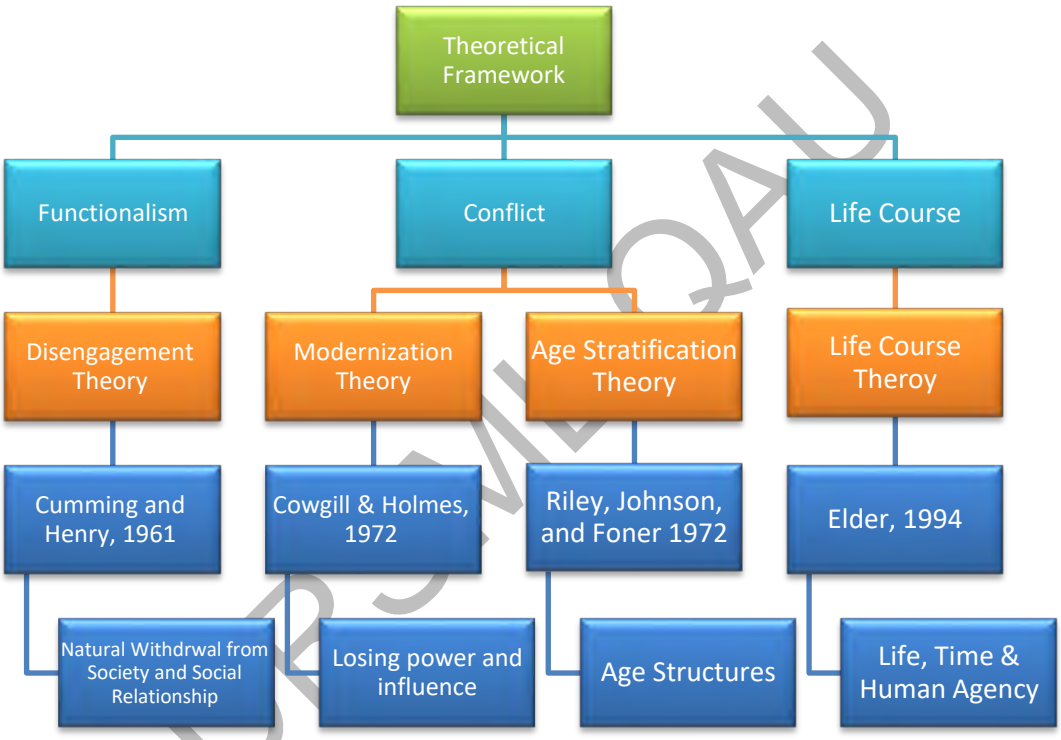


Figure 3.1 Flowchart of Theoretical Framework

Chapter No. 4

CONCEPTUALIZATION AND OPERATIONALIZATION

4.1 CONCEPTUALIZATION

Conceptualization refers to the *concepts* of the area of interest and defining them (following their nature of existence in an authentic setting) as variables or sub-variables of the research analysis. Conceptualization does not intend to present imaginative or realistic definitions in academics but relies upon its description based on how any phenomenon or concept crops up in natural settings. It is also supposed to recognize similarities between courses of action and enlist the reasons that created a differentiation amid prevalent and contemporary actions. Furthermore, conceptualization can be intensified by reviewing theories about a particular concept in literature because it can assist in evaluating the dependent and independent relation of any variable or concept with the other, and the researcher gets to know about more dimensions through the intervening variables of a particular concept. By assembling all probable variables about the area of interest, the researcher can establish his/her interim debate (Schmitter 2018).

Aging has emerged as a global phenomenon, and in developing and developed countries, it is posing very challenging situations. Pakistan is also facing problems in this regard because of altering times. However, in the country's societal structure, the elders are held in high regard, and their caretaking is seen as a familial responsibility. Old age does not have the same meaning across all societies, and the progressing age is not the same for all individuals in society. The various factors that impact the idea of old age are societal roles, life expectancy rate, physical and mental health, and socio-cultural backgrounds. Old age people face socio-economic and psychological problems because of these ever-occurring family and social structure changes.

Pakistan is a country that is on the verge of transition and is termed as an emerging economy. Consequently, industrialization and massive urbanization have brought about several social structure changes. The traditional social structure in Pakistan is supportive of the elderly and ensures that they are taken care of in a joint family system. However, changing family structure towards nuclear family, people are preferring to live with their spouses and children and away from their parents, which is a fundamental change in a societal structure

The area of interest of this research is 'ageing' which refers to a distinctive group of people who are socially excluded at specific ages of their life course. National Service Framework for OPs has categorized the old population into three groups: Entering old age, transitional stage, and a group of frail older people.

1) *Entering old age*: old age is defined in a social context based on which these groups are developed, suggesting that a difference of care must be delivered to age-specific groups of people. People *entering the old age* stage are those either with the age of 50 or 60 in official cases for females whether males with an age of 65 are considered to be entering old age. People at this age are generally not dependent upon others.
2) *Transitional phase:* People transition from healthy or young to fragile or older. It can appear even at entering old age but usually appears in 70-80 years of age.
3) *Frail older people:* People at this stage are more susceptible because any ailment might attack them due to a lack of immunity and other functions. This stage usually becomes visible late in the passage of life (de Haan 2001).

4.1.1 Ageing

In the developed world, 65 years and above is accepted as the definition of the 'elderly' persons. While these are the commonly held definitions for old age, there is agreement about how a person becomes old. While biological age defines and marks the elderly or older adults, it does not necessarily denote all individuals.

Hayflick (1996) cited that the phenomenon of ageing and, ultimately, death is destined and maintained by natural means which commence or terminate the process at any stage. Ageing refers to the process of growing older, while the consequence of ageing could vary from person to person based upon their health (psychological or physical). Apart from a person's senescence, ageing can be indicated through the described indicators of life passage's sequence. Recent analysis also differentiated between young and old elders by defining it through the age structures. It elucidates that people aged 65 and above (till 74) are considered the young elder while people above the age of 75 are those who are the older adults (Victor 2005).

The aging process is dynamic such that people in old age are strained for several assets and face a lot of challenges and problems. Furthermore, certain external or internal factors in old cannot be reversed, such as reduced association or death of close relations and bodily ailments or disorders. All such impacts can be reduced by maintaining social relationships and assistance from the community (Pearlin and Skaff 1995).

A person in old age is recognized based on approved standards about age structures in different societies. Although standards might differ in each society, the developed region has consented

upon age 65 accepted as old age. The calendar thus determines age depending on years and biological changes. However, the impact of ageing can be observed at earlier stages, even before or at 65 years of age, because both determinants are not necessarily functioning analogously as health may be affected by any disorder resulting in early deterioration of the immune system.

Classification based on age is done differently in different regions. It may be classified on the grounds of the functionality of an individual being active in contributing to society or might be based on the officially renowned age of sequestration, which might not be the same for male or female members of society. These variable classifications have influenced old age structures and attributed females as old between the age group of 45-55 while the age group for male members in society that categorize them as 'old' is 55-75 (Thane 1978).

Due to lack of uniformity among societies about categorization based on age, the only point of equal consent regarding old age is when an individual becomes entitled as a pension holder or the time of retirement, which makes him/her considered old. Deliberations in the late 1800s till the median of 1900 enshrined that people aged 60 or 65 and above were included in the older population, but even then, the selection of this age as old age was random (Thane 1978, 1989; Roebuck 1979).

In 1875, implementing the Friendly Society Act, people aged 50 were considered old, which was adopted as a primary standard in Britain. It was irrespective of a person's age when he acquired sequestration (Roebuck 1979). A definition was derived and accepted in the 1980s. It was developed by categorizing people into three groups, and analysis was made according to those

attributes. This anthropological research was conducted in different terrains of Africa. Definition for old age was presented under three attributes which were: Historical course of actions, modification in role with passage of time in society, which put vocation, status, or other attributes (like the capability to reproduce into consideration) and delineated other changes that come out as the time goes on like decreased functional capabilities. Amongst all such characteristics, change in role was thought to effectively define old age rather than analyzing one's life course diachronically because it requires more description of intervening factors (Glascock 1980).

The aging process cannot be controlled, and its dimensions are an amalgamation of biological and social contexts. Age groups are symbols of some derived roles and meanings which vary from society to society. For instance, the role of an older person in our society may differ from that of an older man in other developed regions. The onset of old age for them is from 60-65 years of age, while in developing regions, old age begins when one cannot participate in societal affairs. Thus, social roles may also differ consequently (Gorman 2000). Similarly, no rigid criteria about old age is presented by United Nations, and they mark above the age of 60 as old age (UN 2001).

Whenever the ageing of the population is addressed, it is an attempt to present a change in the age structure of the society's inhabitants towards old age (Demeny and McNicoll 2003). It signifies that there is more population of the ageing individual than that of young ones. Typically, an individual is considered elder at 65, whereas elders are also typified as early or late elders. People aged 65-74 and above 75 are termed early elders and late elders, respectively (Orimo et al. 2006).

The aging phenomenon cannot be reversed because it naturally results in decreased functioning of body organs irrespective of any ailment and other menaces (whether surrounding or living condition etc.). A decrease in body functions might not affect other functions, but they may disrupt body homeostasis, resulting in anxiety. The heart, kidneys, and sensory neurons are more susceptible to old age (Besdeine 2019).

4.1.2 Social Exclusion

Room defined social exclusion in the context of lack of contribution or assimilation and unequal access to authority or power (Room 1995). It is a process that denies the assimilation of people in any societal activity, whether socio-cultural, fiscal, or political (Walker and Walker 1997:8). Social exclusion results from the ambush of several components that puts older people in its swirl or aggravation (Department of Social Security 1999:23).

Many definitions for social exclusion were presented, which stated that people are excluded when they do not take part in commotions of society in an effective manner which is generally not in anyone's control because it is derived from a natural deterioration process (Burchardt 2000:388).

Gordon et al. stated social exclusion in the context of external factors that intervene for old age people in Britain, including insufficient activities, alliance, or social ties with others over time. It is not viewed as a condition or situation but is deemed a 'process' (Gordon et al. 2000:73).

Burchardt (2002) attributed exclusion as a process rather than a condition. He stated that it is a process in which a particular group of people is abandoned. While on the contrary, it extends the

society by the process of inclusion offered to others for their involvement in constructive commotions. It renders included ones with more prejudice, and the marginalized ones are let in deprivations. Exclusion occurs due to the following reasons: because of their belongings or background, or either because they might be willing (but could not manage to sustain for the reason of their subjection to aging) or if they are reluctant to perform commotions are permitted to be marginalized (Burchardt et al. 2002:30,32).

The process of social exclusion results in creating polarities in the society that represent distinct groups with marked inequalities facing discrimination in terms of access, privilege, power, etc. (Economic and Social Research Council 2004). Social exclusion is comparatively more disruptive than poverty because the latter is only affected by a lack of fiscal possessions. However, the former affects and intervenes in all spheres and leaves socially excluded individuals stigmatized as estranged from other members (Duffy 2005).

Exclusion can be typified as *wide exclusion*, *concentrated exclusion,* and *deep exclusion*. Wide exclusion marginalizes a large proportion of people based on few top gears, components, or reasons. Exclusion caused by geographical impediments excludes areas and is referred to as concentrated exclusion. At the same time, marginalized people on numerous bases are stated as deep exclusion, which is derived from multiple grounds (Miliband 2006).

Social exclusion represents a disconnection between people or groups and their society (Commins 2004; Moffatt and Glasgow 2009; Walsh et al. 2016). It consists of multiple aspects that collectively create more hindrances for people resulting in their isolation from other members

(Tsakloglou and Papadopoulos 2002; Vrooman and Hoff 2013). Any aspect of social exclusion can influence other dimensions, affecting numerous aspects and creating a cumulative hindrance in all spheres (Scharf et al. 2005; Heap and Fors 2015). Scottish Executive (2001) also defined it as a hindrance for an individual or faction to frequently act in regular social activities.

Author	Years	Definition
Room 1997	1997	Social exclusion focuses primarily on relational issues - inadequate social participation, lack of social integration, and lack of power.
Brennan et al. 1998	1998	Those people who [are socially excluded] do not have the means, material or otherwise, to participate in social, economic, political, and cultural life.
Power 2000	2000	[Social exclusion is defined as] the inability of our society to keep all groups and individuals within reach of what we expect as a society and the tendency to push vulnerable people into the least popular places.
Sayce 2000	2000	[Social exclusion involves] the interlocking and mutually compounding problems of impairment, discrimination, diminished social role, lack of economic and social participation, and disability. Among the factors at play is lack of status, joblessness, lack of opportunities to establish family, small or non-existing social networks, compounding race and other discriminators, repeated rejection, and consequent restrictions of hope and expectation.
de Haan 2001:28	2001	social exclusion is a theoretical concept, a lens through which people look at reality and not reality itself.
Burchardt et al. 2002	2002	Social exclusion occurs when individuals do not participate in key activities of their society for reasons beyond their control and in which they would like to 'participate.'
Council for the European Union 2003	2003	Social exclusion is a process whereby specific individuals are pushed to the edge of society and prevented from participating fully by their poverty, lack of essential competencies and lifelong learning opportunities, or the result of discrimination. These factors distance them from jobs, income and education opportunities, and social and community networks and activities. They have little access to power and decision-making bodies and thus often feel powerless and unable to control the decisions that affect their day-to-day lives.
UK Social Exclusion Unit	2004	Social exclusion can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime, poor health, and family

2004		breakdown. Governments tried to deal with each social exclusion problem individually in the past. However, there was little success in tackling the complicated links between them or preventing problems from arising in the first place.
Levitas et al. 2007	2007	Social exclusion is a complex and multi-dimensional process. It involves the denial of resources, rights, goods, and services and the inability to participate in the normal relationships and activities available to most people in a society, whether in economic, social, cultural, or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole.
Popay et al. 2008 (WHO SEKN Report)	2008	Exclusion consists of dynamic, multi-dimensional processes driven by unequal power relationships. These interact across cultural, economic, political, and social dimensions at different levels, including individuals, groups, households, communities, countries, and global regions. Exclusionary processes contribute to health inequalities by creating a continuum of inclusion/exclusion. This continuum is characterized by an unjust distribution of resources and unequal capabilities and rights required to: create the conditions necessary for entire populations to meet and exceed basic needs, enable participatory and cohesive social systems, value diversity, guarantee peace and human rights, sustain environmental systems

4.2 OPERATIONALIZATION

4.2.1 Ageing

A more elaborative foundation for old age was given by Glascock and Feinman (1980) in anthropological research, which assisted in developing three categories that intervene in the last period of an individual's life. These aspects included chronological events, alterations to a person's role or identity, and decreased functions that adversely affect aging and add more to the sufferings. The estimations were made on old age people in Africa, which suggested that among all intervening prospects, the role of the individual is affected more by modifications in status and vocation, which are the factors that influence aging most. There are several physical and socially developed indicators of aging. Sometimes, the social determinants of aging might appear distinctly

before physical determinants of the very process, i.e., they might no longer go parallel, except in exceptional cases (WHO 2002c).

Ageing is a phenomenon that cannot be altered or is inescapable. Its indicators include socio-economic and physical components. Bodily, societal, and psychological components are three interconnected factors determining old age and its impact. The sequence from birth to death was constructed socially. Each stage is affected by certain extraneous variables that come into play with distinct concepts about the passage of life, including aging (Mishra 2004).

Age structure comprises just integers that represent an ongoing process of growth. The critical determinant that could assist in this regard is how a person stops "getting" older but has "become" older. Responding to such queries is very relative (refers to the concept of relativism), which could intervene with or give a mirror image of their own cultural beliefs. It (response) could also depend upon gender, experience, etc. There could also exist relativist beliefs on the macro-level, for case in point: old age following China starts from 50 while French is of the view that it commences after the age of 70 (i.e., 71). At the same time, the UN has suggested an intermediary numeral of 60 years as old age, unlike World Health Organization. As per the estimate of old age by WHO, old age starts from 50 years (Williams 2018).

The researcher took intermediary numerals from all suggested integers of old age in literature and considered the age of 60 and above as old age for the present study. This helped to identify the exact population of age 60 years and above. Moreover, based on this sampling frame, a statistically calculated sample was approached to collect data for the present research.

4.2.2 Social Exclusion

Social Exclusion stemming from ageing is a phenomenon that is not easy to explain: firstly, there are contradicting stats about it, and it is caused by several independent and external factors that influence this process (Van Regenmortel et al. 2016); secondly, the dependent nature of exclusion and its functional nature as well the variation of it across ethnic groups and geographical areas gives complexity to the concept (Room 1999; Van Regenmortel et al. 2016; Walsh et al. 2016). Van Regenmortel et al. (2016) has given different perspectives on this phenomenon of social exclusion, and these have been used for various analyses. The chief dimensions of social exclusion and their sub-dimensions used to develop research tools based on various themes are presented in Figure 4.1. One of the dimensions mentioned by Van Regenmortel et al. (2017), Ageism, is excluded from the present study. Moreover, unlike Barnes et al. (2006), Kneale (2012), and Scharf et al. (2005a), mental and bodily capabilities will be analyzed as indicators of exclusion rather than considering it as its aspect. Besides, the functioning of old age people as personnel would not be considered another determinant of social exclusion because research in the region of Belgium showed that a relatively more minor number of people, i.e., about 4.7% with the age of 65 and above, were found at the workplace. The reason could be their deliberate withdrawal due to decreased functional ability (Eurostat 2015). Van Regenmortel et al. (2016) also pointed to digital exclusion of people based on common enlisted determinants of marginalization.

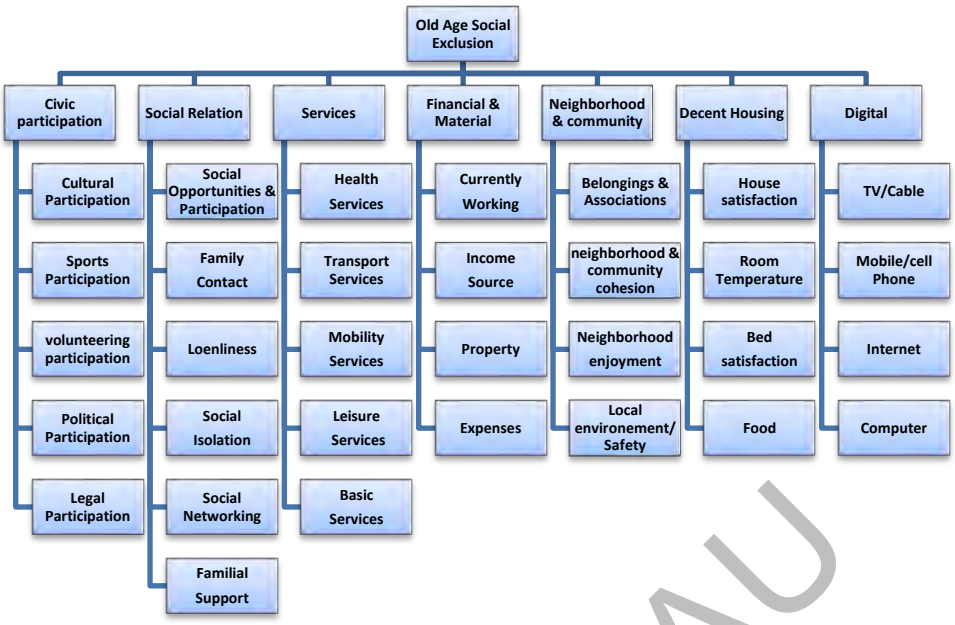


Figure 4.1 Old Age Social Exclusion (OASE)[8]

Social exclusion has different manifestations for all distinct cultures; however, some attributes are similar across regions and societies. The relative nature of social exclusion has to be recognized (Atkinson 1998) to analyze and understand the factors behind exclusion. The primary reasons for social exclusion faced by old age people can be forecasted based on the current trends. In order to understand the marginalization that they face, one can analyze the experiences of the senior citizens as well (Scharf and Keating 2012). The second uniform element of social exclusion is experienced at any institution, obscuring marginalization (Atkinson 1998). The institute might make it difficult for people to incorporate themselves into the activities and thereby create a situation where they face social exclusion.

[8]Figure was developed by using the seven dimensions from concepts of S. Van Regenmortel et al. (2017). Accumulation of disadvantages: prevalence and categories of old-age social exclusion in Belgium. Soc Indic Res DOI 10.1007/s11205-017-1817-8.

Consequently, old age inhabitants are cut off from participation in societal activities. The third common feature of exclusion is its dynamic nature that patterns of exclusion changes with the progression of age with time. Instead, an individual's marginalization experience may also differ accordingly (Scharf 2015). Last and most important, age-based social exclusion is multi-faceted in every society or region (Be'land 2007; Billette and Lavoie 2010; Levitas et al. 2007; Scharf and Keating 2012).

Diversified aspects of exclusion can be explained by excluding people of particular age groups in any sphere of life; Such as societal refers to social ties or affiliations. Political leads to a lack of access to power manipulation or manifestation and violation of rights. Financial refers to decreased or halted contribution to commotions or services, making the older population more dependent or cultural (Walker and Walker 1997). Due to the multi-faceted exposures of exclusion, previous studies also analyzed the marginalization of older populations in several spheres of influence (Grenier and Guberman 2009; Walsh et al. 2012; Hrast et al. 2013).

The negative effect of aging includes a decline in health (bodily and psychological) (Jokela et al. 2013; Kleiber and Nimrod 2009), less access to power and sovereignty (Kneale 2012), and other losses in the form of death of an intimate spouse or any friend or kin (Becker et al. 2009; Rook 2009). These aspects are further intimidating factors to older adults, leading them to marginalization. Furthermore, ageism (Allan et al. 2014) is another threat to exclusion accompanied by changing demography and alteration in the matrimonial state affected by loss (Gray et al. 2011).

Many research studies have been carried out on social exclusion, but numeric analysis of its dimensions remain neglected (Pirani 2013; Van Regenmortel et al. 2016). It can be determined by different units of analysis, i.e., at the individual level or collectively at the group level with specific reference to any region (Coumans and Schmeets 2014; Chakravarty and D'Ambrosio 2006). For many researchers, including Pirani (2013), when an individual is considered the unit of analysis, the exclusion is generally measured for the entire age structure. However, many researchers believe that it should be determined distinctly for different stages of life because every stage in life is influenced by different external factors (Scutella and Wilkins 2010; Whelan and Maître 2008). Exclusion is omnipresent at the older age due to declining physical and mental functions (Becker et al. 2009). Thus, access to specific amenities gets more essential for the older population, including assistance or amenity for their health, conveyance, and relationship with others (Kneale 2012; Scharf et al. 2005a).

Moreover, the place they reside must be decent (Phillipson et al. 1999; Löfqvist et al. 2013). Old age people would have affiliation or familiarity with people in their surroundings (Buffel et al. 2012) to avoid being alone. With time, the older population becomes more reliant, and their movements also shrink (Fortuijn et al. 2006; Kneale 2012).

Digitalization is a huge concern of today's world. Better implementation of ICT (Information and Communication technology) projects can assist the old age population in several ways, like introducing many amenities by acquiring information about the surrounding (Larsson et al. 2013). It would also help them leave behind depressive feelings (Cotten et al. 2013). Virtualization and

new means of getting awareness can provide older adults with support and sustainability in their social lives (Larsson et al. 2013; Ofei-Dodoo et al. 2015; Nimrod, 2014).

Operationalization refers to how the researcher will deal with the area of interest by illustrating sub-variables and enlisting indicators and sub-indicators. Furthermore, it brings into light the concepts behind the subject of interest and permits the researcher to evaluate numeric and non-numeric values at the operationalization stage. This research study also accounts for all concepts or aspects of exclusion [as mentioned in the above figure]. All concepts were developed based on analyzed probable variables, including all aspects of exclusion, whether exclusion in the wake of material or non-material assets, social, cultural, or political sphere. Exclusion from municipal activities results in descanting older population from sports and other healthy commotions.

Furthermore, they face hindrances in reaching amenities in healthcare systems and transportation. They are excluded from social bonds or relationships that negatively affect their emotions. The research assessment included questions about their relationship with neighborhood people based upon such aspects. To recognize and analyze the financial assets of respondents, questions regarding their family income were also included. Also, they were asked if they manage their own expense or whether they are still participating in generating income for the sustainability of their livelihood and sources of social security like saving or pension. Furthermore, the nature of decent habitat is also considered, and amenities at their house (including questions about whether the environment at home is favorable for them or not) are observed or asked. The researcher also added questions about the location of the bed, cleanliness of rooms and caretaking, the quantity of food provided by their family, and the source of drinking water. All above and previously described

aspects or dimensions were analyzed to identify whether the respondents are subjected to the exclusion or not and at what intensity they are suffering from exclusion.

Chapter No. 5

METHODOLOGY

Figure 5.1 Research Design

5.1 DESCRIPTIVE RESEARCH METHODOLOGY

Research methodology refers to the researcher's pragmatics to accumulate data about the area of interest. The researcher opts for descriptive research methodology to figure out the social exclusion phenomenon of the aged 60 years and above. Descriptive Methodology is used because researcher want to describe individuals, groups, activities, events, or situations appropriate for descriptive research. Descriptive research aims to generate what Clifford Geertz (1973:5) referred to as "thick descriptions" of social life (those that provide details, meanings, and context), typically from the perspective of the people living it. Researchers may turn to rigorous observation or related methods

of the interview in order to document how things are experienced to the phenomenon under investigation. In the present research, the researcher preferred described Methodology because dimensions of social exclusion were not described before in Pakistan. However, these areas of interest were being studied in developed regions to find effective ways for the active participation and inclusion of the older population. Research is the mirror image of its time that helps trace contemporary happenings and helps in policymaking also. However, this subject was somewhat neglected at the state level due to which relevant policies, effective behaviors, and investments by stakeholders were lacking.

5.2 RESEARCH APPROACH

A quantitative deductive research approach was employed for the present study. Quantitative research is characterized by deductive approaches to the research process aimed at proving, disproving, or lending credence to existing theories. This type of research involves measuring and testing relationships between variables to reveal patterns, correlations, or causal relationships. Researchers may employ linear data collection and analysis methods that result in statistical data. The values underlying quantitative research include neutrality, objectivity, and the acquisition of a sizeable scope of knowledge (e.g., a statistical overview from a large sample). This approach is generally appropriate when the primary purpose is to explain or evaluate, as argued by Leavy (2017:9).

5.3 RESEARCH METHOD

5.3.1 Interviews

The interview is the direct method of collecting data and permits a distinct mode of communication with the respondents, which helps to illustrate verbally and through non-verbal behavior or

expression of respondents. An interview helps illustrate the indulgence or perceptive about the experience of one's own life, which helps the researcher validate and intensify the subject of interest. The interview is an elementary means or approach to conducting any inquisition. Interviews facilitate recording the past by collecting or documenting the description of individuals about any subject or happening. The interview reflects the "lived experience" or perception that respondents have derived from any experience (Seidman 2006). The researchers widely use the interview method during their fieldwork because it provides the researcher with an in-depth analysis and validation by collecting the description in form responses given by the potential or relevant respondents (Goldbart and Hustler 2005).

5.4 RESEARCH TOOL

5.4.1 Interview Schedule

The interview schedule is used to collect data through the interview method. It is used mainly while conducting an interview that is structured in nature. Thus, an interview schedule is designed to cover all probable dimensions through that interview. The questions are arranged systematically or in a sequence that the interviewer adopts. The questions in the interview schedule are generally exact and are asked verbally in identical comportment by the researcher or interviewer (Michael et al. 2004).

An interview schedule comprising of structured questions was developed for data collection. The structured questions are close-ended with multiple entitled options that the interviewee selects during an interview. After the pilot testing under similar environments and conditions, an interview

schedule was modified after the pilot testing. Pre-test also helps to add more questions according to the actual situation of the field.

5.5 SAMPLING

Sampling refers to a systematic method of obtaining a population sub-set upon which inferences could be made and then generalized over the whole population. The reason behind obtaining a representative unit of the whole population is that the research cannot be conducted upon the whole population in a short period. Moreover, some populations are substantial, or the area of interest is so widespread that it gets difficult for researchers to trace every individual because it would demand more time and money. Thus, specific methods were developed to obtain a sample or subset of the population by employing statistical methods (Proctor 2003). Simple random sampling (probability sampling) was practiced for the present study. At age 60 years and above, every person had an equal chance to be selected as a study respondent. Moreover, every household with at least one person aged 60 years and above was our target household. Furthermore, the same parameter was considered for respondent selection in terms of inclusion criteria.

5.5.1 Sample

The locale population is drawn from the census of Pakistan 2017 to calculate a statically proven sample for the present research. According to the Pakistan Bureau of Statistics total population of *Sohan* village (*Dehati*) is 47510, and households were 7635. The percentage of the old-age rural population among the total population of Pakistan is 6.77%[9]. By using confidence interval 95%,

9 https://ageingasia.org/ageing-population-pakistan/ access date: 28-12-2020

error margin 5%, population 47510 (HH-7635) and older population proportion 6.77%, the calculated sample is 97.

The sample calculation formula is $n = N * X/(X + N - 1)$

n=Sample

N=Population

And $$X = Z_{\frac{\propto^2}{2}} * \frac{p(1-p)}{MOE^2}$$

$Z_{\frac{\propto}{2}}$ = 1.96,

p = .0677

$1 - p$=0.9323

MOE = 0.05

$$\text{So, } n = N * X/(X + N - 1)$$

$$n = 47510 * 97/(97 + 47510 - 1),$$

$$n = 97$$

5.6 LOCALE OF STUDY

Sohan village was selected as the locale of the present research. It is situated in the terrain of Islamabad (capital of Pakistan) and is also renowned as the union council. Its geological direction comprises and extends to 73° 6' 0" to the East and 33° 39' 0" to the North. *Sohan* is where more cattle ranches are located, including BizWhiz Livestock Private Limited Farms. It is situated near the territory of Faizabad.

Along with the native inhabitants, much ethnic variation prevails in *Sohan*. This region is provided with many facilities, including infrastructure for transportation to other cities and other health amenities for its inhabitants. The literacy rate is also quite high, and the population also signifies

the presence and prevalence of the business community. In north of *Sohan*, *Mohra Aswal*, in south *Shakriyal*, in east *Naala Korang* and in west *Dhok Kala Khan* is located.

For the last five generations, oral information about the locale of study was collected from Mr. Malik Rafique, a permanent resident of Sohan. He told us that *Sohan* consists of four major *baradari's* that includes "*Raja*," "*Malik (Chaudhry: ehl-e-tashi and having current numberdar with stamp)*," "*Malik (ehl-e-hadith)*," and "*Numberdar (without stamp)*," who have been living here for centuries. After Islamabad turned into the federal capital of Pakistan, people from other cities and provinces migrated here for jobs and better facilities. The number of households mainly occupied by *Chaudhry* and *Malik Biradari* of *Sohan* followed by *Numberdar* at number three. The lower castes of *Sohan* include *Massali*, *Lohar*, *Mochi*, and *Nai*, and they almost occupied 400 households in the community. Other than these locals of *Sohan*, the population consisted of Pathan migrants, migrants from GB, AJK, Punjab, Baluchistan (very few in numbers), Sindh, and a few households are from Afghanistan. Pathan from Quetta and KP occupied almost 1000 households. A significant population of *Sohan* practiced Islam as a religion while households of the Christian community were also there, followed by nomad families who stayed and moved off and on. *Sunni* religious sects mainly occupied the community; *Deoband* is second in number, *Ahl-e-Wahab* is third, and Ahl-e-Tashio is fourth as per their households. Two Madrassas of the *Sunni* sect, one of *Deoband* and two of *Ahl-e-Wahab,* are also situated in the community.

Figure 5.2 Map of Village Sohan, Islamabad

There is one primary public school for boys and one middle public school for girls, followed by fourteen private schools of different levels in the community. Tube-well is a significant drinking water source in the community and water filtration point of WASA. Four graveyards, one post office, one bank, water and gas supply, landline telephone, internet, mobile phone, tractors, and air conditioning facilities are available in *Sohan*. Medical or health facilities include one dispensary, one local Hakeem, one certified Hakeem, five allopathic clinics, one homeopathic government clinic, two quacks, and 2 *Pirs*/shrines are utilized by the community. *Sohan* also adds

agricultural contribution in terms of Wheat, Maize, fodder, and especially irrigation of vegetables around the calendar.

Sohan is a village according to the distribution of land by the Capital Development Authority (CDA), Islamabad. Nevertheless, according to the availability of facilities, access to facilities is like a semi-urban area. Keeping in view the distribution of CDA, one thing is essential to mention here. In terms of village or characteristics belonging to a rural community, there is a robust family/caste/baradari system. They are the descendants of their forefathers and living here for centuries. Agriculture is their primary work area, and they are very influential in Islamabad's local politics. They mostly favor Khokhar's of Islamabad for National Assembly. The fights between these influential local families are another feature of the community.

5.7 UNITS OF ANALYSIS

Among several units of analysis, the study is 'individual-centered,' as the research aims to address the population of old age, so the research was carried out at the individual level. The research was centered on collecting information through interviews. Unit of analysis specifies a distinct level upon which the research had been conducted. The level could be any, individual or group, or it could also be any distinct faction or institute, etc.

5.8 DATA MANAGEMENT

5.8.1 Data Collection

As described above, the data was collected using the survey method (face-to-face interviews). The researcher did not make any financial reimbursement to any participant. Before each interview,

the researcher obtained acquiescence from respondents before initiating data collection. Although the interviews were primarily conducted in private, some included friends and family members. Field visits were started six months before actual face-to-face data collection activities to build rapport and gain community trust with the help of local influential, including political agents, religious clerks, community doctors, landlords, *Numberdar,* and *Maliks*' of community. Field visits were done during COVID-19 full lockdowns and smart lockdowns to have meetings with influential community people to avoid larger gatherings. Data collection was done between 01-Jan-2021 to 30-April-2021.

An interview schedule that consisted of 5 sections was developed for data collection. Sections were divided alphabetically, starting from section A up to section E. After the basic introduction of the study, a written consent statement was added. Section A covered basic demographic information about study respondents, and section B was designed to collect opinions on their food patterns. Section C was designed to map their health status, asking about their overall health status. For the prevalence of any chronic disease, medication practices, healthcare expenses, visit health facilities and care providers followed by the familial attitude toward older person health status. Section D was designed to get data about their socio-cultural and psychological profile. This section covers older persons' social, cultural, and political participation. Section E asked about the membership status of study respondents. It was ensured that questions were added on each dimension of social exclusion in these five sections.

5.8.2 Data Coding and Editing

The study focuses upon the ageing related social exclusion in addition to the overall wellbeing of older persons. After data collection, the researcher undertook field data editing and desk editing to remove the error from the data. After data editing, a code plan or codebook was developed to start data entry.

5.8.3 Data Entry, Cleaning, and Analysis

Data entry was completed using CSPro software, and analysis of the collected data was completed on SPSS software. After importing data in SPSS, comprehensive efforts were made to remove data entry errors and establish relationships between variables. Furthermore, SPSS and STATA (where required) were used for more advanced analysis. Data analysis is based on two main sections, i-descriptive and ii-inferential. Advanced statistical tests were applied to figure out the relationship between ageing and social exclusion.

5.9 MEASUREMENT OF SOCIAL EXCLUSION

The perception of social exclusion remains a process and not a fixed condition. It is normal social behavior since it pertains to everyday activities in a particular society (Percy-Smith 2000; Silver and Miller 2003; Walsh et al. 2017). It is also a multidimensional concept since the events from which an individual can face exclusion stem from various life domains (Burchardt et al. 2002).

Therefore, social exclusion is a multidimensional and advancing process that causes social breach, separating individuals from groups and collective social activities, where the previously used to participate and that are generally the norms of society. In communities where social exclusion has

permeated, weak networking limits access to information about social events. Therefore, in social gerontology, there is a requirement for research to establish a connection between social exclusion and aging (Balamurugan 2014).

The concept and definition of social exclusion have taken shape over several years and associated with it, the famous and accepted ways of measuring social exclusion have also developed. Because of the dynamic nature of social exclusion, measuring it also involves calculating across a vast number of resources where individuals are associated, although different researchers may quantify different fields. Different researchers elect different fields for measuring social exclusion, and experimental work can either be done in a static and time-barred manner or a dynamic manner in the longitudinal context (Barnes 2005; Kneale 2012).

Different research studies have recognized that age is not a factor causing social exclusion, but a significant connection exists between age and social exclusion (Agulnik, Burchardt, and Evans 2002). Barnes and colleagues' (2006) study of social exclusion affecting the elderly examines seven dimensions of social exclusion. If the individuals are faced with exclusion in more than three-dimension exclusions, they are termed as facing multiple exclusions. The researchers established a minimum criterion for each chosen dimension (for example, if an individual is excluded from three primary social relationships such as with family and friends, he is considered to be facing exclusion in this field). Establishing minimum markers is an accepted method of measuring social exclusion in research and employed by Burchardt et al. (1999) and others (Kneale 2012).

UK's Labour Government presented its paper Opportunity for all (DSS 1998), in which it presented its commitment to measuring social exclusion based on specific quantitative social indicators. Targeting three main population groups – children and young people, people of working age, and older people –is considered the first main official attempt to quantify social exclusion. Social exclusion parameters concentrated on education (academic test scores, or school exclusions), health (weakness at birth), family low financial status, and youth unemployment for the first group. The parameters focused on joblessness for the second group, including low paid jobs, drug abuse, and homelessness. For the third group, the parameters centered on poverty (particularly because of reliance on the state pension and fuel poverty), healthcare and life expectancy, fear of criminality, poor or lack of housing, and lack of freedom (Aldridge et al. 2011; Kneale 2012).

Scutella, Wilkins, and Horn (2009:29) presented a range of exclusion criteria based on five levels:

1. Not excluded (i.e., no domain of exclusion at any point in time)
2. At the risk of exclusion (i.e., one or multiple domains of disadvantage at one point in time)
3. Marginally excluded (i.e., one or multiple domains of exclusion at various points in time)
4. At the risk of chronic exclusion (i.e., several domains of disadvantage at various times.
5. Chronically excluded (i.e., multiple domains of disadvantage and persistently excluded).

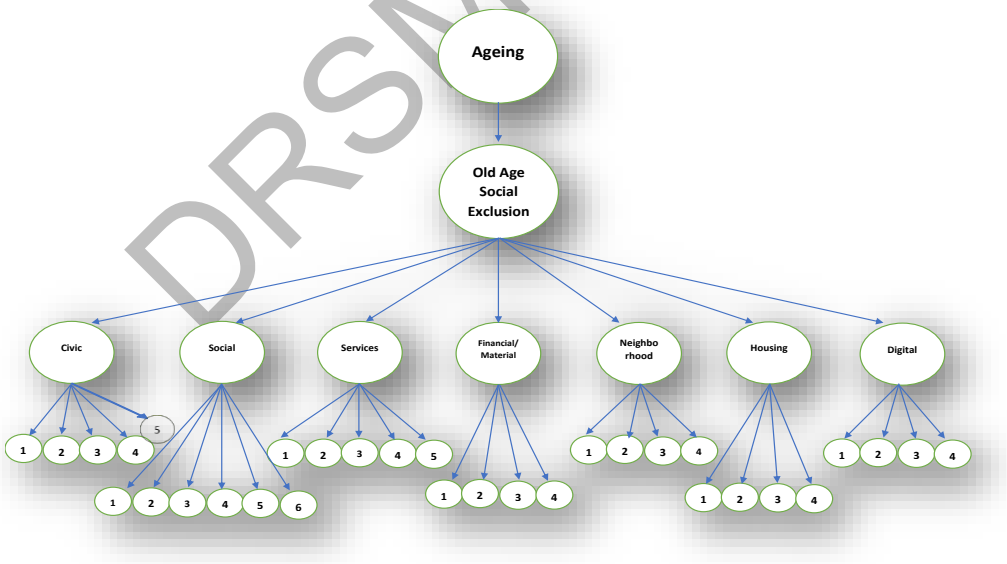
Poggi (2007), on the other hand, only categorizes the degree of social exclusion into three broad categories:

1. Not excluded
2. Excluded (defined as being deprived of two or more aspects of relevant functioning)

3. Persistently excluded (i.e., experiencing exclusion in subsequent years or for multiple spells) (Miranti and Yu 2015).

In the case of the present study, the categories to measure the degree of social exclusion are:

0. Insignificant = If all responses are in **"Yes"** to participation
1. Minor = If one response is in **"No"** to participation
2. Moderate = If two responses are in **"No"** to participation
3. Major = If three responses are in **"No"** to participation
4. Severe = If four and above responses are in **"No"** to participation



Step-1: Social Exclusion = Dimension

Step-2**:** Social Exclusion = Dimension [Sub-dimensions]

Social Exclusion = Dimensions [[1]Civic + [2]Social Relation + [3]Services +

[4]Financial/material + [5]Neighborhood/community + [6]Decent housing + [7]Digital]

Step-3: Social Exclusion = Dimension [Sub-dimensions (Questions)]

Author	**Area**
Percy-Smith 2000 Silver and Miller 2003 Walsh et al. 2017	Social exclusion is not a fixed condition
Burchardt et al. 2002	A multidimensional concept based on life domains
Agulnik, Burchardt, and Evans 2002	Age and social exclusion are significantly associated
Barnes 2005 Kneale 2012	The measurement process of social exclusion is based on many years of development due to its dynamic nature.
Barnes et al. 2006	Examines seven dimensions of social exclusion, and if the individuals are seen to be facing exclusion in more than three-dimension exclusions, they are termed as facing multiple exclusions.
DSS 1998 Aldridge et al. 2011 Kneale 2012	First main official attempt to quantify social exclusion in the UK social exclusion among children and young, working people and older population. For elder's; the parameters centered on 1. poverty (mainly because of reliance on the state pension and from fuel poverty), 2. healthcare and life expectancy, 3. fear of criminality, 4. poor or lack of housing, 5. lack of freedom
Poggi 2007 Miranti and Yu 2015	4. Not excluded 5. Excluded (defined as being deprived of two or more aspects of relevant functioning) 6. Persistently excluded (i.e., experiencing exclusion in subsequent years or for multiple spells)
Scutella, Wilkins, and Horn, 2009	6. Not excluded (i.e., no domain of exclusion at any point in time) 7. At the risk of exclusion (i.e., one or multiple domains of disadvantage at one point in time) 8. Marginally excluded (i.e., one or multiple domains of exclusion at various points in time) 9. At the risk of chronic exclusion (i.e., several domains of disadvantage at various times. 10. chronically excluded (i.e., multiple domains of disadvantage and persistently excluded).
For present research	5. Insignificant (If all responses are in **"Yes"** to participation) 6. Minor (If one response is in **"No"** to participation) 7. Moderate (If two responses are in **"No"** to participation) 8. Major (If three responses are in **"No"** to participation) 9. Severe (If four and above responses are in **"No"** to participation)

5.10 ETHICAL STATEMENT

A researcher's ethical conduct at a personal and professional level while conducting research has drawn significant attention, particularly in response to people's heightened accountability demands (Haggerty, 2004). The foundation of ethical research is 'informed consent (Denzin & Lincoln, 2011). Respondents of the study were provided sufficient information about the research, and explicit verbal consent was obtained prior to the interviews. The study sample subjects were briefed about their right to access information and withdraw from the research at any point.

However, the informed consent comprised of the following explanations:

a) The introduction of the researcher
b) The use and purpose of research and data collection
c) The outcome of the research
d) The time and response commitment required from OPs was also explained to them.

The confidentiality of the data was also confirmed to them.

Chapter 6

RESULTS AND ANALYSIS

This chapter provides an overview of the results of this research in the form of tables, graphs, and charts. This chapter is divided into two major sections:

i. Descriptive analysis of all demographic indicators along with indicators of dimensions of social exclusion.

ii. Inferential analysis of the data, which covers cross-tabulations of research mainly with age distribution of respondents.

Along with few correlations analysis was also performed to explore the relationships. After that, to accept or reject our study hypotheses, linear regression model was implemented in case of dimension of social exclusion with old age separately. And for age and dimensions of social exclusion, multilinear regression analysis was run to explore the relation between one independent and seven dependent variables of study.

6.1 DESCRIPTIVE ANALYSIS OF RESEARCH

Present section highlights the description of socio-economic and demographic explanation of the sample, followed by the description of data set related to sub-dimensions of social exclusion and related indicators.

6.1.1 Socio-Economic and Demographic Background

Table 6.1 Age, Gender and Academic Qualification

		Frequency	Percent
Age Categories			
	60-64	36	37.1
	65-69	25	25.8
	70-74	18	18.6
	75-79	8	8.2
	80 and above	10	10.3
Gender Distribution			
	Male	64	66.0
	Female	33	34.0
Academic Qualification			
	Illiterate	37	38.1
	Primary	17	17.5
	Secondary	14	14.4
	Matriculation	19	19.6
	Intermediate	6	6.2
	Bachelors	1	1.0
	Masters	3	3.1

The table 6.1 represents the distribution of older persons into three indicators which include age, gender and qualification. Data of age was initially collected openly then converted into age groups. Percentiles reveal that 37.1 percent of the sample was in age group 60-64 years, while rest 62.9 percent of the OPs were older than 64 years. Male sample was 66.0 percent and female representation was 34.0 percent of the sample. Data of qualification shows that only 3 percent of elders have the masters' level of education while on the other hand 38.1 percent OPs have no education. Rest of the OPs, having education till primary level composed around 17.5 percent, and 14.4 percent had secondary level, matriculation level education was gained by 19.6 percent and OPs having intermediate level of education was 6.2 percent.

Table 6.2 Marital Status, Living with Whom and Family Type

	Frequency	Percent
Marital Status of Respondents		
Unmarried	1	1.0
Married	68	70.1
Widow/widower	24	24.7
Divorced	3	3.1
Separated	1	1.0
Living with Whom		
Living with Family (Spouse and kids)	62	63.9
Living Alone	7	7.2
Living with Son	25	25.8
Living with a relative	3	3.1
Type of Family		
Nuclear	8	8.2
Joint	64	66.0
Joint extended	18	18.6
Alone	7	7.2

It is important to know the lifestyle of OPs to better understand their life experiences along with their current socio-cultural and political participation in the society. Data of table 6.2 represents the OPs' marital status, with whom they are sharing their lives and what is the family type that they are living with. Data shows that most of the OPs, around 70.1 percent of them were currently married. The second highest percentile was reported in the category of widowhood and that is 24.7 percent. Unmarried, divorced and separated OPs were also part of present research. Followed by the marital status, data in the table explains with whom the participants of present study were living. OPs sharing their lives with families [spouse, children, grandchildren] were 63.9 percent of the sample. Few exceptions were also recorded where OPs were living along at present stage of their lives [7.2%]. 25.8 percent were recorded as living with their son, and OPs living with relatives were also interviewed. In 66.0 percent cases, OPs were living in joint family type and in 18.6 percent cases elders were living their lives in joint, extended family setup.

Table 6.3 Number of Children and Dependent girls

		Frequency	Percent
Total Children			
	0	3	3.1
	1-2	11	11.3
	3-4	35	36.1
	5-6	23	23.7
	7 and above	25	25.8
Dependent Daughters			
	1	14	14.4
	2	6	6.2
	4	1	1

Data of above table 6.3, shows total number of children along with currently dependent daughters of older persons. Surprisingly, three OPs have no children while 25.8 percent respondents were recorded as having 7 or more children. Maximum percentage is observed in Ops having 3-4 children and that is 36.1 percent. It feels like additional stress or cause of depression if someone has any dependent daughter in this phase of life and other socio-cultural stereotypes add more fuel to the situation for OPs. In present study, 14.4 percent of the sample still have one daughter dependent on her father. 6.2 percent reported they have two dependent daughters till date.

