Disengagement beliefs, Perceived Risk and Benefits and Motivation to Quit Smoking: Mediating Role of Smoking Self-Efficacy

QUAID-I-AZAM UNIVERSITY

ISLAMABAD

By

Iram Azhar

Dr. Muhammad Ajmal

National Institute of Psychology

Center of Excellence

Quaid-i-Azam University

Islamabad, Pakistan

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Iram Azhar

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Dr. Muhammad Ajmal

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Center of Excellence

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By

Iram Azhar

Approved by

_____

(Ms. Saira Khan)
Supervisor

_____

(Dr. Shoaib Kiani)
External Examiner

_____

(Prof. Dr. Anila Kamal)
Director, NIP

CERTIFICATE

It is certified that Masters Dissertation titled **"Disengagement beliefs, Perceived Risk and Benefits and Motivation to Quit Smoking: Mediating Role of Smoking Self-Efficacy"** prepared by **Iram Azhar** has been approved for submission to Quaid-i-Azam University, Islamabad.

(Saira Khan)
Supervisor

Dedicated to

Nano(Late) & my Ammi jan

Disengagement beliefs, Perceived Risk and Benefits and Motivation to Quit Smoking: Mediating Role of Smoking Self-Efficacy

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACKNOWLEDGMENTS

and independent women. My sister **Uzma** and brother in law **Khawar** who always believed in me and held high hopes for me, without their constant encouragement and support I would not have been able to achieve this much in life.

Iram Azhar

Abstract

This present research is aimed to investigate relationship between disengagement beliefs, perceived risks and benefits of quitting, motivation to quit smoking and smoking self-efficacy among adult smokers. Employing the technique of purposive convenience sampling data was collected from ($N = 250$) adult smokers from area of Rawalpindi and Islamabad. The age of participants ranged between 18 years to 35 years ($M = 23.78$; $SD = 3.40$). Smoking Self-Efficacy Questionnaire, (Etter, Bergman, Humair, & Perneger, 2009) was used to measure self-efficacy, Disengagement Beliefs Questionnaire (Solomon & Manson,1997) was used to assess disengagement beliefs, Perceived Risks and Benefits Questionnaire (McKee, Malley, Salovey, Kvishnan, & Mazure, 2005) was used to measure perceived risks and benefits of quitting and Motivation and Confidence to quit smoking questionnaire (Kathleen, Clara, Loreta, Richard, & Jennifer, 1994) was used to measure motivation and confidence to quit among adult smokers. Cronbach alpha for subscales of Smoking Self Efficacy i.e. Smoking Self Efficacy external and Smoking Self Efficacy internal were .89 and .86 respectively. Cronbach alpha of Disengagement Beliefs Questionnaire was .86 whereas reliabilities of Perceived risks and benefits subscales were .90 and .91 respectively. The reliability of Motivation and Confidence to quit smoking scale ranged from .75 to .82. Results indicated that Smoking self-efficacy and perceived benefits were positively related, whereas perceived risks of quitting and disengagement beliefs were negatively related with motivation to quit smoking. Simple linear regression indicated that smoking self-efficacy and disengagement beliefs were predictors of Motivation and confidence to quit smoking among adult smokers. The overall model accounted for 32% and 14% variance for motivation and confidence respectively. Results of meditational analysis indicated that smoking self-efficacy (both internal and external) mediates the relationship between disengagement beliefs and motivation to quit smoking among adult smokers. Additional finding indicated significant differences exist along marital status where married smokers' had low smoking selfefficacy, motivation to quit perceived benefits of quitting and show higher perceived risks of quitting and disengagement beliefs. Similarly significant differences were found in relation to smoking status of parents. It has been found that smokers whose parents

smoked had low self-efficacy, motivation and higher disengagement to quit smoking. These findings can help in designing better management plans for dealing with individuals having nicotine dependence.