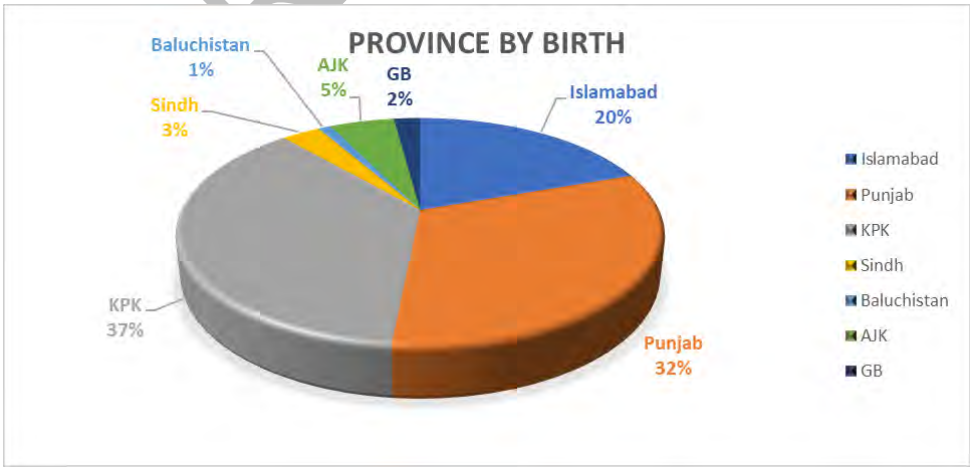


Figure 6. 1 Province by birth

Figure 6.1 explains the provincial background of our study respondents. Islamabad's was recorded at 20 percent, Punjab's OPs were 32 percent, KP province was reported as having 37 percent and the rest of the cases are from Sindh, Baluchistan, AJK, and GB.

Table 6.4 Mode of Living, Number of Person in Home

		Frequency	Percent
Mode of Living			
	Own house	58	59.8
	Rented house	30	30.9
	Hired house	3	3.1
	Others	6	6.2
Persons Living in this Home			
	Only me	7	7.2
	2 – 4	16	16.5
	5 – 7	40	41.2
	8 and above	34	35.1
Access to Facilities (N=97)			
	TV	73	75.26
	Mobile/Cell Phone	71	73.2
	Internet	15	15.46
	Computer/Laptop	5	5.15
	Motorcycle	19	19.59
	Car	11	11.34
	Heater	57	58.76
	Fan	94	96.91
	AC	9	9.28

Data of present table [6.4] gives answer to two basic questions: mode of living and how many people are living in this house. Own houses were reported by 59.8 percent of study respondents, rented houses were recorded in 30.9 percent cases, houses hired by the family or son were 3.1 percent and living with relatives, living in shop, living at dairy farm was also observed. Number of persons sharing their residence reveals that in 16.5 percent cases, numbers were 2- 4 while in 41.2 percent cases, numbers were recorded as 5-7 persons. Data further shows the access of OPs to some general household facilities. In case of TV, 75.26 percent OPs reported their access, and

for mobile/cell phone the access was recorded at 73.2 percent. Laptop/computer users among older persons were only 5.15 percent, as reported in present research. Additionally, access to internet, motorcycle, car, heater, fan, and AC was also recorded.

Table 6.5 Family Income & Income form OPs Current Job

Income		Frequency	Percent
Monthly Family Income			
	Don't Know	21	21.6
	< 10000	5	5.2
	10000-20000	17	17.5
	20001-30000	14	14.4
	30001-40000	13	13.4
	40001-50000	5	5.2
	50001-60000	6	6.1
	60001-70000	3	3.1
	70000 above	13	13.5
Income from Current Job			
	NA	76	78.4
	< 5000	3	3.1
	5001-10000	5	5.2
	10001-20000	7	7.2
	20001-30000	2	2.1
	30001-40000	2	2.1
	40001 and above	2	2.1

Family income is also an important indicator of healthier family lifestyle that also depicts availability of the notorious food and quality food supply for the family members. It also influenced the healthcare behavior of family to prevent prevalence or intensity of different diseases. Above data reveals that 21.6 percent of the sample do not know about their family income and among them, mainly females do not know. Among the sample 17.5 OPs reported that their family income was between 10000-20000 PKR, 14.4 percent argued in favor of 20001-30000 PKR and 13.5 percent of the sample reported their monthly income was above 70000 PKR.

Next section of the table reveals two different results; one is whether they are working at the time of interview and if they are working then what is their current salary. Among 97 older persons, 76 were not currently working.

Table 6.6 Sources of Income & Expenses Contribution

		Frequency	Percent
Any other Source of Income			
	No	50	51.5
	Savings	3	3.1
	Property	1	1.0
	Agriculture	12	12.4
	Pension	26	26.8
	Remittances	3	3.1
	Zakat	2	2.1
Contribution in Family Expenses			
	Yes	48	49.5
	No	2	2.1
	NA	47	48.5

In continuation with the previous table, data of above table 00 presents that OPs have any other source of income. Previous data tells us 78 percent of OPs do not have any earning opportunities while present table explained that 51.5 percent of the sample reported as not having any other source of income. Other sources of income recorded in this research were, savings, income from property, income from agriculture, pensions, remittances, and Zakat. Pension is reported by 26.8 percent of the sample. What you earn, did you spend it on your family or not. Older persons who reported as contributing to family expenses, is observed in 49.5 percent cases, almost half of the sample.

Table 6.7 Age: Start Earning & Major Profession

Age & Profession		Frequency	Percent
Age When Start Earning [N=97]			
	10-14	13	13.4
	15-19	33	34.02
	20-24	28	28.87
	25+	6	6.12
	Not Applicable	17	17.53
Major Profession During Life			
	Daily Wager	21	21.6
	Farmer/livestock	11	11.3
	Self-employed/business	5	5.2
	Govt. Employee	25	25.8
	Private Employee	16	16.5
	Oversees Employee	2	2.1
	Housewife	17	17.5

In continuation with economic profile of OPs, above table 6.7 explains two areas of economic profile. One is "age when started earning" and second is "what was your major profession" in your life. To explain, five responses were kept in age groups, including "not applicable". First age group 10-14 years recorded 13.4 percent cases. Majority of the respondents start earning between the age group 15-19 years and the percentage is 34.02 and "not applicable" is reported by female sample of the study who never worked during their life. Two dominant percentages of the sample in "major profession during life" were "daily wagers" and "government employees". Farming, self-employed, private employment and overseas employment was also recorded in present study.

After basic demographic and economic indicators, table 6.8 explained self-health ranking, average monthly medicine expenses followed by *Dam* is effective for illness or not. Data of table 6.8 shows that 14.4 percent older persons ranked their present health status as "very good" while 41.2 percent argued "good" health. OPs also reported fair health status that is 26.8 percent along with "poor" 13.4 percent and "very poor" was reported by 4.1 percent. Average monthly medicine expenses in category of 5501 PKR and above was recorded at 11.34 percent; 12.37 percent respondents spent

less than 500 PKR while maximum spending was between 501 to 2500 PKR. Those OPs who never paid their medicine expenses do not know about the average expenses. Considering breath (*Dam*) effectiveness for illness was also recorded and 58.8 percent of the sample said "*Dam*" is effective in this case.

Table 6.8 Self Health Ranking & Medicine Expenses

		Frequency	Percent
Physical Health Ranking			
	Very Good	14	14.4
	Good	40	41.2
	Fair	26	26.8
	Poor	13	13.4
	Very Poor	4	4.1
Monthly Medicine Expenses (Average)			
	<=500	12	12.37
	501-1500	18	18.55
	1501-2500	19	19.59
	2501-3500	8	8.25
	3501-4500	7	7.22
	4501-5500	6	6.19
	5501 and above	11	11.34
	Don't Know	16	16.49
Breath [Dam] is affective for illness			
	Yes	57	58.8
	No	40	41.2

Along with socio-economic and demographic indicators, data was also collected on routine health issues, impairments, and chronic disease prevalence among older persons [table 6.9]. In section of impairment, out of 97 respondents against each row, 33 OPs reported visual impairment, 15 were suffering from hearing impairment, 4 from mental impairment, and 25 were having physical impairment. OPs faced routine health issues which include temperature, cough, body aches, joint pains, stomach issues and blood pressure. In third section of chronic diseases, hypertension was

reported by 24 [N=97] OPs, heart problems by 16 [N=97], and Arthritis by 20 [N=97] respondents. Epilepsy, asthma, hepatitis, and TB was also recorded.

Table 6.9 Health Profile of OPs

Health Profile	Responses	Frequency	%
Impairment/97	Visual	33	34.02
	Hearing	15	15.46
	Mental	4	4.12
	Physical	25	25.77
Routine Health Issues/97	Temperature	12	12.37
	Cough	29	29.9
	Body Aches	28	28.87
	Joint pains	35	36.08
	Stomach Issue	40	41.24
	B.P	40	41.24
Chronic Diseases/97	Hypertension	24	24.74
	Heart problems	16	16.49
	Epilepsy	8	8.25
	Diabetes	9	9.28
	Arthritis	20	20.62
	Asthma	11	11.34
	Hepatitis B/C	2	2.06
	T.B	4	4.12

Table 6.10 Decision making, Relative visit & Mosque Visit

		Frequency	Percent
Decision Making Participation			
	Yes	87	89.7
	No	10	10.3
Independently Visit Your Relatives			
	Yes	63	64.9
	No	9	9.3
	Sometime	25	25.8
Regularly Visit Mosque			
	Yes – mostly	27	27.8
	Yes – somehow	25	25.8
	No	12	12.4
	NA	33	34.0

Decision making, visiting relatives and mosque was also an important indicator of social life. Data of table 6.10 shows that 89.7 percent older persons are still involved in household decision making while 64.9 percent independently decided to visit their relatives. “Visiting mosque” statistics reveal that 27.8 percent older persons visited mosque on regular basis, 25.8 percent visited mosque, but they were not regular, and 12.4 percent never visited mosque. Women did not visit mosque.

6.1.2 Sub-dimension/Prevalence of Social Exclusion

6.1.2.1 Civic participation.

Civic exclusion is divided into five different dimensions which include cultural participation, sports participation, voluntary participation, legal participation, and political participation.

Table 6.11 Cultural Participation

Last one year: Do You Attend	no	Percent
Mela/Urs	97	100.0
Bull Race	97	100.0
Horse Dance	97	100.0
Horse Tent pegging	97	100.0
Kabbadi	97	100.0
Cock or Quail fighting	97	100.0
Dog fighting	97	100.0
Local Music festivals	97	100.0

Above table [6.11] consisted of eight different cultural events usually arranged or observed in surroundings of Islamabad. It is very clear from the table that no single respondent visited any single cultural event. To justify why this happened, the answer is that due to COVID-19, all cultural activities were banned across Pakistan by the Pakistani Government after first lock down was announced in Islamabad, dated 22-03-2020. During the time of data collection for present research, lock down was observed and most of the cultural activities did not take place, not only

in *Sohan* but also around Pakistan. And secondly, if any event was arranged, the older persons avoided participating as COVID-19 is more harmful for people above sixty.

Table 6.12 Independent Participation in Cultural Activities

Independent Participation	Frequency	Percent
Yes, mostly	6	6.2
Yes, sometime	14	14.4
No, Dependent on others	6	6.2
No, poor health	48	49.5
No, not interested	15	15.5
No family permission	8	8.2
Total	97	100.0

Question was asked from OPs about their independent participation in cultural activities if they have an opportunity. Only 6.2 percent of respondents participated in cultural activities independently while 14.4 percent sometime feel independent to take this decision. On the other hand, majority responded that their participation is impossible due to their poor health and the percentile is 49.5 percent. Other responses by OPs also include "dependent on others", "not interested" and "family is not granting the permission to participate".

Table 6.13 Sports Participation

Any Sports Activity on Daily Basis	Frequency	Percent
Yes	30	30.9
No	64	66.0
Sometime	3	3.1
Total	97	100.0

Sport or physical activities help OPs to remain healthy and active. Most of the respondents had no such habit in routine to perform any sport or physical exercise and reported percentage was 66.0. Among 97 OPs, thirty respondents were practicing walk or riding bicycle on daily basis. Few of the respondents also reported walk/cycling but they were not consistent.

Table 6.14 Voluntary Participation

Volunteer Activities	Frequency	Percent
Home chores	60	61.9
Organizing Social event like wedding, funerals prayers	23	23.7
Organizing political events	1	1.0
Community welfare activities	6	6.2
Providing free education	1	1.0
Nothing	6	6.2
Total	97	100.0

To count the number of older persons in volunteer activities, question was asked about their daily volunteer activities. A big ratio only performs home chores in daily life while 23.7 percent argued that they were involved in organizing social events like weddings and funerals for the neighborhood and community. In addition, they are involved in organizing political events, welfare activities along with providing free education to the deserving children.

Table 6.15 Legal Participation

Member of Panchayat/any local legal committee	Frequency	Percent
Yes	13	13.4
No	84	86.6
Total	97	100.0

Table 6.16 Political Participation

Cast Vote in 2018	Frequency	Percent
Yes	74	76.3
No	23	23.7
Total	97	100.0

Legal and political participation is also an important indicator of social participation especially a country like Pakistan where *baradari* or caste system is more influential part of the politics, and it creates opportunity of social participation in elder life as well. Data presents two different scenarios in table 6.15 and table 6.16 respectively. Political participation is much higher than legal

participation among older persons of *Sohan* village. Keeping in view that *Sohan* village have its own political influence in the politics of Islamabad. OPs cast their vote in previous election that was held in July-2018, 76.3 percent cast their vote.

6.1.2.2 Social relations.

Table 6.17 Social Participation

		Frequency	Percent
Family Function You Attended Priority-1			
	Weddings	27	27.8
	Funerals	51	52.6
	Family treats	1	1.0
Family Function You Attended Priority-2			
	Weddings	53	54.6
	Funerals	34	35.1
Summary			
	Weddings	80	82.47
	Funerals	85	87.63
Family treats		1	1.03

In case of social participation, question was asked, "What type of family functions you attend in routine; tell us top two preferences". Priority one explained that 52.6 percent of the sample visited funerals' events and 27.8 percent would like to join weddings in daily life. Priority two showed the results vis-à-vis these questions. While if you look at the summary of overall participation, 82.47 [N=97] participated in weddings and 87.63 [N=97] OPs participated in funerals in family.

Table 6.18 Family Contact

Food with Family	Frequency	Percent
Yes	63	64.95
No	27	27.84
NA	7	7.22
Total	97	100

Above table explains the daily interaction of older persons with their family. Do they have interaction with them at dinner/lunch or not? Data reveals that 64.95 percent of the OPs eat food with their family, 27.84 percent eat food separately and in case of the 7 percent older persons who live alone, this question is not applicable.

Table 6.19 Loneliness

Loneliness	Frequency	Percent
Yes	72	74.2
No	25	25.8
Total	97	100.0

Feeling of loneliness is among the major predictors of social exclusion. Table 6.19 represents that around 74 percent of the study respondents reported feelings of loneliness in their routine lives. They were also asked about the coping mechanism or activities they practiced for loneliness, and results are given in figure below.

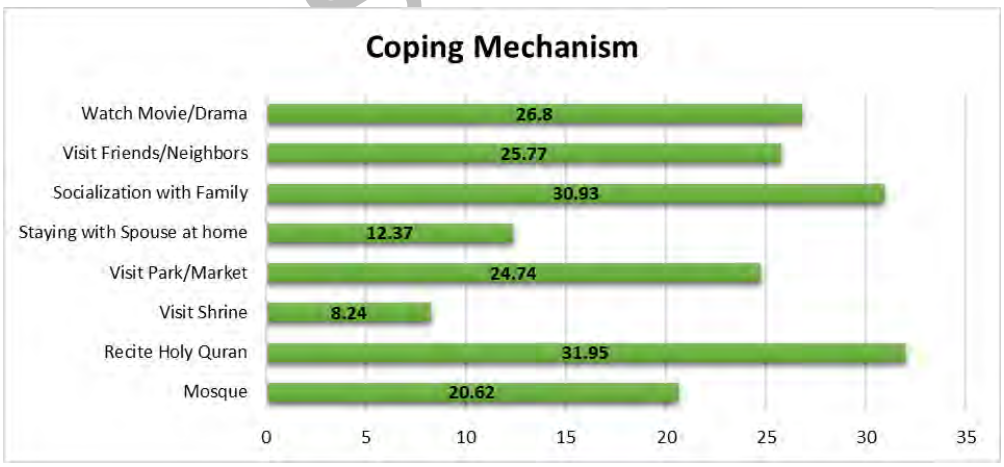


Figure 6. 2 Loneliness Coping Mechanism (summary of three options)

Percentages of the above figure represents the collective three responses against the counter activities in case of loneliness. In case of mosque visit, 20.62 [N=97] percent responses were

recorded in favor of Holy Quran; 32.0 percent, 8 persons used to visit shrine [N=97], visit to market and friends/neighbors were recorded 24.74%:25.77% [N=97]. Cumulative response against the socialization with family by the OPs were reported by 30.93 [N=97]. Drama/movies are also an important source of relief from the loneliness.

Table 6.20 Social Isolation

Who Come to Visit, mostly	Frequency	Percent
Grand children	20	20.6
Children	28	28.9
Blood Relatives	29	29.9
Remote Relatives	4	4.1
Friends/ Ex-colleagues	5	5.2
Neighbors	1	1.0
None	10	10.3
Total	97	100.0

"Who comes to visit you in routine [table 6.20]?" And this relationship also effects the overall lifestyle of older persons along with their wellbeing. Data represents that 28.9 percent of OPs argued that most of the time their children visited them followed by their grandchildren with percentage 20.6. Visitation of blood relatives was reported at 29.6 percent. Remote relatives, friends/ex-colleagues and neighbors also visited with varying percentage.

To highlight the overall patterns of visitation among 97 older persons of present study, data reveals that for 21.6 [N=97] percent, grandchildren, and for 46.42 [N=97] percent, children come to visit their elder parents. Overall, among 97 OPs, sixty-one reported that blood relatives were frequent visitors [figure 6.3].

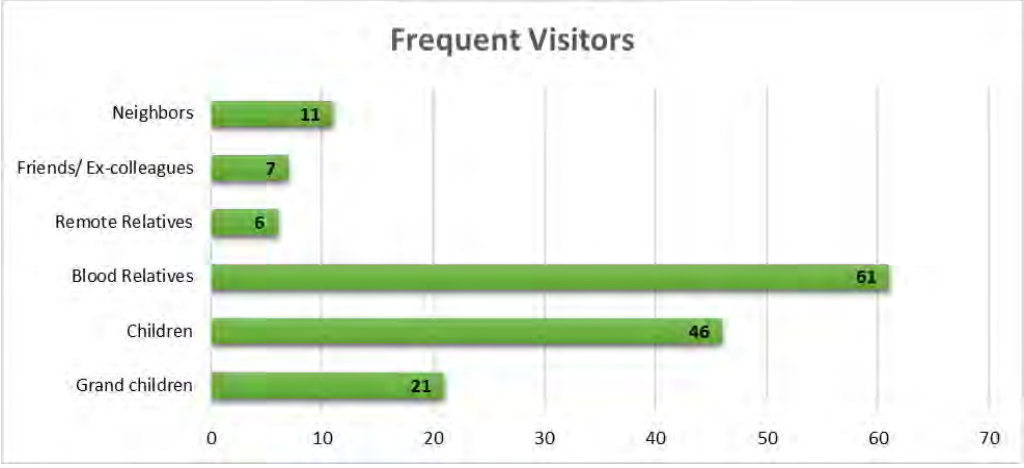


Figure 6. 3 Frequent Visitors to OPs

Table 6.21 Social Networking

Social Networking	Yes	No
Member of CSO	3	94
Member of Masjid Committee	7	90
Member of any association of elderly	3	94
Member of any old age home	0	97

In present research, social networking is covered by asking them four different questions which includes "CSO" membership, "Masjid committee" membership, membership of any "elderly association" and "old age home". The data was predominantly reported in "No" and very few responses were recorded in favor of membership.

Familial support not only ensures wellbeing of older persons but also provides opportunities to stay active for a longer time [figure 6.4]. Present data explained that 47.4 percent of OPs paid their health expenses by themselves while second highest percentage was reported in sibling/children/son category.

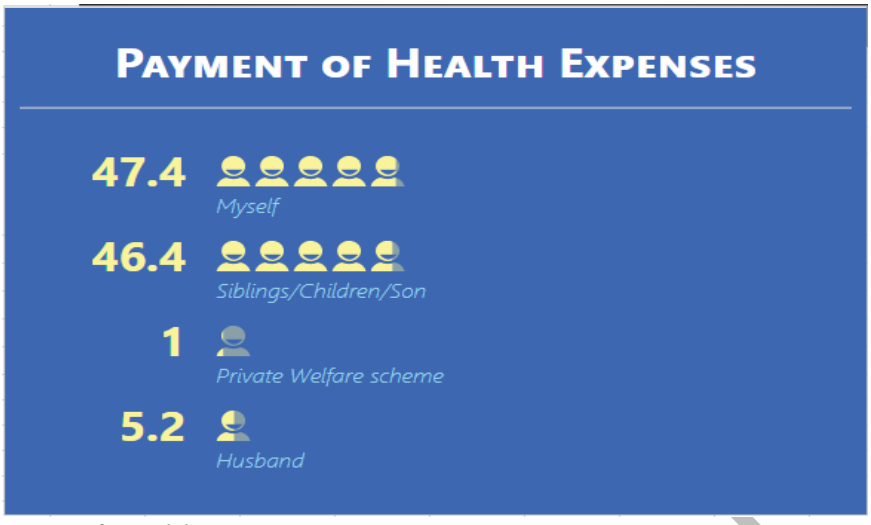


Figure 6.4 Payment of Health Expenses

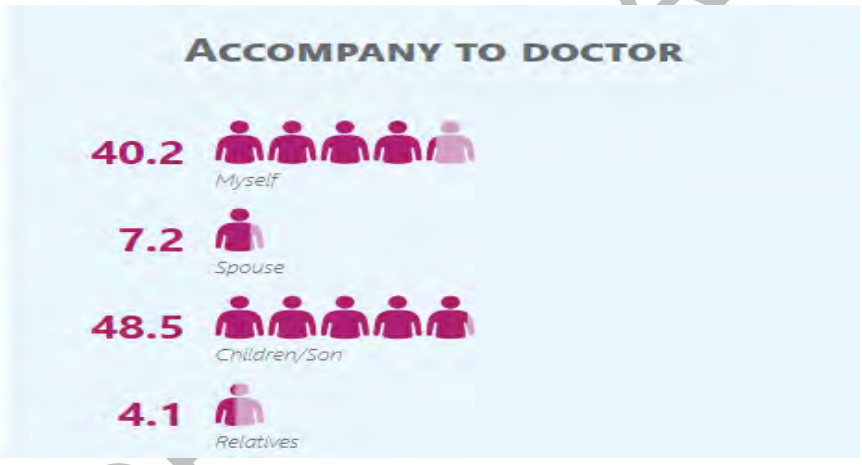


Figure 6.5 Who Accompany you for Doctor

Being accompanied to visit a doctor is also an indicator of familial support. Data of present study depicts that 40.2 percent of the sample visited the doctor/health facility alone, accompanied by spouse was reported by 7.2 percent, and dominating percentile was in category of children/son was 48.5 percent.

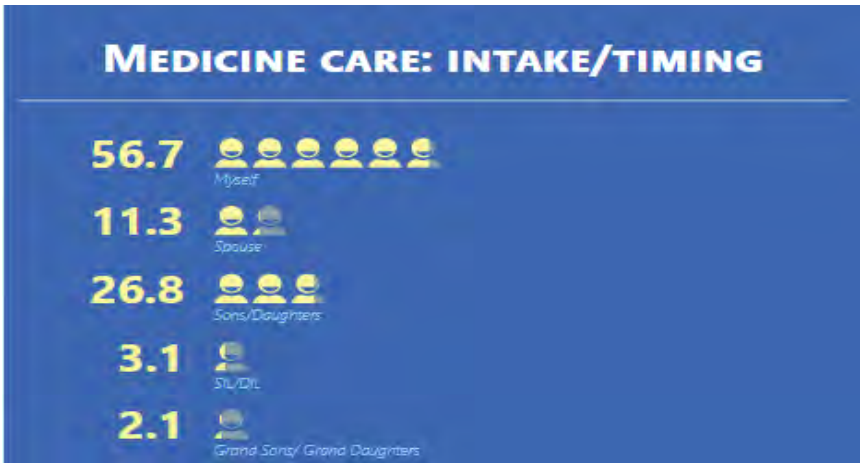


Figure 6.6 Who Take Care of your Medicine [timing/intake]

Most of the time older persons try to take care of their medicine timing and intake, that is 56.7 percent. Second highest percentage was observed in response to son/daughter who take care of the medicine intake and timing of their parents. Spouse, son-in-law/daughter-in-law, and grandchildren were also recorded.

6.1.2.3 Services participation.

Table 6.22 Health Facility

Place of Medical Treatment	Frequency	Percent
No treatment	3	3.1
Govt Hospital	41	42.3
Private Hospital	19	19.6
Community doctor	30	30.9
Self-medication	4	4.1
Total	97	100.0

Data of above table [6.22] depicts the practices of older persons regarding the place for medical treatment. Figures shows that majority of the OPs were utilizing government health facilities for treatment that is 42.3 percent followed by 30.9 percent interaction with community doctor. Private health services, and self-medication was also recorded.

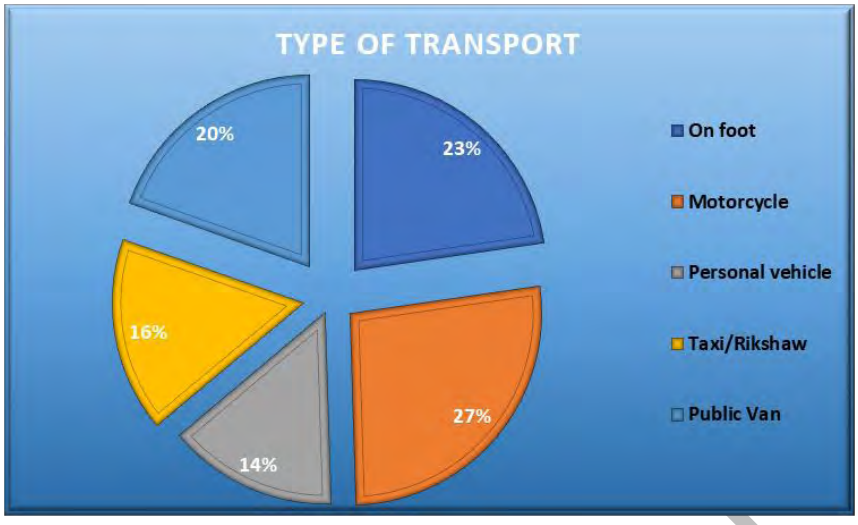


Figure 6. 7 Transport Facility

Above figures explain what sort of transport OPs usually utilize in routine. Ops who make use of motorcycle for travel were 26.8 percent, those who utilized personal vehicle rather drive by own or by any family member, was recorded in 14.4 percent cases. OPs used to visit market on foot as well along with the use of taxi/rikshaw or public van.

Table 6.23 Mobility, Leisure and Basic Services

Services	Yes	No
Mobility Services	97	0
Leisure Services	0	97
Basic Services	97	0

In current paragraph, we discuss the access to general services which includes mobility services, leisure services, and basic services for life. Sub-types of three general services that were physically observed and asked during this research, are mentioned in above table. Data and observation reveal that elders of the *Sohan* have easy access to all mobility and basic services in their neighborhood and community, while on the other hand, the same is not available otherwise not only for elders but overall, as mentioned in the table.

Mobility Services	Leisure Services	Basic Services
Benches	Sports center	Grocery Store
Public Transport	Swimming Pool	Butcher Shop
Bus Stop	Library	Bakery
Crossing Bridge	Community Center	Mobile Shop
	Cinema	Post Office
	Theater	Bank

6.1.2.4 Financial/Material participation.

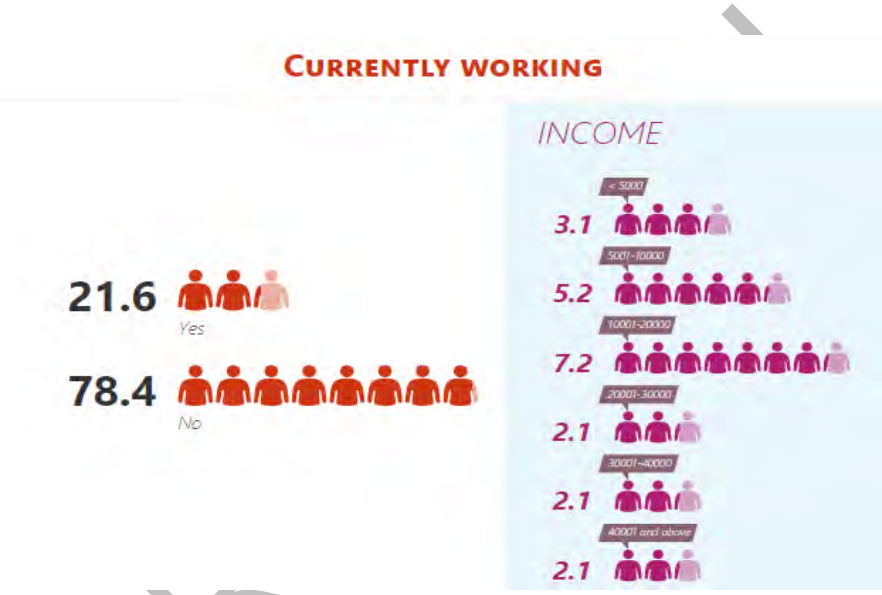


Figure 6.8 Currently Working/Income from Current Job

Above figure explains whether OPs are currently working or not and if they have any earning source at this stage, then how much are they earning. Results depicts that 21.6 percent of older persons currently working in different capacities, and rest of the sample have no such earning status.

Social security served as a positive determinant not only for elders but also for rest of the population [figure 6.9]. And social security also has positive effects on the later life which is observed with active and participatory aging. Data shows that almost half [48.5%] of sample

reported “yes” to other sources of income, and those sources include savings, property, income from agriculture, predominantly pension, remittances, and *Zakat*.

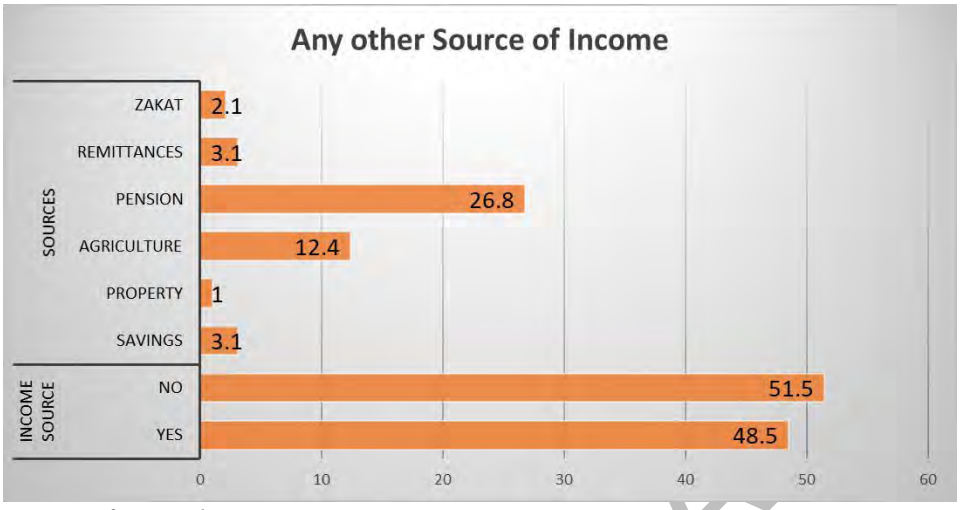


Figure 6.9 Income from other Sources

Table 6.24 Property

Any Property at Your Name	Frequency	Percent
Yes	52	53.6
No	45	46.4
Total	97	100.0

In the section of financial and material exclusion, above table explains how many elder persons have property in their name. Findings of the study represent that 53.6 percent of the OPs have any type of property in their name. Most reported property types are plot, houses, agriculture land or combination of many of these.

Table 6.25 Family Income Vs Expenses

Family Income is Sufficient for Family	Frequency	Percent
Yes	64	66.0
No	33	34.0
Total	97	100.0

How much you earn and how much you spend determine your consumption patterns and, also reveals the compatibility among earning and expenses. Above table 6.25 shows that 66.0 percent OPs argued that their family income is sufficient for their family, followed by 34.0 percent cases where income is not compatible with expenses.

6.1.2.5 Neighborhood and community participation.

Table 6.26 Neighborhood Association

How Often, Neighborhood Visit	Frequency	Percent
Never	11	11.3
Once a week	26	26.8
Several times a week	30	30.9
Once a month	26	26.8
Several times a month	4	4.1
Total	97	100.0

How often older persons were visited by their neighbors, tells us about their social engagement and association with their neighborhood. OPs who were never visited their neighbors were 11.3 percent while two similar percentiles were recorded in category of "once a week" and "once a month", that is 26.8. In 30.9 percent cases OPs were visited by their neighbors several times a week.

Involvement of OPs in event participation of their community was also recorded [figure 6.10]. From a list of community events, the only events reported by OPs are "political gathering" and "welfare gathering" while predominantly OPs never participated in community events. OPs who participated in political functions or gatherings are 13.4 percent of the sample, and those who were involved in welfare events were 25.8 percent.

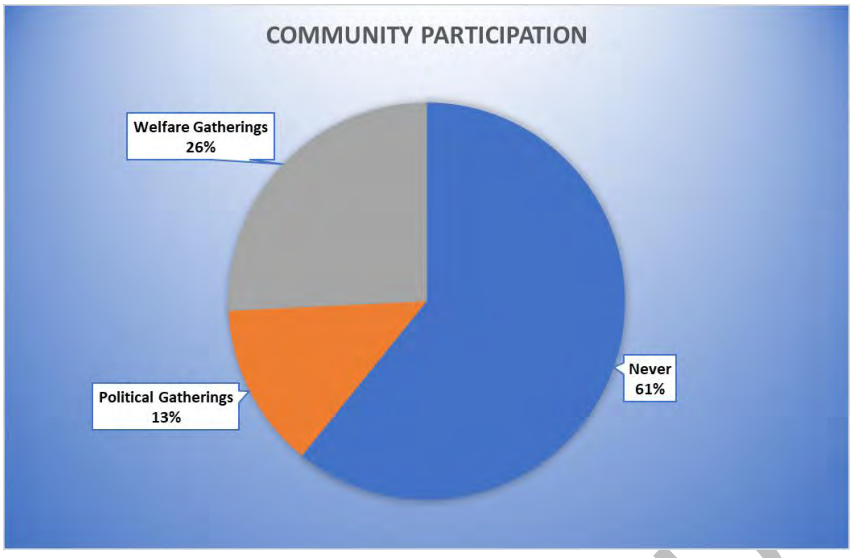


Figure 6.10 Community Participation

Table 6.27 Ranking Neighborhood Participation

Neighborhood Visit is Ranked as	Frequency	Percent
Extremely positive	17	17.5
Positive	51	52.6
Neither positive nor negative	28	28.9
Negative	1	1.0
Total	97	100.0

How do OPs rank their neighborhood visit? "Extremely positive" option was taken by 17.5 percent of respondents while major responses were observed in the category of "positive" ranking. Neutral and negative ranking was also part of the results.

Table 6.28 Feeling of Safety

Safe neighborhood	Frequency	Percent
Very much	22	22.7
Somehow	43	44.3
No	32	33.0
Total	97	100.0

Safety of older persons is an important concern for their family and sometimes community also tries to ensure their safety. Our 22.7 percent respondents reported that they are very much safe in

their neighborhood, 44.3 percent OPs argued in favor of "somehow" safe neighborhood, and 33.0 percent said that they are not safe. Mostly they complained about the attitude of youth and children in their neighborhood along with issues of street dogs.

6.1.2.6 Decent housing.

Table 6.29 House Satisfaction

Satisfaction with Residence	Frequency	Percent
Very Satisfied	24	24.7
Satisfied	44	45.4
Fair	23	23.7
Dissatisfied	6	6.2
Total	97	100.0

In present paragraph, data explains the arguments of OPs in term of their level of satisfaction with their residence. Data represents that 23.7 percent of the respondents reported that their residence was fair. Other than hand, 24.7 and 45.4 percent argued that they are "very satisfied" and "satisfied" with their home. "Dissatisfaction" was also observed.

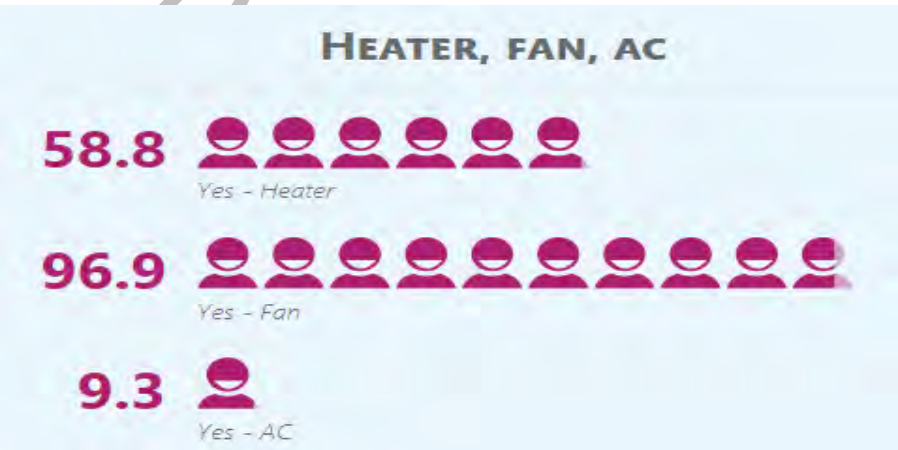


Figure 6.11 Room/home Temperature

Questions included in above data represents the availability of basic temperature control machines. For winters, heater is an important tool to manage room temperature and 58.8 percent of village

elders utilized heaters. And for summers, fan/AC basically help OPs to control room environment as per their choice. Fan is available to 96.9 percent of study sample while AC is only available to 9.3 percent of respondents.

Figure 6.12 Satisfaction with Bed

It is a fact that in old age the sleep timing is reduced so if bed is not as per the satisfaction of OPs then it adds more discomfort. Results of the study unveil that majority of the respondents were reported in categories of "very satisfied" and "satisfied" with bedding arrangements. Around 21 percent of the sample was facing "fair" and "dissatisfactory" bedding.

Table 6.30 Food

Quantity of Food is Sufficient for You	Frequency	Percent
Yes, mostly	51	52.6
Yes, somehow	44	45.4
No	2	2.1
Total	97	100.0

Above table [6.30] represents the quantity of food served to the older persons of target area. Among 97 older persons, 52.6 percent argued that most of the time food quantity is sufficient for them. In 45.4 percent cases quantity was not always compatible with their needs.

6.1.2.7 Digital participation.

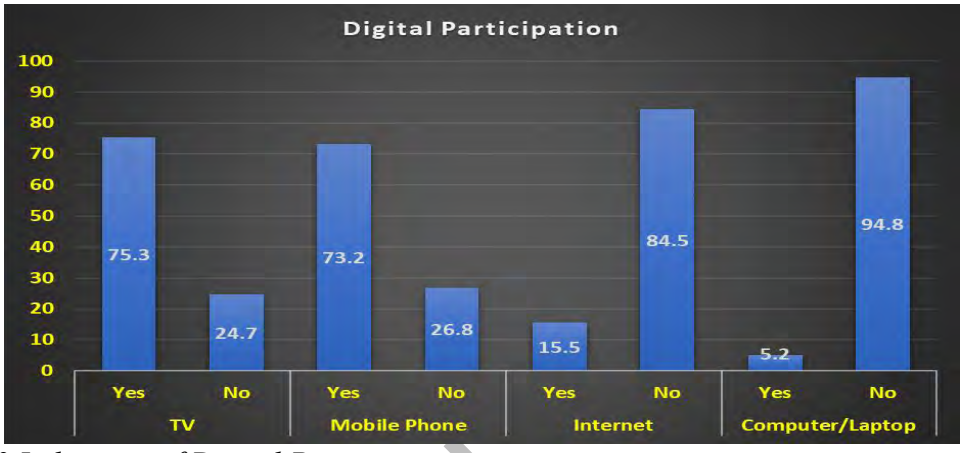


Figure 6.13 Indicators of Digital Participation

At present, technology is utilized by almost every age group and that is observed not only in Pakistan but also around the world. In old age, technology adds an area that involved them to reduce their feelings of loneliness. Data represents that TV was used by 75.3 percent of OPs, and mobile/cell phone use was reported by 24.7 percent of respondents. Utilization on internet and computer/laptop was only observed in 15.5 and 5.2 percent cases.

6.1.3 Dimensions of Social Exclusion

In previous section 6.1.2, we discussed the sub-dimensions of social exclusion. Present section [6.1.3] will cover dimensions of social exclusion that include

i. Civic exclusion

ii. Exclusion form social relations

iii. Services exclusion

iv. Financial/material exclusion

v. Neighborhood exclusion

vi. Exclusion from decent housing

vii. Digital exclusion.

To construct these dimensions from collected data set, all sub-dimensions that are presented in previous part of this chapter [6.1.2] are initially converted into dichotomous variables. After converting them into dichotomous variables, further calculations were done on the basis of "no" responses. The response "YES" represents the participation of OPs in concerned sub-dimension while "NO" depicts the exclusion from relative part. Minor process summary is given below while complete operationalization and threshold of social exclusion as per research tool of present study is part of methodology chapter.

6.1.3.1 Civic exclusion.

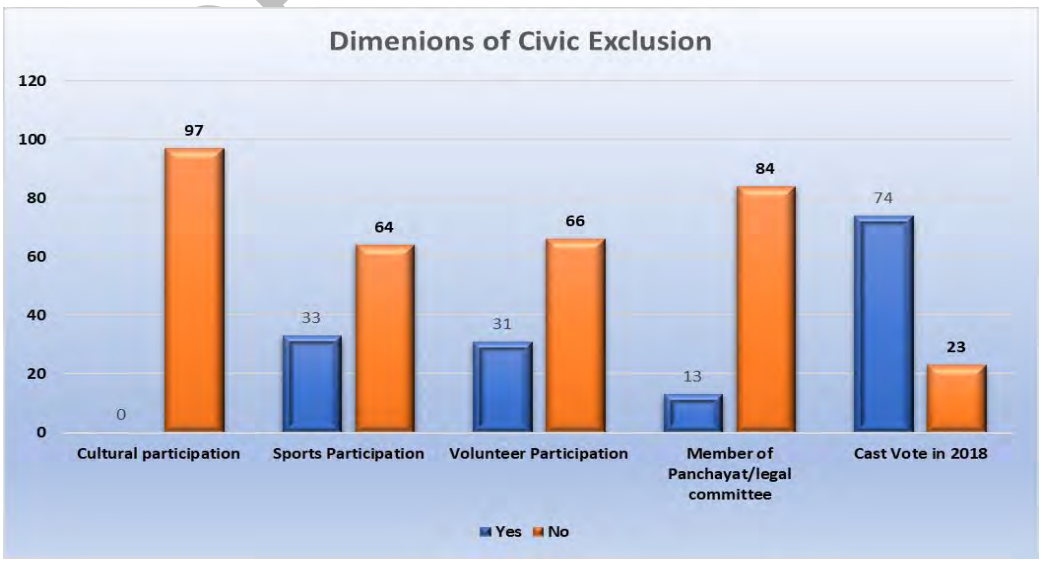


Figure 6.14 Dimension of Civic Exclusion

Above figure [6.14] explains the prevalence of exclusion among dimensions of civic exclusion. Other than cultural participation, in all other areas, participation of OPs was recorded with varying patterns. Justifications for complete cultural exclusion were explained earlier than COVID-19 pandemic was the absolute reason for this exclusion. In explanation of "sports participation", 64 respondents responded that they have not been involved in such activities, 66 cases were recorded in "volunteer exclusion", have no membership of any *panchayat*/legal committee was observed in 84 older persons, and in terms of "political exclusion" 23 OPs never cast their vote in previous 2018 elections.

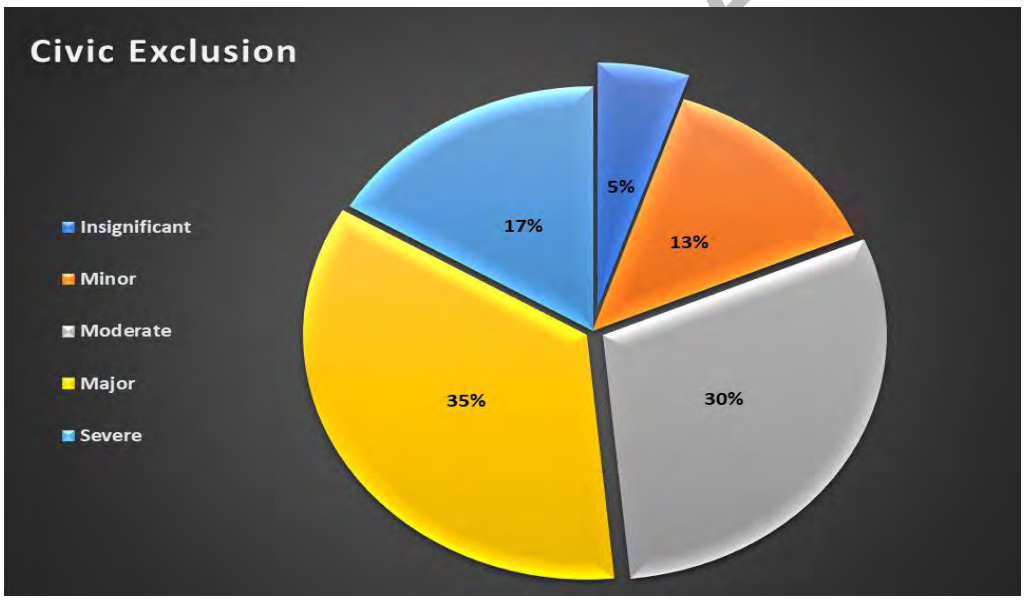


Figure 6.15 Civic Exclusion

Above figure represents the prevalence of civic exclusion at five different levels. Before explaining the data of above table, it is important to mention here that cultural participation was observed by none of the OPs due to government ban on all cultural activities during pandemic. So, to avoid major variation among overall results, cultural participation was not included in final construction of civic exclusion.

6.1.3.2 Exclusion from social relations.

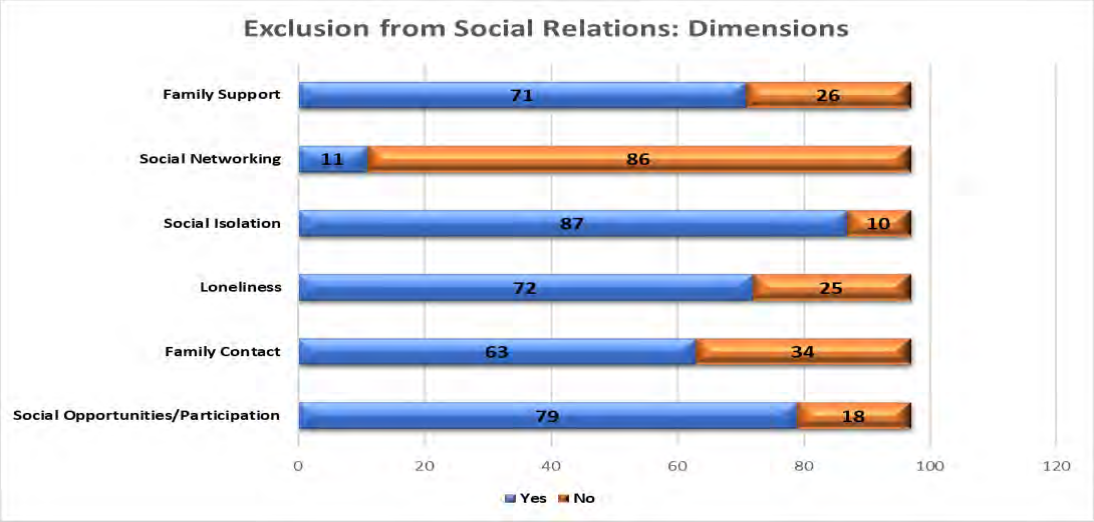


Figure 6.16 Dimensions of Social Relation Exclusion

Dimensions of exclusion from social relations are explained by six different responses. Data represents that only 18 OPs were excluded from social opportunities and participation. In case of social networking, huge variation is observed, and 86 elders argued "no" to social networking. Social isolation and loneliness were reported by 87 and 72 respondents, respectively.

Figure 6.17 Exclusion from Social Relations

Data of exclusion from social relations reveals that 20.62 percent of OPs were suffering from "moderate" level, in 38.14 percent cases respondents were experiencing "major" exclusion, and predominant size of sample facing 41.24 percent exclusion were with "severe" occurrence.

6.1.3.3 Services exclusion.

Table 6.31 Available Services and Exclusion

Services	Yes	No
Health Services	90	7
Transport Services	75	22
Mobility Services	97	0
Leisure Services	0	97
Basic Services	97	0
Services Exclusion		
	n	%
Minor	69	71.1
Moderate	27	27.8
Major	1	1.0

Services available in the study area show that majority of the services are accessible to not only general population but also for older persons. Figures depict that 90 people have access to health services which could either be private or government or any health facility in community. Transport services' access was reported by 75 older persons of *Sohan* followed by 97 OPs who have access to mobility services, and similar findings were recorded for basic services.

Data further represents the prevalence of services' exclusion in minor category that is 71.1; in 27.8 cases, OPs faced moderate level of services' exclusion, and only one person fell in the category of major services exclusion.

6.1.3.4 Financial/material exclusion.

Table 6.32 Dimension of Financial/Material Exclusion

Dimensions	Yes	No
Currently Working	21	76 [78.35]
Any other source of income	47	50 [51.54]
Any property at your name	52	45 [46.39]
Family income is sufficient	64	33 [34.02]

Above table [6.32] consists of the results of four sub-dimensions of financial/material exclusion. Statistics represent that 78.36 percent OPs do not work at the present stage of their lives while on the other hand 47 respondents reported other sources of income like saving, income from agriculture, property, mainly income from pension etc.

Table 6.33 Financial/Material Exclusion

Intensity	Frequency	Percent
Insignificant	5	5.2
Minor	36	37.1
Moderate	18	18.6
Major	20	20.6
Severe	18	18.6
Total	97	100.0

Five levels of intensity are observed in domain of financial exclusion. In 5.2 percent cases, financial exclusion was not found. Minor level of social exclusion was faced by 37.2 percent of study sample, and 18.6 percent OPs were suffering from moderate financial exclusion. Major financial exclusion was observed in 20.6 percent cases, and 18.6 percent respondents reported severe exclusion in financial/material category.

6.1.3.5 Neighborhood/community exclusion.

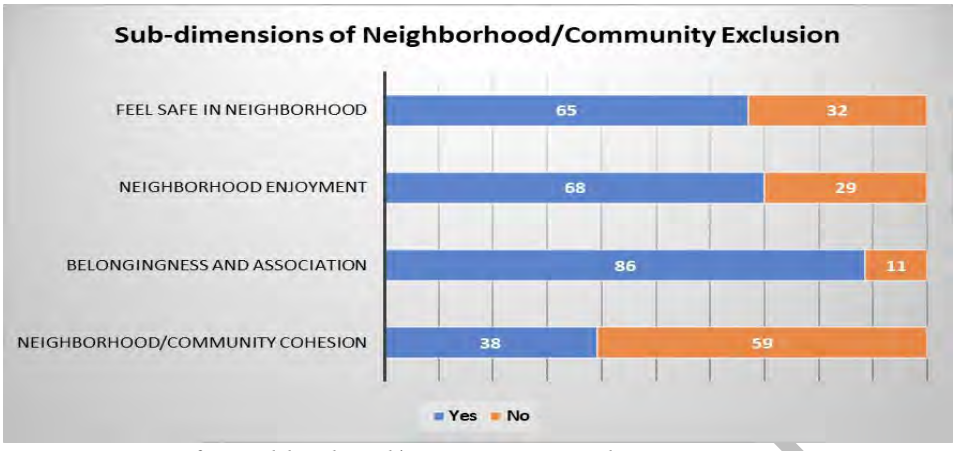


Figure 6.18 Dimensions of Neighborhood/Community Exclusion

Neighborhood/community exclusion was divided into four subsections that showed 65 OPs feel safe in their neighborhood while 68 reported that they enjoy their neighborhoods. Older persons who feel associated with their community and neighborhood, was reported by 86 respondents, neighborhood/community cohesion was recorded in 38 cases.

Table 6.34 Neighborhood/Community Exclusion

Intensity	Frequency	Percent
Insignificant	30	30.9
Minor	29	29.9
Moderate	18	18.6
Major	14	14.4
Severe	6	6.2
Total	97	100.0

In category of neighborhood/community exclusion, data depicts that in 30.9 percent cases OPs have no such feeling of exclusion. Minor neighborhood/community exclusion was reported by 29.9 percent respondents, 18.6 percent fell in category of moderate exclusion. Major neighborhood/community exclusion was observed in 14.4 percent cases, and 6.2 percent older persons were suffering from severe neighborhood/community exclusion.

6.1.3.6 Decent housing exclusion.

Table 6.35 Exclusion from Decent Housing

Dimensions	Yes	No
House satisfaction	68	29
Room temperature: satisfactory	57	40
Bed satisfaction	77	20
Food satisfaction	51	46
Decent Housing Exclusion		
Insignificant	23	23.7
Minor	38	39.2
Moderate	20	20.6
Major	7	7.2
Severe	9	9.3
Total	97	100.0

Section of decent housing explains that 29 respondents were not satisfied with their residence. In 40 cases OPs were not satisfied with their room environment/temperature, 20 reported bed discomfort, and 46 do not have sufficient food in routine. Level of decent housing exclusion depicts that 39.2 percent of the sample facing minor level exclusion in this area, moderate exclusion in decent housing was reported by 20.6 percent OPs, 7.2 percent respondents argued in favor of major, and severe exclusion was observed in 9.3 percent cases.

Data of digital participation reveals that in case of TV and mobile/cell phone OPs participation was more than 70 percent but in case of internet and computer/laptop use huge variation exists. Internet users were recorded at 15.5 percent, and 5.2 percent OPs using computer/laptop [figure 6.19].

6.1.3.7 Digital exclusion.

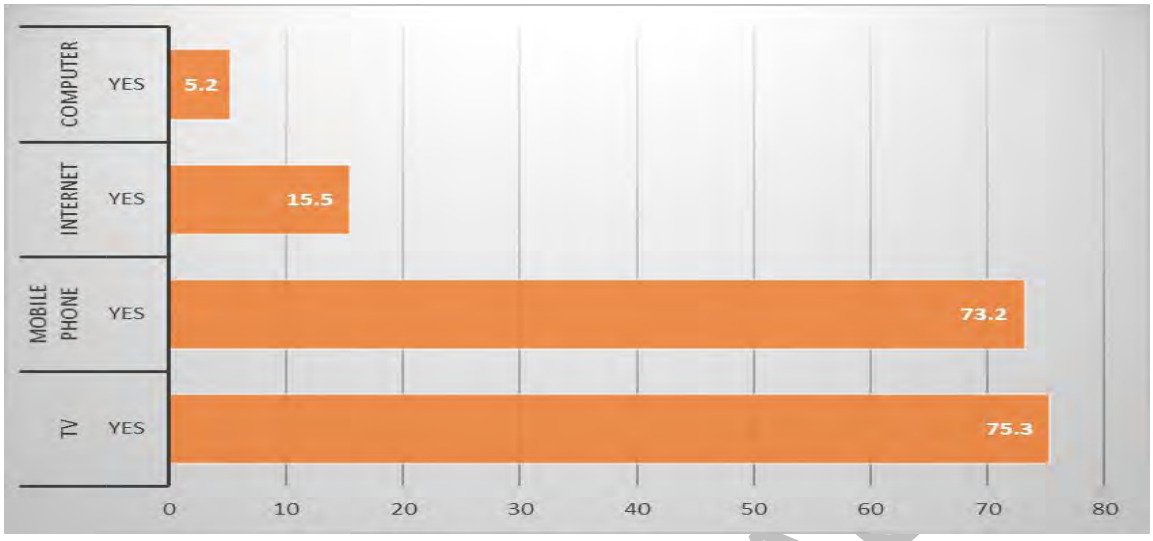


Figure 6.19 Digital Exclusion

Table 6.36 Digital Exclusion

Digital Exclusion	Frequency	Percent
Insignificant	4	4.1
Minor	12	12.4
Moderate	44	45.4
Major	24	24.7
Severe	13	13.4
Total	97	100.0

Data of digital exclusion among older persons in village *Sohan* represents that 13.4 percent respondents excluded severely. Major level of digital exclusion was recorded in 24.7 percent cases of OPs while 45.4 percent sample reported moderate digital exclusion.

6.2 INFERENTIAL ANALYSIS

This section highlights the competitive analysis of different variables in relation with age. It includes comparative analysis of age with socio-economic and demographic indicators. Efforts were made to explore comparative relationships between different socio-economic and

demographic indicators. Cross-tabulation was done for age and sub-dimensions of social exclusion.

6.2.1 Socio-Economic and Demographic Background

Table 6.37 Age, Gender and Qualification

		Age Categories (%)					Total
		60-64	65-69	70-74	75-79	80 and above	
Gender	Male	58.3	56.0	72.2	87.5	90.0	66.0%
	Female	41.7	44.0	27.8	12.5	10.0	34.0%
Qualification	Illiterate	27.8	36.0	55.6	25.0	60.0	38.1%
	Primary	22.2	12.0	16.7	37.5		17.5%
	Secondary	19.4	20.0	5.6		10.0	14.4%
	Matriculation	22.2	20.0	11.1	25.0	20.0	19.6%
	Intermediate	5.6	4.0	11.1	12.5		6.2%
	Bachelors		4.0				1.0%
	Masters	2.8	4.0			10.0	3.1%

Comparative table of age, gender, and qualification highlights the distribution of gender and qualification sample according to different age groups. Data shows in age group 60-64 years, male participants were 58.3 percent and female respondents were 41.7 percent. Maximum participation was recorded in case of male OPs. Second half of the table reveals that excluding age group 75-79 years, major percentiles were in illiterate category. Overall illiterate sample was 38.1 percent, primary qualification was reported in 17.5 percent cases, secondary degree holder older persons were 14.4 percent, and OPs with matriculation were 19.6 percent of the sample.

Unmarried were reported in age category 60-64 years only [table 6.38]. Majority of the sample is currently at married status and among them 80.6 percent of OPs belongs to age group 60-64 years, 76.0 percent in age group 65-69 years, 44.4 percent in age group 70-74, in 75-79 years it was 50.0

percent, and in case of above 79 years, 80 percent of the sample is married. Maximum percentile in case of widowhood was reported in age group 70-74 and 75-79 year.

Table 6.38 Age and Marital Status

Marital Status	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Unmarried	2.8					1.0%
Married	80.6	76.0	44.4	50.0	80.0	70.1%
Widow/widower	11.1	20.0	50.0	50.0	20.0	24.7%
Divorced	5.6		5.6			3.1%
Separated		4.0				1.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.39 Gender and Marital Status

Marital Status of Respondents	Gender Distribution		Total
	Male	Female	
Unmarried	1.6%		1.0%
Married	78.1%	54.5%	70.1%
Widow/widower	18.8%	36.4%	24.7%
Divorced		9.1%	3.1%
Separated	1.6%		1.0%
Total	100.0%	100.0%	100.0%

Above table describes the relationship between gender and marital status of respondents. Data reveals that males currently married are 78 percent and females are 54.5 percent. In category of widow/widowhood female percentage was double than male percentage that is 36.4 percent. Divorced females are 9.1 percent.

Table 6.40 presented age groups in relation with three questions:

i. Who are the OPs living with

ii. Type of family

iii. Number of dependent daughters in this age.

Data reveals that in every age group major portion of the OPs were living with their families, and among them 76.0 percent were living with family in age group 65.69 years, and 70.0 percent in case of 80 years and above. In *Sohan*, still traditional setup of joint and joint extended family system is in practice. And mainly, joint family type was observed in case of present study in which the ratios were recorded as 55.6 percent in 60-64 years age group, 76.0 percent in age group 65-69, 55.6 percent in 70-74 years of age, in age group 75-79 years percentile was 87.5 percent, and OPs having age 79 years above reported 80.0 percent practice of joint family system. Majority of OPs have no dependent daughter in present phase of their lives while few cases were recorded that still have dependent daughters at their homes.

Table 6.40 Age, Living with Whom, Family Type and Dependent Daughters

		Age Categories					Total
		60-64	65-69	70-74	75-79	80 and above	
Living with Whom	Family	66.7%	76.0%	44.4%	50.0%	70.0%	63.9%
	Alone	11.1%	4.0%	11.1%			7.2%
	Son	13.9%	20.0%	44.4%	50.0%	30.0%	25.8%
	Relative	8.3%					3.1%
Type of Family	Nuclear	11.1%	4.0%	11.1%	12.5%		8.2%
	Joint	55.6%	76.0%	55.6%	87.5%	80.0%	66.0%
	J-extended	22.2%	16.0%	22.2%		20.0%	18.6%
	Alone	11.1%	4.0%	11.1%			7.2%
Dependent Daughters	0	72.2%	72.0%	94.4%	75.0%	90.0%	78.4%
	1	19.4%	24.0%		12.5%		14.4%
	2	8.3%	4.0%		12.5%	10.0%	6.2%
	4			5.6%			1.0%

Table [6.41] explains the relationship between marital status, individuals that they are living with and type of family that they are living in. Results reveal that among married respondents of study, 91.2 percent were living with their families, while in case of widowhood majority of the sample

was living with their sons, and 66.7 percent OPs with divorced status were living alone. About the marital status in relation with type of family, data depicts that 66.6 percent OPs were practicing joint family system, same pattern was recorded in case of widowhood at 75.0 percent, and 66.7 percent divorced OPs were living alone.

Table 6.41 Marital status, Living with Whom, and Type of Family

	Marital Status of Respondents					Total
	Unmarried	Married	Widow/ Widower	Divorced	Separated	
Living with Whom (p=.000)						
Family		91.2				63.9
Alone		2.9	8.3	66.7	100.0	7.2
Son		4.4	91.7			25.8
Relative	100.0	1.5		33.3		3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Type of Family (p=.000)						
Nuclear		11.8				8.2
Joint		67.6	75.0			66.0
Joint extended	100.0	17.6	16.7	33.3		18.6
Alone		2.9	8.3	66.7	100.0	7.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.42 Age, and Mode of Living

Mode of Living	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Own house	55.6	68.0	61.1	37.5	70.0	59.8%
Rented house	27.8	28.0	27.8	62.5	30.0	30.9%
Hired house	5.6		5.6			3.1%
Others	11.1	4.0	5.6			6.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.42 unveils the relationship between age groups and present mode of Ops' living. Own residence was reported by OPs in all age groups excluding age group 75-79 years at 37.5 percent.

Rented homes were recorded among 30.9 percent of the sample, 3.1 percent OPs living in hired homes, and 6.2 percent living within free accommodation, living at farm, and living with relatives.

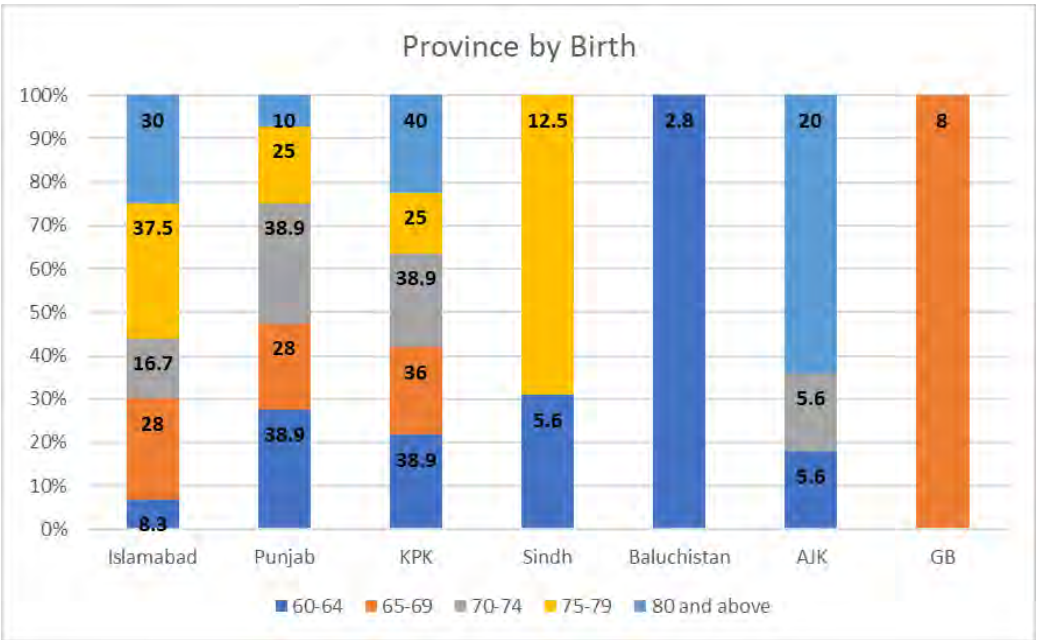


Figure 6.20 Age and Province by Birth

Data of the present study reveals that *Sohan* village consists of a diverse population. And that is represented by the above chart. Data explains the distribution of province by birth according to different age groups of older persons. Sample belonging to Islamabad or locals of *Sohan* were interviewed which constitute around 19.6 percent cases while responses from Punjab were recorded in 32 percent cases. It is also important to mention here that Murree is also in Punjab and most of the residents of Murree were the now the settlers in Islamabad semi-urban and rural areas. OPs from KP were interviewed in 37 percent cases. OPs from Sindh, Baluchistan, AJK, and GB were also interviewed.

Table 6.43 explains the relationship between mode of living and OPs' province by birth. This was done to get an idea about how many OPs belonging to places other than Islamabad, had their own

homes in Islamabad. Figures reveal that among OPs having their own home, 25.9 percent were from Islamabad by birth, 34.5 percent had migrated from Punjab, OPs belonging to KP were 31 percent and few cases were from Sindh, A.J.K and GB. In rented residence type, OPs from KP were leading the data followed by Punjab which reported the maximum percentage in hired residences.

Table 6.43 Mode of Living and Province

Province by Birth	Mode of Living				Total
	Own	Rented	Hired	Others	
Islamabad	25.9	13.3			19.6
Punjab	34.5	20.0	66.7	50.0	32.0
KPK	31.0	50.0	33.3	33.3	37.1
Sindh	3.4	3.3			3.1
Baluchistan		3.3			1.0
AJK	3.4	6.7		16.7	5.2
GB	1.7	3.3			2.1
Total	100.0	100.0	100.0	100.0	100.0%

Results of table 6.44 tell us about the economic participation of OPs in different age groups. Data reveals that 78.4 percent respondents currently have no earning activity or job. And among them upward change is observed with increasing age. In age group 60-64 years, 66.7 percent OPs do not have any job while for 76 percent, no current job was recorded in case of 65-69 years of age. Further increase is observed in 70-74 years of age followed by 100 percent joblessness in last two age groups. OPs having any job or income from any other social security web were asked about the consumption of their income for family. In 49.5 percent cases the question is relevant since the individuals are contributing towards family income while in 48.5 percent cases, this was not the case.

Table 6.44 Age, Current Job and Family Expenses

	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Income & Current Job						
NA	66.7	76.0	83.3	100.0	100.0	78.4%
< 5000	5.6	4.0				3.1%
5001-10000	8.3	8.0				5.2%
10001-20000	11.1	4.0	11.1			7.2%
20001-30000		4.0	5.6			2.1%
30001-40000	5.6					2.1%
40001 and above	2.8	4.0				2.1%
Contribution in Family Expenses						
Yes	61.1	44.0	33.3	50.0	50.0	49.5%
No	2.8	4.0				2.1%
NA	36.1	52.0	66.7	50.0	50.0	48.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.45 Academic Qualification and Current Job

Current Job	Academic Qualification p=.000							Total
	Illiterate	Primary	Secondary	Matric	FA/ FSC	BA	Masters	
NA	78.4%	88.2%	78.6%	78.9%	66.7%		66.7%	78.4%
< 5000	2.7%	11.8%						3.1%
5001-10000	13.5%							5.2%
10001-20000	5.4%		14.3%	10.5%	16.7%			7.2%
20001-30000			7.1%	5.3%				2.1%
30001-40000				5.3%	16.7%			2.1%
40001 and above						100.0%	33.3%	2.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To explore the relationship between academic qualification and current earning or job status, comparative analysis was performed. Data reveals that OPs with qualification equivalent to secondary and above had better income as compared to those older persons with primary or no qualification. Results also reveal prevalence of significant relationship between academic qualification and current job earnings. Chi-square tests represent *p* values less than .05 and that is .000 showing significant association.

Table 6.46 Age and Major Profession

Major Profession During Life	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Daily Wager	25.0	16.0	22.2	12.5	30.0	21.6
Farmer/livestock	8.3	8.0	22.2	25.0		11.3
Self-employed/business	5.6	8.0		12.5		5.2
Govt. Employee	27.8	20.0	22.2	37.5	30.0	25.8
Private Employee	16.7	24.0	11.1		20.0	16.5
Oversees Employee	2.8				10.0	2.1
Housewife	13.9	24.0	22.2	12.5	10.0	17.5
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Above table represents the statistics of major profession of OPs during their lives. Data depicts that 21.6 percent respondent were daily wagers in their life while 17.5 percent of female respondents were only housewives. Farmers/livestock as a profession was practiced by 11.3 percent OPs, and self-employment/business was reported by 5.2 percent respondents. Government employment was done by 25.8 percent OPs in their lives followed by 16.5 percent had private jobs. Foreign returned OPs were also interviewed.

Table 6.47 Age and Health Ranking

Physical Health Ranking	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Very Good	19.4	8.0	11.1	37.5		14.4
Good	52.8	44.0	38.9	12.5	20.0	41.2
Fair	19.4	36.0	27.8	12.5	40.0	26.8
Poor	8.3	12.0	11.1	25.0	30.0	13.4
Very Poor			11.1	12.5	10.0	4.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How OPs in different age groups self-ranked their physical health is explained by the data of above table. Data depicts that “fair” to “very poor” health status was reported by 70 years and above respondents of the study. Age groups started from 60 to 69, mainly reported very good and good health status at present day. Fair health status was mainly recorded in age group 80 and above

years with 40.0 percent followed by poor health status in same age distribution while very poor was reported 12.5 percent times in age category 75-79 years. This represents that health raking is changed from good to fair and fair to poor and very poor with increasing years of age.

Table 6.48 Age, Impairment, Health Issues, and Chronic Disease

Health Indicators	Age Categories					Total
	60-64	65-69	70-74	75-79	80 & +	
Any Impairment (p=.047)						
No	63.9	48.0	44.4	25.0	10.0	47.4%
Visual	22.2	36.0	33.3	37.5	70.0	34.0%
Hearing		4.0	5.6	25.0	10.0	5.2%
Mental	2.8			12.5		2.1%
Physical	11.1	12.0	16.7		10.0	11.3%
Health Issues You Faces Mostly						
Nothing	5.6	12.0		12.5		6.2%
Temperature	8.3	16.0	16.7		20.0	12.4%
Cough	22.2	16.0	22.2	50.0	30.0	23.7%
Body Aches	19.4	32.0	16.7	12.5	20.0	21.6%
Joint pains	27.8	16.0	27.8	12.5	10.0	21.6%
Stomach Issue	8.3			12.5	20.0	6.2%
B.P	8.3	8.0	16.7			8.2%
Chronic Disease Profile						
No	47.2	40.0	33.3	25.0	20.0	38.1%
Hypertension	25.0	20.0	27.8	37.5	20.0	24.7%
Heart problems	2.8	16.0	33.3	25.0	30.0	16.5%
Epilepsy	2.8	4.0				2.1%
Diabetes	8.3	4.0	5.6		20.0	7.2%
Arthritis	11.1	8.0		12.5		7.2%
Asthma	2.8				10.0	2.1%
Hepatitis B/C		4.0				1.0%
T.B		4.0				1.0%

Table 6.48 explains the relationship between age and health indicators that includes prevalence of impairment, daily health issues and chronic disease status. In visual category of impairment, 70 percent of OPs with age 80 years and above reported “yes” while majority of the sample reported as facing same issue in different age groups. Hearing impairment was reported by 25 percent of

OPs between age group 75-79 years. Data also reveals that significant relationship prevails among age groups and prevalence of physical impairment. Routine health issues were reported by a mixture of prevalence of temperature, cough, body aches, joint pains, stomach issues and blood pressure. In case of chronic disease status, the prevalence of hypertension is reported by 37.5 percent OPs in age group 75-79 years while majority of the heart problem was recorded in age group 70-74. Prevalence of epilepsy, diabetes, arthritis, asthma, hepatitis B/C and TB was also recorded.

After comparing age with health profile of older persons, above table shows the comparative relationship between gender and health status of OPSs [table 6.49]. Data represents that status of "good" physical health was reported more by the female sample that is 51.5 percent as compared to male percentage is 35.9 percent. Figures from "poor" and "very poor" shows that the higher percentiles among male section. In addition, results from female sample leading the visual and physical impairment with percentiles 39.4 and 18.2. Hearing and mental health impairment was only reported in male OPs. Routine health issue or daily health problem faced by male and female represents that there is significant association between these two variables. Female numbers are higher in some while male also leads in some health issues. Cough, body aces and joint pains were mainly recorded in present study. Prevalence of chronic disease among gender depicts that in hypertension case female reported 45.5 percent occurrence while male reported 21.9 percent heart problems. In epilepsy, diabetes, arthritis, hepatitis, and TB reported a mixture of percentages.

Table 6.49 Gender and Health Profile of OPs

Gender & Health	Gender Distribution		Total
	Male	Female	
Physical Health Ranking			
Very Good	20.3	3.0	14.4%
Good	35.9	51.5	41.2%
Fair	25.0	30.3	26.8%
Poor	14.1	12.1	13.4%
Very Poor	4.7	3.0	4.1%
Any Impairment			
No	50.0	42.4	47.4%
Visual	31.3	39.4	34.0%
Hearing	7.8		5.2%
Mental	3.1		2.1%
Physical	7.8	18.2	11.3%
Health Issues You Faces Mostly (p=.048)			
Nothing	7.8	3.0	6.2%
Temperature	18.8		12.4%
Cough	25.0	21.2	23.7%
Body Aches	18.8	27.3	21.6%
Joint pains	15.6	33.3	21.6%
Stomach Issue	7.8	3.0	6.2%
B. P	6.3	12.1	8.2%
Chronic Disease (p=.010)			
No	43.8	27.3	38.1%
Hypertension	14.1	45.5	24.7%
Heart problems	21.9	6.1	16.5%
Epilepsy	1.6	3.0	2.1%
Diabetes	9.4	3.0	7.2%
Arthritis	6.3	9.1	7.2%
Asthma	3.1		2.1%
Hepatitis B/C		3.0	1.0%
T. B		3.0	1.0%

It is observed that marital status is associated with health status, not only in old age but also among younger age groups. Results of the table 6.50 show that OPs with widowhood reported more percentage in “fair” and “poor” health status as compared to married respondents. Only a slight difference is found among married sample in very poor health status. Further in visual impairment

prevalence, widowhood section is again leading the results as compared to married and divorced. Physical impairment was reported in married, widowhood and divorce sample with ratio 11.8:8.3 and 33.3 percent.

Table 6.50 Marital Status and Health Profile of OPs

	Marital Status of Respondents					Total
	Unmarried	Married	Widow/widower	Divorced	Separated	
Physical Health Ranking						
Very Good	100.0	16.2	8.3			14.4%
Good		45.6	25.0	66.7	100.0	41.2%
Fair		25.0	37.5			26.8%
Poor		8.8	25.0	33.3		13.4%
Very Poor		4.4	4.2			4.1%
Any Impairment 1						
No	100.0	48.5	41.7	33.3	100.0	47.4%
Visual		30.9	45.8	33.3		34.0%
Hearing		5.9	4.2			5.2%
Mental		2.9				2.1%
Physical		11.8	8.3	33.3		11.3%

Data of table 6.51 represents the comparison of age groups with three daily life practices which include participation in decision making, visit to relatives independently, and mosque visits. In response to family decision making, participation on average in each age group played a vital role. Results also reveal that among 80 years and above, lesser participation was reported as compared to other age groups. OPs independently take decision to visit their relatives and results show that age group 70-74 reported lesser percentage in “yes” category and have higher percentage in “no” category as compared to other age groups. Mosque visit is not applicable in case of female sample. The highest percentile of mosque visitors was found in age group 70-74 years followed by the age group 80 years and above percentage 40.0.

Table 6.51 Age, Decision Making and Social Mobility

	Age Categories					Total
	60-64	65-69	70-74	75-79	80 & +	
Decision Making Participation						
Yes	97.2	84.0	88.9	87.5	80.0	89.7%
No	2.8	16.0	11.1	12.5	20.0	10.3%
Independently Visit Your Relatives						
Yes	75.0	60.0	44.4	75.0	70.0	64.9%
No	5.6	12.0	16.7	12.5		9.3%
Sometime	19.4	28.0	38.9	12.5	30.0	25.8%
Regularly Visit Mosque						
Yes – mostly	25.0	12.0	44.4	37.5	40.0	27.8%
Yes – somehow	22.2	24.0	16.7	50.0	40.0	25.8%
No	11.1	20.0	11.1		10.0	12.4%
NA	41.7	44.0	27.8	12.5	10.0	34.0%

6.2.2 Dimensions of Social Exclusion

This section will cover the relationship of age groups with dimensions of social exclusion. So, before analyzing dimensions, we first draw the relationship between age and sub-dimensions of social exclusion to get better understanding of the issue.

6.2.2.1 Civic participation.

Table 6.52 Age and Independent Cultural Participation

Categories	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Yes, mostly	8.3	8.0		12.5		6.2
Yes, sometime	16.7	8.0	11.1	25.0	20.0	14.4
No, Dependent on others	2.8	8.0	5.6	25.0		6.2
No, poor health	30.6	60.0	77.8	37.5	50.0	49.5
No, not interested	27.8	4.0	5.6		30.0	15.5
No, no family permission	13.9	12.0				8.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In case of civic participation, we already mentioned zero participation in cultural activities and reason was the COVID-19 pandemic lock down around Pakistan. Table 6.52 represents the comparative results between age groups of OPs and their independent participation in cultural activities if they occurred. Only 6.2 percent made independent visits to cultural activities, 14.4 percent sometimes take the decision to visit cultural activities with different percentages among all age groups with leading percentile in age group 75-79 years, and dependent on others to visit cultural activities, was in 25.0 percent cases in same age group. Poor health is a leading cause to avoid cultural activities and is reported in all age groups with different figures. In age group 80 years and above, 30.0 percent OPs were not interested to visit cultural gatherings.

Table 6.53 Age, Sports, and Volunteer Participation

Response	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Sport Participation						
Yes	44.4	20.0	38.9	12.5	10.0	30.9
No	50.0	80.0	61.1	75.0	90.0	66.0
Sometime	5.6			12.5		3.1
Volunteer Participation						
Yes	44.4	20.0	27.8	50.0	10.0	32.0
No	55.6	80.0	72.2	50.0	90.0	68.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Above table 6.53, explains the relationship between age groups, sports participation and, age group and volunteer participation in their daily life. Sports participation reveals minimum participation was recorded in age group 80 years and above; 12.5 percent participation was reported by age group 75-79 years, and highest number was observed in age category 60-64. Volunteer participation of OPs shows that maximum number was recorded in age group 75-79 years followed by the age group 60-64 years with 44.4 percentage in volunteer activities. Data represents that

minimum participation was found in age group 80 years and above, followed by age group 65-69 and 70-74 years with figures 80.0 and 72.2 percent.

Table 6.54 Age and Volunteer Activities

Responses [p=.000]	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Home chores	55.6	72.0	72.2	37.5	60.0	61.9
Organizing Social event like wedding, funerals prayers	36.1	16.0	16.7	37.5		23.7
Organizing political events	2.8					1.0
Community welfare activities	5.6	4.0	5.6	12.5	10.0	6.2
Providing free education			5.6			1.0
Nothing		8.0		12.5	30.0	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 6.54 explains the distribution of routine volunteer activities performed by OPs of different age groups. Value of *p* [.000] is less than .05, that shows significant association prevailed among age groups and daily volunteer activities performed by OPs. List of activities shows that majority of the older persons were engaged in routine home chores while maximum participation in organizing social events like wedding and funerals was reported by age group 75-79 followed by 36 percent engagement in age group 60-64. Community welfare events were maximum arranged by the OPs in age group 75-79, and 80 year and above. Providing free education was also observed as volunteer activity performed by OPs.

It is most observed that with every increasing year of life, human involvement decreases from his surroundings environment [table 6.55]. Data of above table depicts the participation of OPs in legal and political activities. First section of the table 6.55 tells us that 86.6 percent of the study elders did not participate in legal activities with different percentages in different age groups. Only 13.4 percent of the sample participated in legal activities of their village while maximum participation

was recorded in age group 75-79 years. On the other hand, political participation was reported differently. In political participation, 76.3 percent OPs casted their votes in 2018 general elections of Pakistan. On average, 74.2 percent participation was observed in each age group of OPs.

Table 6.55 Age, Legal and Political Participation

Response	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Legal participation						
Yes	11.1	8.0	11.1	37.5	20.0	13.4
No	88.9	92.0	88.9	62.5	80.0	86.6
Political participation						
Yes	83.3	80.0	61.1	87.5	60.0	76.3
No	16.7	20.0	38.9	12.5	40.0	23.7
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

6.2.2.2 Social relations participation.

Table 6.56 Age and Social Participation

Response	Age Categories [p=.007]					Total
	60-64	65-69	70-74	75-79	80 and above	
Social participation						
Yes	94.4	88.0	72.2	62.5	50.0	81.4
No	5.6	12.0	27.8	37.5	50.0	18.6
Family contact						
Yes	69.4	84.0	33.3	50.0	70.0	64.9
No	30.6	16.0	66.7	50.0	30.0	35.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Participation of OPs in social relations is further divided into sub-questions. Table 00 explains the relationship of age with social participation and family contact. In case of social participation, results of chi-square test reveal that significant association exists between age and social participation of OPs with *p* value .007. And this is also observed from the numbers of above table

that every age group is reporting less participation as compared to previous age group. For example, social participation was recorded at 94.4 percent in age group 60-64, and 50.0 percent reported in age 80 years and above. Family contact is based on OPs daily interaction with their family at dining table. And the results show that 64.9 percent of the sample usually dine with their families with some variations in each age group. Minimum interaction with family on dining table was reported by age group 70-74 years, that is 66.7 percent.

Table 6.57 Age and Loneliness

Response	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Yes	72.2	68.0	77.8	87.5	80.0	74.2
No	27.8	32.0	22.2	12.5	20.0	25.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Data of above table [6.57] shows prevalence of loneliness among different age groups of older persons. Total respondents who responded in favor of yes were 74.2 percent. In age category 60-64, 72.2 percent OPs reported loneliness, 68 percent loneliness was reported by OPs with age 65-69 years, age category 70-74 years showed 77.8 percent respondents facing loneliness, and highest number was observed among OPs of age 75-79 years, that is 87.5 percent.

Social contacts are an important indicator of social engagements which help you remain socially active in daily life [6.58]. OPs of *Sohan* were asked about their frequent visitors and reply were mentioned in above comparative table. In case of grandchildren who visited their elders, maximum percentage was reported by age 80 years and above. Second highest figure was reported in age bracket 75-79 years and that is 37.5 percent. Children who visited their parents were reported at 38.9 percent by first age category, 24 percent in second age category, 27.8 percent in age category

70-74, 75-79 years category recorded 12.5 percent, and 20 percent by age 80 years and above. Blood relatives' visits were reported at second highest numbers for those who visited the elders of *Sohan*, for which number was at 29.9 percent. Remote relatives, friends/ex-colleagues and neighbors also visited OPs having age less than 80 years. Chi-square results also unveils the existence of significant relationship between different age groups of older persons and their frequent visitors with *p* value .000. Social isolation is calculated on the basis of no visitation by any of the above. This means 10.3 percent OPs socially isolated because of no visitation.

Table 6.58 Age and Frequent Visitors

Response	Age Categories [p=.000]					Total
	60-64	65-69	70-74	75-79	80 and above	
Grand children	13.9	20.0	11.1	37.5	50.0	20.6
Children	38.9	24.0	27.8	12.5	20.0	28.9
Blood Relatives	36.1	28.0	27.8	25.0	20.0	29.9
Remote Relatives	2.8	8.0	5.6			4.1
Friends/ Ex-colleagues	2.8		16.7	12.5		5.2
Neighbors				12.5		1.0
None	5.6	20.0	11.1		10.0	10.3
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.59 Age and Social Networking

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Yes: CSO	2.8	4.0			10.0	3.1
Yes: Masjid Committee	2.8	4.0	5.6	25.0	20.0	7.2
Yes: Elderly Association	2.8	8.0				3.1
Yes: Old age home	0.0	0.0	0	0	0	0.0
Yes: Total	8.3	8.0	5.6	25.0	30.0	11.3
No	91.7	92.0	94.4	75.0	70.0	88.7
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Social networking is calculated on the basis of four different membership holding statuses.

i. Member of any CSO

ii. Member of masjid committee

iii. Member of elderly association

iv. Member of old age home.

Among 97 OPs, 11.3 percent reported "yes" to any of above-mentioned memberships. CSO membership was reported in 3.1 percent cases, masjid committee membership was recorded in 7.2 percent OPs, 3.1 percent OPs argued in favor of membership of elderly association, and no old age home member was found [table 6.59].

Table 6.60 Age and Familial Support

Responses	Age Categories [p=.008]					Total
	60-64	65-69	70-74	75-79	80 and above	
Strong Family Support	16.7	16.0	33.3	50.0	70.0	27.8
Moderate Family Support	25.0	32.0	22.2	25.0	30.0	26.8
Low Family Support	19.4	12.0	33.3	25.0		18.6
No	38.9	40.0	11.1			26.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table of age and familial support represents the prevalence of family support patterns with reference to different age groups of elder people [6.60]. Familial support is available for all OPs having age 75 years and above while in age group 60-64 years, 38.9 percent reported no family support, for 40.0 percent, no support was available for age group 65-69 years, and the same was 11 percent in case of 70-74 years of age. Maximum strong family support is available for the elder age category and that is 70 percent. Second highest percentile is recorded in age group 75-79 years. Findings of the chi-square results show the existence of strong correlation between age groups and familial support with *p* value .008.

6.2.2.3 Services participation.

Table 6.61 Age, Health Services and Utilization

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Access to Health Services						
Yes	94.4	88.0	94.4	100.0	90.0	92.8%
No	5.6	12.0	5.6		10.0	7.2%
Total	100.0	100.0	100.0	100.0	100.0	100.0%
Utilization of health services						
Govt Hospital	52.8	52.0	27.8	25.0	20.0	42.3%
Private Hospital	13.9	8.0	22.2	50.0	40.0	19.6%
Community doctor	27.8	28.0	44.4	25.0	30.0	30.9%
Self-medication	2.8	4.0	5.6		10.0	4.1%

Access to medical services is explained by the above table 6.61. Data shows that 92.8 percent of the OPs have access to health care services for their medical treatment. Those having access to medical services reported 42.3 percent utilization of Government health facilities, 19.6 percent visited private hospitals for treatment, and 30.9 percent visit their community doctor. Few of the respondents were practicing self-medication. Majority of the older persons having age 80 years and above visiting private hospitals while in age group 60-64 years experiencing government health facilities. Community doctor was visited by 44.4 percent of OPs in between age 70-74 years.

Table 6.62 Age and Transport Services

Responses	Age Categories [p=.003]					Total
	60-64	65-69	70-74	75-79	80 and above	
On foot	22.2	16.0	33.3	12.5	30.0	22.7
Motorcycle	38.9	36.0	11.1		10.0	26.8
Personal vehicle	5.6	12.0	16.7	50.0	20.0	14.4
Taxi/Rikshaw	8.3	4.0	33.3	37.5	30.0	16.5
Public Van	25.0	32.0	5.6		10.0	19.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In terms of utilization of transport services, data represents that 77.3 percent sample of the study have access to the transport facilities [table 6.62]. Motorcycle was utilized by 26.8 percent OPs, personal vehicles like car was used by 14.4 percent respondents, 16.5 percent older persons were using taxi/Rikshaw for travel, and public van was utilized by 19.6 percent of the sample.

6.2.2.4 Financial/material participation.

Table 6.63 Age, Currently Working, Property and Family Expenses

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Currently working						
Yes	33.3	24.0	16.7			21.6
No	66.7	76.0	83.3	100.0	100.0	78.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Property at your name						
Yes	61.1	44.0	50.0	50.0	60.0	53.6
No	38.9	56.0	50.0	50.0	40.0	46.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sufficient income for family expenses						
Yes	63.9	44.0	72.2	87.5	100.0	66.0
No	36.1	56.0	27.8	12.5		34.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Above table represents the relationship of age groups of older persons with three questions.

i. Are your currently working?

ii. Do you have any property in your name?

iii. Family income is sufficient for family expenses or not.

Data reveals that 21.6 percent OPs are currently working within first three age groups. In age group 60-64, 33.3 percent are working, 24 percent are in age group 65-69, and 16.7 percent in 70-74 years [table 6.63]. No one is found working in age 75 years and above. In second question, results show that 61.1 percent in age group 60-64, and 60.0 percent in age 80 years and above have

property in their names. Sufficient family income to fulfill family expenses was reported by 66.0 percent respondents with highest percentile is observed among OPs of last age category.

Table 6.64 Age and Social Security

Responses	Age Categories [p=.000]					Total
	60-64	65-69	70-74	75-79	80 and above	
No	50.0	68.0	44.4	25.0	50.0	51.5
Savings		4.0		12.5	10.0	3.1
Property					10.0	1.0
Agriculture	13.9	4.0	22.2	25.0		12.4
Pension	25.0	24.0	27.8	37.5	30.0	26.8
Remittances	8.3					3.1
Zakat	2.8		5.6			2.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Social security is much needed in later phases of life. Present table explains the current social security patterns available to OPs of *Sohan*. In 51.5 percent cases, no social security web is reported [table 6.64]. Saving is observed in 3.1 percent cases, 12.4 percent OPs getting support from their agricultural resources, and pension is recorded with the largest figure that is 26.8 percent. If we divide it into age groups, we found that among 37.5 percent OPs getting pension in age group 75-79 years and 30.0 percent in 80 years and above. Remittances and zakat are also reported by 5.2 percent OPs.

6.2.2.5 Neighborhood/community participation.

Age and community engagement was described by above results. Study found that 60.8 percent respondents have no community engagements while rest of the OPs involved in political and welfare gatherings of community. Political gathering was reported by 13.4 percent of respondents while welfare gathering were attended by 25.8 percent OPs [table 6.65]

Table 6.65 Age and Community Engagement

Community events	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Never	47.2	56.0	83.3	62.5	80.0	60.8
Political Gatherings	11.1	16.0	11.1	25.0	10.0	13.4
Welfare Gatherings	41.7	28.0	5.6	12.5	10.0	25.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.66 Age and Neighborhood Participation

Ranking	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Extremely positive	30.6	16.0		12.5	10.0	17.5
Positive	55.6	44.0	72.2	50.0	30.0	52.6
Neither positive nor negative	13.9	40.0	27.8	37.5	50.0	28.9
Negative					10.0	1.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How do you rank your visits to the neighborhood and community? Extremely positive response was reported by 17.5 percent respondents, 52.6 percent OPs favored the positive rank [table 6.66]. Among the respondents who reported positive ranking status, OPs aged between 70-74 years marked the highest number that is 72.2 percent.

Table 6.67 Age and Safe Neighborhood

Safe Neighborhood	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Very much	33.3	16.0	27.8	12.5		22.7
Somehow	47.2	44.0	38.9	62.5	30.0	44.3
No	19.4	40.0	33.3	25.0	70.0	33.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Neighborhood safety is categorized into three options [table 6.67]. Neighborhood is very much safe for OPs, was reported by 22.7 percent respondents while 44.3 percent argued that their neighborhood is somehow safe. 33 percent felt that the neighborhood was not safe.

Table 6.68 Age and Neighborhood Cohesion

Neighborhood/Community Cohesion - Edited	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Yes	52.8	44.0	16.7	37.5	20.0	39.2
No	47.2	56.0	83.3	62.5	80.0	60.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Age and neighborhood cohesion among OPs was divided according to their age groups. Maximum community/neighborhood involvement were found in age group 60-64 and that is 52.8 percent. Among total sample, 60.8 percent have reported no community/neighborhood cohesion.

6.2.2.6 Decent housing participation.

Table 6.69 Age and Home Satisfaction

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Very Satisfied	22.2	28.0	22.2	12.5	40.0	24.7
Satisfied	50.0	56.0	33.3	25.0	40.0	45.4
Fair	22.2	4.0	38.9	62.5	20.0	23.7
Dissatisfied	5.6	12.0	5.6			6.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Home satisfaction adds an additional comfort in lives of older persons [table 6.69]. Data tells us that 24.7 percent of OPs were very satisfied with their housing arrangements while 45.4 percent marked satisfied option as a response. OPs who reported dissatisfaction with home are 6.2 percent.

Table 6.70 Age and Room Temperature

	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Facility of						
Heater	61.1	68.0	44.4	50.0	60.0	58.8
Fan	97.2	92.0	100.0	100.0	100.0	96.9
AC	8.3	8.0	11.1	25.0		9.3
Room temperature satisfaction						
Yes	61.1	68.0	44.4	50.0	60.0	58.8
No	38.9	32.0	55.6	50.0	40.0	41.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To encounter the harshness of weather, facilities of heater, fan and AC help OPs to stay safe from both low and high temperature [table 6.70]. OPs having access to heaters in winter are 58.8 percent [N=97], 96.9 percent [N=97] utilized fan in summers, and 9.3 percent having additional facility of AC to control hot weather. If we look at the responses of OPs about overall satisfaction with room temperature, 41.2 percent were not satisfied with room temperature.

Table 6.71 Age and Bed Satisfaction

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Very Satisfied	27.8	24.0	27.8	37.5	30.0	27.8
Satisfied	61.1	48.0	38.9	50.0	50.0	51.5
Fair	11.1	20.0	33.3	12.5	20.0	18.6
Dissatisfied		8.0				2.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.71 mentioned the responses of OPs on opinions about their bed. OPs who were very satisfied with their bed were 27.8 percent, 51.5 percent respondents were satisfied with their bed, fair bed arrangements were reported by 18.6 percent OPs, and 2.1 percent reported being dissatisfied.

Table 6.72 Age and Food Quantity

Responses	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Yes, mostly	47.2	44.0	61.1	75.0	60.0	52.6
Yes, somehow	52.8	52.0	38.9	12.5	40.0	45.4
No		4.0		12.5		2.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How much food is required and how much provided? Results of table 6.72 shows that 52.6 percent OPs have sufficient quantity of food as per their requirements and 45.4 percent argued that food quantity did not fulfill their need.

6.2.2.7 Digital participation.

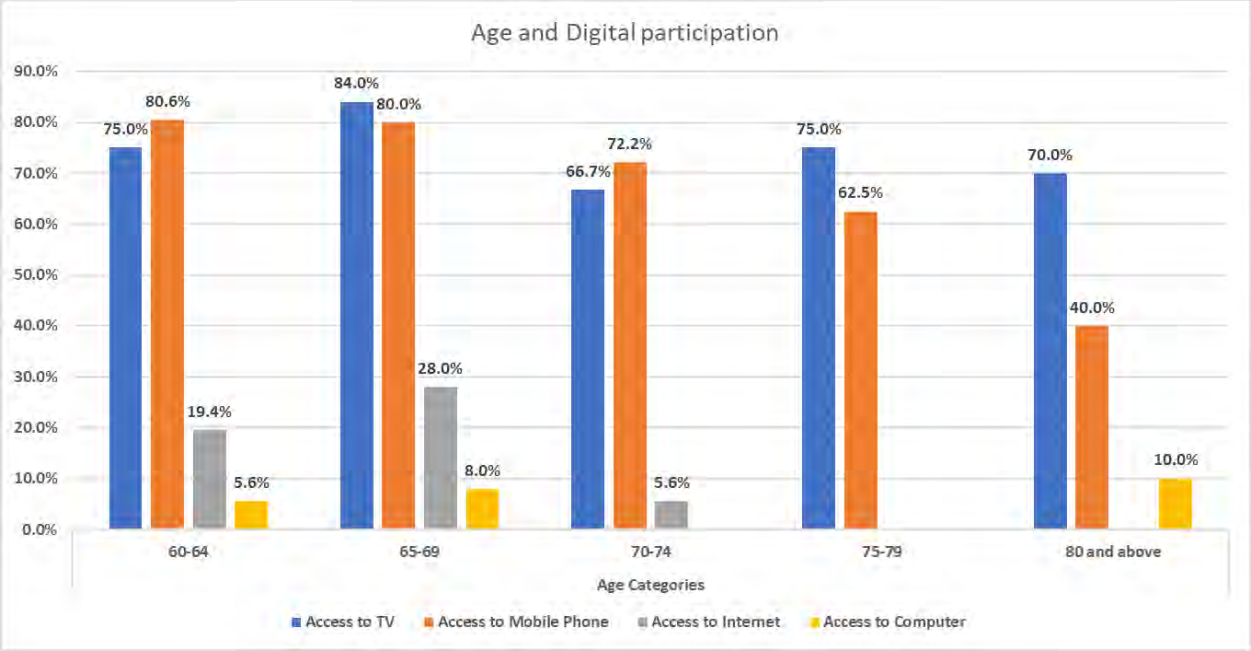


Figure 6.21 Age and digital participation [n=97]

Technology and its related developments are now encultured in our society, and it is considered as a basic part of our everyday life. It is also important for older persons to utilize technology to maintain social connections, and to get information. Data of present study reveals that 75.3 percent

[N=97] older persons of *Sohan* have facility of TV, 73.2 percent [N=97] utilize mobile/cell phones, internet facility was only reported by 15.2 percent [N=97], and 5.2 percent [N=97] using computer/laptop in their homes.