INTRODUCTION

INTRODUCTION

Tobacco is an exceptionally addictive and lethal substance and one of the greatest general medical problems the world has ever confronted. Most smokers frequently smoke tobacco and think that it's hard to stop smoking. Tobacco is a built up chance factor for different maladies, for example, cardiovascular infection and lung ailment. Second hand smoke is related to respirational ailments and asthma in youngsters, despite its health risks, tobacco use is widespread worldwide, especially in developing countries such as Pakistan (Pirogowicz, Fedak, Piorek, & Steciwko, 2004). More than 1.1 billion individuals are smokers worldwide. 10 million deaths per year is estimated by 2020 and 70 percent of those deaths will occur in evolving states (Mackay, Eriksen, & Shafey, 2006).

This isn't just of extraordinary significance as far as financial expenses, yet is gradually denying the nation of sound staff and accumulating the load of maladies in the previously overstrained sector of health. People are well informed about the harmful effects of smoking, but they choose to continue smoking (Chassin, Sherman, & Presson, 1984).

In Pakistan it is evaluated that the commonness of smoking is 36% for men and 9% for ladies. Among young grown-ups, particularly college students in Pakistan, the commonness of smoking is 15%, with the majority being male smokers (Zaman, Irfan, & Irshad, 2002). For socio-cultural reasons in Pakistan, smoking among men is socially acceptable and is considered "very typical". In comparison, smoking among women is viewed as an unthinkable, and in to a great degree uncommon case, a woman is found in broad daylight smoking a cigarette (Rozi & Akhtar, 2004).

Studies conducted In Pakistan on prevalence of smoking indicate that just 14 women smoke for each 100 male smokers against 80 ladies in the United States, 85.6 in Australia 96 in the Unified Kingdom (Nasir & Rehan, 2001). However, contrasted with other Eastern and Middle Eastern nations, prevalence of smoking in Pakistan is higher.

This low popularity of female as compared to males is by and large because of a social stigma of smoking that is viewed as shocking (Radovanovic, Shah, & Behbehani, 1999).

The reason why teenagers smoke is complex and multifaceted. As for smoking among men, a vast greater part of them begin smoking in their adolescents on account of elements, for example, peer pressure, experimentation. The availability of cigarettes from buddies has been accounted for 50% of pre-adult smokers, so the easy availability for smoking may play a causal role (Nizami, Sobani, Raza, Baloch, & Khan, 2014).

Aware that smokers have behaviors that are generally considered injurious to health, smokers are likely to experience offensive emotions. Addictive behavior, such as smoking, is often challenging. Many people can modify their attitude, which represents the way of minimum resistance, by embracing different beliefs to lessen cognitive dissonance (Hyland et al., 2004). Lessening of Dissonance as rejection or alteration of threat message can negatively impact possible willingness. Bandura called this denial or distortion of threatening information as disengagement. People tend to streamline their behavior to avoid dissonance (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996).

By rationalizing smoking behavior with apologies, smokers feel relieved by the psychological problems caused by discrepancies (Orcullo & San 2016). For smokers, withdrawal may take the form of certain beliefs used as explanations or defenses for further smoking. It was found that the Disengagement beliefs at the beginning of the study are associated with the likelihood of attempting to terminate in the future (Dijkstra & Broschot, 2003). Disengagement beliefs may stop smokers from really seeing the consequences of their behavior, and may therefore lead to continuing smoking (Oakes, Chapman, Borland, Balmford, & Trotter, 2004).

Studies have shown a strong link between risk-minimizing and current smoking (Fotuhi et al., 2013). Smoker normalizes and minimizes the dangers of smoking by giving possible excuses and justifications. Research indicates that smokers do not recommend smoking as harmful, believing that there are safer ways to smoke without harming their health. Smokers believe that water will cleanse or moisturize their lungs, and sour fruits can discolor the remains of cigarettes in the lungs (Schmitt, Dowling, & Hall, 2005).