6.2.3 Ageing and Dimensions of Social Exclusion

Data on seven dimensions of social exclusion is presented in this study. Above chart explains the overall prevalence of social exclusion categorized by its seven dimensions. Data reveals that civic exclusion was reported among all its categories, starting from insignificant to severe with maximum percentile observed in category of "major exclusion". Social exclusion was observed in top three categories and highest figure was in "severe exclusion".

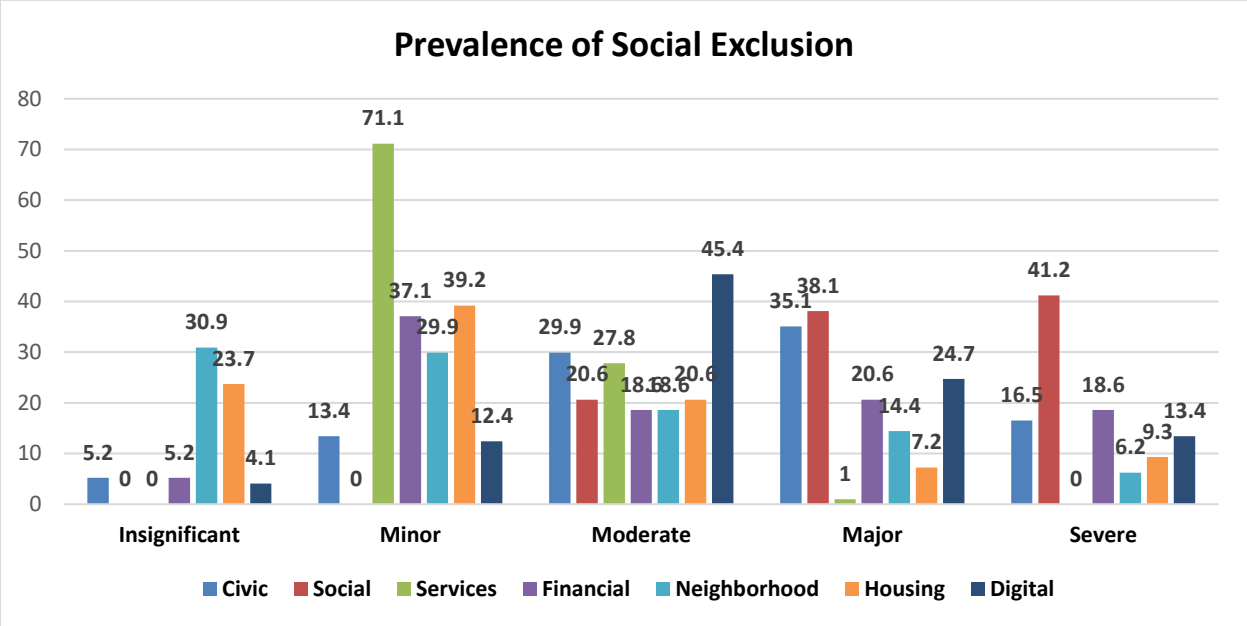


Figure 6.22 Prevalence of Social Exclusion

Services exclusion was reported mainly in minor and moderate category. In financial exclusion, highest percentage was reported in category of "minor exclusion" followed by 20.6 percent OPs

reported major financial exclusion. Neighborhood/community exclusion was mainly reported in first three categories which represents 30.9 percent insignificant exclusion, 29.9 percent minor exclusion, and 18.6 percent facing moderate exclusion. In category of decent housing exclusion, 39.2 percent OPs reported minor exclusion while in digital exclusion category, 45.4 percent reported facing moderate digital exclusion.

6.2.3.1 Age and civic exclusion.

Table 6.73 Age and Civic Exclusion

Civic Exclusion (with culture)	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Insignificant	5.6	4.0	5.6	12.5		5.2
Minor	22.2	4.0	5.6	25.0	10.0	13.4
Moderate	33.3	24.0	38.9	25.0	20.0	29.9
Major	33.3	52.0	22.2	25.0	30.0	35.1
Severe	5.6	16.0	27.8	12.5	40.0	16.5
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ageing and dimensions of social exclusion explain the relationship between age categories of OPs with patterns of seven dimensions of social exclusion. Table 6.73 depicts the association between age groups and civic exclusion faced by OPs of *Sohan*, divided within five categories starting from insignificant to severe civic exclusion. Data reveals that no insignificance was recorded in age category of 80 years and above, while on the other hand, maximum severe civic exclusion among older persons was observed among same age group with around 40.0 percent. Data also represents that minimum severe civic exclusion was reported by the age group 60-64 years. Percentages within minor, moderate, and major varies among OPs. Minor civic exclusion was reported highest in 75-79 years of OPs, moderate was highest among OPs of age group 70-74, and age category 65-69 years reported major civic exclusion.

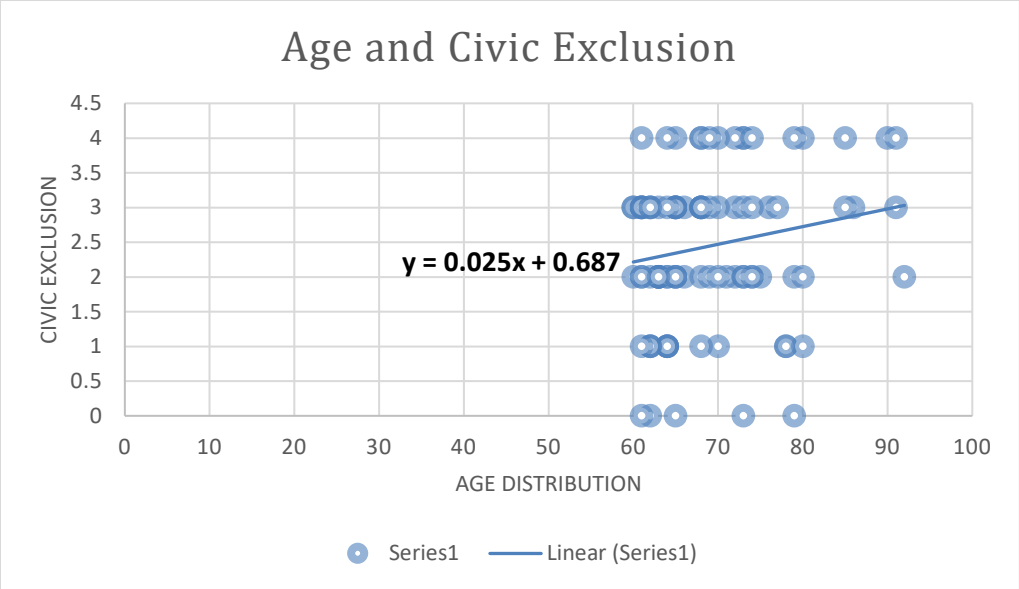


Figure 6.23 Age and Civic Exclusion

H_0 = there is no systematic linear effect of age on civic exclusion
H_1 = there is a systematic linear effect of age on civic exclusion

Simple Linear regression model for age and civic exclusion

$$y = a + bx$$

$y = dependent\ variable = civic\ exclusion$
$a = intercept$
$b = slop\ of\ line$
$x = independent\ variable = age$

$$Civic\ Exclusion = a + b * Age$$

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.687	.966		.711	.479
	Age Distribution	.025	.014	.185	1.830	.070

Model is,

$y = 0.687 + 0.025x$
$Civic\ Exclusion = 0.687 + 0.025 * Age$ p=.070

Accepted our, H_0, there is no significant linear effect of age on civic exclusion.

To explain the regression model with reference to intercept and slop in case of civic exclusion, if we take age as zero, civic exclusion is equal to .687. And .0255 the value of *beta* is the marginal effect of one unit of age on civic exclusion if we take *x* as 1. This explains that a slope coefficient is the change in Y caused by a one-unit increase in *x*. This shows a positive relationship between age and civic exclusion among OPs but the calculated *p* value is .070, greater than value of alpha [.05]. So in case of non-significance, we accept our null hypothesis and concludes retention of the null hypothesis H0 : β1 (slop of line) = 0, indicates poor evidence or no evidence that a change in x is associated with a change in y or the change occurred in y due to the change in x is very nominal.

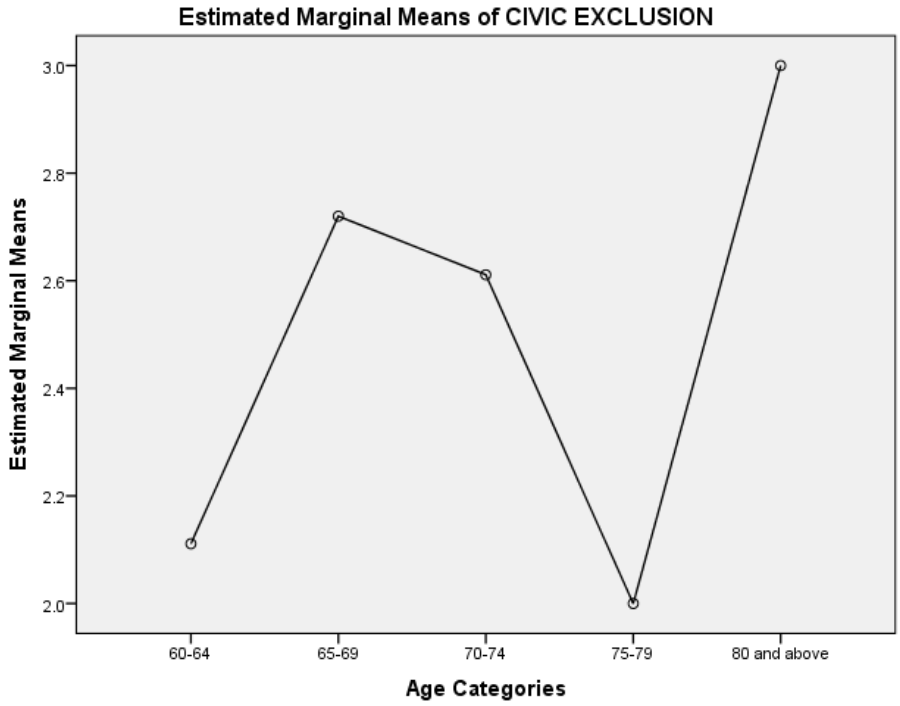


Figure 6.24 Age Categories and Exclusion from Social Relation [Marginal Means]

Above figure represents the line graph to explain the estimated marginal mean line for the prevalence of civic exclusion among older persons with distribution among different age groups. Another graph for a briefer understanding on the prevalence of civic exclusion is added in Annexure B for reference.

6.2.3.2 Age and exclusion from social relations.

Table 6.74 Age and Exclusion from Social Relations

Social Relation Exclusion	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Moderate	22.2	24.0	11.1	12.5	30.0	20.6
Major	38.9	48.0	27.8	37.5	30.0	38.1
Severe	38.9	28.0	61.1	50.0	40.0	41.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table [6.74] explains prevalence of exclusion from social relations with respect to different age groups of OPs. Data reveals that three categories of exclusion from social relation exists among OPs of *Sohan* village. Highest rate of moderate exclusion was reported by the age group 80 years and above OPs. Major percentile of exclusion from social relations was recorded among age group 65-69 years old, while severe exclusion was observed among OPs having age between 70-74 years of age.

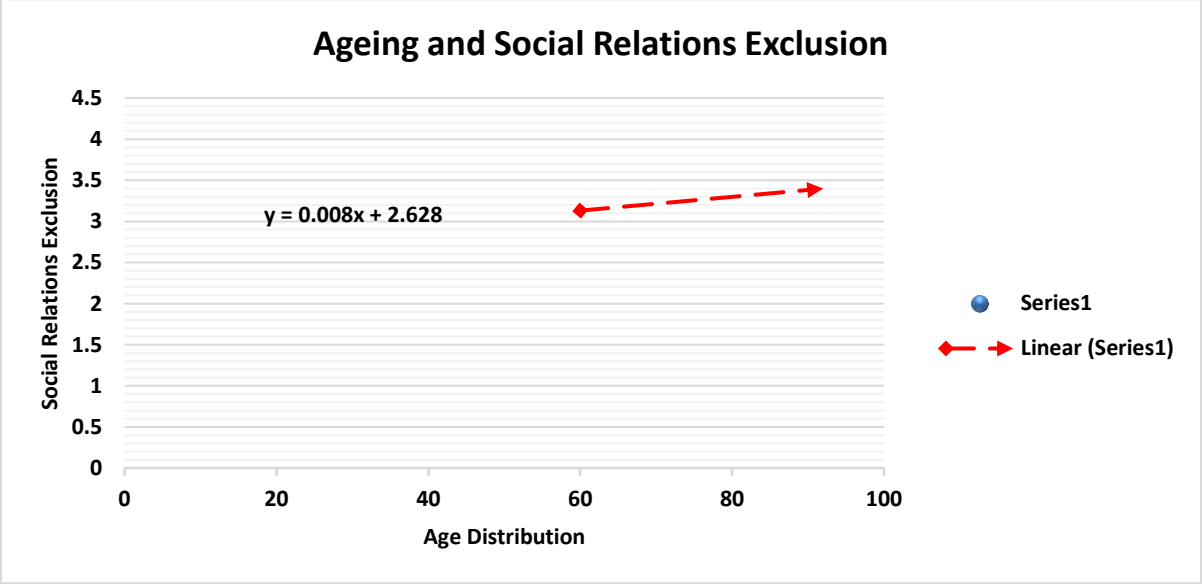


Figure 6.25 Ageing and Exclusion from Social Relations

H_0 = there is no systematic linear effect of age on social relations exclusion
H_1 = there is a systematic linear effect of age on social relations exclusion

Simple linear regression model for age and social relations exclusion
$y = a + bx$
$y = dependent\ variable = social\ relations\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.628	.692		3.800	.000
Age Distribution	.008	.010	.086	.841	.403

$y = 2.628 + 0.008x$
$Social\ relation\ exclusion = 2.628 + 0.008\ age$ $p = .403$

Model of simple linear regression explained positive relationship between age and exclusion from social relations, but slop of the sample represents that very small mean change in output variable occurs when we increased in number in age. H_0 is accepted based on p value that is greater than .05 and concludes that there is no significant effect of age on social relations exclusion.

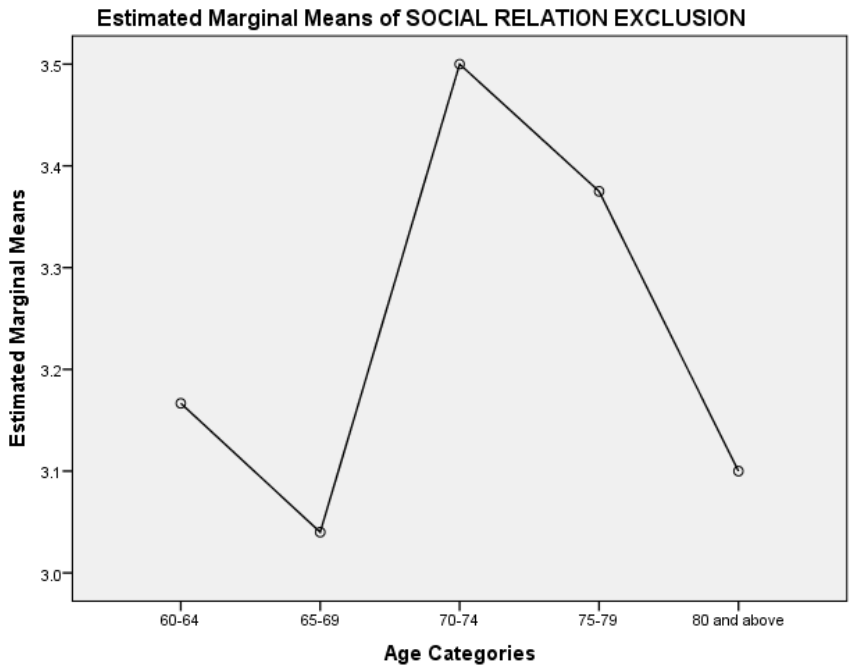


Figure 6.26 Age Categories and Exclusion from Social Relation [Marginal Means]

6.2.3.3 Age and services exclusion.

Table 6.75 Age and Services Exclusion

Services Exclusion	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Minor	72.2	72.0	61.1	87.5	70.0	71.1
Moderate	27.8	28.0	38.9	12.5	20.0	27.8
Major					10.0	1.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Prevalence of services exclusion in old age was explained by above table [6.75]. Data reveals that majority of the OPs reported minor exclusion in services categories. In age group 60-64 years, OPs reported 72.2 percent minor exclusion from services, 72 percent minor services exclusion was recorded among 65-69 years elders, OPs between age group 70-74 respondents argued in favor of minor exclusion, highest number was reported by OPs in age group 75-79 years of age, and OPs with age 80 years and above faced 70 percent minor services exclusion. Highest moderate services

exclusion was observed in age category 70-74 years [38.9%]. Major services exclusion was only reported by those OPs having age 80 years and above.

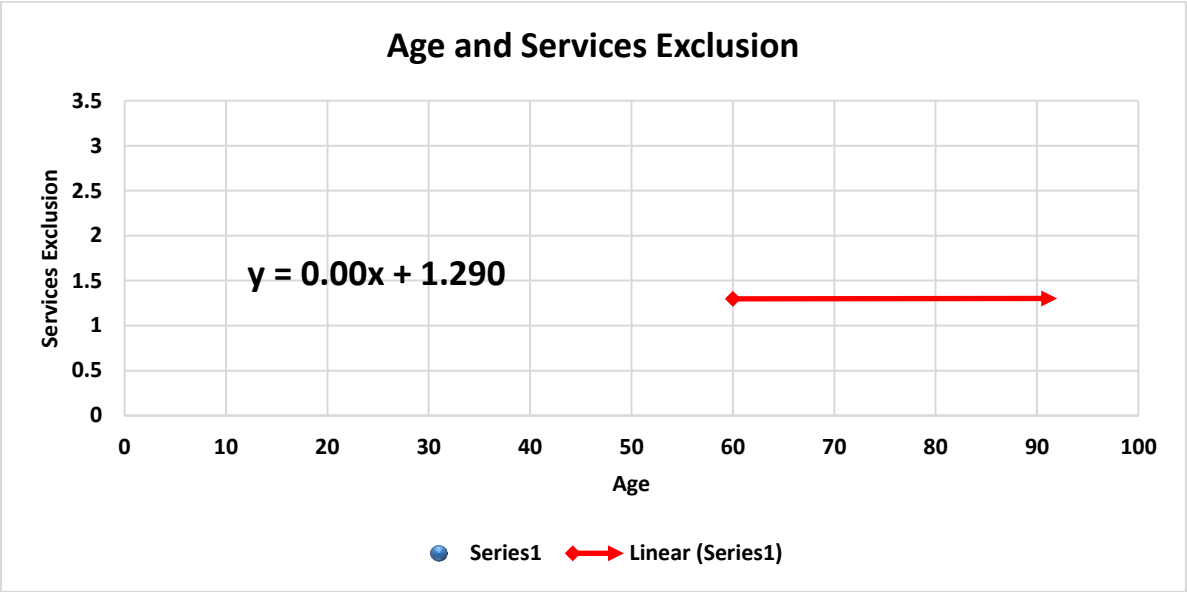


Figure 6.27 Age and Services Exclusion

H_0 = there is no systematic linear effect of age on services exclusion
H_1 = there is a systematic linear effect of age on services exclusion

Linear regression model for ageing and services exclusion
$y = a + bx$
$y = dependent\ variable = services\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.290	.439		2.939	.004
Age Distribution	.000	.006	.002	.021	.983

Dependent Variable: Services Exclusion

$y = 1.290 + 0.00x$
$Services\ exclusion = 1.290 + 0.000age$ $p = .983$
$Mean = 1.40, S.D = .699\ (80\ years\ and\ above - highest)$

Slop in the present regression model is equal to zero. This explain that no change will be observed in output variable after putting any value of *x* in model equation. Here we also accepted our H_0 on the basis of *p* value that is greater than .05. So, we conclude that age that there is no significant effect of age on services exclusion is found.

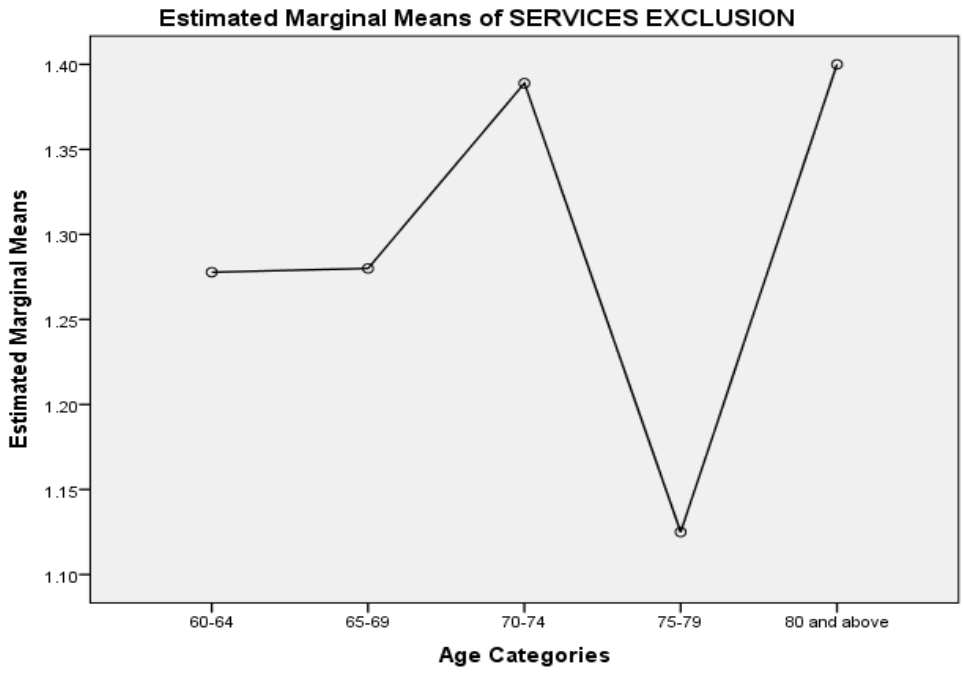


Figure 6.28 Age Categories and Services Exclusion [Marginal Means]

6.2.3.4 Age and financial/material exclusion.

Table 6.76 Age and Financial/Material Exclusion

Financial Exclusion	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Insignificant	8.3		11.1			5.2
Minor	41.7	28.0	33.3	50.0	40.0	37.1
Moderate	16.7	20.0	11.1	25.0	30.0	18.6
Major	16.7	20.0	27.8	12.5	30.0	20.6
Severe	16.7	32.0	16.7	12.5		18.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6.76 represents the existence of financial exclusion among older persons of *Sohan*. Insignificant financial exclusion was only reported by OPs among two age categories, one is 60-64 [8.3%], and second is 70-74 years [11.1%]. Minor financial exclusion was leading with highest numbers among all age groups. OPs argued in favor of moderate financial exclusion were 18.6 percent of the total, and among them OPs with age 80 years and above reported 30 percent financial exclusion, followed by the same prevalence in same group in major financial exclusion category. Severe financial exclusion was reported by 18.6 percent of the sample with highest percentage found among OPs between age group 65-69 years.

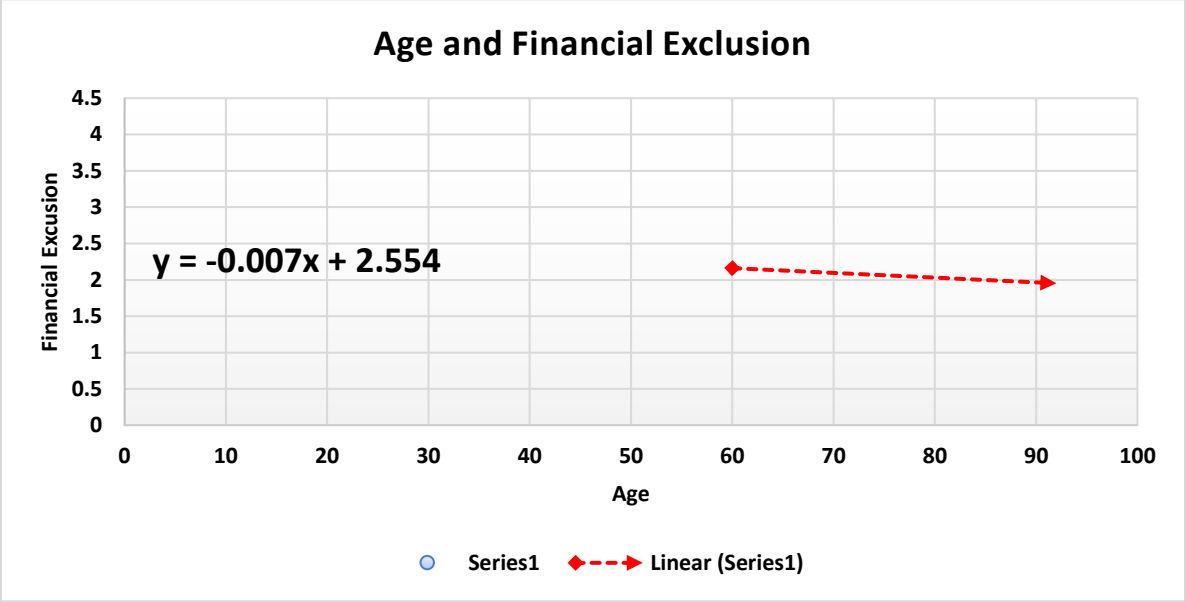


Figure 6.29 Age and Financial Exclusion

H_0 = there is no systematic linear effect of age on financial exclusion
H_1 = there is a systematic linear effect of age on financial exclusion

Simple linear regression model for age and financial exclusion
$y = a + bx$
$y = dependent\ variable = financial\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.554	1.125		2.27	0.025
Age Distribution	-0.007	0.016	-0.041	-0.403	0.688

Dependent Variable: Financial Exclusion

$y = 2.554 - 0.007x$
$Financial\ exclusion = 2.554 - 0.007age$ $p = .688$

H_0 is accepted, there is no significant linear effect of age on financial exclusion. Intercept is positive but the value of slop is negative.

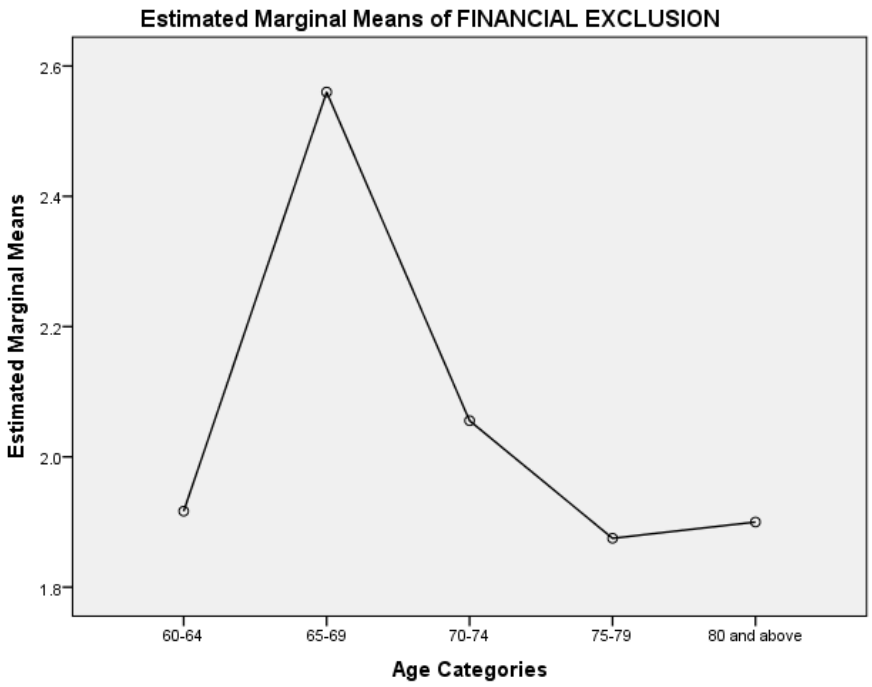


Figure 6.30 Age Categories and Financial/Material Exclusion [Marginal Means]

6.2.3.5 Age and neighborhood/community exclusion.

Table 6.77 Age and Neighborhood/Community Exclusion

Neighborhood/Community Exclusion	Age Categories [p=.005]					Total
	60-64	65-69	70-74	75-79	80 and above	
Insignificant	47.2	28.0	11.1	25.0	20.0	30.9
Minor	30.6	24.0	55.6	25.0		29.9
Moderate	11.1	28.0	5.6	50.0	20.0	18.6
Major	11.1	12.0	16.7		40.0	14.4
Severe		8.0	11.1		20.0	6.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Occurrence of neighborhood and community exclusion among older persons of *Sohan* is represented by above table [6.77]. Insignificant neighborhood/community exclusion was reported by 30.9 percent of sample with highest majority, and 47.2 percent were among age group 60-64 years. Severe neighborhood/community exclusion is observed to be highest among OPs with age 80 years and above with around 20 percent. Following the same pattern, 40 percent of OPs with age 80 years and above reported major exclusion in this dimension. Moderate exclusion among older persons was divided among OPs with different ratios, 11 percent among 60-64 years of OPs, 28 percent among 65-69 years, 5.6 percent among 70-74 years and highest percentage was reported by OPs having age between 75-79 years. Data also reveals that significant association exists between age groups and neighborhood/community exclusion with calculated *p* value .005.

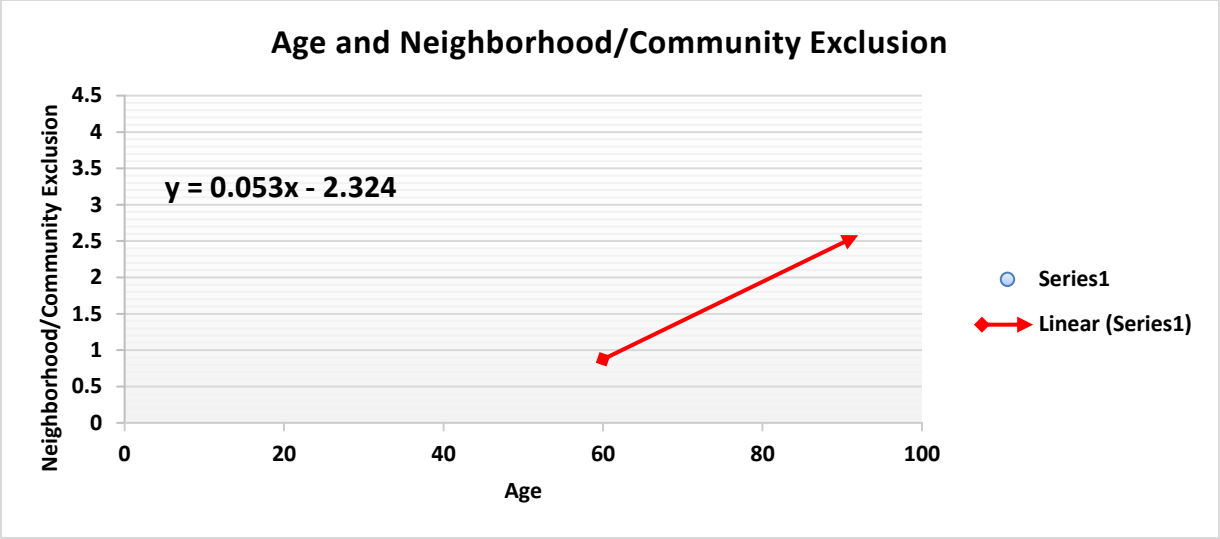


Figure 6.31 Age and Neighborhood/Community Exclusion

H_0 = there is no systematic linear effect of age on neighborhood/ community exclusion
H_1 = there is a systematic linear effect of age on neighborhood/ community exclusion

Linear regression model for ageing and financial exclusion
$y = a + bx$
$y = dependent\ variable = neighborhood/community\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-2.324	1.056		-2.200	.030
Age Distribution	.053	.015	.338	3.501	.001

Dependent Variable: Neighborhood/Community Exclusion

$y = -2.3243 + 0.053x$ $p = .001$
$Mean = 2.40, S.D = 1.430\ (80\ \ years\ and\ above - highest)$

Accepted H_1, there is a systematic linear effect of age on neighborhood/ community exclusion. Regression model shows negative intercept and a positive slop of line. So, this represents that neighborhood/community exclusion increased with age and reported a positive relationship.

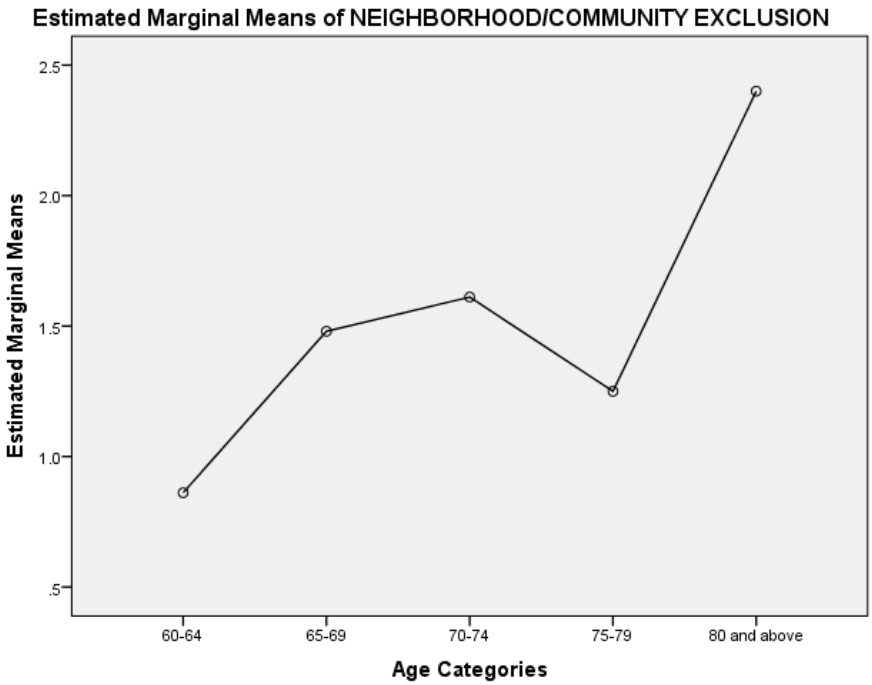


Figure 6.32 Age Categories and Neighborhood/Community Exclusion [Marginal Means]

6.2.3.6 Age and decent housing exclusion.

Table 6.78 Age and Decent Housing Exclusion

Decent Housing	Age Categories[p=.039]					Total
	60-64	65-69	70-74	75-79	80 and above	
Insignificant	27.8	24.0	22.2		30.0	23.7%
Minor	27.8	48.0	38.9	62.5	40.0	39.2%
Moderate	36.1	8.0	11.1	25.0	10.0	20.6%
Major	2.8	12.0		12.5	20.0	7.2%
Severe	5.6	8.0	27.8			9.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Severe exclusion from decent housing was reported by 9.3 percent of the sample with highest percentage observed among OPs of age group 70-74 years [table 6.78]. Insignificant housing exclusion was recorded in 23.7 percent cases. Among 39.2 percent OPs reported minor exclusion from decent housing; 62.5 percent belonged to age group 75-79 years, and 40 percent were from

age 80 years and above. Major exclusion from decent housing was reported by 20 percent OPs having age 80 years and above. Responses among minor and moderate categories vary between age groups. Calculated value of p [.039] represents the prevalence of significant association between the age groups and exclusion from the decent housing.

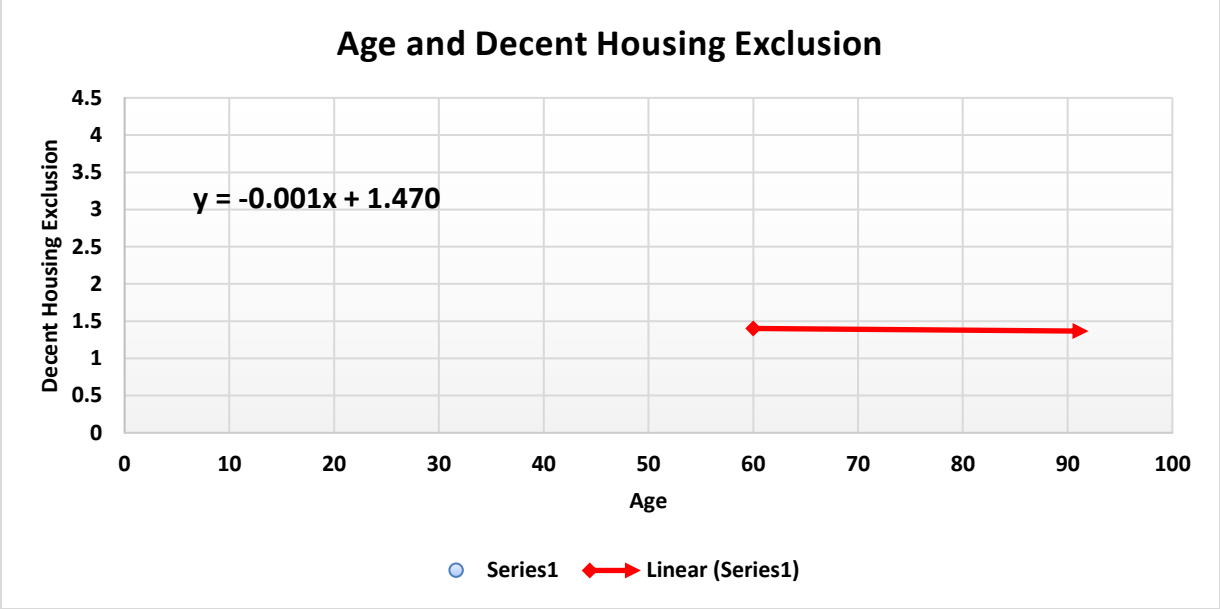


Figure 6.33 Age and Decent Housing Exclusion

H_0 = there is no systematic linear effect of age on decent housing exclusion,
H_1 = there is a systematic linear effect of age on decent housing exclusion

Linear regression model for ageing and decent housing exclusion
$y = a + bx$
$y = dependent\ variable = decent\ housing\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.470	1.087		1.352	.180
Age Distribution	-.001	.016	-.007	-.072	.943

Dependent Variable: Decent Housing

$y = 1.470 - 0.001x$ $p = .943$

$Mean = 1.72, S.D = 1.565\ (70 - 74\ years - highest)$

H_0 is accepted, there is no systematic linear effect of age on decent housing exclusion. Negative slop not only represents the downwards movement but also shows that movement is very much low as value is .001. and *p* value explains that no linear effect or relationship of age is found on decent housing exclusion. In addition, figure 6.34 represents the actual scene of decent housing exclusion among different age groups of older persons. Highest estimated marginal mean was captured in age group 70-74 followed by the highest standard deviation was also observed in same age group.

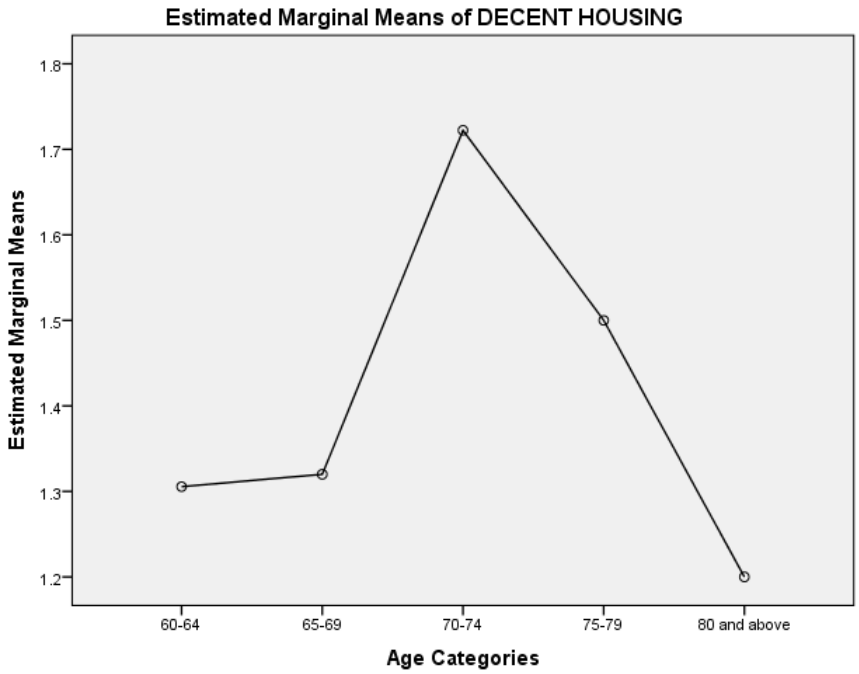


Figure 6.34 Age Categories and Decent Housing Exclusion [Marginal Means]

6.2.3.7 Age and digital exclusion.

Table 6.79 Age and Digital Exclusion

Digital Exclusion	Age Categories					Total
	60-64	65-69	70-74	75-79	80 and above	
Insignificant	5.6	8.0				4.1
Minor	13.9	20.0	5.6		10.0	12.4
Moderate	41.7	44.0	61.1	62.5	20.0	45.4
Major	33.3	20.0	5.6	12.5	50.0	24.7
Severe	5.6	8.0	27.8	25.0	20.0	13.4
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Major data of digital exclusion dimension is reported among last three categories of table 6.79. Moderate exclusion from digital world was reported by 45.4 percent of the sample being the leading figure. In this category, 61 percent of moderate exclusion was observed in age group 70-74 years, and 62.5 percent in age group 75-79 percent. On the other hand, if we look at the major category of digital exclusion, highest number was reported by OPs aged 80 years and above. Severe category was mainly observed among OPs with age 70 years and above.

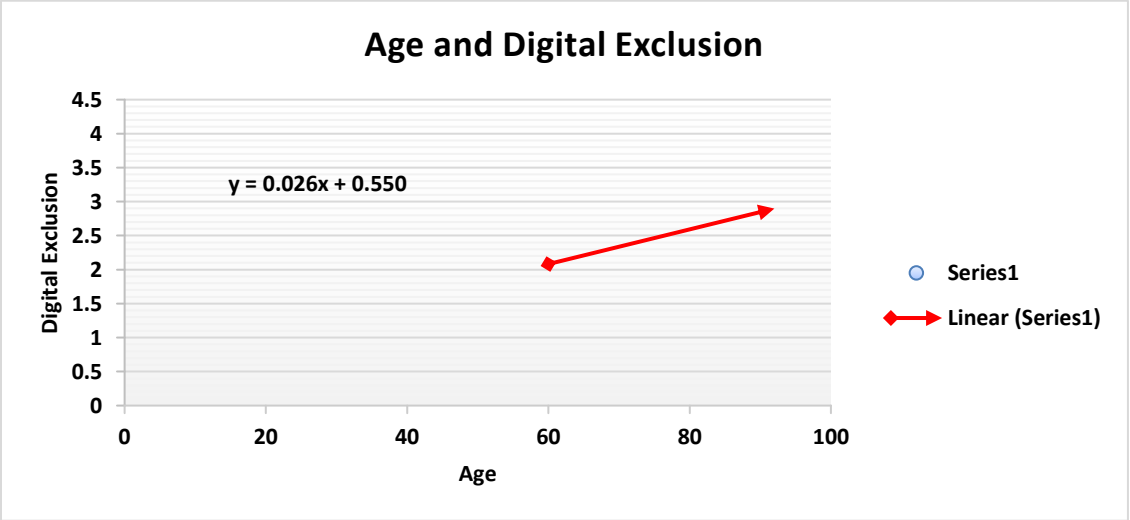


Figure 6.35 Age and Digital Exclusion

H_0 = there is no systematic linear effect of age on digital exclusion,
H_1 = there is a systematic linear effect of age on digital exclusion

Linear regression model for ageing and decent housing exclusion
$y = a + bx$
$y = dependent\ variable = digital\ exclusion$
$x = independent\ variable = age$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.550	.885		.622	.536
Age Distribution	.026	.013	.201	1.999	.048

Dependent Variable: Digital Exclusion

$y = 0.550 + 0.026x$ $p = .048$
$Mean = 2.80\ (80\ years\ and\ above), S.D = 1.041\ (65 - 69\ years - highest)$

Results of the regression analysis presents that value of alpha is equal to .550, and value of slop of line is .026. p value is .048, that is less than .05, so we accepted H_1, there is a systematic linear effect/relationship of age on digital exclusion. Figure 3.36 reveals the consistent upwards movement of digital exclusion as their age categories, and the most highest category reported the more higher numbers in digital exclusion.

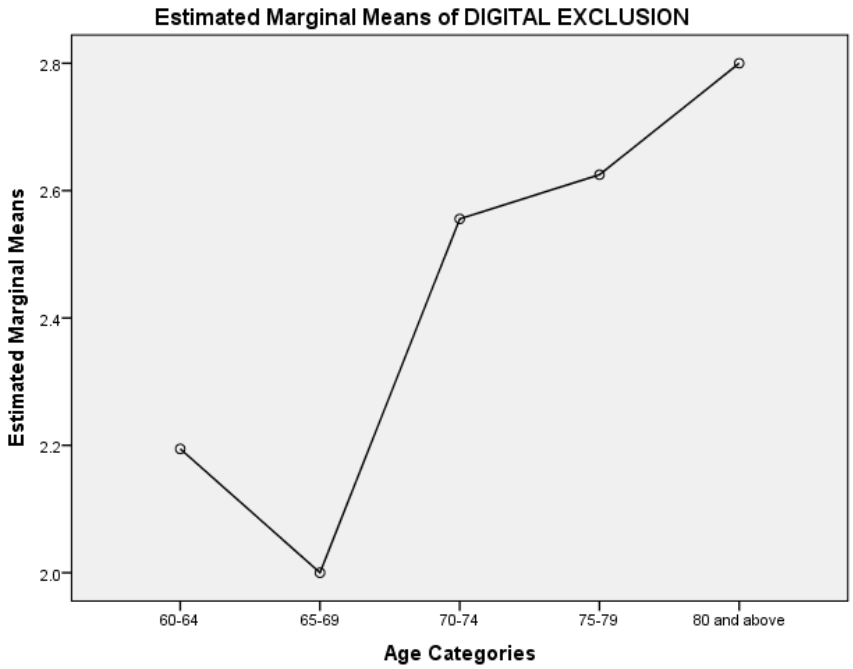


Figure 6.36 Age Categories and Digital Exclusion [Marginal Means]

6.2.4 Ageing and Social Exclusion

6.2.4.1 *Ageing and mean of exclusions.*

Table 6.80 Age and Highest Mean Exclusion

Exclusion Dimension	Age	Highest Mean	Std. Deviation	N
Civic	80 and above	3.00	1.054	10
Social Relation	75-79	3.38	.744	8
Services	80 and above	1.40	.699	10
Financial	65-69	2.56	1.227	25
Neighborhood/Community	80 and above	2.40	1.430	10
Decent Housing	70-74	1.72	1.565	18
Digital	80 and above	2.80	.919	10

Table 6.80 represents the highest means in different dimensions of social exclusion with reference to age groups of OPs. Data reveals that civic dimension of social exclusion reported highest mean among individuals at 80 years and above with standard deviation 1.054. In case of social relations exclusion, OPs from age group 75-79 years present highest mean exclusion 3.38. For services

exclusion, highest mean was reported by respondents 80 years and above, followed by neighborhood/community, and digital exclusion by same age group. Highest mean in category of financial exclusion was observed among OPs having age 65-69 years, and in category of exclusion from decent housing, OPs belong to age group 70-74 years. If we summarize the overall results of above table, we may say that OPs at age 80 years and above face high level social exclusion, especially in four dimensions of social exclusion.

Table 6.81 Age and Lowest Mean Exclusion

Exclusion Dimension	Age	Lowest Mean	Std. Deviation	N
Civic	75-79	2.00	1.309	8
Social Relation	65-69	3.04	.735	25
Services	75-79	1.13	.354	8
Financial	80 and above	1.90	.876	10
Neighborhood/Community	60-64	.86	1.018	36
Decent Housing	80 and above	1.20	1.135	10
Digital	65-69	2.00	1.041	25

Table 6.81 represents the lowest mean exclusion [by each dimension] prevalence distributed by age groups of OPs. Lowest mean in case of civic exclusion was observed among OPs with age group 75-79 years, followed by the same trend found in same age group in category of services exclusion. Exclusion from social relations and digital exclusion with lowest mean was observed among OPs of age 65-69 years. Data reveals that OPs with age 80 years and above reported less financial, and decent housing exclusion as compared to other age groups while neighborhood/community exclusion was least reported by 60-64 years older persons.

6.2.4.2 Multivariate analysis between age and social exclusion [MANOVA].

To approve or disapprove the findings of the study against the assumption that age has a significant impact on the social exclusion of OPs of village *Sohan*, multivariate analysis was applied on the

study data. In this regard we have one independent and seven dependent types of social exclusion [as operationalized] for analysis. In case of to explore the significant between one independent and more than one dependent variable multivariate analysis [MANOVA] is the most recommended statistical test.[10]

Table 6.82 Multivariate Test [age and social exclusion]

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.507	1.847	28.000	356.000	.006	.127
Wilks' Lambda	.559	1.947	28.000	311.500	.004	.135
Hotelling's Trace	.675	2.037	28.000	338.000	.002	.144
Roy's Largest Root	.465	5.913[c]	7.000	89.000	.000	.317

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Independent variable: Age
Dependent variables:
i. Civic exclusion
ii. Social relations exclusion
iii. Services exclusion
iv. Financial/material exclusion
v. Neighborhood/community exclusion
vi. Decent housing exclusion
vii. Digital exclusion.

Wilks Lambda effect value = .559
F = 1.947
p =.004,
α =.05
Partial Eta Squared = 13.5%

Major Hypothesis of the study:
H_0 = there is no significant impact of age on multiple dependent variables (Social exclusion)
H_1 = There is a significant impact of age on multiple dependent variables (social exclusion)

10 https://statistics.laerd.com/spss-tutorials/one-way-manova-using-spss-statistics.php#:~:text=The%20one%2Dway%20multivariate%20analysis,only%20measures%20one%20dependent%20variable. Access date: 16-08-2021

Calculated *p* [.004] value is less than .05. So, we have rejected the null hypothesis and accept that there is a significant impact of age on social exclusion.

Table 6.83 Test of Equality Of Covariance Matrices

Box's Test of Equality of Covariance Matrices[a]	
Box's M	172.680
F	1.137
df1	112
df2	3290.583
Sig.	.158

[a] Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

Calculated *p* value is =.158, which is greater than .05, so, statistically non-significant and null hypothesis is accepted.

Table 6.84 Levene's Test of Equality of Error Variances

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Civic Exclusion	.597	4	92	.665
Social Relation Exclusion	.435	4	92	.783
Services Exclusion	3.126	4	92	.019
Financial Exclusion	1.255	4	92	.293
Neighborhood/Community Exclusion	1.081	4	92	.371
Decent Housing Exclusion	2.003	4	92	.101
Digital Exclusion	.192	4	92	.942

a. Design: Intercept + Age

Null hypothesis: the error variance of the dependent variable is equal across groups.

Levene's test is an inferential statistic applied to measure the equivalence of variances for a variable calculated for two or more groups11. A few ordinary statistical techniques suppose that variances of the populations from which different samples are taken are equal.

11 Levene, Howard (1960). "Robust tests for equality of variances". In Ingram Olkin; Harold Hotelling; et al. (eds.). *Contributions to Probability and Statistics: Essays in Honor of Harold Hotelling*. Stanford University Press. pp. 278–292.

Chapter 7

DISCUSSION

The elders of a society are the bedrock and the foundation, symbols the past and guiding to the future. Elders are the torchbearers, keeping the traditions alive, guarding the values of society, and guiding the young, ensuring a balance in the society. The cultural and moral progress of a society is reflected in its treatment of its elderly (Schoeni 1992). Before the industrial era, the elders in a society held positions of power and responsibility on account of their broad experiences and knowledge (Phua 2000). With the advent of urbanization and western values, however, the basic concepts and structures of family have altered, and this has affected the status of the elderly. With the rise of the property, individual wealth and education, the mindset of the youth has also changed, and is influenced by the western values. As a result, social support and deference for the elderly is in continuous decay (UN 1994).

Pakistan is one of the emerging economies of the world, and as such is facing multiple challenges; the challenge of an aging population is one of the most acute ones. The major concern is the proportion of the aged in comparison to the total population is rising day by day (Ashiq and Asad 2017). Pakistan has been hailed for its huge youth segment and until recently, the average life span in the country was quite low. The number of people suffering from chronic age-related diseases was also low owing to these demographics; on the other hand, maternal and child health as well as infectious diseases had high incidences. Recently, though, the average life span is on the rise and by the year 2023 it is forecasted to rise to 70 years of age; by 2030 around 20% of the population in Pakistan would reach over the age of 60 years.

Before presenting detailed arguments on ageing and social exclusion, a few demographic characteristics should be investigated, with reference to previous studies. Our data reveals that most of our respondents were living with their families [63.9%]; here, in this response, children mean the married and unmarried children both, where most of the bread earners are sons. And in

case of living with the son and his family, without spouse, 25.8 percent OPs argued in its favor. Traditionally, if we look at the Asian context especially in Pakistan, India and Bangladesh, children especially son(s) must take care of the elderly by providing co-residence at their home. However, in the recent past, because of disintegration in joint family system and more individualization mentality among children, give more freedom to them so as live alone and/or not able to adjust with elderly persons. With an increase in problems relating to housing, an increasing number of elders are forced to live alone or with others (Balamurugan 2014).

The components of inclusive care apply to question of access to different type of care services and the quality of dimensional services, support of informal care like emotional support and lack of power. The vulnerable groups in a society face multidimensional problems and in order to implement inclusive care, there is a need to take into account all the associated problems with it (Room 1995). Closely knot family and community networks play a very important role in ensuring comprehensive care for the elderly, especially for those senior citizens who love in areas recognized as having social deprivation (Scharf et al. 2001). Facilitation of inclusive care to elderly is based on their living arrangements and the current study shows that two out of ten elderly individuals reside with their sons' families and other reside with their spouses. The provision of inclusive elderly care is dependent on the familial environment, and in order to ensure that the elderly do not face social exclusion, they have to be provided with emotional care and support (Balamurugan 2014).

Social exclusion of the elderly is becoming increasingly relevant in the rural environment as well, where the welfare of the elderly is exclusively in the hands of the younger generation. Social

exclusion of the elderly is also affected by the culture of urbanization and large-scale migrations caused by economic deprivation, as well as changing social structures where collective family activities have been replaced by technology. In present study, joint family system was observed in 66 percent cases while joint extended family was also recorded. In the present scenario, it was observed that in India, although family elders are still living with their family members, their position is being affected since they are not ensured of receiving efficient care when they are old and frail. Considering the longer life span of OPs there is an extended dependency period, senior citizens are supposed to face a serious condition that would require attention by others (Help Age India 2002; Balamurugan 2014).

The current chapter is consisting of six sections which include:

i. Discussion on indicators of dimensions of social exclusion with reference to the results of present research
ii. A debate on ageing and social exclusion followed by dimensions of social exclusion
iii. Theoretical discussion and present research
iv. Summary/conclusion
v. Recommendations
vi. Major findings of the study.

7.1 AGEING AND DIMENSION OF SOCIAL EXCLUSION

Aging of population is an unavoidable result of societies with low birth rates and death rate and can be perceived as the successful outcome of extending life into old age (Peter 2018). Social exclusion faced by the elderly leads to disparities in the various dynamics of the social interactions; from access to resources such as healthcare, finances, and amenities, to neighborhood

communications and various socio-cultural aspects as well as civic participation, almost every aspect is affected. States, societies and even individuals are responsible for the social exclusion faced by the elderly (Walsh et al. 2017).

Old age exclusion is a multidimensional and a dynamic process that may vary with reference to time and space along with the number of increasing years among older population. According to the United Nations (2007) age is one of the factors that can lead to the experience of social exclusion. Nonetheless, the debate surrounding social exclusion often centers on older people are rarely examined 12 (Miranti and Yu 2015). Previous studies highlighted that old-age social exclusion has received increasing attention over the past decade. Social exclusion stemming from old-age is a multi-pronged process and affects an individual significantly based on his life-long experiences in the society; in addition, other forms of social exclusions may also be faced by the senior citizens based on their surroundings. In this context, old-age is viewed as a complicated and vibrant process that is specific to progressing age as well as other intersectional factors. For example, while some older people are excluded economically and in terms of social services, they have a social life that cannot be characterized by exclusion. Despite this, it is often taken for granted that older people are "a vulnerable group, mainly because they risk a reduction in participation in various domains of life through the loss of paid work, a decrease in income and an increase in health problems". However, "the extent to which this actually occurs and whether it translates into forms of social exclusion is largely an open question" (Jehoel-Gijsbers and Vrooman 2008:1; Torres et al. 2017).

12 Australian researchers have also examined social exclusion for children in a cross sectional and regional setting (see for exam-ple McNamara, Tanton, Daly, & Harding, 2009, and Tanton, Harding, Daly, McNamara, & Yap, 2010).

As it is mentioned in the literature of present study, Pakistan is the fourth most populated country in Asia, in terms of ageing population and globally, it is at number 12. Studies reveals that still in Pakistan, domains of exclusion remain insufficiently conceptualized, challenging our ability to create knowledge about the prevalence of old-age exclusion and its impact on the quality of life of older persons. There is no research work that addresses the seven dimensions mentioned in this study, either as a whole or partially, explaining the link between age and social exclusion. Secondly, insufficient literature is available on relation between age and social exclusion to conceptualize or operationalize the problem for better understanding and recommendation for policy makers. Thirdly, no exclusive study is available that focuses on the prevalence of social exclusion on the basis of geographical distribution (rural, urban, semi-urban, tribal areas, etc.) of an ageing population.

Social exclusion is not unidirectional; it is a multidimensional process which includes various aspects of the individual's life such as the social, economic, and political ones (Sen 1976; Levitas et al. 2007). Just like assessment of lack of financial resources, which is assessed on the basis of living standards in particular circumstances; however, poverty and social exclusions are not similar concepts (Atkinson 1998; Hameed and Qaiser 2019). Walsh et al. (2017) conducted a scoping review to bring attention to the broad and empirically based conceptual frameworks that have been used in the study of old-age exclusion (i.e. Scharf et al. 2005; Jehoel-Gijsbers and Vrooman 2008; Walsh et al. 2012;2014). This study presented five fundamental factors that should be taken into consideration while studying social exclusion based on old age (i.e. economic, social, services, civic rights, and community). While in present study, we focused on seven dimensions (civic,

social, services, financial, neighborhood, housing and digital) of social exclusion to bring this issue on board more extensively. In operationalization of present study, it was discussed in detail.

Participation and integration refer to engaging elders in social communications and the extent to which older people are facilitated to engage in the social activities in their neighborhood. The main concerns in this case are about the involvement of older people in community life, issues of access, and engaging within family and local community. The assessment of social exclusion is based on the degree of access of senior citizens drawing on social capital like civic participation, inter-personal trust (Putnam 1995; Coleman, 1988). For the elderly, general associations may be of more value than closer ones (Phillipson et al. 2000). Such kind attitude shows the low level of integration of elderly which leads to exclusion.

7.1.1 Civic Participation

Research reflects that there is extensive variation between how individuals experience the dynamic factors related to social exclusion. Findings of the present study explains that age being an independent variable have positive relationship with civic exclusion and movement of linear regression line is upward that shows a positive slop. Previously, it is not uncommon for scholars working on these issues to argue that discussions about civic participation in old age tend to disregard the heterogeneity that exists when it comes to why and how older people choose to be civically engaged (Hirshorn and Settersten 2013). The literature that investigates civic participation amongst older migrants specifically, for example, has brought attention to the fact that asset building (labour market participation as well) is some of the things from which older migrants tend to have been excluded and this has implications for their civic participation later in

life (Yongwoo et al. 2014). Against this backdrop, it is perhaps understandable that scholars have argued that we must consider the heterogeneity of older people and the ways in which varied social and material situations, amid diverse age cohorts, influence forms of civic involvement in old age (Walsh et al. 2014; Stephens et al. 2015). While considering the age cohorts of OPs, findings of the present study reveal after implementing MANOVA test [homogeneity] that there is no systematic relationship between age groups/cohorts and prevalence of civic exclusion. This means that the occurrence of civic exclusion is varied among different age groups of older persons.

Studies conducted on the senior citizens' participation in civic activities stress the fact that informal practices reinforce the community's reactions in support of the older people especially in rural settings. This is one of the reasons why these settings tend to be regarded as supportive. Rural communities can sometimes be more in tune with the set of collective interdependencies, the multiplicity of individual roles and the positions of need in which older people (especially the very old) can find themselves as compared to urban settings. The literature on civic activities and volunteering suggests that the informal practices found in rural communities have the potential to address the social exclusion of older people and enhance local aspects of age-friendliness (Walsh et al. 2014).

7.1.1.1 Ageing and sports/physical activity.

Lampert and his research associates found that social change in society clearly had a stronger impact on adults and elderly compared to the younger age groups (Lampert et al. 205). Literature reveals the advantageous effects of exercise are acknowledged for averting physical and cognitive decline during the aging process. Research also highlighted gap regarding the recommended

intensity, volume, frequency, and mode of exercise especially for older people (Gronek et al. 2021). According to a research study conducted in Denmark, one in four senior citizens and around half of the individuals above the age 75 do not meet the World Health Organization's requirements for least physical activity (PA) (Larsen et al. 2021).

The duration for which the elder individuals undertake physical activity is one of the most significant factors in assessing the levels of physical activity that they undertake. In that as well, individual preferences play a pivotal role in determining the duration of physical activity undertaken by everyone. The types of physical activity that the elders are undertaking is also important since medium walk duration might be as efficient as short exercise duration and all these might vary depending on the individual's preferences (Liu et al. 2021).

Several in-depth reviews about the effects of sports on the health of the youth have been conducted (Eime et al. 2013b; Eime et al. 2013a; Oja et al. 2011) however, for the elder citizens the engaging in sports may have different results. Population is progressing and aging globally. Since aging is bound to cause a decrease in health status of the elderly individuals, there is a requirement for developing preventive health measures. General physical movements can have a positive effect on the health of the senior citizens, at and above the age of 50. Research in this context has not considered the exact types of physical exercises that the elderly should undertake but they have emphasized the importance of general physical activity on the health of the individuals. Sports may have better effect on the physical and mental health of individuals because they are also opportunities for social communications, however, research has yet to explore sports activities and their effects on the senior citizens (Jenkin et al. 2017).

Results of the present study are similar with the findings of previous empirical studies that documented a negative relation between age and participation in sports (Ellert, Wirtz, and Ziese 2006; Becker and Schneider 2005; Nagel 2003). Children and adolescents generally indulge in sports in other physical activities and more often than not, these activities decrease with time; older people show less inclination to indulge in sports (Breuer 2003; Ellert, Wirtz, and Ziese 2006).

Results of present study explained the participation of OPs in sports or physical activity. Data mentioned that 30.9 percent try to manage cycling or walk on daily basis. And if we look at the participation rate by age, data shows the minimum participation [10%] was in age group 80 years and above, while on the other hand 50.0% of the OPs in age group 60-64 years reported sports participation in present study. Previously, participation rates documented in the different surveys on people 50+ vary between 30% and 60% (Hartmann, Tews and Tischer 2008; Breuer 2003; Becker et al. 2007; Ellert, et al. 2006; Eichberg and Rott 2004). One prominent fact is that the involvement rates found by the surveys that emphasis on health and sports, are generally much higher than rates which cover general topics and where sports is only a minor factor. According to the report of the socioeconomic panel, rates of participation of the elderly are between 32% (55–64 years old) and 12% (75+ years old) (Breuer 2003), in comparison to the rates between 63% (50–59 years old) to 32% (70+ years old) which are reported in the health-focused study of the German Health Report (Ellert et al. 2006).

7.1.1.2 Ageing and volunteerism.

Participating in civic activities, in particular volunteering, has a positive effect on the physical wellbeing and mental health of individuals, resulting in facilitating independence among older

people (Kneale 2012; Nazroo and Matthews 2012). Findings of the present study reflect that participation in volunteer activities by the OPs of *Sohan* decreased with the passage of time. And with every increasing year the percentage of volunteer participation reduced, as 80 years and above OPs reported only 3.2 percent volunteer participation.

According to the Corporation for National Community & Service13, the most common forms of volunteering are:

i. Collecting, serving, preparing, or distributing food
ii. Fundraising or selling items to raise money
iii. Engaging in general labor, like helping build homes or clean up parks
iv. Tutoring or teaching
v. Mentoring the youth
vi. Collecting, making, or distributing clothing.

In present study, the categories for volunteer activities include:

i. Organizing cultural events
ii. Community welfare activities
iii. Organizing political events
iv. Providing free education.

Home chores were not considered as volunteer activities in present research. On the basis of present distinction, 32 percent respondents involved in volunteer activities. Literature of German

13 https://www.americorps.gov/ AmeriCorps members and AmeriCorps Seniors volunteers serve directly with nonprofit organizations to tackle our nation's most pressing challenges.

study guides us that elderly, routine outdoor activities are vital for maintaining social life, which may cause a disadvantage, especially for elderly women, because of the lack of dedicated basic facilities (Giesel and Rahn 2015).

Prevalence of volunteer activities between 2011 and 2015 was reported by US Bureau of Labor Statistics, which shows that the ratio of the senior citizens who took part in the volunteer activities has remained the same (It dropped to around 5 percent for ages 55-64.) while an increase in this trend may be very beneficial, the stats state that around 11 million of senior citizens undertook volunteering activities in the year 2015. Since the elderly compose around 2 percent of the volunteer population at present, including the 55-64 age group, it still constitutes around 35 percent of the volunteer population (US Bureau of Labor Statistics 2016).

Previous studies also explain the cognitive effects of volunteer activities performed in later age. Research shows that with the progress of age, the probability of developing cognitive issues, memory loss issues, and debilitating motor function diseases, also increase. By staying active, physically, and mentally, individuals can slow the process of the onset of these problems. Taking part in volunteer activities will facilitate the individuals to keep active physically and mentally, which will positively affect overall cognitive functions. Actively taking part in volunteer activities positively affected around 70 percent of elderly people who were experiencing symptoms of depression, according to one study (Hayes and AARP 2017).

Recent studies also reveal that volunteering is linked with a social rise, with underprivileged groups less likely to volunteer. Since the possible benefits of volunteering are documented and

proves, all stakeholders, should work towards formulating policies to inculcate volunteering into public health programs and strategize to reduce social exclusion and health disparities (Gil-Lacruz, Saz-Gil, and Gil-Lacru 2019; South et al. 2016).

Volunteerism is an integral part of the society. According to research conducted in 1996, 47 percent of people between the ages of 55 to 64, and 43 percent of the people between the ages of 65 to 74, and 37 percent over and above the age of 75, actively participated in volunteer activities (U.S. Bureau of the Census 1996). For those over the age of 75 years, an increase has been recorded in volunteering, while 43 percent engaged in volunteer work (Independent Sector 1999). This trend will continue most probably, given predictions that a greater number of the elderly in succeeding generations will pursue volunteer experiences (Peter and Hart Research Associates 1999; Soo and Gong-Soog 1998). It is likely that succeeding generations of the elderly will be in higher demand as volunteers because there might be a shortage in public spending for social programs (Bass and Caro 2001; Abraham, Arrington, and Wasserbauer 1996) and because middle-aged women, traditional volunteers, continue to increase their participation in the paid labor force (Nancy et al. 2003; Caro and Bass 1995).

7.1.1.3 Ageing and legal participation.

In reference to present study, legal participation is defined as the participation of OPs in any panchayat committee or legal committee as a member of respective body of legal authority. Data of present study reveals that only 13.4 percent of OPs reported membership of any panchayat or local legal committee. An age wise distribution of participation shows that maximum participation was among the OPs in the age group 60-64 year.

7.1.1.4 Ageing and political participation.

In Pakistan, participation of the elderly, in community in political and social events is also a challenge. Over 50% Pakistanis vote on the basis of the *baradari* or caste system (Shawar and Asim 2012). Participation in political and social events at individual and community levels in Pakistan are bound by the industrialist, landlord and *wadera* culture (Hameed and Qaiser 2019; Mahmood, Sohail, Mushtaq, and Rizvi 2014).

Active participation in political activities by the elderly population can ensure that their voices and concerns are heard and given weight, in both the individual and the collective platforms. If the older persons form and join political and social organizations, it can be ensured that they are made a part of the decision-making process. In Pakistani politics, election is based on the voting behavior of baradari, caste-based structure. And in this structure the older persons are more influential for deciding the political party to vote along with vote casting at polling day. So, the participation in this category is ensured not only by the family members but also by the political agents of the party. And in case of present study, data shows that 76.3 percent older persons casted their vote in previous election held in 2018.

Research conducted in this regard, where the reasons for ensuring community participation of the elderly were highlighted have used smaller and targeted samples (Bosquet et al. 2015; Raymond and Grenier 2013; Gele and Harsløf 2012; Harrison 1999; Postle et al. 2005). This means that there are limits to what we can learn from the research on political participation in old age that is available at the moment.

While research has been conducted to assess the level of political participation of the elderly, it generally considers that they are not able to take part in political activities easily and that the social exclusion that thy face hurdles their political participation. Consequently, the research draws the conclusion that increasing political participation of the elderly would automatically lower the social exclusion that they face. Civic engagement (including political participation) is regarded (in this scholarship) as a contributory factor both to individual well-being and health (Gele and Harsløf 2012), and to gains in social cohesion and social capital. The situation is very much different in case of present study where elders are more engaged at polling day voluntarily or by forced and by forced means here that political agents try their best to poll your vote. This is the reasons that our study results depict 76 percent participation with some variation in age group 70-74 years, and 80 years and above.

Similar observation also reported in previous studies where worth noting that research on political participation has shown that older people have a higher inclination to vote, but less inclination to participate in non-institutionalized activities. Of interest is that research reflects that the elderly who participate in other active-aging activities are also more prone to be politically involved (Serrat et al. 2015; Nygård and Jakobsson 201). However, along with that the profile of older people as political beings is changing, and future older segments of our populations are not only likely to display a more multi-faceted political behavior but are also more likely to engage in non-institutionalized activities as well (Nygård and Jakobsson 2013). In addition, literature has consistently shown that educational and financial resources, as well as social capital, have a strong effect on political behaviors (e.g. voting) and on involvement in political organizations (Torres et al. 2017).

According to research, in the autonomous countries that previously formed the Union of Soviet Socialist Republics (USSR), the elderly population takes active part in politics ensuring high turn out on Election Day. In Kazakhastan, the elderly are an active part of the electorate and 72 percent of the individuals above the age of 65 are reported to have voted in the last elections, while those between the ages of 35 to 40 formed only 50 percent of the electorate (UNDP 2005b).

Literature also argues that while some older people may favor certain types of participation (for example, institutionalized political participation including voting or joining trade unions and political parties), others may prefer non-institutionalized political participation (such as joining social movements and campaigns, spontaneous activities, protests, boycotts or lobbying) (see Nygård and Jakobsson 2013).

Extremely successful and significant establishments are of older persons – ranging from the 35-million-member American Association of Retired Persons (AARP) in the United States, to pensioners' organization in Sweden to which half of all older persons belong. Labor unions, especially in Europe where the elderly remain an active part of these platforms, may also provide a source of representation to the senior citizens (Peterson 2002).

7.1.2 Social Relations and Participation

Social relation and participation are based on six dimensions in present study. In another study conducted previously, experience of social exclusion based on relations was measured on three dimensions: social opportunities, social resources and, loneliness and isolation. In terms of social opportunities, most participants considered themselves to be entrenched in local relational

communities, it was challenging to prove connection (Walsh et al. 2020). The members of the group were dissatisfied with the lack of interactive activities in groups and formal settings. Since there is a progressive decrease in physical meetings between people, because of hurdles in conveyance and people remaining busy in their lives, due to which the elderly faces this form of exclusion. With better quality of social resources, the elderly could have better access to social activities and relations. While the participants did not themselves relate to being lonely or isolated, it is a related outcome of exclusion of some of the dynamics. One persistent idea was that loneliness, for the elderly living in rural communities was natural and accepted. A decrease in the number of people and occasions on which to interact was cited as the main cause for seclusion in these societies. Without someone to converse with, participants could have an increased sense of being alone. While other dimensions have also been discussed in this regard, one of the main problems was ill-health and disability that could raise the level and the sense os loneliness among individuals (Walsh et al. 2020).

A conceptual model given by Burholt et al. (2019) incorporates the evaluation of social relations, and the influence of psychosocial resources and socio-emotional processes, sociocultural, social-structural, environmental and policy contextual influences on exclusion from social relations. It also includes distal effects social exclusion from relations, such well-being, health, and social cohesion.

Lack of social contact is a recognized factor that may cause negative impact on the physical health of individuals (Cacioppo and Hawkley 2003) as well as cause depression (Hawthorne 2008). Social isolation can cause mental and physical issues with for the elderly which is why constant

interaction with family is beneficial for these individuals (WRVS 2012). A lack of physical contact with family also creates a lack of intimacy and amplifies loneliness, isolation, and depression (Allen 2008). Research evidence supports the assumption that robust health, physically and mentally, can be ensured if good social relations are maintained (Courtin and Knapp 2017; Shankar, McMunn, Demakakos, Hamer, and Steptoe 2017; Gallagher 2012).

7.1.2.1 Ageing and social participation.

To cover the social participation of OPs of *Sohan*, they were asked many questions, among those questions the question regarding their participation in routine social events (such as death, marriage, or family events) were considered as key indicators of participation. Study reveals that funerals (*matam*/*janaza*) were most attended by the OPs with 52.6 percentage while wedding participation was reported at priority by 27.8 percent respondents. While considering the cumulative results, 80 respondents attended wedding and 85 respondents attended funerals in routine.

7.1.2.2 Ageing and family interaction.

Evidence from previous studies also asserts that cordial and deep social communications with a wide variety of groups like friends, neighbors and community groups, in addition to immediate family, nurture social inclusion (Barnes et al. 2006). Social communication and interaction are based on connection with family, friends, and neighbors. The elderly remains connected to their families through calls in the present scenario, and also make personal visits to the above-mentioned groups of acquaintances; in addition they also receive guests from the same group of people. They also indulge in activities such as shopping, going out with friends and so on.

Contrarily, some of the relations stop visiting their elderly relations, thud cutting contact and causing isolation (Backman and Hentinen 1999:568; Pietilä and Tervo 1998:22-23; Tsai and Tsai 2007:984; Nilsson et al. 2000:44; Tollén et al. 2008:138-139; Kirkevold et al. 2013:398; Larsson et al. 2009: 103-105)

In our study, we operationalize family contact with least possible interaction and try to cover it from the interaction of OPs and the family at dining table [at least once a day]. And results reveals that 64.9 percent OPs contacted with their families on daily basis at least once a day. Studies have also shown that individuals can be saved from developing diseases such as dementia and Alzheimer's if they have a socially interactive lifestyle (Fratiglioni, Paillard-Borg, and Winblad 2004; Bennett, Schneider, Tang, Arnold, and Wilson 2006; Wang, Karp, Winblad, and Fratiglioni 2002; Saczynski et al. 2006). Another meta-analysis conducted on the topic discovered that it is the frequency of the social interactions, as opposed to the quality of interactions, can keep the risk of suffering from dementia at bay (Kuiper et al. 2015). Some other research studies have concluded that (Hawkley and Cacioppo 2010; Cacioppo and Hawkley 2009; Kuiper et al. 2015) seclusion (an expected result of exclusion from social relations) can cause diminished intellectual capacity and decrease in understanding over time (Tilvis et al. 2004; Gow, Pattie, Whiteman, Whalley, and Deary 2007; Wilson et al. 2007); it may also potentially add to the risk of dementia (Wilson et al. 2007; Holwerda et al. 2014).

In addition, results also show that majority of the family contact was observed among the OPs having age between 60-69 years. Minimum percentile was reported among elders of age group 75-79 years (i.e. 6.3%).

7.1.2.3 Ageing and loneliness (coping mechanism).

Physical and mental losses are a part of the natural progression of life and are associated with old age. Mostly people experience loneliness and isolation because of living alone in old age. Compounded with disability and frail health, owing to advancing age, the feelings of loneliness are amplified (Singh and Mishra 2009). An additional trauma such as the loss of a spouse or a friend at this age further exacerbates the feelings of loneliness and causes psychosocial dilemmas. Added to this, is the consequential decision of housing and making decisions about the worldly possessions of the deceased (Butler et al. 1998).

Perlman and Peplau (1981) have elucidated loneliness as the gap between the desired level of social interactions a person wants and the achieved levels. They have described it as an unpleasant as well as a troubling phenomenon that the elderly goes through. Independent assessments of the dynamics of social relationships (for example, network size, communication frequency, and closeness with friends, neighbors and relatives in the emotional and physical sense) effect the social connections or isolation. As a result of the risks identified above, the feelings of loneliness arise; it is because of an imbalance between the actual and anticipated quality as well as frequency of social interaction by the elderly. Researchers have also argued that it is the personal valuation and feelings of individuals about the number of social interactions and their quality that determine the results for everyone (Shiovitz-Ezra 2015).

Regular and healthy daily habits also become harder to continue in case of those individuals who are facing isolation and loneliness, while around healthy social relations, people can continue practicing healthy habits and behaviors (Hawkley et al. 2003). These findings point to the obvious

and evident benefits that result from ensuring that the elderly remain socially engaged. Tackling social seclusion would prove extremely helpful for the individual's life quality (Pitkala et al. 2009; Findlay 2003; Savikko et al. 2010). Cumulatively, these precautions and policies to mitigate loneliness of the elders may impact on the required resources for health and social care service use, limiting reliance on costly services for physical and mental healthcare needs, thereby contributing to the 'healthy ageing' agenda (Dickens et al. 2011) by 'compressing' morbidity (Jagger et al. 2011). Facilitating social interactions is also beneficial to the community at large. Volunteering is one of the measures that can be undertaken to reduce the feelings of social isolation, thereby 'harnessing' the potential contribution of the community (Butler 2006; Bowers et al. 2006; Rabiner et al. 2003).

While there is a lot of research available about managing loneliness, there are limited ways available to undertake the task. Around fifty percent of the elderly people feel seclusion and isolation which in turn negatively impacts their physical and mental health. Considering population aging, family distribution, and the post-COVID-19 protocols, there is a need to substantiate the evidence surrounding the living experience of older people, ensuring their real needs as well as providing them with services and community support (Carragher and Ryan 2020). In case of our study, we try to cover two answers in one question, i – feeling of loneliness, and ii – what coping mechanism or strategy was adopted to release the situation. Only 4 percent respondents argued that they have no such feelings like loneliness while rest of the 96 percent sample reported coping mechanism in which mosque visit and recitation of Holy Quran was mainly reported. Age wise distribution of coping mechanism represents a mixture of different activities adopted by OPs of *Sohan*. Recitation of Holy Quran was mainly reported in age groups 60-64 years, 65-69 years, and

80 years and above age OPs. Socialization with family member was seen highest among 70-79 years older persons. Elderly in rural Puducherry, India shares certain interaction attitudes like going to religious centers, participation in social activities, going to recreation centers and relaxation adopted as coping mechanism for loneliness. This study further reveals that it is seen that majority elderly occasionally only go to religious centers (63.8 percent), more than three fourth of the elderly never involve in social activities. Moreover, one out of ten respondents are only found to go for recreation centers, whereas seven out of 10 avail the opportunity for going relaxation the situation is worst in case of female elderly (Balamurugan 2014).

Evidence from previous studies suggests that men and women experience have unique feelings when it comes to experiencing loneliness and isolation. It is also uniquely experienced by men and women; while for women it is the lack of a wider social network, for men it is simply can be the absence of spouse and close family. Loneliness or isolation occurs in various patterns; for some of the elderly it is a chronic and continuous condition that affects the living pattern of all individuals, such as their relations with their families and acquaintances. On the other hand, for some people, it occurs suddenly because of certain events such as the death of a spouse or a close friend which could be a sudden yet temporary condition (Scharf et al. 2005b; Age UK and Oxfordshire 2011; Hawkely et al. 2008).

Prior studies mentioned that some elderly feel that days go by quickly and they feel that there could are issues in getting all the chores done in one day. They feel that days have become smaller for them. (Tollén et al. 2008:139; Larsson et al. 2009:103-106.) On the other hand, others feel that there is enough time on their hands to do the chores and tasks that they have set

themselves. Remaining involved in various activities, enables them to pass the time quickly. Remaining free during the day, on the other hand, leads to the feeling that the day is going by slowly (Kirkevold et al. 2013:397; Tollén et al. 2008:140-143).

Finally, the elderly too has altering attitudes. It affects their communications which becomes more careful and calculated, while interacting with people. Resultantly, they their confidence for interaction dwindles and they keep delaying their planned activities. The death or illness of their close ones causes them to lose confidence in their own abilities, so much so that they eventually settle for facing loneliness (Nilsson et al. 2000:45; Backman and Hentinen 1999:568; Tollén et al. 2008:138-140; Tsai and Tsai 2007:984-985; Kirkevold et al. 2013:398; Larsson et al. 2009:104-105)

7.1.2.4 Ageing and isolation.

A lot of people are susceptible to seclusion and social isolation, as reported, (e.g. young care-leavers, refugees and those with mental health problems) by Age UK (2011). However, the elderly individually, and in groups, have unique susceptibilities because at this stage they are more prone to losing spouses and friends due to mortality, loss of mobility or lack of fiscal resources (Age UK 2011).

Research done in the past also suggest that lack of communication between parents and children also results from geographic distances and this also determines the quality of the contact between them (Lin and Rogerson 1995). Visiting frequency of children and grandchildren to the OPs of *Sohan* was recorded as 28.9 percent and 20.6 percent simultaneously. In addition, visits from blood

and remote relatives, friends/ex-colleagues and neighbors were also reported in present study. Earlier studies mentioned that the number of social interactions and the depth of these interactions are both interpreters of the level of well-being of the elderly (Fiorillo and Sabatini 2011; Cohen 2004). Periodic and good quality communication between the parents and the children affects the health of the parents in a positive and beneficial manner and may result in social support and healthcare facilities being available to the parents (Fiorillo and Sabatin 2011). In the WRVS Shaping our Age study, senior citizens have mentioned that interacting with others enabled them to vent their thoughts on problems that they do not personally face and this puts any of their other concerns into context as well (Hoban, James, Pattrick, Beresford, and Fleming 2011:21).

Social isolation among OPs of *Sohan* was recorded by 89.7 percent and that is quite higher percentage. Social isolation is increasing and with it the sense of seclusion and loneliness is also on the rise (Wenger and Burholt 2004). McPherson and friends reported that sociodemographic alterations in American society specify a worrying drift toward augmented social isolation. In 2004, General Social Survey respondents were three times more likely than the 1985 respondents who felt that they did not have any confidante for discussion of important issues (McPherson, Smith-Lovin, and Brashears 2006). According to research done in regards to loneliness levels amongst individuals, the elderly is not given enough focus and the statistics show that the prevalence of feelings of loneliness remain the same across the life of an individual and only real difference is during very old age (i.e., 85 years and older; e.g., Demakakos, Nunn, and Nazroo 2006).

Social relations, when dynamic and of good quality, increase the physical and mental well-being of an individual (Gallagher 2012; Walsh, et al. 2012; Inder 2012). Interaction with relatives, neighbors and friends is linked to quality of life and loneliness (Beech and Murray 2013). A research study, across six different European countries, about the people who have decreasing ADL [Activities for Daily Living] suggests that environmental factors are not as important as personal ones for achieving life satisfaction (Borg et al. 2008). This is reinforced by research that recommends that constructive social relations are a substantial source of satisfaction for the elderly (Yunong 2012; Gallagher 2012).

7.1.2.5 Ageing and social networking.

Various international research reflects that there is a robust affirmative link between social interactions and physical and mental health aspects (Sirven and Debrand 2008; Jung et al. 2010; Barth et al. 2010; Rodriguez et al. 2011; Conory et al. 2010; Ertel et al. 2008; Seeman et al. 2010; Lee et al. 2008).

A reputable global network of NGOs, HelpAge International, works to improve the lives of deprived senior citizens. Working in around 50 countries, the affiliation of organizations is devoted to supporting practical programs, enabling the senior citizens to voice their concerns and influence policy at the local, national, and international levels (HelpAge 2006a).

In present study, membership status defined the status of OPs in social networks. There is no single respondent having membership of old age home, only 3 OPs have membership of a local village

elderly association, 7 persons sharing their responsibility as member of masjid committee, and 3 reported CSO membership.

7.1.2.6 Ageing and familial support (medicine, accompany, take care).

A wide range of actions ponder under familial supports, which includes delivering individual care, cooking meals, doing domestic chores, shopping, managing finances, checking up regularly, offering company, organizing, and managing activities and outdoor facilities, and coordinating medical care (Roberto and Jarrott 2008).

Assistance is an important part for a few of the elderly. They get help from family, friends, and neighbors. The support normally includes personal and household activities. Even so, some think that getting help is a bothersome process. Conversely, assistance can also affect the elderly person's independence (Nilsson et al. 2000:43-44; Pietilä and Tervo 1998:22; Tollén et al. 2008:140-142; Tsai and Tsai 2007:984)

Findings of the study unfold that 46.4 percent cases the medical expenses were paid by their kids, followed by the kids who accompany them to the doctor in case of 48.5 percent. OPs manage their medicine intake and timing mainly but after them their son/daughters are responsible for this help. Zaidi et al. (2019) contended that in around 60 percent of the cases elderly people, both men and women, across Pakistan in both rural and urban setting, mostly live-in joint families, generally with their son and his family. However, family arrangements are altering fast, and increasingly the elderly are residing in nuclear families (23 percent). In addition, a study in Karachi found that over

the last three generations, the percentage of older people living in joint families decreased from 92 percent to 81 percent to 58 percent for the current generation (Zaidi et al. 2019; Itrat et al. 2007).

Senior citizens living with their families, in general, experience an improved life quality as compared to the elders living in nursing homes (Amonkar et al. 2018). Research conducted in rural areas of China, established that family support had an affirmative impact on health of the elderly, which is also reflected by decreased rate of death and occurrence of cardiovascular disease, self-help and the ability to fulfill older person ADL independently (Liu et al. 2015). In addition, the literature tends to reveal that the support provided by families to older people is reducing, especially for poor families with children and those with a high number of migrants. Nevertheless, some studies call for strengthening family support and building the capabilities of families to integrate and care for older people, while others raise the need to provide more adequate care infrastructures, especially in urban areas (Zaidi et al. 2019).

Pakistan is an Islamic society and the society in general is based on the norms and values of Islamic ideology. It is considered the obligation of family to take care of the elderly, both parents and relatives, which is considered to be a religious and cultural obligation. Even if the families are generally poor, the elderly parents live with their parents. Council of Islamic Ideology (CII), which is a body to monitor whether the national laws are in accordance with the teachings of Islam, has declared the establishment of old age care homes to be against the principles of Islam. In an Islamic society, it is the ordained duty of the children to look after their parents in old age and through disease; this is Quranic injunction. For those who have no fiscal support to perform this act, it is

the duty of the Islamic welfare state to provide the resources, according to the CII (Ashiq and Asad 2017).

Literature represents that the elderly living with their families have better quality life than those living in nursing homes (Amonkar et al. 2018). Research in rural areas of China found that family support positively affected health status of the elderly, indicated by lower mortality levels and incidences of cardiovascular disease, capacity for self-help and the ability to fulfill older person ADL independently (Liu et al. 2015). Fiscal support from the family is linked with reduced signs and indications of despair in the older person (Wu et al. 2018). Emotional support has an affirmative influence on the elderly with heavy dependence, especially in terms of trust (González and Palma 2016). Emotional support from the family can also help the elderly to reduce the risk of loneliness (Roh et al. 2015). Furthermore, it was discovered previously that family support had an impact on the health of the older person and their ability to engage in activities (Amonkar et al. 2018).

7.1.3 Services Participation

The number of elderly is growing, and a demographic upheaval is taking place globally; it is a challenge to achieve the care and support services of the rising quantity of elderly's needs (Antonsson, Korjonen, and Rosengren 2012:738). Simms (2004) is of the opinion that age is an idea that has altered over the years, especially in welfare capitalist states. The specific segregation of the clinical and the social needs has shaped the understanding of age. A new form of social exclusion is formed since the facilities for social and health care are separated. Social and

healthcare exclusion has various explanations, linked with national characteristics, as reported mostly by country experts of the EU-25 countries (Hoff 2008).

In present study exclusion from services is calculated on the basis of six dimensions, which include:

i. Health
ii. Transport
iii. Mobility
iv. Leisure
v. Basic
vi. General services

Previously, health and social care services, and general services were used as key indicators (Walsh et al. 2020).

7.1.3.1 Ageing and access to health services & utilization.

One of the most significant aspects that can facilitate home residence for elderly is good physical condition. It is in line with the findings of Pietilä and Tervo (1998), Backman et al. (1999), Tollén et al. (2008) and Larsson et al. (2009). Activities of daily living (ADL) and healthy lifestyle could help to keep good physical condition. Keeping engaged in different activities can enable a coping mechanism against pain and hurt (Tollén et al. 2008:145). The threat of physical weakness is an ever-present issue (Larsson et al. 2009:103), so healthcare workers should check on the status of elders living alone, particularly if their health status is fragile, and they should also deliver health promotion programs when they are in good health (Tsai and Tsai 2007:985).

An analysis of the social exclusion that the elderly faced, from receiving different services, was conducted in the US (Solway et al. 2010). The challenges calculated to the access of services to the elderly included mental health services, wherein the barriers included old age as well as race, ethnicity, socio-economic status, gender, and other factors.

Dimensions of social exclusion along with indicators have a relationship either positive or negative. And change in one indicator may leads to the change in other one and same is the case with dimensions that change in one dimension leads to the change in other dimensions. For example, in UK, research shows that access to local primary healthcare facilities is more accessible if the elderly have good social relations, and that whites use the improved primary care services more in comparison to the non-white population (Ryviker et al. 2012). Research conducted in this regard in UK also reflected a strong relation between the use of dental services and the socio-economic status of the individuals, which varied according to the neighborhood of residence (Lang et al. 2008). Moreover, research shows that since the financial aspect of the oral healthcare has shifted to the private sector, it has greatly impacted the less privileged section of the society, especially those facing exclusion. The lack of training of the health professionals is another hurdle in the way of the vulnerable groups who are trying to access the healthcare services (Kossioni 2011). The population group that is considered old and faces the issues of inaccessibility, are likely to face inaccessibility to dental healthcare or complicated procedure such as knee replacements and so on (Yong et al. 2004), since research on hip replacement procedures gave the same results (Milner et al. 2004). Individuals, especially women, elderly and geographically distant residents, faced discrimination in accessing healthcare services. Development of these would facilitate in provision of equitable health services to all.

In Solvenia, a study was conducted regarding social exclusion that assessed the phenomenon through the study of material deprivation, spatial exclusion, and inaccessibility to healthcare leading to poor health, and so on, while the elderly was trying to improve their situation (Draulans et al. 2017). Study of the primary care settings also revealed the importance of environmental factors such as provision of services in underserved communities (Ryviker et al. 2012).

Results of present studies reveals that majority of our respondents used government health services for treatment. Majority of the respondents have reported access to transport facilities including their own family bike and car, they used public transport as well. No issue was reported in terms of the mobility and basic services rather leisure services were not observed. Overall analysis presented that 71 percent of the OPs reported minor services exclusion and around 28 percent facing moderate exclusion from services. This means in *Sohan*, OPs have more access to health services rather private health facilities or government. Analysis of the data presented in European Quality of Life Survey (2007) showed that the elderly suffered from much worse social exclusion in Central and Eastern European countries in areas such as access to healthcare, health status, material deprivation etc. (Hrast et al. 2013). According to a survey from OECD, conducted during the fifth wave, it was concluded that access to healthcare is a core factor in determining social exclusion and countries of Eastern and Southern Europe and Israel lack significantly in this regard (Jürges 2015). Furthermore, Yong and friends' states that significant age, sex (women), geographical, and deprivation inequalities were found in access to health services (Yong et al. 2004).

Inferential analysis of study reveals that around 92.8percent respondents have access to health services starting from community doctor to private hospitals. In term of utilization of health services OPs in age groups 75 years and above reported highest use of private health services. A previous study with different indicators explains the satisfaction of OPs with services provided by geriatric home, and its results showed that most of older persons were satisfied with most health services like (Room services 76%, Nutrition Program 76%, Bathing services 88%, Clothing 60%, Hygiene 84%, and Relationship with the administration services 80%) so, these services were good. These are in accordance with the studies done by (Lee 2015; Paliwal 2007; Sangar et al. 2015), who mentioned that services were more important to satisfy the aged male and females in the Geriatric home.

7.1.3.2 Ageing and transport services.

Transport is a vital factor for assessing quality of life, as it helps in staying connected with community and society at large, thus helps evading feelings of isolation (Jones et al. 2013; Walsh et al. 2012). Transport and mobility" have been identified as one of the areas in which older people can experience exclusion (Walsh et al. 2012). The provision of a concessionary transport right was found to be significant in fighting spirits of social exclusion faced by the older people, and eventually in refining their well-being (Jones et al. 2013).

One study undertaken in Norway pointed out that rising well-being above a decent life threshold should involve enhancing older adults' ability to drive in old age and car availability, lowering the distance to public transport stops, and improving the connectivity that public transport provides to the needed destinations (Nordbakke and Schwanen 2014). Results of preset study presented a

significant relationship between age groups and transport services [Table 6.62]. The OPs reported "on foot", this means they usually move within the community, so they do not need to use motorcycle or any other type of transport.

Previously conducted research studies reflected how the absence of public transport becomes a hurdle to taking part in activities. Anderson et al. (2013) discovered that inaccessibility to conveyance created hurdles in older adults gaining employment and Hare et al. (2001) found that lack of conveyance also created barriers for senior citizens for even mundane tasks such as doing grocery. Johnson et al. (2011) found that inaccessibility to conveyance means resulted in decreased participation in cultural activities, including going to cinemas, public places such as parks, and libraries, going to concerts, and so on. Sowa et al. (2016) discovered that non-availability of conveyance even affected the participation of the elderly in religious congregations.

In Ireland, during the course of a research study it was discovered that the lack of conveyance affected the daily lives of the participants of the survey and was the cause of other forms of exclusion faced by the elderly. Public transport such as buses, was not available in multiple areas in Northern Ireland. Even in those areas where the public transport was accessible, the system was found to be ineffective, and this multiplied the problems of mobility for the elderly. The participants presented the idea that inaccessibility to public transport services limits their ability to access essentials such as healthcare services. The only exception was found in the Northern Ireland where the elders were able to access public transport since it was located at the main transport circuit. To curb the problems created by this vacuum, a transport scheme for the rural areas was implemented by the government where 'social car' was provided in Northern Ireland, in many

different areas. While these were very significant steps, the approach of these was limited, geographically and in terms of time as well, since they operated weekly only (Walsh et al. 2020).