Self-efficacy is a key element within the causal structure as it operates on motivation and action both immediately and via its effect on the alternative determinants. People's beliefs in their efficacy to alter their very own motivation and behavior affect each phase of personal change (Bandura, 1998). Self-efficacy beliefs additionally decide how risks and benefits related to behavior change are considered. People with low efficacy and motivation quickly give up attempting however people with excessive efficacy view barrier as manageable by using development of self-control abilities and effort (Bandura, 2004). For more than three decades, self-efficacy theory has been used in health promotion across a range of health conditions, including behavioral changes related to substance abuse, tobacco use interruption, and cancer prevention. There is evidence that high self-efficacy plays a vital part in improving a person's performance and altering their unwanted behavior (Elshatarat, Yacoub, Khraim, Saleh, & Afaneh, 2016). The current study shows how important it is to understand the rationalization of smokers. The family as a primary support group for each individual definitely plays a big role in influencing the belief, attitudes and behavior of the individual. The family is one of the major factors influencing smoking behavior and beliefs. Focusing on family influence on behavior and growing up in a family where most of the members smoke is ultimately leading the individual to believe that smoking is not so bad that they are on the same path (Orcullo & San, 2007).

Disengagement Beliefs

Reasons or rationalizations for persist smoking are known as Disengagement Beliefs also referred as self-relieving beliefs or beliefs of giving approval to you.

Types of disengagement beliefs. Oakes (2004) demonstrated four different categories which showed self- relieving beliefs. "Bulletproof", "Skeptic", "Jungle" and "Worth it"

Bulletproof beliefs. "Bulletproof" revealed cigarette smoker belief as they consider themselves as less vulnerable to impairment as others (e.g., they consider they have the kind of family history and well-being, meaning that they can smoke devoid of any damage).

Skeptical beliefs. "Skeptical" beliefs have been illustrated by the tendency of smokers to moderate the expected damage (e.g., evidence by health specialists that smoking of cigarettes related danger is overstated).

Jungle belief. Jungle beliefs have been shown by the inclination of smokers to stabilize the risks related to cigarette smoking due to the manifestation of further dangers (e.g., smoking is not as riskier as many other things people are doing).

Worth it beliefs. Finally, focus of Worth it beliefs on a person's risk-advantage assessment (e.g., everyone will be die from some reason, that's why we should smoke freely).

Oakes et al. (2004) also observed that self-relieving beliefs remained associated with upcoming behaviors for instance the intention of quitting smoking.

Compensatory health belief (CHB) model. When smokers are exposed to the temptation of smoking, a conflict could arise between their craving to smoke and their information of the maladaptive possessions related to smoking. This mental conflict, which is due to varying cognitions or inconsistencies in cognition and behavior, can be described as a negatively excited state of cognitive dissonance (Festinger, 1957). Cognitive dissonance can be experienced for several reasons: fear that unhealthy behavior leads to illness, conflict with an appreciated self-awareness (e.g., someone who lives healthy), or discrepancy in self-expectations (e.g., to successfully stop smoking) (Warren et al., 2007). Similar to adult smokers, adolescent smokers also use various coping methods to relieve such symptoms (Kleinjan, Eijnden, & Engels, 2009). Thus, the question arises as to which strategies smokers use to deal with such cognitive dissonance.

The Compensatory health beliefs (CHB) model proposes three self-regulatory strategies: (Rabiau, Knauper, & Miquelon, 2006) including attempts to resist, re-evaluation of the destructiveness of behavior and Compensatory health beliefs (Trope & Fishbach, 2000).

Compensatory health beliefs are defined as beliefs that the adverse consequences of harmful behavior can be counterbalanced by another healthy behavior. Instead of

4

repelling the desire to smoke or reevaluate their beliefs, smokers justify their behavior and subsequently observe lower cognitive dissonance by planning to compensate for it later, probably through behavior they previously exercise regularly (Rabiau et al., 2006).

Compensatory health belief are automatically triggered by temptations or generated after tolerance. According to the CHB model, the first strategy is used when the desire for smoking is not strong and when the self-efficacy of the individuals to control craving is high. The second and third strategies are used if the desired behavior cannot be prevented. While strategies 1 and 2 require self-will, strategy 3 is the easiest to follow because it permits unhealthy behavior without feelings of discomfort (Rabiau et al., 2006). However Compensatory health belief can be wrong because, for example, the adverse possessions of smoking on health cannot be fully compensated by health behaviors such as healthy intake. The long-term consequence may be the pathogenesis of diseases (Sinner, Folsom, Harnack, Eberly, & Schmitz, 2006).