Across Europe, multiple studies and pilot projects have centered on mobility, travel, transport, info-communication-related social exclusion. In this regard, the evidence was taken from UK (Shergold and Parkhurst, 2012), Ireland and Northern Ireland (Ahern and Hine 2012), Spain, Italy, and Portugal14 and it aimed at promoting an Action Plan for The Future of Mobility in Europe by means of the direct involvement of 9 countries15; and from Hungary, through the experiences of the Elder-friendly House (Széman and Pottyondy 2006) or of the Skype Care project (Széman 2012). Some initiatives are aimed at linking transport and health/social services to prevent social exclusion, such as for instance the Swedish program "The Patient Journey through Emergency Medical Care"[16].

7.1.3.3 Ageing and general services [basic, mobility, leisure].

Earlier studies explain that being unable to receive access to basic amenities and getting excluded is also a reflection of the inability at the part of the elderly to gain access to the same. Since the elderly are also more prone to the age-related diseases, problems, and disabilities, they are also at the risk of getting affected by the inefficiencies of the system, thereby leaving them affected by the lack of health services. From the above collectively mentioned issues, low socioeconomic

14via the SIMON project: www.simon-project.eu,
15 (Sweden, France, Belgium, Spain, Netherlands, Hungary, United Kingdom, Finland, Germany: http://www.mobility4eu.eu/)
16 https://ec.europa.eu/eip/ageing/repository/patient-journey-through-emergency-medical-care_en and the French project aimed at "Improving rural health services for the elderly" (http://enrd.ec.europa.eu/projects-practice/improving-rural-health-services-elderly_en

results and makes it further cumbersome to access basic amenities. The elderly also suffers from the changing patterns in the society such as fiscal decline and changing trends for the use of land; all these affect the fiscal standing of the elderly and the quality of life of these individuals (Barnes et al. 2006; Demakakos et al. 2010).

Present study reveals that in *Sohan*, mobility and basic services (categorized in chapter 6) available in the community around the calendar while no such sources of leisure services were found I the boundary of *Sohan*. So, OPs are not under threat in term of basic or mobility services. Previous studies reveal that elderly who are fiscally deprived are more at risk of facing challenges in accessing public transport or conveyance in general (Giesel and Köhler 2015). Availability of basic amenity is comparatively more limited, or completely absent in rural areas, such as housing, health, and transport, but because of lack of fiscal resources, that could be coupled with physical illness or disability, the capacity of the elderly to reach far off places becomes even more limited (Walsh and Ward 2013). But in case of *Sohan,* it is declared as village and rural by some social indicators as explained in methodology chapter, but due to its geographical location it is more like a semi-urban area with basic services and facilities. Literature also reveals that older people living in rural areas not only tend to be financially worse off than those in urban areas, they are also more likely to be excluded from services, which in turn may lead to difficulties in coping with everyday life and to affect their well-being (Draulans et al. 2017).

The social policy literature constantly stresses the importance of health and general services' access for the elderly (Levitas et al. 2007:88). Research studies have focused on the specific problems connected to the termination of services like pharmacies and pubs, post offices and

shops, and its effect on the elderlies' quality of life (Scharf et al. 2001). A report, about rural Scotland, analyzing the quality of services (Philip et al. 2003) recognized that a shop, primary school, general practitioner (GP) and community hall are the essential facilities for a rural community. Dwyer and Hardill (2010) emphasize that these services encourage social inclusion by increasing rural residents' access to the resources, rights, services that facilitate a meaningful participation in community life.

According to a report of the survey by UK government 40 percent of elderly in the rural areas have difficulties accessing services (Scharf and Bartlam 2006). In comparison to urban communities and large towns, the rural communities suffer from cumulative disadvantages, making it inaccessible for the elderly to access healthcare services, among others (Garavan et al. 2001; Dwyer et al. 1990; O'Shea 1996; Goins and Krout 2006).

Social scientists have remained interested in the effects of leisure participation among the elderly. Involvement in leisure activities is linked with a lesser risk for adverse mental and physical health as well as mortality (Chen and Fu 2008; Kåreholt 2011; Glass et al. 2006; House et al. 1982; Verghese 2003). But this may be case for those OPs living not only in urban areas, but their socio-economic status will also an important indicator to ensure this participation.

7.1.4 Financial/Material Participation

Globally, individuals at 65 years of age and above, per 100 persons, and those around age 20 to 64 years, is forecasted to increase to 28 by 2050, from 16 in 2019. Dependency ratio is forecasted to increase from 49 in Europe and Northern America, and to 9 in Sub-Saharan Africa. In Eastern and

South-Eastern Asia, Latin America and the Caribbean, Northern Africa and Western Asia, and Central and Southern Asia, the old-age dependency ratio is projected to more than double by 2050 (UNDESA Population Division 2019). Furthermore, globally, it is estimated that the economic old-age dependency ratio will increase from 20 in 2019 to 33 in 2050. At present, the dependency ratio of the senior citizens' dependency is the highest in Europe and Northern America (43), and Australia and New Zealand (36), which is reflective of comparatively high levels of consumption at older ages and a considerable share of older persons. In the regions of Eastern and South-Eastern Asia and Latin America and the Caribbean, old-age economic dependency is expected to reach similar ratio by 2040 and by 2050, respectively (UNDESA Population Division 2019).

Exclusion from financial and material resources involved the twin dimensions of income and material deprivation (Walsh et al. 2020). Lack of financial resources adds to exclusion from financial and material interactions. The real impact of material deprivation needs to be assessed since this has either been given too much weightage or too less, in general research studies. Accounts of daily activities do reflect that many individuals are materially deprived. Interviewers observed the participants' housing which they found to be of poor quality, worn-out clothes, concrete floors, and old furniture (Walsh et al. 2020). For present study four indicators were used to measure the financial and material exclusion which includes currently earning status, any property, family income is sufficient for family expenses, and having any other form of income like pension, livestock form, agriculture etc.

7.1.4.1 Currently earning and old age.

Some of the elderly people remain under the impression that they can keep working even as they

progress in age. However, there are some elderly people who think of themselves as negatively burdening the society. Feeling disrespected or misunderstood makes the elderly feel being segregated (Nilsson et al. 2000:44-45; Backman and Hentinen 1999:569; Kirkevold et al. 2013:398; Larsson et al. 2009:103-106)

In the absence of financial support, most older people work as highlighted by the 2013–14 Labor Survey conducted by the Pakistan Bureau of Statistics (PBS): of all older men and women between the age of 60 and 65, 77 percent of men and 31 percent of women work. For the over 65, this percentage decreases to 40 percent for men and 13 percent for women (Zaidi et al. 2019). Data of present study reveals the situation in which OPs in age 60-74 years currently earing from their jobs and among them the minimum participation is from age group 70-74 years of OPs. Keeping in view that among the sample of 97, 21.6 percent of the sample is currently on job. This means that with increasing every age year the participation as an economic asset in the society will be decreased. OECD (2017) reveals that average incomes tend to fall with age. In Contradiction with the findings of present study, OECD further reported that people aged 66-75 and those over 75 have relative incomes equal, on average, to 93% and 80% of population incomes, respectively.

Work accounts for 24%, income from capital for about 10% of older people's incomes on average in the OECD. In Mexico, work is important primarily since it accounts for 57% of old-age income. It is also very important in Chile, Estonia, Israel, Japan, Korea, Latvia, New Zealand, Turkey, and the United States where it accounts for more than 30%. There are several factors that affect these values. In some countries, such as Israel and the United States, pension age is higher than 65 (65 is the age of retirement for Pakistan as well in government sector). Work is a much more important

source of income for the elderly where several of them live in multi-generational households (OECD 2017).

Research shows that in acquiring employment, especially in later life, social relations are of utmost importance (Phillipson, Allan, and Morgan 2004). Likewise, Arber (2004) has provided a link between social opportunities and social relations, which according to him, lasts throughout life. Agulnik, Burchardt and Evans (2002) note that the level of income decreases after certain age caused by the loss of gainful employment and converting to pension funds' dependence. It also points out that with retirement, the risk of social exclusion increases and paves way for intervention from state in terms of the retired life. It was also noted that compared to the data of the past, pensioners today fare much better, which is because the government's policy regarding pensions has been to increase them based on increasing prices of commodities.

Ali and Kiani argue that a person's quality of life is affected by their profession. This means that a working elderly would fare better than a non-working one, since work would keep the person in shape physically and mentally. It also means that the person will be fiscally independent and keeps loneliness and idleness at bay. On the whole, only a small number of elderly are employed in substantial jobs and of those, maximum number is found of those who live in extended-families (Ali and Kiani 2003) while 21.6 percent OPs are working according to the findings of present study. Findings of the present study matches with the findings of Ali and Kiani when they argue that more elderly (20 percent) were found to be employed in rural areas. Comparatively fewer (17 percent) people were engaged in urban areas. This is in line with the fact that, the major occupation is farming in rural areas (Ali and Kiani 2003).

Literature shows that as the individuals face unemployment, it results in a curb in their daily social acquaintances, for example, to colleagues or customers. Additionally, the research literature concludes that there is a negative relationship between an elderly person being unemployed and experiencing social exclusion. Social participation may mean participation of the formal type, in activities like forming an association and informal participation may mean communication with friends and relatives (Dieckhoff and Gash 2015). Research shows that the unemployed engage in social activities less regularly (Kunze and Suppa 2017). Sociologists further provided experimental evidence that employment is linked to a greater level of seeming social assimilation than unemployment (Layte, Maitre, and Whelan 2010; Gundert and Hohendanner 2014).

7.1.4.2 Old age and property.

Material deprivation is defined as "the inability to possess the goods and services and/or engage in activities that are ordinary in the society or that are socially perceived as 'necessities'" (Fusco et al. 2010:7; Fusco et al. 2011). Across countries, lack of material resources, varies and generally, in rural areas the elderly faces much more exclusion than they do in the urban areas (Walsh and Ward 2013; Bertoni et al. 2015). It varies geographically, even within countries, the fiscal conditions of the elderly in the rural areas being worse off than those living in urban areas (Bertoni et al. 2015; Walsh and Ward 2013). 53.6 percent OPs of *Sohan* have reported ownership of property in forms of house, plot, shop, or agricultural land.

7.1.4.3 Sufficient family income.

The risk of economic exclusion is very closely linked to household composition and disproportionally affects single households. Living alone not only implies reliance on a single income, but also the inability to share certain fixed items of expenditure, such as housing or heating

costs. In addition, family, and broader social networks play an important role in reducing the risk of economic exclusion both through direct material assistance as well as through other means of support, such as help with daily activities and personal care, which otherwise would often need to be purchased on the market (Levitas et al. 2007).

Total income of a household is more significant than the individual one, since it is the former that shapes living standards and expense possibilities (Stiglitz, Sen, and Fitoussi 2009). In case of present study, results reveal that 66 percent of the study sample argued that their family income is sufficient for their expenses. And correlation analysis between age and family income sufficiency shows significance association between these two variables.

The socio-economic situation of people in old age is strongly associated with the poverty situation of their families and communities. Families with older people in Pakistan have not been identified as poorer than families without older people, although a higher incidence of poverty has been found in families with young children and an even higher incidence among families with children and older parents. This seems to indicate that in poor households, sons can support their parents financially before they have children, but this becomes increasingly difficult as the family has a greater number of younger dependents (Qureshi 2005). Widows who are financially more dependent on their families often move from one son to the other and are more likely to migrate to cities to live with their sons or daughters (Nasir and Ali 2000; Zaidi et al. 2019).

A previous study explains that income was directly linked to exclusion from financial and material resources, with most participants relying solely on state contributory and non-contributory

pensions. There is a significant difference between the pension payments in these two jurisdictions, with the Northern Ireland pensioners reporting a much lower rate of pension. While additional means-tested grants, such as disability ones or single pensioner grant, were considered as facilitating living standards, those who fell outside the mark expressed difficulty in surviving on the basic pension (Walsh et al. 2020). Issues in the payment of housing bills was a predicament faced by the participants of both the jurisdictions. Main concerns of the people were about increasing energy costs, fiscal burden of maintaining a car and so on. In Northern Ireland, the payment of household rates was problematic. Covering such expenses seemed to be chiefly difficult when living alone (Walsh et al. 2020).

7.1.4.4 Ageing and social security.

Several cross-national researches have stated a link between material deprivation of the elderly and the normal level of national income, as well as how the income it is distributed amongst the population (Draulans et al. 2017).

Lack of financial means can negatively affect the elderly since it increases the risk of inaccessibility to material resources and exclusion from receiving services. For the elderly who are living in the situation, this means that they will suffer in the long run because they might have to curb their expenditures affecting their healthcare and medicines (Hrast, Hlebec and Kavčič 2012).

For the elderly, pension remains the main source of income and inadequate income creates problems for them, as well. They might not be able to do something because they cannot afford to,

and in such cases, they need to be able to save to either travel or save for future needs (Tsai and Tsai 2007:982-985; Pietilä and Tervo 1998:23; Larsson et al. 2009:106). A majority of the labor in Pakistan is working in the informal economy and these individuals remain without the cover of pension and consequently without social security (Afzal 1997, 1999; Nasir and Ali 2000). With rising poverty, elderly is exposed to the issues and problems of life mainly since the values and traditions of the past, are fast eroding in lieu of the modernization, urbanization, and the resultant economic and financial burdens (Ali and Kiani 2003).

A lot of studies have focused on how the pension systems affect the fiscal status and material possessions of the elderly in different countries. These studies reflect a wide difference between those individuals who are receiving pension from the state or public organizations, and those who are not receiving the pensions; the former group is mainly susceptible to variations in the state funded pension system (Lloyd-Sherlocka et al. 2012; Ginn 1998; Price 2006; Patsios et al. 2012; Zajiceka, Calasantib, and Zajicekc 2007). Elderly women who are living alone because of being widowed or other circumstances have frequently been considered as the most disadvantaged group (Saunders and Lujun 2006; Ginn 1998). In general, due to their limited time in the labor market, they have limited chances to procure pensions (Bertoni et al. 2015; Price 2006; Burholt and Windle 2006; Zajiceka, Calasantib, and Zajicekc 2007). This makes their fiscal situation much more susceptible and consequently, their capacity to utilize services declines.

The ratio between residents in working age to retirement age is declining and while currently many societies, such as Germany have increased supply of capital for now, in future, with more elderly residing in the society, the supply of capital would decline because of the high proportion of

pensioners (Lopez and Petersen 2019). Today only two percent of older men and women in Pakistan receive a pension. This is by far the lowest percentage in the region (India 28 percent, Bangladesh 39 percent, Nepal 56 percent, Sri Lanka 17 percent and Afghanistan 10 percent) (HelpAge International 2017). Elderly who are receiving pension can be divided into two wide categories; those who were civil servants and are receiving pensions and those who worked in the private sector and are given pensions from private funds. Some vulnerable older people are receiving cash transfers, although the overall statistics on this are not available (Zaidi et al. 2019).

A pronounced inequality in income distribution advances the deprivation faced by the elderly; those with low fiscal assets are liable to receive more expenses by the state on public services including healthcare and social protection (Najsztub, Bonfatti, and Duda 2015). To reduce the material problems faced by the elderly, the provision of housing is identified as a most effective factor (Dewilde and Raeymaeckers 2008).

Despite the decrease in co-habitation both in rural and urban areas, the perception of the responsibility of providing for older parents has not diminished. In a 2014 opinions survey, 77 percent of people believed the family should financially support older people and only 16 percent believe that this is a responsibility of the government (Pew Research Centre, 2014; Zaidi et al. 2019).

In Canada, research showed that since the revenues and the resources are being directed towards economic, scientific, and professional fields, the elderly are left susceptible to exclusion at a large scale (Grenier and Guberman 2009). In lieu of this, there is a need to prioritize the allocation of

resources and to direct some of them towards those who might not be eligible for services but need them because of a lack of resources on their part (Draulans et al. 2017).

Research literature focuses on material and financial resources and their impact on social exclusion and the process of aging (Levitas et al. 2007; Hoff 2008; Zaidi 2011). Shucksmith and Chapman (1998), outline that a large number of elderly falls in poverty and this has been affirmed by a survey in the UK. According to the survey, around 28 percent of the elderly, living on pension cannot afford public or private services (Patsios 2006; Levitas et al. 2007) and in that many the pensioners are unable to receive elderly-specific services, such as home care services because they cannot afford it. Fahey (2001) contends that there is inconsistency in the materials and salary dissemination among the elderly. Older people may be asset rich (i.e. own their homes) but income poor, with dwellings often their main form of wealth.

7.1.5 Neighborhood/Community Participation

In order to understand the extent of social exclusion, it is important to analyze and comprehend the environment in which the people are living. People are now increasingly recognizing the importance of living location and its associated features for creating social and fiscal inequalities (Buck 2001). Underdevelopment and exclusion impact the individuals and the community at large (Cattell 2001). The place or location represents the social, cultural, and economic characteristics, and how these can create an impact, and cause social exclusion for locals.

The sense of belonging to a place, protects from feelings of alienation, and is also pivotal to dealing with other forms of disadvantages and prioritizing of objectives (Walsh et al. 2020). Empirical

studies conducted in the past, focusing on the elderly and psychosocial theories regarding aging concluded that some of the elderly do not like to engage in community activities or interactions, and they might like to remain in familiar surroundings and people (Carstensen et al. 2003; Bukov et al. 2002; Johnson and Barer 1992).

Burns, Lavoie and Rose (2012) saw neighborhood issues and found that restoration of neighborhoods can be negative in causing the sense of social exclusion among the elderly, since it causes loss of spaces dedicated to them – though there are other progressive alterations because of development. Barnes et al (2006) concluded that in the elderly, renters or semi-renters had the maximum ratio of individuals who were excluded on all dimensions (Kneale 2012).

7.1.5.1 Ageing and community participation [activities].

Some research studies have utilized civic participation (Putnam 1993; Helliwell and Putnam 1995) or trust (Knack and Keefer 1995, 1997; Knack 2001; La Porta, Lopez-de-Silanes, Shleifer, and Vishney 1997) as substitution events of social cohesion, considering that they are adequate enough to capture the process. Research shows that active participation in political activities and official volunteer work amplifies social cohesion, which in turn lowers the level of crime (Laurence and Heath 2008). Moreover, some of the academic literature on the subject centers on the politics of the feelings of belonging in the context of citizenship, and immigration and linked this with communities over all social cohesion (Yuval-Davis 2006). In present study, community participation is depicted as political participation, participation in welfare gatherings or participated in development gatherings in the community. Study represents that 61 percent of OPs have reported no participation in any of the three mentioned activities while 13 percent participated

in political gatherings, and 26 percent in welfare gatherings. And among these recorded activities, least participation in political activities was observed in age group 80 years and above, and welfare participation was same in 70 years and above older of *Sohan*.

"Community and space" are one of the five dimensions identified by the ROSEnet leaders as being part of a (missing) comprehensive outlook of old-age social exclusion. This is systematically argued by a scoping review (Walsh, Scharf, and Keating 2017) and politically driven by the search for innovative and international responses to a largely "relative" to context specificity of exclusion (Moulaert, Wanka, and Drilling 2017). The term space mentioned by Walsh et al. (2017) explained here, assume a common description of "space" (from a physical perspective), "place", "community" (Stacey 1969; Clark 1973) and clarify why "neighborhood" sometime appears as an equivalent for "community" (Evans 2009). While it might have divergence in the dimensions of such definition, for example a psychological perception of community giving significance to the everyday practices and observation of people, i.e., the spatial practice (Lefebvre 1991), can define environment as private and personal (beyond a *public* aspect) (Peace et al. 2005:9).

A few researchers argue that racial diversity deteriorates a community (Blumer, 1958; Alesina and La Ferrara 2002; Levine and Campbell 1972; Putnam 2007; McLaren 2003), on the other hand, other think that it strengthens the community (Hewstone et al. 2005; Oliver and Wong 2003; Marschall and Stolle 2004; Stein, Post, and Rinden 2000). From the UK, very compelling evidence emerged that suggests that scarcity weakens social structure in a neighborhood, more than ethnic diversity does (Laurence and Heath 2008). Crowley (1999) argues that notion of belonging is not limited to the legalization of belonging and ideas of citizenship; it is about how people recognize

their community in the social world. It is impacted by the experiences of exclusion, including exclusion from social relations. Therefore, social cohesion is the creation of complicated relations between essentials of exclusion from social relations.

In a research regarding the elderly living in disadvantaged urban neighborhoods, Scharf et al. (2002) discovered that value of life is closely linked to individuals' feelings about neighborhood and area, in particular in reference to local deficiency or apparent susceptibility to crime. Importantly, Scharf et al. (2000) also note that the shared experiences of such issues with the elderly, at times, serves to alter the influence of neighborhood deterioration.

7.1.5.2 Ageing and neighborhood participation [opinion about participation].

Neighborhood is considered the most effective area where individuals could be reengaged and can re-forge links among people to create a sense of fitting and individuality (Moulaert, Wanka, and Drilling 2017; Evans 2009:13).

In present study we asked them about ranking their participation in their neighborhood. While in previous studies, the domain of social exclusion has been analyzed through the operationalization of neighborhood exclusion, it has chiefly involved quantifying the elderlies' observations of their neighborhood. The markers in this case demonstrate substantial diversity, including whether the individual feels being a part of the local area, enjoys the area, is satisfied with the neighborhood, security (adopted as separate indicator in present research), the dependability and sociability of the community, and whether people of the locality would help in trouble (Van Regenmortel et al. 2018; Barnes et al. 2006; Miranti and Yu 2015; Tong and Lai 2016; Scharf et al. 2005).

Present study unveils that the significant correlation exists between age and neighborhood participation among OPs of *Sohan*. Data also reveals that 80 years and above age respondents less involved in neighborhood and ranked the neighborhood visit neither positive/negative and negative. In age group 75-79 years, predominant responses were recorded in category of positive ranked for neighborhood visit, [i.e., 50.0%] and neither positive nor negative was selected by 37.5 percent OPs. Previous studies recognized that the importance of neighborhood connects to 'ageing in place', where the connection between the preferences of the elderly for residing in their own homes is compared with social policy analysis that progressively stresses community-based care for the elderly despite high levels of infirmity between clients (Smith 2009; Gardner 2011).

Several studies point out a link between wellbeing and neighborhood features and opinions (Elliott et al. 2014; Toma, Hamer, and Shankar 2015, Winterton et al. 2016). In addition, one research concluded that neighborhood exclusion was linked with an elevated risk of exclusion from material assets and social relations (Scharf et al. 2005), while yet another study has linked neighborhood exclusion and exclusion from fiscal resources (material resources) as well as services (Barnes et al. 2006).

7.1.5.3 Ageing and safe neighborhood.

Experiences of older ages vary extremely dependent on where they live. Those countries that work for development of human resources through a lifetime, are more achieve higher ratio of participation in volunteering, working, and engaging (Zaidi et al. 2019).

Feelings of security is recognized as an important factor in determining the experience of exclusion from neighborhood in later age (De Donder 2011). The quality of life of the elderly has been connected to the feeling of security that they have (Fahey et al. 2007; Gabriel and Bowling 2004; Little et al. 2005). In this area, most of the research primarily focuses on perceived crimes and vulnerability to fear, and not much on experiences of greater crime. It could be because victimization rates for the elderly are low (CSO 2010). On the other hand, a presence of this fear of crime and unsafe environment negatively impacts their social participation (James et al. 2003). Present study recorded the prevalence of feeling of safety among the OPs of *Sohan* and the results are, 22.7 percent respondents feel very much safe in their neighborhood, 44.3 percent argued that they feel safe somehow, and 33 percent reported "no" to feeling of safety in their neighborhood.

After feeling of safety, the physical living space has a huge impact on feelings of exclusion from social relations. For instance, multiple factors are associated with walkability or social contact in the area which is related to the design of the neighborhood, population diversity and density, use of the open lands and so on (Burholt, Roberts, and Musselwhite 2016; Bowling and Stafford 2007; Byles et al. 2014; Tomaszewski 2013; Lager, Hover, and Huigen 2015; Walker and Hiller 2007). For such factors, a person's ability to deal with pressure or threat determines his level of activity and mobility. Actual and perceived fear of vandalism and crime also play a role in determining accessibility (Lorenc et al. 2012). Stress caused by the surroundings or disorderly events in the neighborhood may also interfere with an individual's attempts at maintaining social relations (Burholt et al. 2016). Krause (2006) notes that further research is required to understand the effect of the neighborhood on social interaction.

In terms of safety and impact of crime, exclusion affected the participants quite significantly. Participants thought that the feeling of security provided a sense of social freedom. Some of them said that safety was one of the reasons that made them decide to stay in one place, and that reduced sense of security impacted the decision to move (Walsh et al. 2020). In this current study, a comparison of answers was done, and it was concluded that those at and above the age of 80 had a reduced sense of security and among the other age groups, the sentiments varied.

Exclusion with respect to safety, security and crime impacted significantly on participants. Feeling safe was highly valued and provided a social 'freedom'. Study also stipulated that safety was one of the reasons for remaining in place, some referred to a reduced sense of safety (Walsh et al. 2020). Present study reveals the comparison between age and feeling of safety in their neighborhood. Data represents that 80 years and above people reported more unsafe feeling as compared to any other age group. In rest of age groups percentiles are varied among categories.

7.1.6 Decent Housing Participation

The term housing satisfaction, employed when researching residences and their locations, refers to the elderly individuals' assessment of the conditions of their living spaces depending on their needs and expectations (George and Bearon 1980; Amérigo and Aragonés 1997; Gentile 1991; Rioux and Werner 2011; Lawton 1988; Kahana et al. 2003; Carp and Carp 1982). To cover the decent housing participation or exclusion four indicators are used in present study:

i. Overall house satisfaction

ii. Room temperature or room satisfaction

iii. Bed satisfaction

iv. Satisfaction of quantity of food served to OPs.

Previous studies reveal that for people of all ages, the place of residence is more than a quality symbol. This place fulfills our basic need of accommodation. It has several benefits for an individual's mental and physical health (Fogel 1993); it focuses on the close relationships of the family (Grundy 1989), and other relations such as friends, family and acquaintances (Tunstall et al. 2011), which also applies to the elderly (Kneale 2012).

Ageing at the place of residence, and not altering the place (Pastalan 1990), as the commonest form of lodging (Gonyea et al. 1990; Silverstone and Horowitz 1993; Callahan 1993; Harootyan 1995) opposed to institutionalization in an elderly home, is the housing approach favored by the elderly for spending the last years of their lives (Baker and Prince 1990).

There is also a robust body of evidence suggesting that the older we become, the more likely we are to be satisfied with the various dimensions of our residential environment, whether this be the home, the neighborhood, or neighbors (Chapman and Lombard 2006; Parkes, Kearns, and Atkinson 2002; Dekker et al. 2011; Wasserman 1982; Perez et al. 2001). In term of satisfaction present study unfold results that 24.7 percent of OPs are very satisfied with their houses, 45.4 percent satisfied, and 23.7 percent reported fair house satisfaction. So, in the light of previous literature we said that majority of our respondents are happy with their homes.

In addition, literature represents that inclusive housing gives them the opportunity to live longer in their house (Peace and Holland 2001). Economic exclusion in later life and old age can be

manifested in poor quality housing (Walsh et al. 2016). Increased life expectancy after retirement has consequences for the upkeep and maintenance of homes. Economically excluded older people can also be homeowners, with little capital to maintain and adapt their homes. Poor housing is in turn associated with poor health, and the inability to adequately heat the home can have importance consequence for health (Rudge and Gilchrist 2005; Howden-Chapman et al. 1999).

Studies have also been done to assess the level of satisfaction with the residence (Jirovec et al. 1985), or the cumulative satisfaction in several areas: where several families reside (Francescato et al. 1979; Weidemann et al. 1982; Francescato et al. 1987), how the welfare is perceived, (Mookherjee 1992) residential satisfaction and ability to move (Morris et al. 1976) further satisfaction with features of the residence (García 1997; Adriaanse 2007; Rohe and Basolo 1997; Francescato 2002), pleasure from the place of residence in those who are above the age of 60 (Golant 1982), and of those who live in central city area (Ginsberg 1987).

Weakness, degenerative diseases, and changes in diet, and overall dearth of a systematic management causes malnutrition and are characteristic of the aging process (Chang and Roberts 2008; Starr et al. 2015; Khole and Soletti 2018); around 30-50% elderly people suffer from malnutrition (Yap et al. 2007). A research conducted across 12 countries discovered that around 13.7% of the elderly who live in care facilities were undernourished (Kaiser et al. 2010). While eating is a daily routine activity and might get neglected, it is one of the activities that provides deep satisfaction to the elderly according to research (Ji 2005). Studies conducted before on this subject did not calculate the degree of the satisfaction caused by eating a meal, instead focusing on it in terms of life satisfaction and life quality (Enoki et al. 2013) in addition to dental health

(Kagawa et al. 2013) and in relation to satisfaction (Capra et al. 2005). While results of present study reveals that 52.6 percent were of the view that food served to them is mostly enough to them. And among them OPs from age group 75-79 years percentile are 75 and 60 percent satisfaction was observed in case of OPs years and above.

7.1.7 Digital Participation

The increasing use of ICT has made this technology an all-pervasive one; it facilitates access to all kinds of services and information at one's fingertips because of their mobility and connectivity (Engel et al. 2018; Navarro et al. 2017).

'Digitally excluded' is a term defined by Delello and McWhorter (2017) as referring to the people who lack access to digital technology. It also implies that there is inequality in terms of access to digital technology and these become hurdles to participation in social activities (Schejter et al. 2015). To measure digital exclusion in present study along with internet and mobile phones two additional indicators TV and computer/laptop were also incorporated into the research tool.

Olphert et al. (2013) expounds that digital inclusion may enable the elderly to keep their independence, social connection, and self-esteem in the face of deteriorating health or limited capacities, at the same time enabling them the opportunities to advance their quality of life. For the subject of internet participation, exclusion from society stems from being away from digital devices (Seifert et al. 2018; Seifert 2020). In the elderly at above the age of 75 years is 0, which is a major factor leading to digital exclusion. Access to a laptop was reported by two age groups of the elderly, which was 70-74 years and 75-79 years. Another research study conducted previously

shows that even in the households with computer or laptop, the use of the devices declines with age (Cutler et al. 2003). From 3.6 billion people globally, 48.3% are excluded from digital access, according to Internet World Stats (2017).

A correlation between good health and the use of internet was also established by Heart et al. (2013) showing that good health positively impacts the use of technology and lessens its fear as well (Mordini 2007). Education is also seen to have a positive impact on the adoption of ICT (Heart et al. 2013). Factors that negatively impact the use of technology are the perception of their selves as too old by the elderly, according to Formosa (2013). In a group of Portuguese elderly individuals, a study was conducted that showed the central factors for the non-usage of ICT were functional and related to the attitudes and not based in old age or physical fitness (Neves et al. 2013). With a changing attitude among people, elderly and the young alike, these trends might change (Amaro et al. 2011). Research by Park (2008) suggests that even if the elderly learn the use of internet technology, it does not necessarily mean that they will be able to engage with the society in general. This was shaped by their previous attitudes and their pre-existing need for using the internet.

Denvir et al. 2014 found that the elderly might not be able to access the internet for free legal advice or other useful information within their living space. However, even for those who did utilize the internet, access to the devices at home was a key factor. Researchers (Denvir et al. 2014) have found that older people are less likely to utilize the internet for finding information pertaining to legal problems, as well as being less likely to have access within their own homes. For those who did use the internet, home access appeared to be key, suggesting that the first digital divide

remains an ongoing barrier for older people. Further, Mitseva et al. (2010) concluded that the atmosphere where an individual lives is very important, and if the surroundings could be adjusted to the requirements, it might result in higher and more effective ICT services.

Barret (2005) recognized deprived groups of senior citizens in internet adoption and use; these groups included immigrants, religious individuals, people from low socio-economic backgrounds and those with health problems. Women are even less likely to access and use the internet in ways that enhance and help their qualifications, in comparison to men. This disadvantage remained continuous after checking socio-demographic factors. Another research by Manthorpe et al. (2009) expressed apprehensions about the non-recognition of the customary needs of the elderly belonging to black or minority ethnic groups by conventional services, rather than the need to develop separate services for them. There is also a special concern about the elderly unable to completely comprehend English or other European language, this being the only interface language in the more universal solutions and services, such as e-shops or technological devices (Muller et al. 2015), which reflects services and solutions should made to be as multi-lingual as possible.

In the recent global COVID-19 pandemic, the elderly is predominantly omitted from physical socializing as they belong to the population group often barred from digital services because they do not use new technologies. This exclusion from digital involvement includes several particularly useful online services such as information about health, digital social occasions and networking or online shopping opportunities. Remaining excluded from the digital world could give rise to feelings of social exclusion in times of physical distancing (Seifert 2020).

Digital technologies permeate all features of our lives. Recently, there has been the digitalization of daily life by technological innovation. The internet is one of the most important features of modern digital technology. Internet access has become global and a digital gap among the young and the old has been experienced recently (Hunsaker and Hargittai 2018).

In the recent times, younger people are enthusiastically using the internet, while adults with less experience with the technology in the past so not feel inclined to use it currently. For instance, a representative study conducted in the US concluded that only 67% of people at the age of 65 years and above used technology (Anderson et al. 2019). The gap in the use of internet, between developing and progressive economies has contracted recently. In many regions of the world, in the developing countries especially, noteworthy numbers of the elderly do not use the internet (Pew Research Center 2018).

The scenario in Europe: a cross-sectional survey across Switzerland and 16 European Union countries reflects that around 49% of those aged at 50 years and above use internet (König et al. 2018). The results of previous studies showed that use of internet by the senior citizens was affects by such personal factors, like age, gender, education, and income. The study reflects that people over 80 years of age expended less time online than those in lower age group (65–79 years), like the results of the current study. Elderly as well as men with high education and fiscal status were comparatively more likely to use the internet. Additionally, people's health, previous experience with technology, social salience, and context, such as country's wealth, communication technology infrastructure, affect the use of internet usage by older adults (Seifert 2020).

7.2 AGEING AND SOCIAL EXCLUSION

This section is divided into two different types of discussion within domain of present study. Firstly, we discussed our main hypothesis of the research that deals with age and social exclusion a whole, and after that we try to explain the seven sub-hypotheses of study that deals with the seven dimensions of social exclusion with reference to age in the light of previous literature.

Study Hypothesis

H_0 = there is no significant impact of age on multiple dependent variables (Social exclusion)

H_1 = There is a significant impact of age on multiple dependent variables (social exclusion)

Calculated *p* [.004] value of multivariate analysis [tale 6.82] is less than .05. So, we have rejected the null hypothesis and accept that there is a significant impact of age on social exclusion. Social exclusion as a dependent variable is significantly affected by age of OPs considering an independent variable. We also explain this as, vectors/magnitude of means on multiple dependent variables of social exclusion are not equal across age groups. This enabled us to write that significant relationship we found among social exclusion and age is varied by their mean values among dependent variables, so the magnitude means of social exclusion are not same across age groups. Multivariate analysis further shows the 13.5 percent variability of social exclusion among all seven exclusion dimensions as calculated partial Eta Squared values is .135.

Statistically, our model result is significant, this explains the level means for the factor (Age) are significantly different from each other across all responses in our model. Or we may interpret this

as, the effects of each factor are different at each level of the other factors across all responses in your model.

Hence, we conclude that the results of the present study approved our major assumption that age has a significant effect on social exclusion faced by OPs of *Sohan* village, Islamabad. And results further represent that level or intensity of social exclusion is different across different age groups.

In addition, to check that the variation level of social exclusion is same for all age groups or not, we added test of equality of covariances matrices below. Test of equality of covariances matrices is a parametric test used to compare variation in multivariate samples [table 6.83]. in which we test the null hypothesis, the observed covariance matrices of the dependent variables are equal across groups.

Calculated *p* value for equality of covariances matrices is =.158, which is greater than .05, so, statistically non-significant and assumptions are met in this case. Non-significant test result shows that H_0 is accepted in this condition. Equality test to check covariance reveals that covariance matrices of the dependent variables are found equal across groups. After covariance matrices analysis table 6.84 presents Levene's test of equality if error variances. Levene's test assesses this assumption with null hypothesis that the error variance of the dependent variable is equal across groups. This helps us to explain the overall results presented in Box test of equality of covariances matrices. Results of Leven's test represent the equality of error variances among dependent variables. Excluding one dependent variable that is services exclusion, rest of six variables

approved the statement of null hypothesis that error variance of the dependent variable is equal across groups.

Results of present study approved the prevalence of significant relationship of age on social exclusion with calculated *p* value is .004, and this also shows that social exclusion as a cumulative variable is highly dependent on age. This approved our assumption that prevalence of social exclusion among older persons of *Sohan* is dependent on their age.

The population is altering globally. In 2018, there were individuals above 64 years of age than children less than 5 years. The global population of those at and above the age of 64 will grow continuously, making it clear that we are moving towards an ageing world (Ritchie 2019). It is commonly known that the global population is growing old. However, only a few comprehend that most of the societies in East and Southeast Asia fall in the fastest aging societies across the world (Cheng et al. 2009a) exceeding several European and American societies.

Research literature explained that senior citizens took part in many social interactions such as theatre and physical exercise set. Furthermore, elderly undertake errands and cooperated with doctors, and personal physician as they interact with health practitioners. Comparatively, some elderly decreased their social interactions. Few of the elderly had much limited social networks because of their deteriorating health condition or lack of relations with others. (Pietilä and Tervo 1998:22-23; Backman and Hentinen 1999:567-569; Nilsson et al. 2000:44-45; Tollén et al. 2008:139-143; Larsson et al. 2009:103-104; Kirkevold et al. 2013:397)

Grishina (2013) reached the conclusion that the elderly is not afraid of progressing age, but of the accompanying socio-cultural aspects that end up excluding the elderly from the socio-economic, cultural and political processes of modern society. Prior studies found relation amid socio-economic stature and loss of connections that occurred in the USA: senior citizens with a poor socio-economic situation were much likely to not have social relations because of various incidents like death and breakups, consequently remaining unable to acquire replacements as compared to the elderly with a high status (Cornwell 2015). It can be since childhood socio-economic status affect and form social engagement in life at a later stage (Hietanen, Aartsen, Lyyra, and Read 2016). In any case, across countries, material deficiency and poverty bars complete involvement in the social life of groups for the elderly, barring opportunities to enhance and expand social activities, and adds excessively to exclusion from social relations (Ajrouch, Blandon, and Antonucci 2005; Fokkema, De Jong Gierveld, and Dykstra 2012; Ellwardt, Peter, Präg, and Steverink 2014; Lee, Hong, and Harm 2014; Tchernina and Tchernin 2002; Stephens, Alpass, and Towers 2010;).

Social exclusion is still a much-debated concept with various definitions; the context is always its association with multipronged disadvantages and the elderly being unable to participate in the normal activities and relations that are present for the majority of people in society (Walsh et al. 2012). Social exclusion is a progression that restricts individuals' ability to take part in social activities and is linked with deteriorating health and bad quality of life (Barnes et al. 2006; Becker and Boreham 2009). Fighting social exclusion is a basic goal in the European policy (European Commission 2013), and the idea has also been floated by the United Nations (UN 2010) as well as the World Health Organization (Popay et al. 2008).

The current research on social exclusion faced by the elderly, while limited, concludes that hindrance faced by the elderly are cumulative in nature. Some features of disadvantage that start during early life have long-term effects. Elderly facing disadvantages may experience higher risks of continued social exclusion (Miranti and Yu 2015). As we find in the present study as well that prevalence of social exclusion is different in different age groups. And it is also important the overall relationship between age and social exclusion. Ferraro and colleagues explain that social exclusion is a diverse and complicated phenomenon, and it is hard to represent it with a single figure. Distinct disciplines give varied stories regarding the risks and outcomes of exclusion from social relations because each has dealt with a distinct part of the data available. Social exclusion takes on different forms for the elderly people due to many factors, including features of particular groups of population (Ferraro et al. 2009)

Barnes et al. (2006) center on social exclusion faced by the elderly using the ELSA that is also used as guideline to explore a statistically suitable test to perform analysis of present study. Barnes et al. (2006) used seven dimensions to establish a correlation between characteristics of the elderly and social exclusion, concluding that many are inter-related, as in present study. While the previous study advances the research by using logistic regression in order to investigate the relationship between (current) characteristics of older people and their likeliness to be excluded, in this study the number of dependent variables are above two, so here we implemented multilinear regression test. Previous study finds various characteristics related with exclusion among the elderly including progressing age, single accommodation in house, poor mental and/or physical health, and inaccessibility to transport, living in rented accommodation, low income, and reliance on benefits as the main source of income. Their analysis is not to establish a causal relationship

between these features and social exclusion, but it illustrates the significance of adjusting for multiple features in regression analysis of social exclusion (Kneale 2012).

Additionally, Kneale (2012) is one of the few researchers who inspect the forces behind social exclusion particularly for the elderly through a multivariate model. Kneale (2012) includes numerous demographic and socioeconomic features (like age, gender, culture, housing accommodations, children, education, health, income) (Miranti and Yu 2015). In this research, age was the only indicator used for measuring the prevalence of social exclusion.

Like the findings of present study, Ferraro et al. (2009) have also shown that older people are disproportionally affected by multiple forms of exclusions (like economic, civic, social, social services as well as within the community domains that are often used to discuss this type of exclusion). While in present study the disproportionate was found in case of exclusion from civic, social relations, financial, neighborhood, decent housing, and digital exclusion.

Discussing the influence of age on exclusion, Kneale observed that age linked with all individual fields of social exclusion, and with a comprehensive risk of being socially excluded. The greater the risk of being excluded in one domain, the higher the risk of being excluded from any form of social exclusion. In 2008, nearly two-fifths (38%) of those at and above the age of 85 were excluded from two or more domains of exclusion – this compared with one-in-eight (12.4%) of those in the age group of 60-64 years and one-in-six of the total sample (16.9%) (Kneale 2012). In case of present study, a significant systematic linear association was found among all age groups and social exclusion faced by OPs of *Sohan* with *p* value .004 and partial error is 13.4%. So here,

the findings of the present study were somehow depicting the situation explained by Kneale. On the other systematic linear association was found in six dimensions of social exclusion which excluding services exclusion.

Barnes et al. (2006) discovered that social exclusion increases with age and for those at 80 years and above are more susceptible to facing exclusion. Similar to the findings of present study where we can observe positive trend in linear regression line in case of civic exclusion, exclusion from social relationship, services exclusion (very nominal upwards movement), neighborhood/community exclusion, and digital exclusion. In case of financial/material exclusion and exclusion from decent housing regression line shows downwards movement with increasing age and this is also explained by the slop of regression model. Further Barnes and friends highlight certain other indicators like housing facilities are important especially for those who live alone (Saunders et al. 2007) or who are living without children, or who have deteriorating mental or physical health and who lack access to a conveyance and are made more vulnerable because of these. Older people residing in rental lodging, with poor income and/or depending on welfare are also prone to facing social exclusion (Miranti and Yu 2015).

Phillipson and Scharf (2004), highlight the central reasons for social exclusion for the elderly are: firstly, age-based characteristics and that is also the focus of present study, which explains that in later life, factors such as disability, poor income and widowhood affect the elderly. Secondly, collective drawbacks, such as when groups of individuals from the same background experienced different exclusions. Thirdly, community features; the elderly are more susceptible to such factors as population turnover, economic decline, and crime, in local areas. The final constituent in

clarifying social exclusion faced by the elderly is related to the experience of age-based bias (Kneale 2012). Gordon et al. (2000) in their study of social exclusion, focused chiefly on social relations, through a cross-sectional approach, barring analysis of change of the measurements over time. Barnes (2005) undertook a study covering multiple countries that enabled them to study how exclusion varied between countries. They formed several fields, like income, health, and social participation (Kneale 2012).

Burchardt et al. (1999) analyzed information garnered from the British Household Panel Survey (BHPS) and chose five fields of social exclusion that represented an individual's exclusion from society (low living standards, absence of security, absence of decision-making power, absence of support from friends, relatives, and community). The study analyzed the occurrence of these factors over a period of five years, conducted through longitudinal study. The study emphasized that there are only a few people who were excluded on all five fields simultaneously, while even fewer were excluded over the complete five-year period, accentuating that social exclusion in the general population is flexible.

One important aspect that previous research on social exclusion has focused on how exclusion functions in various environments, identifying that urban or rural areas may impact the concept of the exclusion for the elderly. For instance, there are research studies that examine the exclusion faced by the elderly in rural (Walsh et al. 2014; Scharf and Bartlam 2008; Noble, Smith, and Lally 2009; Milbourne and Doheny 2012; Dwyer and Hardill 2011; Warburton et al. 2017) and urban areas (Scharf et al. 2005; Buffel et al. 2013; Smith 2009; Burns et al. 2012; Tong and Lai 2016). A couple of studies conducted in England reflect that older adult residing in urban areas are likely

to face social exclusion on multiple fields, which is known as multiple exclusion, in comparison to the elderly in rural areas (Becker and Boreham 2009; Barnes et al. 2006). On the other hand, a European study found that social exclusion was more widespread in rural than urban areas (Spoor, Tasciotti, and Peleah 2014).

Cloke and Davies (1992) conclude that while in the urban areas the emergency of the situation and the scale of the problem can be recognized through the traditional indicators such as poverty and unemployment at least, in the rural areas, these indicators are not so obvious. This leads to the idea that there is a need to acquire more information and knowledge about the factors that lead to the social exclusion of the elderly the rural areas (Shucksmith and Chapman 1998; Shucksmith 2004). In addition to the topic of the social exclusion of the elderly being under-researched, there is also dearth of information on which domains to use for assessing the social exclusion (Commins 2004). Therefore, there are many problems in recognizing the occurrences of social exclusion in rural communities (Connolly et al. 2010). In addition to this, there are various problems when measuring social exclusion across different domains and geographic areas. Factors such as population demographic, socio-economic conditions, welfare provisions can provide a significant comparative analysis. Milbourne (2004) noticed the areas of disadvantage while conducting a study on rural areas of Britain and the US. In the context of policymaking and public discourse, poverty and exclusion stand for varying concepts that differ based on the context.

A lot of factors in one's youth and middle age affect the circumstances of the old age. These include residence, socio-economic status, race, religion, gender, and ethnicity and so on (Scharf and Bartlam 2008; Hennessy and Means 2018); same is the case with the rural community that the

elders live in (Schulz-Nieswandt 2000; Scharf et al. 2016). The living circumstances effect everyone; an individual might be living in a rural area, a semi-urban area, or a village community. These settings, added with the geographic and socio-economic features, might support, or hinder the elderly. Even so, as different circumstances affect exclusion outcomes, these have not yet been sufficiently measured through research (Walsh et al. 2020).

There is a great heterogeneity of older people and their experiences, preferences, lifestyle choices and values, as well as a great heterogeneity of places as discussed in previous literature. Challenges and opportunities for active or healthy ageing, as well as for care provision, can differ in rural and urban structures, in smaller villages and villages in suburban rings, in places in mountainous areas and places at the coast, in big urban centers with high a density tourism and in smaller industrial centers in inner peripheries (Vidovićová and Tournier 2020).

The research argues that social exclusion may occur at various points and dynamic settings. Numerous times, social exclusion is indicative of a more deprived situation. Social exclusion can happen at one point of time and may persist at another time, during one stage of life cycle as well. The presence of periodic data has allowed social exclusion to be calculated over longer periods of time (Miranti and Yu 2015). The findings of a previous study also point out the impact of place and the role of social factors as well as economic and infrastructural ones in determining the exclusion of the elderly from socio-economic and civic life. Social exclusion does not routinely stem from failure of public provision, community sector or because of the individuals or their families. According to these findings, exclusion is much likely to rise when there are numerous disappointments across these systems (Walsh et al. 2012).

Research by Barnes et al. (2006) discovered an integral link between social exclusion and age as observed from the findings of multivariate analysis of present study. Barnes et al. (2006) further founds that increasing age has a strong relation with exclusion, be they from social relations, provision of service and material consumption, in particular case of individuals at or above the age of 80. They further argued that almost one in three people at or above the age of 80 were excluded from provision of basic services, while around one in four were excluded from social relations – these proportions were far greater than those in the age group 50-59.

In addition, Barnes et al. (2006) also explain that age relates to larger risk of social exclusion for a variety of reasons. For instance, because of their age, the elderly is less likely to be living with a companion, and it is more likely that they would be widowed or living alone leaving them susceptible to exclusion from social relations, and even more vulnerable to exclusion from civic and cultural activities. Barnes et al. (2006) conclude that those who live alone, or with children without a partner, might experience exclusion in multiple dimensions. It is very important since around a quarter of the elderly live alone, with the ratio of these people, rising with age. The senior citizens are exposed to poor health that can curb their independence and ability avoid exclusion. Finally, most noteworthy is that the elderly has altered living circumstances to younger people – for example, they spend unreasonably excessive time at home (SEU 2006) being more dependent on their direct surroundings (Burns et al. 2012) – these are some of the points that the researchers must bear in mind when calculating social exclusion in this group (Kneale 2012).

According to UK Government statistics, 49 percent elderly living in the UK experienced exclusion in at least one aspect of their life. From among that 7 percent are excluded in multiple aspects

corresponding to 1.1 million elderly. When one speaks about the exclusion of elderly, it is not uniform or follow same category of exclusion among the elderly group. The oldest old, particularly women are more vulnerable to exclusion. The risk of exclusion is more if it is single, never married, widowed and manual occupational background compared to other category of elderly (Balamurugan 2014). Furthermore, in Australia social exclusion of the elderly is a particularly volatile problem. Like many other developed countries, Australia has an ageing population. The government is facing pressure for provision of outlays for age and service pensions, and spending for healthcare and age services (Common-Wealth of Australia 2010). There is a rising concern about the elderly losing independence or autonomy in many aspects of life (Kneale 2012). However, there is a lack of research about social exclusion of the elderly in Australia (Naughtin 2008; Miranti and Yu 2015).

In research literature, the projected relations between social exclusion and a few of its driving factors are visible but that may not always be the case. For example, human capital, labor market involvement for a long-time, high-income bracket, improved health and lack of continuing health disorders, lack of responsibilities, ownership of living spaces, and co-living with extended family is linked to a decreased probability of social exclusion for the elderly. On the other hand, immigrants and older group members face a greater risk of social exclusion. According to this study the link between social exclusion and living locality is not clear (Miranti and Yu 2015). Additionally, Kneale was of the view that forecasting trends of social exclusion can be hard because the bi-directional relations that are present between predictors and outcome variables, and the related feature of outcome variables themselves. Lack of satisfaction in life is generally considered a consequence of social exclusion it might predict extended social exclusion. Many

studies of social exclusion establish inquiries of the relation present between outcome variables, demonstrating correlations between different extents of exclusion, or analysis of the ratio of individuals with various characteristics that remain excluded (Kneale 2012).

Results of a previous longitudinal study represents effects of dimensions of social exclusion. Data shows that 54.4 percent were not omitted in any field in the year 2002, which, in 2008, reduced to 52.3 percent. During the years 2002 and 2008, exclusion from social relationships, community activities and information access, socio-cultural events and local amenities was linked with a low score on quality of life; being omitted from social relations and adequate housing and public conveyance was linked with loneliness, while exclusion from social relations was further linked with deteriorating financial conditions. These conclusions lead to the idea that the impact of being socially barred impacts conclusions reflecting both material and non-material conditions (Kneale 2012).

As a social issue in a globalized world, social exclusion in old age has become complex in its characteristics, and possibly more universal in its effects for individuals and societies. There is growing evidence pointing out that how it can associate connected socio-economic services, (civic participation and socio-cultural activities), and community domains of everyday life (Dahlberg et al. 2020; Prattley et al. 2020).

7.2.1 Ageing and Civic Exclusion

H_0 = there is no systematic linear effect of age on civic exclusion
H_1 = there is a systematic linear effect of age on civic exclusion

Regression Model $$y = 0.687 + 0.025x$$
$$p = .070$$

As our study objectives are concerned, we must identify the relationship between age [independent variable] and dimensions of social exclusion [dependent variables]. To approve or disapprove our hypothesis simple linear regression analysis was applied. In regression analysis, we're proposing that the relationship fits along a straight line whose slope is not zero. Figure 6.23 present both the linear regression line and regression model. Linear line shows upward movement in civic exclusion as the number of age increased. From the regression model we can conclude that slop is not equal to zero, ***p*** values is equal to .07 (p>.05), so we accept our null hypothesis that no significant effect of age on civic exclusion exists among OPs of *Sohan* village. As age of OPs increased, the level or intensity of civic exclusion also increased but with very low output. Hence, we conclude that our independent variable [age] does have predictive power in our model but the gravity of power is not significant.

This also depicts that mean of civic exclusion change positively when we change age positively in the model. The civic exclusion issue faced mainly by the OPs having 80 years and above age with calculated mean is 3.00 (highest among all age groups, see table 6.80). This also help us to explain that the more old you are the more you faced civic exclusion. Figure 6.24 is more helpful in this regard, where we can easily observe marginal means difference by a line connecting with every age group. This shows that civic exclusion is existed, but the gravity of the issue faced differently by different group of older persons. We also conclude here that the level of civic exclusion is not same for all older persons.

Exclusion from community activities may be most characteristic aspect of social exclusion, in that exclusion from this field indicates an incompetence to contribute to the arrangements that can

facilitate individuals to impact choices that could make their lives better (Kneale 2011a; Nazroo and Matthews 2012; Kneale 2012).

The literature shows that a focus on individual responsibility for active engagement in society, which does not take account of individual circumstances or past contributions, can be harmful and can exclude older people who are the most in need of support to participate (Stephens et al. 2015).

7.2.2 Ageing and Social Relations Exclusion

H_0 = there is no systematic linear effect of age on social relations exclusion
H_1 = there is a systematic linear effect of age on social relations exclusion

$$y = 2.628 + 0.008x$$
$$exclusion\ from\ social\ relations = 2.628 + 0.008age$$
$$p = .403$$

Second hypothesis of present study is to identify the relationship between age and exclusion from social relations among OPs of *Sohan*. Regression model along with area chart consisted of linear regression line given above (figure 6.25). Our date reveals both values in the model are positive, alpha is 2.628 and beta is .008. While on the other hand linear regression line also depicts the upward positive movement. This means that a positive relationship prevails among ageing [independent variable] and exclusion from social relations [dependent variable] but t=slop of the model represents that relationship is very week and mean change in the output variable is not significant. Calculated value of p = .342, that means the relationship between age and exclusion from social relations are not approved significant. Along with the prevalence of exclusion from social relations, this also reveals that ratio of exclusion is varied among different age groups with

highest mean among OPs of 70-74 years and highest *S.D* was observed among 80 years and above older persons of *Sohan* [table 6.80].

In addition, results further explain that exclusion form social relation is highly faced by the OPs having age group 70-74 years as depicted from the mean value of table 6.80 along with figure 6.26 is also used as reference. In figure 6.26 it is quite easy to understand the distribution of exclusion from social relations within age groups. Leading to this a figure is also added in Annexure B that explained the patterns of exclusion from social relation not by age groups rather in specific age. So, we also mentioned here the exclusion from social relations is an on-ground reality faced by OPs but the distribution is not same among age.

In present study we divided social exclusion into six indicators which includes family support, social networking, social isolation, loneliness, family contact and social opportunities/participation. While in a previous study the extent of exclusion from social relationships takes into account whether the respondents had relationship with parents, spouses, friends, community members and children, and how these relations are maintained in the current timeline, such as through meet-ups or calls. Sustaining these relationships therefore determine the level of exclusion that an individual faces. Social exclusion resulting in loneliness and isolation is most closely associated with lack of social relations, and lack of government policies in this regard. This remains a key determinant of the social exclusion since it is also a measure of whether or not an individual is able to sustain relationships; the social support that this field acquires is an important aspect for the elderly to sustain their independence (Kneale 2012).

Loneliness is one of the most referred markers for measuring social exclusion (Victor et al. 2005). Isolation, feelings of loneliness and social susceptibility are some of the commonly observed factors among the elderly and is linked to increased mortality and morbidity, on the same scales as smoking, alcohol, as well as obesity and frailty. Several studies have been conducted to figure out the most effective interventions to address the above-mentioned issues. These include exercises, healthcare and social care services, psychological support, creating friendly atmospheres and skill development, but the effectiveness of these interventions remains limited (Freedman and Nicolle 2020).

According to various biological and neurological studies, social exclusion creates negative effects on both parameters. However, the outcomes are interrelated because poor health also affects and increases the level of social exclusion. Experience of disability because of health or problems in mobility affect the general lifestyle and social interactions negatively as well (Bertoni, Celidoni, and Weber 2015; Coyle, Steinman, and Chen 2017; Creecy 1985; Croda 2015; Hilaria and Northcott 2017; Slivinske, Fitch, and Morawski 1996).

There is solid research that suggests that social relation strengthen social relations through interaction with different members of the community, family, and friends (Barnes et al. 2006). Married people can avoid social exclusion because of their relation (De Jong Gierveld et al. 2009). On the other hand, when a person faces spousal bereavement, it is a termination of a very close and intimate relationship (Dykstra and Fokkema 2007:9), and the termination of a relationship because of divorce and breakdown of relationship also created extreme negative impact (Wenger 1996). Widowhood and divorce or death are therefore risk factors leading to social exclusion

(Dahlberg et al. 2015; De Jong Gierveld, Van der Pas, and Keating 2015; van Tilburg, Aartsen, and van der Pas 2015).

Findings of several studies conducted by Pietilä and Tervo (1998), Backman et al. (1999), Larsson et al. (2009) and Kirkevold et al. (2013) showed the importance of social contacts. Elderly people are lonely (Larsson et al. 2009:107), since foregoing social and other activities was a natural part of progressing age (Backman et al. 1999:570).

Well-being of the elderly can be predicted by the quantity and the quality of social interactions (Cohen 2004; Fiorillo and Sabatini 2011). Interaction with children, for example, can be an indicator of social support and healthcare, as it endorses the message of healthcare and can ensure that healthy behavior is practiced (Fiorillo and Sabatini 2011). Substantial evidence also suggests that constant social interaction can facilitate fighting stress and depression by providing effective practical and emotional support, and by promoting self-respect and self-esteem (Fiorillo and Sabatini 2011). In a WRVS study, titled Shaping our Age Study, showed that elderly people liked having social interactions so that their minds could focus on someone else's issues and problems, providing a relief from their own (Hoban, James, Pattrick, Beresford and Fleming 2011:21).

The solid physical and emotional support given to the elderly by the families, friends and neighbors as well as volunteers and public or private sector organizations, religious organizations and senior citizen is called social support. A strong social support is pivotal in ensuring physical and mental health and life satisfaction as well as avoidance of institutionalization by the elderly, this has been solidified by many research studies (LaGory and Fitzpatrick 1992; Forster and Stoller 1992; Sabin

1993; Steinbach 1992). It also reduces the effect of social exclusion in various other domains where a person may experience social exclusion (Feld and George 1994; Krause and Borawski-Clark 1994). On the other hand, environment and neighborhood exclusion also affects social exclusion. In this sense, locality is a socio-spatial phenomenon, and this can influence an elderly person's life and can protect them from experiencing social exclusion (Burholt et al. 2017).

Previous studies explain the different pattern of care among rural and urban population. Handler argues that by 2030, two-thirds of the global populace is predicted to be living in cities and around a quarter of them will be at the age of 60 years and above (Handler 2014). Second, urban / rural variations in the form of caregiving persist and that older adults in rural environments are still more likely to be taken care of by their social networks and less likely to be admitted to an institutional setting (McCann et al. 2014). Thus, urban areas seem to pose a particular risk factor to ageing in place (and thus saving costs). In the year 2006, the WHO initiated the 'Global Age-friendly Cities' project in 33 cities, concluding in a "Global Age-friendly Cities Guide" (WHO 2007; Age friendly cities), an influential checklist for policy-makers. In this, they present the concept of active ageing as a model to guide the development of age-friendly cities, with the physical environment constituting one determinant of active ageing.

Present study also reveals strong correlation among age and patterns of familial support. Strong familial support was reported the most-older respondents of the study [table 6.60]. In Pakistan as explained by Zaidi and friends, the care of older parents remains culturally important as it is often identified as a religious obligation or *khidmat* (filial piety), that is also observed in rest of this region. This complex cultural construct can be described as a repayment to the older generation

that children need to undertake as their parents grow old. Children are socialized in this concept from an early age and *khidmat* represents not only the financial but also the social and psychological support children should provide to older parents (Zaidi et al. 2019).

7.2.3 Ageing and Services Exclusion

H_0 = there is no systematic linear effect of age on services exclusion
H_1 = there is a systematic linear effect of age on services exclusion

$y = 1.290 + 0.00x$ $p = .983$

In case of relationship among services exclusion and older persons of *Sohan*, results reveal that slop is almost equal to zero, and p value is 0.983. If we look at the results of table [6.75], data present that 71 percent of OPs reported minor exclusion from services. Results further explain that highest mean values in case of services exclusion was report among OPs having age 80 years and above, same group also reported highest standard deviation for services exclusion [table 6.80]. After explaining that significance is not approved, figure 6.28 represents another dimension of services exclusion of OPs. Marginal means estimates shows that two groups leading the services exclusion, one is 80 years and above older, and the second is 70-74 years old. So, we conclude here that although significance is not approved by regression coefficient but still, we don't ignore the services exclusion that is divided non-linearly among groups of older persons. For a more explicit picture of services exclusion Annexure B have another view of this as distributed by age.

Generally, with increasing age, individuals utilize the healthcare and social care services increasingly as well. There are some studies that testify to the seniors being facilitated with basic services in different areas of the USA, and only around 13.7% of the sample population reported

facing problems in access (Auchincloss et al. 2001). In several European countries, the elderly is reported to have good access to services in the community and only a small number of the elderly reported facing difficulties in this regard. Assessment of each of these services in the different countries of Europe, renders significantly different results (Stoeckel and Litwin 2015; Draulans et al. 2017). The said study concludes that only around 7.2% of the elderly face inaccessibility to healthcare services.

Availability or non-availability is not the only case for utilization of health services. As we earlier mentioned that indicators and dimensions of social exclusion is interrelated and produced different results in different combinations. Studies conducted in the past show that various personal, community level and structural factors affect the accessibility of services for the elderly. The factors that cause these barriers include lack of education, low income, lack of healthcare, disability, lack of housing and so on. Lack of fiscal resources also bars access to social services; since the poor are more likely to prioritize food and clothing over healthcare and social care. The poor elderly is also more likely to experience inaccessibility to transport and other important social services (Auchincloss et al. 2001; Grenier and Guberman 2009). The education level of an individual also affects the prospects of social exclusion, especially for access to health care, since a study has found the highly educated individuals are more likely to access social and healthcare because of their awareness and knowledge of his to access these (Carrino and Orso 2015:351). There is a high occurrence of deprivation from healthcare, declining physical and mental health, disability in the elderly and this causes barriers to services (Meinow et al. 2011). Living situation of the elderly is also important because those elders living with families are able to access services through others (Evashwick et al. 1984). In some researchers undertaken in Great Britain, Australia,

and USA, ethnicity also proved to be a barrier in access to service (Johnstone and Kanitsaki 2008; Miller et al. 1996). A research analyzing the effects of ethnicity and gender is likely to affect the Asian elderly more (Waqar and Walker 1997).

Although comprehensive data on health and disability in old age in Pakistan are not available, sensory deficiencies and especially loss of sight and hearing and respiratory problems have been highlighted by several studies (Zaidi et al. 2019).

International literature described that the rural areas present extraordinary trials for ensuring access to services, since they generally lack general service structure, lack of transport and a deterioration of local service and social centers compared to urban areas, as pointed out for Ireland by Walsh et al. (2012). Likewise, small urban areas in the US (Auchincloss et al. 2001), thinly populated regions in Australia with a high ratio of the elderly (Liu and Engels 2012), and peripheral and rural parts in Canada (Ryser and Halseth 2012; Paez et al. 2010), all found had high risk of access difficulties.

Along with rural-urban distinction, elders belonging to a racial/ethnic minority often correlate with lack of education and fiscal problems. The exclusion that these people face in particular because of these characteristics assert the need for rigorous efforts to provide internet access to them. This has been reflected by research in the United States (Choi 2011). Likewise, overseas-born Australians of varied traditional and language backgrounds experience significant inconsistencies in healthcare and social care requirements and support systems (Johnstone and Kanitsaki 2008).

Research by Hoff (2008) concluded that along with rural-urban distinction, transportation and accommodation issues are often entwined. A study conducted across different countries concluded that scarce housing and inaccessibility to public transport is a key feature of social exclusion. The research also focuses on the urban-rural divide; while conveyance is better in the urban setting, housing is a serious issue in these areas. In rural areas, on the other hand, elderly is less likely to suffer from inadequate housing while they may face problems in commute, and inaccessibility to health services (Hoff 2008).

Zaidi et al. (2019) argued that greater numbers of older people in Pakistan reside in rural areas, where they represent 6.6 percent of the population, while in urban areas, they represent 5.1 percent of the population. This trend is true across all administrative units in Pakistan. This is mainly because many young people migrate to cities and older people, especially older men, return to their villages during retirement. Older women, on the other hand, especially if widowed, tend to move to cities to join their children who have migrated. This accounts for the varying degree of older men in rural and urban areas (Mujahid and Siddhisena 2009; Zaidi et al. 2019). In Pakistan, there are some private sector organizations that take care of these isolated or abandoned elderly people voluntarily. At government level, the problem remains unaddressed, however. The elderly of Pakistan faces several problems and the main one is the poverty that they face in urban and rural areas, and not the lack of love they might feel from their younger generation. While they are unable to keep working, the small pension sum that they receive is not able to sustain them even individually, which is why the elderly are considered as a burden on the family. In addition to a lack of healthcare services, there is also a dearth of suitable toilets, baths, and pavements and so on. This leads to a feeling of dejection and isolation in the elderly (Ashiq and Asad 2017).

Previous studies also indicate that isolated elderly face lack of information about the available social services (Patyán and Fábián 2014). Middle-income countries such as Argentina, Thailand and South Africa tackled the problem of an aging population differently. In this context, main changes were seen in the welfare-related areas such as the pension and healthcare while social services were less developed (Lloyd - Sherlock 2002).

Health and social care services are critical for ensuring the well-being of the elderly and an exclusion from these is considered critical. The participants of the study expressed varying degrees of satisfaction from the care that they received, also showing the differing expectations that everyone had from his care needs. For the residents of semi-urban and rural areas of Northern Ireland, healthcare was close at hand. However, many were not able to access the healthcare services with ease because of distances and because of their own specialized treatment needs. Despite this, the participants of the study appreciated the component of the infrastructure which included community hospitals, nurses at lower administrative areas and house-help service (Walsh et al. 2020). Zaidi and co-researchers argued that as people grow older, they should retain their human rights. Based on age, people should not be denied the right to work, access healthcare services or acquire education. Age should not negatively impact an individual's independence and control (Zaidi et al. 2019).

7.2.4 Ageing and Financial/Material Exclusion

H_0 = there is no systematic linear effect of age on financial exclusion
H_1 = there is a systematic linear effect of age on financial exclusion

$y = 2.554 - 0.007x$ $p = .688$

Financial concern is one of the important problems people usually faced in old age. Regression model and linear regression line among age and financial exclusion reveals downward relationship. And calculated value of slop is -.007, a negative value. Further results reveal that *p* value is 0.688, and that is greater than .05. Highest mean value of financial/material exclusion was reported by age group 65-69 years and highest standard deviation was reported in age category 70-74 years. On the directions of presented resulted we concluded that there is no systematic linear effect of age on financial/material exclusion of OPs. Intensity or level of financial exclusion varies within age. In this regard figure 6.30 shows a clearer understanding about the exact picture of financial or material exclusion faced by OPs in different age groups. Figure reveals the mean variation across age groups and 80 years and above older line is start moving upward as compared to the previous age group. Annexure B is more helpful in this regard to get a better idea about the prevalence of financial/material exclusion among older persons divided by their age not by age groups.

It is generally observed that when an aging population is not accompanied by social and economic developments in the country, the problems faced by the elderly increase. This leads to a large population of the elderly living on low levels of subsistence because of their fiscal position. The dependency ratio, which measures the ratio of dependent population to those who are the providers, those below 15 and above 64, and those between these two ages, is increasing. It was 6.7 in the year 200 and 7.9 in the next quarter, while it is expected to increase to 12.1 by the year 2050 (UN 2002; Ali and Kiani 2003).

The research analyzing subjective well-being of the elderly has focused primarily on the relationship between material situation of the respondent and their level of well-being. Income is a major focus on this regard. Richard Easterlin's (1974) "Easterlin paradox" points out the fact the while the rise in the household income means betterment of the family members, the rise in general income of a country does not result in the country's subjective well-being increasing (Easterlin 197417).

The so-called, described by Richard Easterlin notes that a rise in household income leads to higher subjective well-being for individuals in the household, but that a rise in average incomes for a country appears not to give rise to a corresponding increase in the country's average subjective well-being (Easterlin 197418).

An important role in the context of economic exclusion is played by intergenerational transfers within families. Financial transfers between different generations of a family have consequences for capital gathering and wealth disparity (Arrondel and Masson 2001, Attias-Donfut et al. 2005). Families that habitually make financial transfers between the generations are more likely to belong to higher social class groups and the reproduction of diverse forms of capital within families acts as a buffer against economic exclusion at each stage of the life course, including old age. Attias-Donfut et al. (2005) have shown that in Europe, the north/south country disparity occurs in the configuration of the networks of receivers of financial allocations: younger respondents receive more from parents in the north, older respondents receive more from children in the south. The

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level and direction of transfers is often explained by the differences in the level of support through the welfare systems as, older needy people in the weak welfare regimes in the South are still partially at the charge of children. Moreover, older people with financial difficulties tend to receive financial transfers from their children more regularly than older people without financial difficulties and the amounts tend to be larger. However, excepting difficult financial situations, older people tend to receive smaller amounts on average than younger generations who receive money from the older generations.

Economic exclusion leads to exclusion from social relations and more broadly from what has been called "the third age"19. Older people who are faced with economic hardship tend to be excluded from leisure activities and interpersonal relationships. Such combinations may lead to feelings of loneliness and a lack of purpose in life. Older people who experience economic hardship often face imbalances between what they receive and give in relationships, which in turn results in feelings of being a burden for others. There is high variation in the level of poverty and economic exclusion of older people in Europe and different countries face different policy challenges in this respect (Myck et al. 2017).

"Exclusion from social relations can lead to reduced social opportunities such as employment, volunteering, or other forms of social participation (Pohlan 2019)"

19 The "third age" can be defined as a lifestyle, based on health and economic resources which enable independence and characterized by an orientation towards self-fulfilment through leisure activities, including travels and visits to cultural events, restaurants and cafés (Gilleard and Higgs 2005).

The data presented by European Survey on Income and Living Conditions (EU-SILC), was analyzed by Prunty (2007) reflected that poverty affects the elderly more in compared to the youth. The comparison of the data between the elderly residents of the urban and the rural areas showed that 21 percent of the former were at risk of facing poverty compared to 33 percent of the latter. The same document was also analyzed and recorded by Layte et al. (1999). Data from the year 2009 from the same survey shows a decrease in the number of elderly at risk of facing poverty, in Ireland. Even so, the findings reflect that the elderly residing in rural areas are more likely to have €100 less per week, than the same in urban areas. Data analysis from Irish Longitudinal Study on Ageing (TILDA) shows that there is much diversity in the data about the elderly, their income, and the poverty that they might face (Barrett et al. 2011). This data again points out that while researching about the elderly, data diversity stemming from their individual personalities should be considered.

Pakistan ranks second lowest overall (95^{th}) in the field of salary security. It has one of the lowest pension income coverages (2.3 percent) in the world and lower than the regional average GNI per capita ($4,557). Pakistan's rank is particularly low in the healthcare field (78th) due to low life expectancy at 60 (only 17.8 years) and healthy life expectancy at 60 (13.8 years) in comparison to the regional averages (19.3 years and 14.8 years respectively). It ranks low also in the enabling environment domain as well (81) due to the low approval of elderly with social connectivity (60 percent), civic freedom (46 percent) and public transport (55 percent) compared with regional averages (69 percent, 67 percent and 65 percent respectively) Zaidi et al. (2019).

Older people are reliant on various support systems for meeting their everyday needs; they need support of their close and extended families, as well as neighbors and friends. Like all cultural and traditional societies, in Pakistan as well, caretaking of the elderly falls under the domain of the family, for which the families need to have substantial fiscal resources (Afzal 2006). The recently developed and more popular nuclear family system is starting to take roots in the society, and this leaves the elder with multiple problems and multifarious situations of social exclusion (Ali et al. 2003; Ashiq and Asad 2017).

Miranti and Yu, found through their research that higher education levels and better income, and better health conditions, as well as other life experiences play a vital role in determining the social exclusion faced by elderly Australians (Miranti and Yu 2015).

That the people residing in urban areas are better off as compared to those living in the rural ones is a general observation. It is because the former group has better access to socio-economic resources. On the other hand, in rural areas the society is more closely knit and more traditional which means that the elderly has a better chance of being able to continue with social interactions and activity. Determination of quality of life is dependent on various factors including socio-economic, psychological, and emotional and so on; this makes it difficult to determine whether the urban elderly have a better life or the rural ones (Ali and Kiani 2003).

7.2.5 Ageing and Neighborhood/Community Exclusion

H_0 = there is no systematic linear effect of age on neighborhood/ community exclusion,
H_1 = there is a systematic linear effect of age on neighborhood/ community exclusion

$y = -2.3243 + 0.053x$ $p = .001$

Given regression model explain the effect of age on neighborhood/community exclusion among OPs of *Sohan*. Linear regression line (figure 6.31) shows an upward movement among both variables. Slop of the present regression model is positive that shows that with every increasing number of age the intensity of neighborhood/community exclusion will increased. Here our intercept alpha is less than zero. This simply means that the expected value on your dependent variable (neighborhood/community exclusion) will be less than zero (0) when all independent/predictor variables (Age) are set to zero. Results further guides that a systematic linear effect of age on neighborhood/community exclusion was observed among study respondents. Along with linear regression results, correlation was also found highly significant among age and neighborhood/community exclusion among OPs of *Sohan* at significant level 0.01. Figure 6.32 represent distribution of neighborhood/community exclusion with reference to age groups of OPs, and Annexure B explain the phenomenon as per their age distribution.

The sense of belonging is linked with association to local people and surroundings, the provide with a sense of possession. Belonging (social attachment to place or social insiderness) has been associated with inclusive local social relations (Burholt 2006, 2012; Burholt and Naylor 2005; Rowles 1983). Belonging is also related to the sense of loneliness (Beech & Murray, 2013), which reflects a level of linkage between the two outcomes and an overlap of the same.

The quality of life of the elderly is profoundly reliant on the local services that they have available. Older people are better able to take part is social activities if they are provided with various basic resources such as healthcare, social networks, fiscal opportunities, and infrastructure where they could interact with the community.

Cultural, and structural aspects of socialization and environmental factors also cause a risk of exclusion from distal outcomes and social relations. The evidence of the interaction between social norms and values (such as bias, discrimination and ageism), workforce demands and populace income, environmental effects and neighborhood exclusion and the policy background, show that these are all important factors (Burholt et al. 2017).

Literature reported various levels of marginalization in deprived, rural, and remote areas that provide a minimal number of facilities and services. Lack of these resources may result in lack of social activities and involvement (Burholt and Scharf 2014; Keating, Swindle, and Fletcher 2011). Some research has reached the conclusion that in far flung areas, with fewer resources, social deprivation is particularly significant (Milne, Hatzidimitriadou, and Wiseman 2007) while others, such as Scharf et al. (2005a) are of the opinion that older people living in these areas are more susceptible to facing exclusion from social relations, compared to others living in different areas of the UK.

A significant amount of research refers to the idea that place attachment is a multidimensional construct that is considered to encapsulate a variety of elements including: location satisfaction; historical perspective; aesthetic and emotional components; social support; social integration; appropriateness of the environment; and relocation constraints (Burholt 2006). Scannel and Gifford (2010) also suggest that attachment to place is derived from personal, psychological processes and place dimensions. Nevertheless, because of the diversity of life histories and perspectives, older people do not relate in the same way to their communities and therefore are attached to their places in different ways and to different degrees (Burholt and Naylor 2005).

A recent study shows that older people can experience challenges and limitations arising from physical changes (growing fatigue, loss of balance), cognitive and psychological changes (Alzheimer's Disease or other forms of cognitive impairment, fear of falling), and social changes (retirement, loss of friends, bereavement). As a result, older adults' everyday routines becoming more centered on their immediate neighborhoods, communities, and dwelling, i.e. ageing can lead to a reduction of individuals' action radius. Experiences in late life can be increasingly reliant on the quality of an elderly's immediate social and physical surrounding. The range of connections that older people can accumulate to their community over time can also mean that places may be particularly important for a sense of identity, belonging and continuity in older age. These patterns and relationships illustrate why community and spatial aspects of exclusion in older age are so important to consider (Vidovićová and Tournier 2020).

In several countries, the strategy to deal with an aging population is to motivate them and to ensure that they remain a part of the social activities. While there have been studies that analyzed the importance of social participation for the elderly, there is a need to focus on how the elderly require different activities to ensure their participation and the various ways in which it could be made possible for the elderly. Different social interactions and activities amount to different levels of social participation (Levasseur, Richard, Gauvin, and Raymond 2010). Levasseur et al. (2010) for instance, differentiates between undertaking social activities with others and for others, like informal meetings and volunteering or civic participation, respectively. Taking a part in activities such as volunteering and civil activities ensures a better level of social participation because in those cases the individuals are trying to help others and positively influence their lives (Levasseur et al. 2010).

7.2.6 Ageing and Decent Housing Exclusion

$H_{0=}$, there is no systematic linear effect of age on decent housing exclusion,
$H_{1=}$, there is a systematic linear effect of age on decent housing exclusion

$y = 1.470 - 0.001x$ $p = .943$

To figure out the relationship between age and decent housing exclusion, again regress model was implemented. Figure 6.33 reveals the very slow downward movement of linear line in this association. And digits from the regression model also depicts the negative slop in present context. Highest mean exclusion along with highest standard deviation for decent housing was reported by 70-74 years older respondents of the study. *p* value represents that there is no systematic linear relationship between age groups and decent housing exclusion. Hence, exclusion from decent housing varies among age groups as clear from figure 6.34. Different age groups of OPs observed in different levels of marginal means of decent housing exclusion. Furthermore, the marginal means level of decent housing exclusion distributed on the age of OPs rather than age groups can be observed in Annexure B.

A previous study represents that the elderly is likely to have longer lives if they are facilitated with inclusive housing (Peace and Holland 2001). Another study conducted in Hungary reflects that moving the elderly into nursing homes can be avoided if some minor changes are made in their living spaces at home (Széman and Pottyondy 2006).

Another qualitative study analyzed the data about senior citizens who are at risk of facing homelessness. The study, conducted in Ireland, examined the psychological issues that the elderly face with the prospects of losing housing and the sense of helplessness, as well as the ways to

prevent the elderly from falling into such a situation (O'Sullivan and Breen 2009; Draulans et al. 2017).

Findings of previous studies reveals that inaccessibility to conveyance services, and meagre housing facilities are key features that cause social exclusion in the elderly. Social Exclusion Unit (SEU 2006) indicated in their work that the elderly spends around 70-90 percent of their time at home, consequently being severely affected if the living facilities are poor. According to the research, the elderly was at an increased risk of living in poor housing conditions that were not suitable for their needs, such as two-story houses being lived in by people with disability. In case of present study, the satisfaction level of OPs with respect to their accommodation is good and OPs.

In addition, SEU further explains that there is extreme likelihood that the elderly suffers from a lack of information about how to get help to manage their homes, the types of living facilities that they can access and how to acquire help in case they want to move. The study also indicated that mostly the elderly is unaware about how to maintain house security and security devices, such as fire alarms. This fact is also indicated by the fire statistics of UK that show that people at and above the age of 60 face increased risk of death from house fire, compared to other age groups (SEU 2006; Kneale 2012). Consequently, according to Donald (2009) and Kneale (2012) to ensure independence for the elderly, and maintenance of their health, comfortable and safe housing is a key factor.

7.2.7 Ageing and Digital Exclusion

H_0 = there is no systematic linear effect/relationship of age on digital exclusion,
H_1 = there is a systematic linear effect/relationship of age on digital exclusion

$y = 0.550 + 0.026x$ $p = .048$

In the age of advance technological development, whether our OPs are facing digital exclusion or not. The results of regression model represent that with every increasing year of age, the tendency of digital exclusion will increase as the highest mean exclusion was reported by the OPs of age group 80 years and above while the highest standard deviation was found among 65-69 years older. Results further reveals positive value of slop. Hence, as p value is less than .05, we accept our alternate hypothesis and conclude that there is a systematic linear effect of age on digital exclusion as observed in figure 6.36.

Digital advancement has permeated all fields of life and in recent past, everyday life activities have been affected by this advancement. The post-pandemic era and the Covid-19 restrictions caused a severe limitation on physical social contact, due to which people have primarily resorted to digital technology and devices to remain in contact (Marston et al. 2020; Sheerman et al. 2020). In this context, digital exclusion refers to the individuals who face inaccessibility to digital technology.

The use of ICT has significant impact on keeping social contact, but the research reveals that only a few of the long-term care facilities (LTCFs) have access to internet (Berkowsky et al. 2015; Cotten et al. 2017; Francis et al. 2019; Rikard et al. 2018; Seifert et al. 2017). According to a study conducted by Seifert et al. (2017), only around 14 percent of the resident of the retirement homes have access to internet. In another study conducted in North Rhine-Westphalia, Germany

(Schlomann et al. 2020), consisting of people at and above the age of 80, whose residences were either private or who lived in LTCFs, it was found that only 3 percent of the people had access to internet devices. The study also found that the use of ICT devices is largely dependent on various factors such as the living atmosphere, healthcare facilities, age, education, material possessions and the interest of the residents in technology (Schlomann et al. 2020). The conclusion is, therefore, that for the elderly population, the use of technological devices is dependent on living arrangements and individual characteristics.

During the Covid-19 pandemic, many hailed the positive influence of the digital technology that enabled people to remain connected, for the elderly though, it exacerbated the feelings of isolation. From a sociological viewpoint, social exclusion is "a multidimensional, relational process of progressive social disengagement, one having interrelated negative consequences for quality of life and well-being of the individual as well as for the quality of society in terms of social cohesion" (Böhnke and Silver 2014).

Digital divide refers to the discrepancies regarding Internet and ICT use and points out that people with certain demographic and socioeconomic features may face a disadvantage in terms of accessibility to the Internet compared to others (van Deursen and Helsper 2015; Delello and McWhorter 2017; Hodge et al. 2017).

Older populations' digital skills and understanding are negligible, as they remain excluded from the new interaction environment caused by the recent technological advancements. The variance of technology has also caused a widening gap between the tools that the young population and the

elderly population uses (Vroman et al. 2015; Kuerbis et al. 2017); the latter lag left behind vis-à-vis the rest of the population (Choi and DiNitto 2013; Hodge et al. 2017). Along with learning issues, Clapperton (2007) highlighted in an article in the Guardian, that it is a stereotype that the elderly cannot deal with technology. The perception is that they cannot use the latest mobiles or visit websites and none of them are bloggers. However, he argues that they have made the sensible decision not to engage with this technology (Milligan and Passey 2011). A study was conducted previously on Portuguese senior citizens using a random stratified sample of around 500 people over the age of 64 years of age and among the respondents of this study, 77 percent owned a mobile phone, 13 percent used computers, and 10 percent used Internet (Neves et al. 2013)

Developed countries are experiencing two major societal shifts: an aging population and an excessive consumption of ICT by society at large. This advent of technology has also added to the isolation of the elderly since research shows that they are not keen on the use of technology. Since most of the services have now shifted to the internet and online portals, this increases the aging inequality and results in inaccessibility of services to the elderly (Neves et al. 2013).

7.3 THEORETICAL DEBATE

The evolution of theoretical approaches to ageing has been accompanied by changes in how the issue of older persons and changing population structures have been considered at a policy level, both nationally and internationally. Ageing is occurring in all parts of the world. Many international policy frameworks have been developed to meet this trend's challenges and opportunities to governments and societies.

A range of conceptual frameworks from various disciplines has been used to study ageing and older persons. In social gerontology, socio-economic, and political analysis, fundamental theories fall. Issues that have dominated the development of these different approaches include the role of older persons in society and how social structures shape experiences of later life, both positively and negatively. Older persons' disengagement, participation, and continued social roles have been central issues in these debates, bearing significance to societies and national economies. Age-based stratification theories consider the impact of ageing on different groups and intergenerational relationships. Several theories consider ageing from a life-course approach (Stefanoni et al. 2016; Zaidi et al. 2019).

There is significant room for exploring the link between social exclusion and ageing concerning social gerontology. Exclusion is a form of institutional disengagement that focuses on how services are found to withdraw from marginal areas (Scharf et al. 2001). Thus, socially deprived people like the elderly and the people who reside with them may be referred to as what Gans (1972) says 'Institutional Isolation' (Balamurugan 2014).

Ageing is an irreversible process—inevitable, the glamour of youth will be lost, and the process of aging will begin. Nevertheless, aging is undesirable since it is linked to socio-economic and health challenges. Furthermore, health challenges originating from aging are linked to the withdrawal of the elderly from society (Arslantaş et al. 2015; Bernard 2013). This idea is congruent with the Disengagement Theory of Ageing (DTA). Initially developed by Cumming and Henry (1961), the DTA postulates that since ageing is unavoidable, one's abilities reduce over time, including socializing with friends and relations. Therefore, the aging population eventually loses

ties with others in their social circle, and physical inactivity results in them being lonely compared to the youth. Researchers (Arslantaş et al. 2015; Bernard 2013) have corroborated the DTA to some extent as they found that isolation and physical idleness are characteristic of the geriatric populace.

From a sociological perspective, as we previously discussed, social exclusion is "a multidimensional, relational process of progressive social disengagement, one having interrelated negative consequences for the individual's quality of life and well-being" (Böhnke and Silver 2014:6064). It is further observed that social exclusion leads to social disengagement, a relative term found in previous literature. It explains that definitions of social exclusion change over time, across countries and cultures, etc. Any definition of social exclusion is highly dependent on the context (Room 1999; Van Regenmortel et al. 2016; Walsh et al. 2016). From the findings of the present study, this is also very much clear that a significant association exists between age and social exclusion.

Continuing the debate on disengagement in old age, the elderly adjusts their daily activities to adapt to aging. Resting during the day is an example of this adjustment. Literature reveals that they learn to forego when they realize that they cannot continue to do something. They eventually let go of their daily activities; they disengage themselves from routine practices. As stated in previous studies, they start to eat quickly cooked food during wintertime to avoid the struggle of cooking. They find activities to alleviate their boredom and loneliness and find ways to adapt to the death of spouses, relatives, or friends. (Backman and Hentinen 1999:568-569; Tsai and Tsai 2007:983; Tollén et al. 2008:138-142; Larsson et al. 2009:104-106; Kirkevold et al. 2013:396-

399). This paragraph highlights the disengagement that the OPs faced over time. Decreasing physical and mental powers and increasing rate of diseases produced more severe levels of weakness forced them to isolate or disengage themselves voluntarily.

Separation from activities and distancing from social contacts may cause the feeling of helplessness and gloom. On the other hand, remaining active and socializing creates feelings of pleasure and belonging, as represented by data gathered previously (Tollén et al. 2008:143-144.) The elderly missed sharing their daily experiences with others (Nilsson et al. 2000, 45). While the elderly may have lost their friends or spouses, people around them should remain in touch with them and provide company during their ageing process. Pietilä & Tervo (1998:23) expounded that family played an essential role in ensuring that older adults cope with their feelings. The present study reveals that most respondents still live with their spouse and kids, mainly recorded joint family structure. As it is found in the present study that aging has a significant association with social exclusion, it is also clear from the results of regression analysis that social exclusion is disproportionality among OPs of *Sohan*. So, disengagement from social roles, activities, contact, etc., varies between different age groups.

Empirical studies reflect a variation in the rate of permanency versus disengagement in the elderly population (Bukov et al. 2002; Johnson and Barer 1992; Nimrod et al. 2008; Scherger et al. 2011). Johnson and Barer (1992) found that around half of his sample of older elders (85 years and above) continued to participate in social gatherings such as senior centers, community clubs, or even church even after suffering from losing family members contact with family. In the present study, the participation was found as a mosque committee member, member of a political party

but not as reported by Johnson and Barer. Johnson and Barer further argued that the elders who chose to decrease their social activities and social boundaries were recreated in various manners by narrowing their social circles (Johnson and Barer 1992). They started to avoid social events that did not suit their preferences and established routines by regulating their social lives. Another study, however, classified this narrowing of social circles by referring to the inaccessibility that the older people experience, which forces a narrowing of the social circle (Lubben et al. 2006; Machielse 2015). Although there is no available theory to compare these two approaches of continuity and disengagement, a decrease in social participation is connected to the frailty of health, disability, and lack of social resources, as well as mental health issues (Jivraj et al. 2016; Maddox 1965, Scherger et al. 2011). Moreover, continuity is also associated with good health having better economic and social resources (Aw et al. 2017).

Social exclusion is not a one-day event that occurs once and is finished. The path that one takes over life is a significant factor in old-age exclusion. Some of the individuals may have led lives that were more fragmented than those of others, accepting more challenges, which could, in later life, tip the individual into experiencing social exclusion (Walsh et al. 2020). Someday, OPs feel more excluded in one dimension, but on the second day, the exclusion dimension may be changed with another. Chances are also that more than one dimension of social exclusion faced by OPs at a particular age group may not be faced in the following age group.

Theoretical debates stated that age-appropriate planning should enable a self-determined and independent life in old age through the design of the built environment (Kreuzer and Scholz 2008:83). However, the guiding principle of "age-appropriateness" should not be exclusionary.

Instead, it should be neutral in terms of utilization. However, due to a lack of scientific debate on age-appropriateness and what excludes older people from space, urban developers often narrow the concept of neutrality and refer to an understanding of "barrier-free building" as the starting point for developing guiding principles for age-appropriate neighborhoods (Moulaert, Wanka, and Drilling 2017).

'Later life' and 'old age' are ambiguous concepts that can define different life-course stages. A common assumption is that 'later life' refers to 50 years and above chronological age, with 'old age' commencing around 75 or 80 years. The overall well-being and the material situation are strongly related to his/her position in the life course. Moreover, the factors determining economic exclusion and policy responses are strongly associated with the particular position within the life-course (Myck et al. 2017). The experiences and feelings of the elderly are unique for each of them. Some feel that the meaning and purpose of their lives are gone, and they feel loneliness and boredom, while for others, it is a happy experience to remain at home. Nevertheless, in general, all these individuals need peace. Their own lifelong experiences play an essential role in how they deal with this part of their life (Pietilä and Tervo 1998:22; Backman and Hentinen 1999:568-569; Nilsson et al. 2000:44-45; Tsai and Tsai 2007:983-985; Tollén et al. 2008:141; Larsson et al. 2009:103; Kirkevold et al. 2013:399.)

Ageing is not a particular condition of life, and it should be taken as part of the life course; social exclusion is also viewed in relation with life course of OPs that will not only help to understand the patterns of social exclusion but also helps to figure out the more damaging causes of social exclusion. Their experiences can be varied since older persons can be caretakers and might also

need to be taken care of. On the one hand, they can be recipients of benefits like pensions and healthcare, or on the other hand, be contributing to the economy, carrying out valuable services, whether paid or unpaid, and may remain significant consumers. The volunteer work and community and care work undertaken by the elderly should also be acknowledged and valued, even if they are not provided monetary compensation. Retiring from the workforce should not indicate an end to one's prolific life but initiate fresh possibilities and chances**.**

Research has established a connection between volunteering and generativity (de Espanés, Villar, Urrutia, and Serrat 2015). So, it is conceived that social relations are essential to affirm and guide the coming generation. Elders require social relations to maintain social contact or overcome social isolation, loneliness, or social exclusion. It is also required to train next generations about their culture, traditions, norms, ethics, religion, etc. In theoretical terms, an exchange relationship between elder and young ones is established. Additionally, generativity was linked to establishing a generative atmosphere in childhood (Urrutia, de Espanés, Villar, Guzman, and Dottori 2016). Previous research also concluded that if an individual experienced exclusion from social relations (incredibly generative social relations) earlier in the life course, he would be less inclined to participate in volunteering opportunities in later life (Burholt et al. 2017).

Hobcraft and Kiernan (2001) scrutinize the relation between various outcomes of social exclusion, including severe health problems, using social housing, social benefits, and lack of qualifications and fiscal resources. Analysis of these shows the relation between the different factors and reverse causality. Hobcraft (1998), using the National Child Development Study (NCDS), scrutinizes inter-generational and life course transmission regarding social exclusion. He found four

childhood precursors with prominent associations with social exclusion at age 33. These include lack of fiscal resources in childhood, poor academic performance, contact with police, disruption in education, and so on (Kneale 2012).

Social stratification also affects the involvement of the elderly in a life-course perspective. Higher education relates positively to constant sports activities, and economic capital does not hold as much value as cultural capital (Larsen et al. 2021).

After shedding light on the importance of life course perspective concerning social relations and social contact, research conducted by Ashiq and Asad (2017) stated that along with economic problems OP faced with their age, the recognition of their social status is also the worst problem. In western traditions, being old is only considered better than being dead. The elderly face numerous psychological problems such as adjusting to the new realities, dealing with the loss of a significant role in personal and professional life, deteriorating physical and mental health, etc. This adaptation to a new role comes with the loss of self-respect and prestige (Ashiq and Asad 2017). In particular, the elderly who face social exclusion experience disadvantages and low quality of life. There is also a need to study whether the social exclusion in these cases continues from a younger age or is a new phenomenon. As suggested by some academia, the research literature on elderly exclusion should be studied in terms of life course to correctly map the social stratification and inequality faced by the people (Miranti and Yu 2015).

After discussing disengagement, age stratification, and life curse perspective, undoubtedly, modernization has its implications. Especially for older people who are already vulnerable in their

everyday lives. In contrast to Western societies that seem to be more youth-oriented, respect for the elderly has long been one of the most cherished values in East Asian societies, including China. Older people conventionally enjoyed prominent positions and were held in high esteem both within the family and the broader society (Tsai and Lopez 1997; Yun and Lachman 2006). However, the findings from past research on images of older people within Asian cultures are inconsistent. While some studies have confirmed the hypothesis that favorable views of ageing are more likely to be held in East Asian societies than in Western countries (Levy and Langer 1994; Yoon, Hasher, Feinberg, Rahhal, and Winocur 2000), some have suggested a different picture. An empirical study conducted by Harwood et al. (2001) which examined the perceived traits associated with older people, concluded that an affirmative image of older people in societies of East Asia, including Hong Kong, could no longer be taken for granted.

Studies also reveal that the perception of older people in modern societies is deteriorating. Studies are now focusing on the perception of the elderly, concluding that the declining perception, the concept of gaining, and the elderly will be affected (Tobin 1999). The aging process is now defined as "maintaining one's identity despite the changes that come with aging and embracing opposites—being changed and feeling the same" (Fischer, Norberg, and Lundman 2008:259).

Globally, researchers are just in the initial phase of exploring the extent of the specific needs of todays and tomorrow's older people are taken into consideration at different scales. Such as at the local or regional level, how the variation of lifestyles is excluded or included, and how specific neighborhood settings impact aging adults' daily activities. Hagestad and Uhlenberg (2005), in their research, raise the question of whether the separation of age groups (older adults and young

people) facilitates negative stereotypes on ageing and thereby indirectly promotes exclusion processes. On the contrary, critics claim that the present literature reflects that the field of planning and policy for developing an age-sensitive community encounters continuing perceptions about the elderly, obliviousness, and actual and perceived age discrimination behavior. In such cases where the older people attribute themselves as 'old,' self-segregation occurs, and the elders face difficult situations of exclusion (Vitman, Lecovich, and Alfas 2014).