Moreover, holding Compensatory health belief does not necessarily mean that humans actually perform the intended compensatory behavior. The initial dissonance can weaken over time, causing the need to compensate for healthy behavior. In this way, people wanting to give up smoking are hindered by the Compensatory health belief, because they can smoke without feeling guilty about the negative health effects (Rabiau et al., 2006).

Festinger's Theory of Cognitive Dissonance. Cognitive dissonance denotes to a condition with contradictory attitudes, beliefs or behaviors.

Cognitive Dissonance. The cognitive dissonance theory, developed by Leon Festinger, states that people experience mental problems and discomfort, called dissonances, when they behave in ways that conflict with their beliefs. For example, smokers know that what they do is unhealthy, but they still smoke. There are two ways to reduce the unpleasant sense of dissonance by changing their behavior and stop smoking and Change their beliefs about behavior.

Cognitive dissonance theory dictates that the path of least resistance is chosen to reduce this sense of dissonance. Since it is difficult to quit smoking, many smokers will

change their beliefs and not their behavior. Smokers reduce their views on the health risks of smoking and increase their beliefs about the benefits of smoking. This creates a feeling of discomfort that leads to a change in one's attitudes, beliefs or behaviors, to diminish the distress and reestablish harmony and so on. For instance, when individuals smoke (carrying on) and they realize that smoking causes tumor (perception).

Festinger's (1957) cognitive dissonance theory proposes that we have an internal drive to keep every one of our states of mind and persuasions in concordance and to maintain a strategic distance from disharmony (or discord). Settings may change due to factors in the person. An important factor is the principle of cognitive consistency, to which the theory of cognitive dissonance of Festinger (1957) concentrates. This theory is based on the impression that we seek consistency in our views and approaches in every situation where two thoughts are unreliable.

Influential Factors.   The degree of dissonance humans enjoy can rely on some of factors, consisting of how plenty we cost a certain belief and the way contradictory our reviews are. The general power of the dissonance also can be encouraged by means of several factors. Cognitive ones which are more private, which includes beliefs about the self, generally tend to cause extra dissonance. The significance of perceptions also performs a role. Things that consist of beliefs which can be noticeably valued usually result in extra dissonance. The relationship among dissonant thoughts and consonant thoughts also can play a function in how sturdy the emotions of dissonance are. The extra the power of the dissonance, the extra stress is exerted to launch the emotions of pain (Cherry, 2017).

Cognitive dissonance in smokers.   Theory of Cognitive Dissonance (Festinger, 1957) provides an illustration regarding mechanism of person's dealing with dissonance in the perspective of actions related fitness. Smoker continues smoking, as knowing it is not good for their wellbeing. Festinger illustrates that individual may elect that he/she consider significance of smoking more than fitness and assess actions in relations to hazards and benefits.

There is another method for dealing with this conflict by minimizing the possible disadvantages. Person could assure the damaging possessions related to health were exaggerated. Smoker could also calm health problems by justification that every possible danger cannot avoidable. Festinger proposed that the smoker can assure that there are a lot of risks related to health apart from smoking. With these justifications, individual can lessen the dissonance and carry on the behavior.

Perceived Risks and Benefits of Quitting

Smokers' perspectives related to advantages (e.g., advanced wellbeing) and dangers (e.g., mass advantage) related to smoking are associated with quitting of smoking among people who smoke who are prompted to cease smoking. Risks and blessings of leaving smoking are related to treatment motivation (McKee et al., 2005). The benefits obtained are positive and the perceived risks are negatively related to the quitting motivation and final results (McKee et al., 2005). It's far important to explain such beliefs and their effects on behavioral intentions and treatment responses. Individuals who had strong intentions to prevent smoking assessed the perceived advantages of smoking cessation (fitness, monetary and social) as much more likely and rated the dangers related to smoking cessation (poor affect , loss of cognitive characteristic and amusement) are much less possibly than those with susceptible intentions to stop smoking.

Smokers have expectations about the dangers related to smoking cessation, e.g. Incapable of coping with stress or adverse effects, discomfort, weight gain (Hendricks, Wood, & Hall, 2009), which are significant barriers to motivate them for quitting and treatment (McKee et al., 2005). Elevated threat associated with cessation has been proven to be associated with decreased motivation to stop, better withdrawal signs and food cravings throughout smoking abstinence, shorter smoking cessation durations and worse smoking cessation outcomes (Weinberger, Mazure & McKee, 2010).