CONCLUSION

Pakistan is a multilingual and multicultural country; some major ethnic groups include Punjabis, Sindhis, Balochis, Pakhtuns, Saraikis, Pothoharis, and Hindko. Like all other developing countries, Pakistan is going through population conversion, from a bulging youthful country to one with a majorly aging population. The traditional value systems which once controlled our society are gradually weakening; this is primarily because of the values of the industrialization era and shrinking family structures. In this changing structure, the elderly is considered dependent and problematic for the caretakers and society. Both the government and private sectors have ignored this field to the extreme. To cater to the socio-economic requirements of the aged population of Pakistan, a complete enumeration of the senior citizens, the altering trends, and the future needs of these individuals should be taken into account. Moreover, the policies should be formulated accordingly, opening doors in this field from new dimensions (Ashiq and Asad 2017).

Naturally, these people face increasing age-related issues with progressing age. Individuals experience loneliness, which may be because of these individuals living alone or the absence of close family. The problem may be compounded for those who also face physical disability and

health issues that multiply the feelings of isolation and demoralization. According to forecasts in this field, the aging population will likely affect societies, especially the financial, political, and healthcare systems that may stem from increasing requirements for pension funds and social protection; countries will face this globally (UN 2017).

This research establishes and provides valuable insights into the relationship between ageing and social exclusion. In addition to that, several connections between ageing and dimensions of social exclusion are also explained. Experiencing social exclusion on multiple fronts is inevitable for older people in different social scenarios. This research focuses on social exclusion among OPs of *Sohan* village, Islamabad. Data represents the relationship between age and social exclusion and establishes the relationship between age and seven dimensions of social exclusion as operationalized in our study, followed by cross-comparisons between the age and indicators of dimensions of social exclusion. Results show that age is significantly associated with social exclusion as an independent variable approved by the multivariate analysis. Data also shows that the mean prevalence of different dimensions of social exclusion is not similar in all age groups, excluding neighborhood/community and digital exclusion. This finding is supported by the previous literature in which researchers approved that the level of exclusions varied between different age groups elderly population.

Along with age, one of the essential areas of demographic research on aging has been the study of households, living arrangements, and proximity to family members, especially between older parents and their adult children. The companions that one is living with and the distance between family members are affected by these more considerable family changes and economic cycles,

housing markets, and changes in the older population's healthcare and elderly care needs (Agree 2018).

Qualitative research of the chronology of an individual's life, everyday activities, and coping strategies offer an excellent conceptual tool for qualitative analysis of social exclusion. The initial contention is that the dynamic nature of the concept and the emphasis on the processes that lead to exclusion and the possibilities of escaping poverty and exclusion are captured well by the basic coping strategies people employ in individual areas of social exclusion. The second assumption is that the factors causing social exclusion are fluid and may be less evident to the elderly suffering from it (Scharf et al. 2005). In this sense, coping strategies provide an insight into the depth of exclusion and the flexible dynamics affecting exclusion. Whether the elderly can cope with these themselves or not, the welfare state should play a pivotal role in enabling the elderly. Coping strategies refer to the concept of coping developed in the 1970s by psychologists; it was defined as 'constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are appraised as taxing or exceeding the person's resource's (Lazarus and Folkman 1984:141). Coping capacities can be perceived as the assets, relationships, behavior, and mental activities the people use to protect themselves from a bad outcome or recover from a crisis (Schroder-Butterfill and Marianti 2006). As well as the various actions and behavioral forms that individuals practice defending themselves from perceived or real threats (Lazarus and Folkman 1984).

In many developed countries, the importance of an aging population and the disparities faced by the older population in the economic, social, and political fields are apparent. Therefore, there is an acknowledgment of the potential for these values and processes to interfere with each other or

reinforce them (Nazroo 2017; Hargittai et al. 2019; Dahlberg et al. 2020). Although most of the research points out the need to focus on the exclusion older people face, the topic has been ignored generally in recent years. It has led to a dearth of research focusing on the old-age social exclusion and the absence of conceptual and theoretical framework (Van Regenmortel et al. 2016; Walsh et al. 2017). Consequently, there is a lack of innovative policy positively affecting the elderly and ensuring lessening social exclusion (ROSEnet 2020).

Research concludes that study data approved the primary assumption of our study and concluded that social exclusion is significantly dependent on the age of the older person. Moreover, when research explore social exclusion dimensions concerning the age distribution of OPs, non-linear associations are found among five dimensions that satisfy our assumption that the gravity of social exclusion dimensions varies among different age categories of OPs.

RECOMMENDATIONS

The ageing population is regarded as one of the most critical challenges of our societies. It is the outcome of extraordinary developments in technology, medicine, public hygiene, and the adoption of healthier lifestyles. It is a spectacular achievement, and yet, at the same time, globally, societies are struggling to acclimatize themselves to the altering demography and to turn the challenges of an ageing population into opportunities. The challenge is further intensified because this population segment is varied and heterogeneous. Formulating a policy to minimize the adverse effects of exclusion requires considering several factors.

While social exclusion is one aspect of aging, several other dimensions are affected by it, such as economic, political, and social processes. These effects are even more profound sense, globally, many countries and governments are yet to formulate policies to address the problems posed by aging. There is an imbalance between individuals' prolonged ages and the evolution of policies that protect and empower older persons.

Many South Asian countries fail to address the challenges and opportunities associated with population ageing. Pakistan has taken some very positive steps in the form of legislation to protect the rights of older people in three of its provinces (Khyber Pakhtunkhwa, Sindh, and Baluchistan). However, there is still a significant implementation gap between policy and practice: the laws need to be translated into programs and interventions for the wellbeing of older women and men across the country. Suppose Pakistan can achieve inclusive action from legislation to implementing projects for its older population. In that case, we can expect transformative outcomes for older

persons across Pakistan – to the profound socio-economic benefit of the country as a whole (Zaidi et al. 2019).

In order to ensure maximum benefits and risk management connected to the aging population, there is a need, on the part of the governments, to ensure continued lifelong healthcare. This can be done by encouraging savings behavior healthier habits throughout the lives of the individuals, promoting women's and older people's employment, gradually increasing the age of retirement, and formulating and implementing policies to promote work-life balance and gender quality in the workplace.

While dealing with the issue of the ageing population and the economic and policy strains (DESAU World Population Prospects 2017), governments should also be concerned about continuing social support systems, healthcare systems, and other public utilities for older adults. While taking care of the long-term needs of the old age population, primarily those with disabilities, it is essential to consider that the concern to ensure their participation in daily activities should be prioritized (Walsh et al. 2019; Scharf and Keating 2012).

Pakistan's older population, already at 12.5 million, will be twice what it is now by 2030, and by 2050 will be around 40 million. It is, therefore, imperative that the country responds urgently to the most critical needs of its older people and, at the same time, promotes more profound societal changes. It facilitates age-friendly and enabling environments where people of all ages can flourish, as Zaidi et al. (2019) stated.

Along with the above paragraph, a few recommendations for policymaking and analysis of this issue are as follows:

1. We recommend a quantitative work with selected age groups and considering other demographic indicators to understand multidimensional aspects of social exclusion.
2. After demographic indicators, we further recommend that a brief relationship be discovered among socio-cultural, political, and religious perspectives of the exclusion.
3. After quantitative work, we recommend qualitative work with selected groups at particular risk of social exclusion, especially OPs at 80 years and above.
4. Such qualitative work should use biographical methods to explore the experience of social exclusion and the nature and sequence of precipitating events.
5. We recommend that the findings from this quantitative work be used for design-focused surveys of social exclusion.
6. Along with major ethnic groups, we also recommend that ethnic groups from minorities be included in research to cover the prevalence of social exclusion dimensions to develop a more effective or representative relationship.
7. As data will be collected from majority and minorities [including religious, traditional, ethnic, etc.], a rural-urban picture of the problem should also be captured.
8. We recommend the development of a social exclusion module at the national level by getting help from international literature available at different dimensions of social exclusion. Research should identify categorically defined indicators and operationalize the indicators as per the national scenario. There is also a need to develop conceptualizations and measurement of social exclusion further.

IDEAS FOR FURTHER RESEARCH

This research only provides a one-sided picture of the problem; it highlights the relationship between ageing and social exclusion as independent and dependent variables. Also, this research presents only a quantitative picture of the problem. There are possibilities for further research in this domain which will be able to collect further in-depth knowledge of the issue. In the context of the present study, further research needs to employ a range of strategies, including data collection from all four provinces of Pakistan along with federally administrated areas, AJK and GB as well, to have a ground-level picture of the issue, the generation of new survey modules and techniques, the application of both quantitative and qualitative methods and tools, and the use of specialized surveys, preferably informed by qualitative research. This should be undertaken at the individual researcher's and provincial and state levels. There is no exact idea which research strategies or dimensions will be perfectly suited to research the multidimensional parameters causing social exclusion in urban and rural older populations. A proper understanding of social exclusion entails a mixture of all these methods to formulate a better policy document for the future of OPs of Pakistan. This approach will be more efficiently workable in Pakistan, but it will also be a guiding document at the international level.

MAJOR FINDINGS OF STUDY

1. Ageing as an independent variable significantly affects social exclusion in old age.
2. Covariance matrices of the dependent variables are dependent are equal across age groups.
3. The civic exclusion was disproportionality faced by different age groups of OPs of *Sohan* – linear line has a positive slope.
4. Exclusion from social relations was disproportionality faced by different age groups of OPs of *Sohan* with highest SD reported by 80 years and above OPs – linear line has a positive slope.
5. Services exclusion was disproportionality faced by different age groups of OPs of *Sohan* with highest mean and SD reported by 80 years and above OPs – linear line has a positive slope.
6. Financial/material exclusion was disproportionality faced by different age groups of OPs of *Sohan* with the highest mean reported by 65-65 years old, and SD reported by 70-74 years old – linear line has a negative slope.
7. Neighborhood/community exclusion was proportionality faced by different age groups of OPs of *Sohan* with highest mean and SD reported by 80 years and above OPs – linear line has a positive slope. A significant correlation was found with a *p*-value of .001.
8. Decent housing exclusion was disproportionality faced by different age groups of OPs of *Sohan* with highest mean and SD reported by 70-74 years of age – linear line has a negative slope.
9. The digital exclusion was proportionality faced by different age groups of OPs of *Sohan* with the highest mean reported by 80 years and above, and highest SD reported by 65-69 years of age – linear line has a positive slope.

10. A significant relationship was found among age, and OPs faced routine health issues.
11. A significant relationship was found between age and the chronic disease profile of OPs.
12. A significant relationship was found between age and social participation reported by OPs.
13. A significant relationship was found among age and frequent visitors for OPs, predominantly the elder 80 years and above visited by their grandchildren [50 percent].
14. A significant relationship was found among age and familial support available for OPs. Strong familial support was reported, predominantly by 80 years and above OPs.
15. A significant relationship was found among age and social security services available for OPs.
16. No internet was used by OPs aged 75 years and above.

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Annexure A

Age and Social Exclusion

Age Categories		Mean	Std. Deviation	N
CIVIC EXCLUSION (with culture)	60-64	2.11	1.008	36
	65-69	2.72	.936	25
	70-74	2.61	1.145	18
	75-79	2.00	1.309	8
	80 and above	3.00	1.054	10
	Total	2.44	1.080	97
SOCIAL RELATION EXCLUSION	60-64	3.17	.775	36
	65-69	3.04	.735	25
	70-74	3.50	.707	18
	75-79	3.38	.744	8
	80 and above	3.10	.876	10
	Total	3.21	.763	97
SERVICES EXCLUSION	60-64	1.28	.454	36
	65-69	1.28	.458	25
	70-74	1.39	.502	18
	75-79	1.13	.354	8
	80 and above	1.40	.699	10
	Total	1.30	.482	97
FINANCIAL EXCLUSION	60-64	1.92	1.273	36
	65-69	2.56	1.227	25
	70-74	2.06	1.349	18
	75-79	1.88	1.126	8
	80 and above	1.90	.876	10
	Total	2.10	1.237	97
NEIGHBORHOOD/COMMUNITY EXCLUSION	60-64	.86	1.018	36
	65-69	1.48	1.262	25
	70-74	1.61	1.243	18
	75-79	1.25	.886	8
	80 and above	2.40	1.430	10
	Total	1.35	1.234	97
DECENT HOUSING	60-64	1.31	1.091	36
	65-69	1.32	1.215	25
	70-74	1.72	1.565	18
	75-79	1.50	.756	8
	80 and above	1.20	1.135	10
	Total	1.39	1.195	97
DIGITAL EXCLUSION	60-64	2.19	.951	36
	65-69	2.00	1.041	25
	70-74	2.56	.984	18

	75-79	2.63	.916	8
	80 and above	2.80	.919	10
	Total	2.31	.993	97

Patterns of Social Exclusion and Gender

Exclusion	Gender	Exclusion Pattern					Total
		Insignificant	Minor	Moderate	Major	Severe	
Civic	Male	6.3	18.8	34.4	26.6	14.1	100.0
	Female	3.0	3.0	21.2	51.5	21.2	100.0
	Total	5.2	13.4	29.9	35.1	16.5	100.0
Social Relations	Male	0.0	0.0	17.2	35.9	46.9	100.0
	Female	0.0	0.0	27.3	42.4	30.3	100.0
	Total	0.0	0.0	20.6	38.1	41.2	100.0
Services	Male	0.0	67.2	31.3	1.6	0.0	100.0
	Female	0.0	78.8	21.2		0.0	100.0
	Total		71.1	27.8	1.0	0.0	100.0
Financial	Male	6.3	42.2	23.4	21.9	6.3	100.0
	Female	3.0	27.3	9.1	18.2	42.4	100.0
	Total	5.2	37.1	18.6	20.6	18.6	100.0
Neighborhood/Community	Male	29.7	29.7	18.8	14.1	7.8	100.0
	Female	33.3	30.3	18.2	15.2	3.0	100.0
	Total	30.9	29.9	18.6	14.4	6.2	100.0
Decent Housing	Male	25.0	37.5	17.2	9.4	10.9	100.0
	Female	21.2	42.4	27.3	3.0	6.1	100.0
	Total	23.7	39.2	20.6	7.2	9.3	100.0
Digital	Male	6.3	6.3	37.5	29.7	20.3	100.0
	Female		24.2	60.6	15.2		100.0
	Total	4.1	12.4	45.4	24.7	13.4	100.0

Gender, Exclusion, and OPs of 80 Years and above

Exclusion [80 year and above]	Gender	Exclusion Pattern					Total
		Insignificant	Minor	Moderate	Major	Severe	
Civic	Male		11.1	22.2	22.2	44.4	100.0
	Female				100.0		100.0
	Total		10.0	20.0	30.0	40.0	100.0
Social	Male			33.3	33.3	33.3	100.0
	Female					100.0	100.0
	Total			30.0	30.0	40.0	100.0
Services	Male		66.7	22.2	11.1		100.0
	Female		100.0				100.0
	Total		70.0	20.0	10.0		100.0
Financial	Male		44.4	22.2	33.3		100.0
	Female			100.0			100.0
	Total		40.0	30.0	30.0		100.0
Neighborhood/community	Male	22.2		22.2	33.3	22.2	100.0
	Female				100.0		100.0
	Total	20.0		20.0	40.0	20.0	100.0
Decent	Male	33.3	33.3	11.1	22.2		100.0
	Female		100.0				100.0
	Total	30.0	40.0	10.0	20.0		100.0
Digital	Male			22.2	55.6	22.2	100.0
	Female		100.0				100.0
	Total		10.0	20.0	50.0	20.0	100.0

Gender and Social Exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.306	5.617[b]	7.000	89.000	.000
Wilks' Lambda	.694	5.617[b]	7.000	89.000	.000
Hotelling's Trace	.442	5.617[b]	7.000	89.000	.000
Roy's Largest Root	.442	5.617[b]	7.000	89.000	.000

b. Exact statistic

Academic Qualification and Social Exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.851	2.101	42.000	534.000	.000
Wilks' Lambda	.369	2.241	42.000	397.447	.000
Hotelling's Trace	1.190	2.333	42.000	494.000	.000
Roy's Largest Root	.650	8.262[c]	7.000	89.000	.000

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Living with whom and social exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.361	1.738	21.000	267.000	.025
Wilks' Lambda	.670	1.781	21.000	250.367	.021
Hotelling's Trace	.446	1.821	21.000	257.000	.017
Roy's Largest Root	.320	4.072[c]	7.000	89.000	.001

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Type of family and social exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.416	2.045	21.000	267.000	.005
Wilks' Lambda	.620	2.162	21.000	250.367	.003
Hotelling's Trace	.558	2.275	21.000	257.000	.002
Roy's Largest Root	.438	5.567[c]	7.000	89.000	.000

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Mode of living and social exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.468	2.352	21.000	267.000	.001
Wilks' Lambda	.564	2.630	21.000	250.367	.000
Hotelling's Trace	.715	2.917	21.000	257.000	.000
Roy's Largest Root	.625	7.941[c]	7.000	89.000	.000

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Currently working and social exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.717	1.725	42.000	534.000	.004
Wilks' Lambda	.441	1.802	42.000	397.447	.002
Hotelling's Trace	.942	1.846	42.000	494.000	.001
Roy's Largest Root	.424	5.391[c]	7.000	89.000	.000

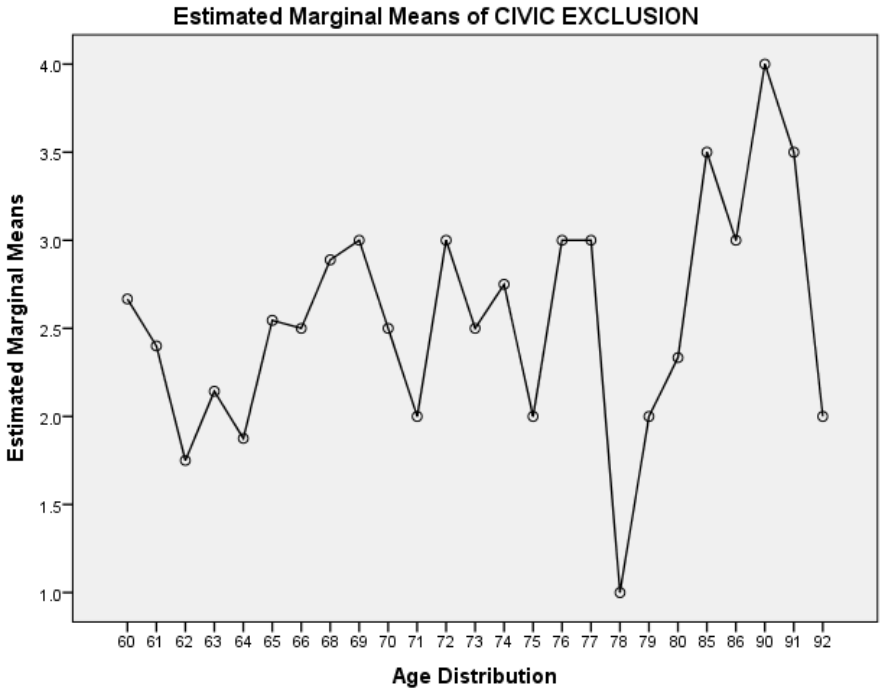
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Social Security and Social exclusion (Multivariate Analysis)

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.492	12.313[b]	7.000	89.000	.000
Wilks' Lambda	.508	12.313[b]	7.000	89.000	.000
Hotelling's Trace	.968	12.313[b]	7.000	89.000	.000
Roy's Largest Root	.968	12.313[b]	7.000	89.000	.000

b. Exact statistic

Annexure B


Estimated Marginal Means of CIVIC EXCLUSION
Estimated Marginal Means
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3.5
3.0
2.5
2.0
1.5
1.0
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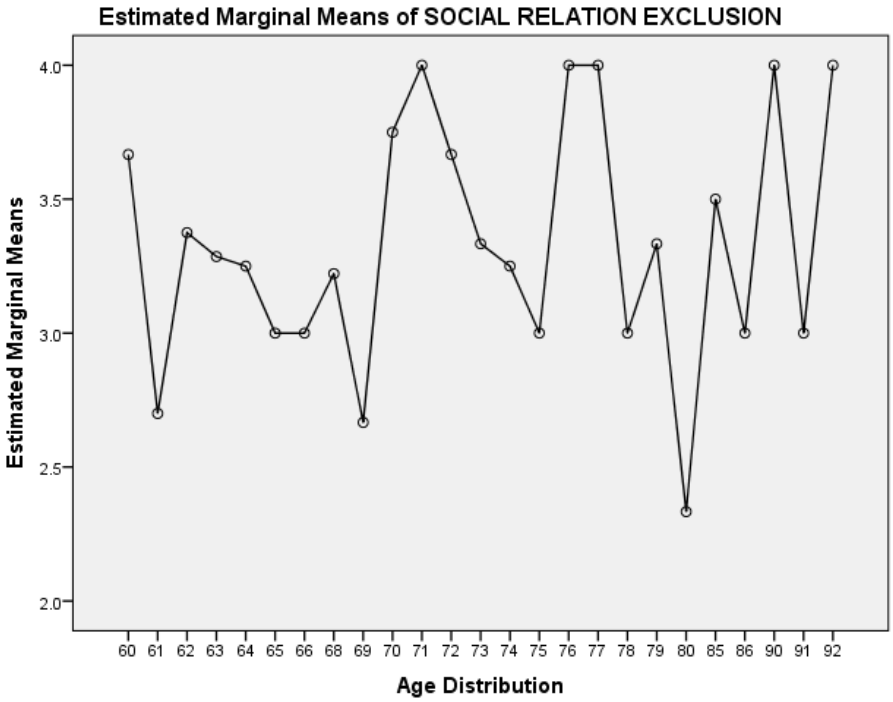
Age Distribution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Estimated Marginal Means
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3.0
2.5
2.0
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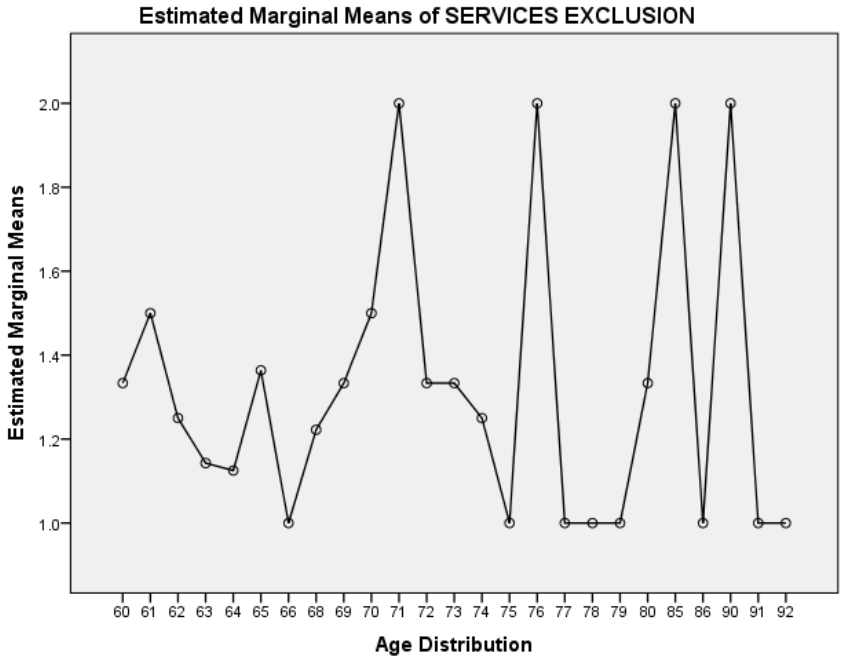
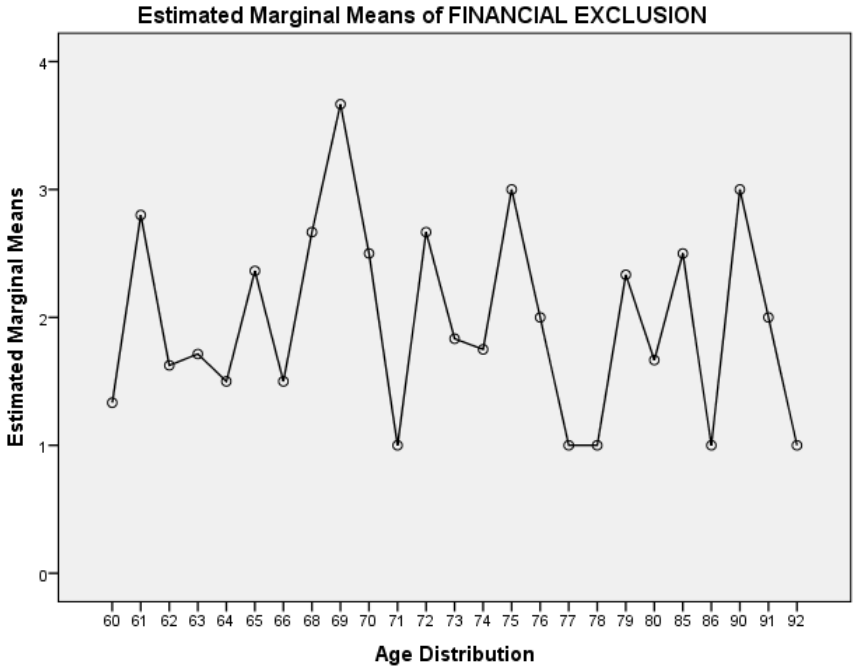
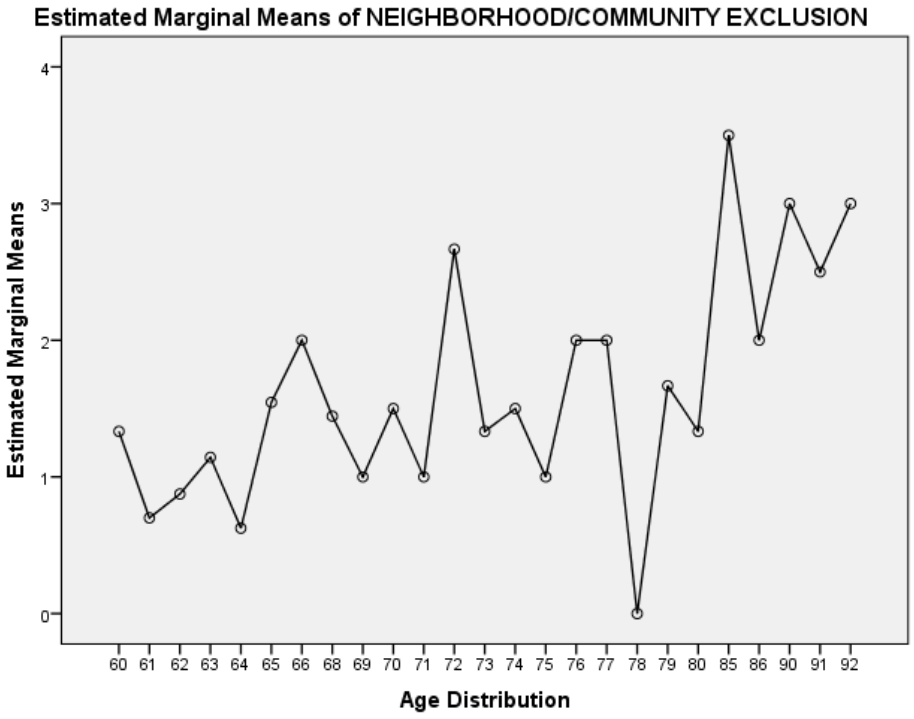
Age Distribution


Estimated Marginal Means of SERVICES EXCLUSION
Estimated Marginal Means
2.0
1.8
1.6
1.4
1.2
1.0
60 61 62 63 64 65 66 68 69 70 71 72 73 74 75 76 77 78 79 80 85 86 90 91 92
Age Distribution


Estimated Marginal Means of FINANCIAL EXCLUSION
Estimated Marginal Means
4
3
2
1
0
60 61 62 63 64 65 66 68 69 70 71 72 73 74 75 76 77 78 79 80 85 86 90 91 92
Age Distribution


Estimated Marginal Means of NEIGHBORHOOD/COMMUNITY EXCLUSION
Estimated Marginal Means
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2
3
4
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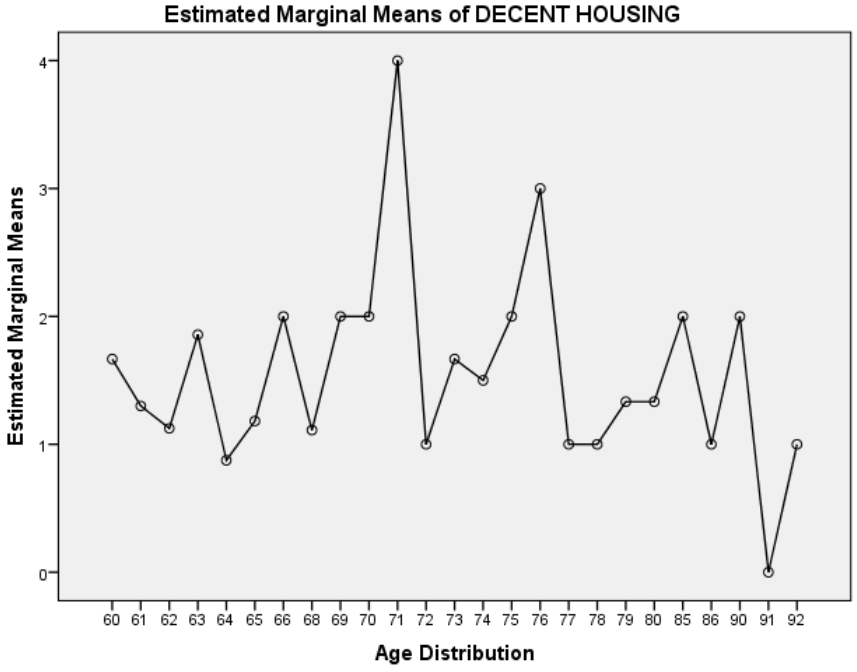
Age Distribution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3
4
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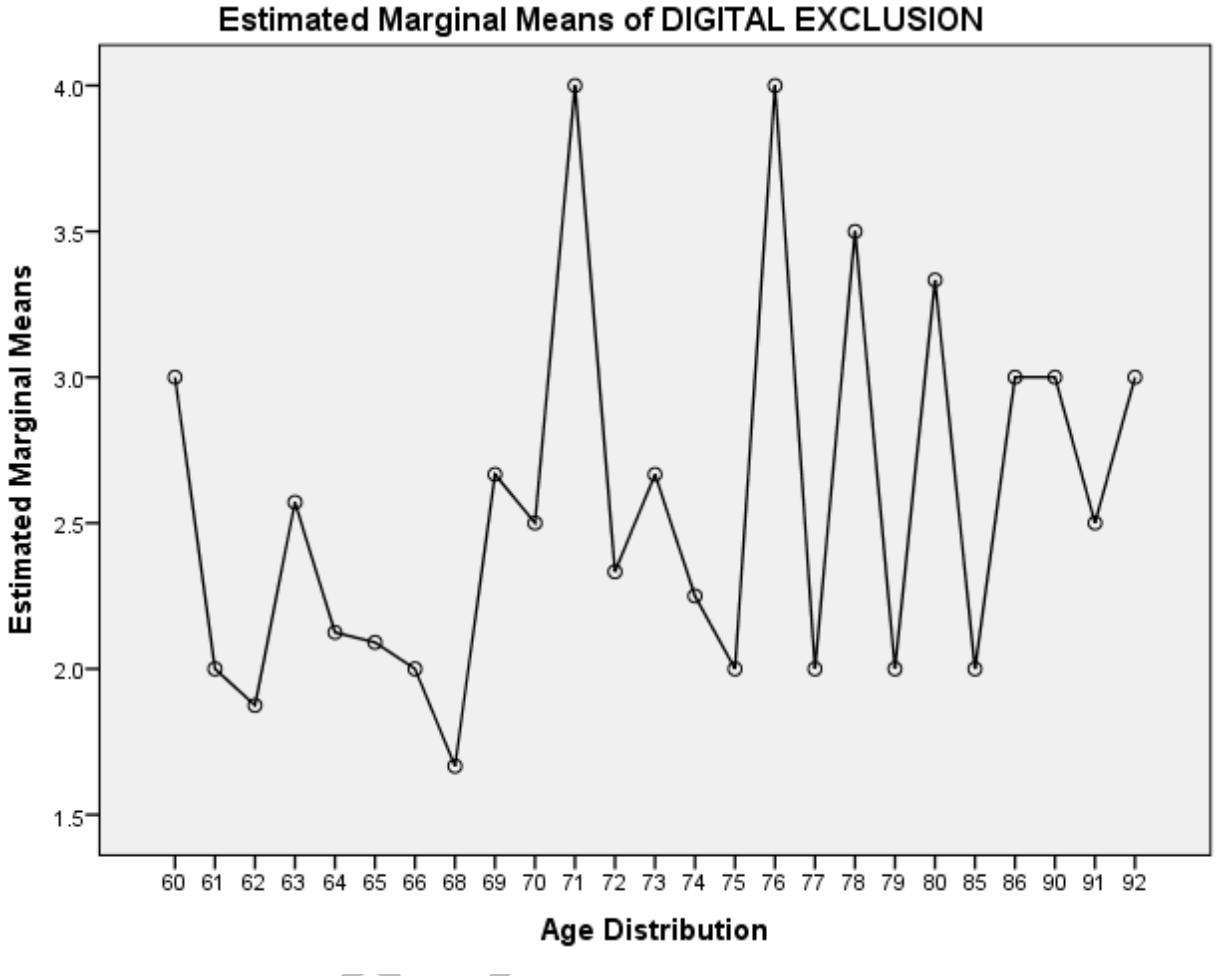
Age Distribution


Estimated Marginal Means of DIGITAL EXCLUSION
Estimated Marginal Means
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3.5
3.0
2.5
2.0
1.5
60 61 62 63 64 65 66 68 69 70 71 72 73 74 75 76 77 78 79 80 85 86 90 91 92
Age Distribution

Annexure C: Research Tool

Ageing and Social Exclusion in Pakistan (ASEP)

Serial Number: ASEP-

Interview Schedule for PhD Research

AFTAB AHMED
Reg.#: 03321911006

Department of Sociology, Quaid-i-Azam University Islamabad

Ageing and Social Exclusion in Pakistan (ASEP)

Date:_____ Serial Number: ASEP-

My name is Aftab Ahmed and I am the student of PhD Sociology in Quaid-i-Azam University Islamabad. I am conducting a research on social exclusion among elders [Older Persons (OPs)] of *Sohan* village Islamabad with the permission of Local authorities. This tool is developed to fulfill the requirement of PhD Degree to collect data from selected respondents of the study. Questions are developed to seek data from those volunteers having 60 years of age and above. All those older persons who can listen and reply on their own can be a part of this study. The aim of this research is to collect information on the prevalence of social exclusion among elders of *Sohan*. It further tries to uncover the impact of social exclusion on their health and wellbeing. Researcher also tries to establish the relationship between different aspects of social exclusion linked with socio-cultural and physical health.

Are you willing to participate?

1-Yes 2-No

SECTION A - SOCIO-ECONOMIC AND DEMOGRAPHIC BACKGROUND

Question#	Question	Responses	
QA1	**What is your name with father name? [Optional]** **Address:** _____	_____ _____	
QA2	**What is your age?**	_ _ _ _ Completed Years	1. 60-64 2. 65-69 3. 70-74 4. 75-79 5. 80 and above
QA3	**What is your Sex?**	1. Male 2. Female 3. Transgender	
QA4	**What is your Qualification?**	1. Illiterate 2. Primary 3. Secondary 4. Matriculation 5. Intermediate 6. Bachelors 7. Masters 8. Others (please specify)	
QA5	**What is your marital Status?**	1. Unmarried 2. Married 3. Widow/widower 4. Divorced 5. Separated	
QA5a	**Whom are you living with?**	1. Living with Family (Spouse and kids) 2. Living Alone 3. Living with Son 4. Living with Daughter	

		5. Living with a relative 6. Living with Spouse 7. Others (please specify)
QA6	**Number of Children/married children? [Numbers]**	_____/ _____ Son _____/_____ Daughter
QA7	**What is your family structure?**	1. Nuclear 2. Joint 3. Joint extended 4. Alone
QA8	**Province, by origin you belong?**	1. Islamabad 2. Punjab 3. KPK 4. Sindh 5. Baluchistan 6. AJK 7. GB 8. Others
QA9	**What is your mode of Living?**	1. Own house 2. Rented house 3. Hired house 4. Others
QA10	**How satisfied You are, all in all, with your house?**	1. Very Satisfied 2. Satisfied 3. Fair 4. Dissatisfied 5. Very Dissatisfied
QA11	**How many people living within this house?**	1. Only me 2. 2 - 4 3. 5 - 7 4. 8 and above
QA12	**Do you have access to following facilities? Like…** **Multiple responses**	1. TV/cable TV 2. Mobile Phone/Cell phone 3. Internet 4. Computer 5. Motorcycle 6. Car 7. Heater 8. Fan 9. AC 10. Others

INCOME:	**Write Exact Amount**		
QA13 - Monthly Family Income	**QA14-Income from current job [if applicable]**	**QA15-Income from Other Sources**	
_ _ _ _ _ _ _ _ _ _ 1. Don't Know 2. >20000 3. 20001-35000 4. 35001-50000 5. 50001-65000	_ _ _ _ _ _ _ _ _ _ 1. NA 2. >5000 3. 5001-10000 4. 10001-20000 5. 20001-30000	1. No 2. Savings 3. Property 4. Agriculture 5. Pension 6. Remittances	_ _ _ _ _ _ _ _ _ _ 1. >20000 2. 20001-35000 3. 35001-50000 4. 50001-65000 5. 65001-100000

6. 65001-100000 7. 100000+	6. 30001-40000 7. 40001 +	7. Zakat 8. Pakistan Bait ul Maal 9. Benazir Income Support Program 10. Civil Society Organization	6. 100000+

QA16	**Do you contribute to the family expenses?**	1. Yes 2. No 3. NA	
QA17	**Your family monthly income is sufficient for your family?**	1. Yes 2. No 3. NA	
QA18	**Do you have any property at your' name?**	1. Yes 2. No	1. Home 2. Plot 3. Agriculture Land 4. Bank Balance 5. Other
QA19	**At what age you started earning?**	Write age? _____98- NA	
QA20	**In which profession you had mostly associated in your life?**	1. Daily Wager 2. Farmer/livestock 3. Self-employed/business 4. Govt. Employee 5. Private Employee 6. Oversees Employee 7. Housewife 8. Others	

SECTION B – FOOD

QUESTION#	QUESTION	RESPONSES	
QB21	**Do you think, the food served to you is enough to satisfy your needs and nutrition?**	1. Yes, mostly 2. Yes, somehow 3. No	
QB22	**Which type of drinking water you mostly consumed?**	1. Water supply 2. Hand pump/TW 3. Spring 4. Any other	
QB23	**Please tell us about your fruit's intake. (Write code in BOX)** 1. Daily 2. Weekly 3. Monthly 4. Never----- why specify_____ 5. No Response **(Write code in BOX)**	**Fresh Fruit**	**Dry Fruit**
QB24	**How often meat/ poultry is served to you? (Write code in BOX)** 1. Daily 2. Weekly 3. Monthly 4. Occasionally	**Meat**	**Poultry**

	5. Never …… why specify_____ 6. No Response **(Write code in BOX)**		

SECTION C – HEALTH PROFILE-MAPPING (PERCEPTION OF THE INDIVIDUALS)

QUESTION#	QUESTION	RESPONSES
QC25	**How do you rate your physical health?**	1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor
QC26	**How is Your health compared to other people of Your age?**	1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor
QC27	**How do you rate your mental health?**	1. Very Good 2. Good 3. Fair 4. Poor 5. Very Poor
QC28	**Do you have any of the impairment? [multiple responses]** Which hurts more	1. No 2. Visual 3. Hearing 4. Mental 5. Physical 6. Others
QC29	**Most of the time what sort of health issues you faced?** [multiple response – top 3, write sequence number on bullets]	• Nothing • Temperature • Cough • Body Aches • Joint pains • Stomach Issue • B.P • Other: specify
QC30	**From where you take medical treatment?** ؟	1. No treatment 2. Govt Hospital 3. Private Hospital 4. Community doctor 5. Self-medication 6. Dam/Darood
QC31	**Do you have any chronic disease? (multiple responses)**	1. No 2. Hypertension 3. Heart problems 4. Epilepsy 5. Diabetes 6. Arthritis 7. Asthma

		8. Hepatitis B/C 9. HIV 10. T.B 11. Others (Please specify)
QC32	If QC31 have options 2-11 then **Which one is more damaging? [as you perceive]**	1. Hypertension 2. Heart problems 3. Epilepsy 4. Diabetes 5. Arthritis 6. Asthma 7. Hepatitis B/C 8. HIV 9. T.B 10. Others (Please specify)
QC32a	**Are you getting any treatment for this chronic disease?**	1. No [why] 2. Private Hospital 3. Govt. facility 4. Community Doctor 5. Hakeem/Homeopath 6. Pir's 7. Others
QC33	**What type of transport you usually use for travel?**	1. By foot 2. Motorcycle 3. Personal car 4. Taxi/Rikshaw 5. Public Van
QC33a	**Do you have any of the following facilities? [Mobility Services]**	1. Benches 2. Public Transport 3. Bus Stop 4. Crossing Bridge
QC33b	**Do you have any of the following facilities in your community? [Leisure Services]**	1. Sports center 2. Swimming Pool 3. Library 4. Community Center 5. Cinema 6. Theater
QC33c	**Do you have any of the following facilities in your community? [Basic Services]**	1. Grocery Store 2. Butcher Shop 3. Bakery 4. Mobile Shop 5. Post Office 6. Bank
QC34	**When did you last visited your doctor/health facility?**	1. Less than a month 2. Three months 3. Six months 4. One Year 5. Others (please specify)
	Who normally pays for your health expenses? [mostly]	1. Myself 2. Children

QC35		3. Private Welfare scheme 4. Health Insurance 5. Govt. Health Schemes 6. Husband 7. Any other
QC36	**Who takes you to the doctor for examination? [mostly]**	1. Myself 2. Spouse 3. Kids 4. Relatives 5. Neighbor 6. Any other
QC37	**On average, monthly expenses on your medicine? PKR**	PKR 98-Don't know
QC38	**Do you think your Spouse is concerned about your health?** [if living with spouse]	1. Yes 2. No 3. NA
QC39	**Do you think your children are concerned about your health?** [If applicable]	1. Yes 2. No 3. NA
QC40	**Who takes care of your medicines? (intake and timing)**	1. Myself 2. Spouse 3. Sons/Daughters 4. SIL/DIL 5. Grand Sons/ Grand Daughters 6. Siblings/Relatives 7. Friends/Colleagues 8. Neighbors 9. Others, please specify
QC41	**Any sports activity/physical exercise on daily basis?**	1. Yes 2. No 3. Sometime
QC42	**If yes; please mention what?**	
QC43	**What type of activities you perform of daily basis?** [multiple responses]	1. Play Cards 2. Gardening/farming 3. Reciting Holy Quran 4. Reading Books 5. Watch Film/drama 6. Use Internet 7. Community/Market visit 8. Others
QC44	**Do you think Breath [dam/Darood/taweez] is equally affective for illness?**	1. Yes 2. No

SECTION D – SOCIO-CULTURAL AND PSYCHOLOGICAL PROFILE

QUESTION #	QUESTION	RESPONSES
QD45	**What type of family function you usually attended?** Write number on option. [Top two preferences]	☐ Never ☐ Weddings ☐ Funerals ☐ Birthday parties ☐ Family treats ☐ Others
QD45a	**If never; what are the reasons?**	1. Due to health 2. Due to night timing 3. Not considered 4. Not invited 5. Any other
QD46	**What type of community events/function you usually attend?**	1. Never 2. Political Gatherings 3. Welfare Gatherings 4. Development meetings 5. Others
QD46a	**How often, do you have contact with people living in your neighborhood?**	1. Never 2. Once a week 3. Several times a week 4. Once a month 5. Several times a month
QD46b	**How do you feel to contact your neighborhood?**	1. Extremely positive 2. Positive 3. Neither positive nor negative 4. Negative 5. Extremely negative
QD46c	**Do you feel safe in your neighborhood?**	1. Very Much 2. Somehow 3. No
QD47	**Did you poll your vote in 2018 election?**	1. Yes 2. No
QD48	**Do you participate in the household's Decision making?**	1. Yes 2. No
QD48a	**If yes how often?**	1. Always 2. Occasionally 3. Others, please specify
QD48b	**If No, please specify the reasons?**	1. I don't like to participate 2. The children have the right to make rights decisions for themselves 3. I am not consulted 4. My opinion is not given a weight

		5. Others, please specify
QD49	**Normally, you eat food with your family?**	1. Yes 2. Separately 3. What I prefer
QD50	**Who takes care of your clothing and cleanliness of your room?**	1. Myself 2. Spouse 3. Son/son-in-law 4. Daughter/daughter-in-law 5. Servant
QD51	**What is the location of your bed?**	1. Separate room 2. Sharing room 3. Car Porch 4. TV Loan 5. Storeroom 6. Other
QD52	**How satisfied You are with Your bed?**	1. Very Satisfied 2. Satisfied 3. Fair 4. Dissatisfied 5. Very Dissatisfied
QD53	**Did your spouse give you time for discourse daily?** [if applicable]	1. Yes – Mostly 2. Yes – some how 3. No 4. NA
QD54	**Do your children give you time for discourse daily?** [if applicable]	1. Yes – Mostly 2. Yes – some how 3. No 4. NA
QD55	**Do you independently take decision to go out to visit your relatives?**	1. Yes 2. No 3. Sometime
QD56	**Did you regularly visit mosque/church for prayers?**	1. Yes – mostly 2. Yes – somehow 3. No
QD57	**How you cope with your loneliness if you feel it? [Top 3]**	1. No such feeling 2. Mosque 3. Recite Holy Quran 4. Visit Shrine 5. Visit Park/Market 6. Staying with Spouse at home 7. Socialization with Family 8. Visit Friends/Neighbors 9. Watch Movie/Drama 10. Others, please specify
QD58		• Play with kids

<table>
<tr><td></td><td>How do you spend your free time?
[Top 3]</td><td>• Reciting Quran
• Visit friends
• Watching TV
• Gardening
• What else…..</td></tr>
<tr><td>QD59</td><td></td><td></td></tr>
<tr><td>QD60</td><td>Who come to visit you mostly?</td><td>1. Grand children
2. Children
3. Blood Relatives
4. Remote Relatives
5. Friends/ Ex-colleagues
6. Neighbors
7. None</td></tr>
<tr><td>QD61</td><td>Do you have a close friend with whom You discuss personal and important matters?</td><td>1. Yes
2. No</td></tr>
<tr><td>QD62</td><td colspan="2">How often do you attend the cultural activities listed below (Write code only)?
<table>
<tr><th></th><th>1=Never</th><th>2=Once a year</th><th>3=Several times</th><th>4=Once a month</th><th>5=Several times a month</th></tr>
<tr><td>Mela/Urs</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Bull race</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Horse Dance</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Horse Tent pegging</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Kabbadi</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Cock or Quail fighting</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dog fighting</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Local Music festivals</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Any Other</td><td></td><td></td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td>QD63</td><td>Do you independently visit these events?</td><td>1. Yes, mostly
2. Yes, sometime
3. No, Dependent on others
4. No, poor health
5. No, not interested
6. Not, no family permission</td></tr>
<tr><td>QD64</td><td>Which type of voluntary work do you usually performed?</td><td>1. Home chores
2. Organizing cultural events
3. Organizing Social event like wedding, funerals prayers
4. Organizing political events
5. Community welfare activities
6. Providing free education
7. Any other</td></tr>
</table>

SECTION E: MEMBERSHIP STATUS		
Question#	**Question**	**Responses**
QE65	**Member of CSO**	1. Yes 2. No
QE66	**Member of any political party**	1. Yes 2. No
QE67	**Member of Panchayat or any local legal committee**	1. Yes 2. No
QE68	**Member of Masjid Committee**	1. Yes 2. No
QE69	**Member of any association of elderly**	1. Yes 2. No
QE70	**Member of any old age home**	1. Yes 2. No
QE71	**Any other membership?** Specify:	

Thanks

Annexure D: Photographs during Data Collections

Annexure E: Turnitin Originality Report

Turnitin Originality Report

AGEING AND SOCIAL EXCLUSION IN PAKISTAN by Aftab Ahmed .

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