Theoretical framework of Perceived Risks and Benefits of smoking. Smoking cessation messages normally emphasize the cost of further smoking (loss-frame). Prospect's theory , however, indicates that messages that alternatively emphasize the advantages of smoking (profit frameworks) will be more powerful than loss-frame

messages due to the fact smoking is considered as a most cancers-preventive behavior with a few risky result (Weinberger, Mazure & McKee, 2010).

The prospect theory was evolved (Tversky & Kahneman, 1992) as a psychologically extra accurate description of the decision making in comparison to the expected utility theory. That is a behavioral theory that describes how humans choose between choices that involve danger, with the likelihoods of effects known. The theory is that people make decisions based at the potential value of losses and profits rather than the bottom line and that human beings rate those losses and profits with certain trial and errors (Tversky & Kahneman, 1979).

The theory describes the decision-making strategies in phases. In an initial phase, called editing, the results of a choice are ordered in step with a particular heuristic. especially, people determine which results they remember to be equal, set a standard, and then view lower outcomes as losses and greater as profits. The editing phase aims to lessen any framing outcomes. It also targets to solve isolation effects because of people' tendency to frequently isolate successive chances instead of treating them collectively. The editing process may be considered to include coding, combining, setting apart, canceling, simplifying and recognizing dominance. In the subsequent evaluation section, humans behave as if they were calculating value (utility) based on the potential outcomes and their respective probabilities and then deciding on the alternative with higher utility (Tversky & Kahneman, 1979).

Motivation to quit smoking

Motivation is defined as the internal and external driving factors that stimulate the desire and the energy to initiate, lead, and sustain goal-oriented behavior (Curry, Wagner, & Grothaus, 1990). Theories on smoking cessation always refer to the motivation that is the basic requirement for an exit attempt (Buczkowski, Marcinowicz, Czachowski, & Piszczek, 2014).

Types of Motivation. There are three different types of motivation. Amotivation means without motivation when a person is neither intrinsically nor extrinsically motivated. Intrinsic motivation is defined as the advancement of an activity because of its

8

implicit gratification, not as external pressure or reward. Some have defined intrinsic motivation in relation to a person who is interested in a task and others have defined that they are acquiring personal satisfaction or gain by participating in a task / activity. Extrinsic motivation is in contrast to intrinsic motivation and is defined as the engagement of an activity with the goal of achieving some kind of outward result (Ryan & Deci, 2000).

Theoretical framework of Motivation to quit smoking. Fishbein and Ajzen's theory of planned behavior (TPB) and theory of reasonable action (TRA) explained that certain fundamental elements have an effect on someone's behavior; these consist of attitudes, subjective norms, perceived personal control, and behavioral intent. Theoretically, a person's behavior is most in all likelihood to be positive if she or he is nice about behavior, behavior is considered regular (i.e. relatives, friends and the mass media advise present smoking as an everyday regular hobby), have impact on engagement and adaptation of that action. Easy availability is also an important factor in smoking behavior (Montano & Kaspryzk, 2015).

Theory of the reasoned action / theory of the planned behavior. The theory of reasoned action was formulated by Fishbein and Ajzen (1975) to explain how actions are influenced by beliefs and attitudes. This theory suggests that behavior is determined by your intention to carry it out, and that intent therefore is a function of your attitude toward behavior and your subjective norms. Intention has been defined by Fishbein and Aizen as the cognitive representation of a person's willingness to act. Intention is the primary predictor and precursor of behavior and is governed by three factors (Fishbein & Ajzen, 1975). Factor includes the attitude of an individual to the specific behavior, the subjective norms of an individual and an individually perceived behavioral control.

Attitude. Target behavior settings may be primary or secondary. A primary stance on smoking can be the general belief of a smoker as to whether or not cessation is right or terrible. Secondary mindset includes how strongly someone believes that a peripheral outcome happens in result of execution of the behavior, related with evaluation

9

consequence. For instance, person may suppose if she stops smoking he could be very possibly to get undesirable weight (Gibbon, Gerrard, & Lane, 2003).

Subjective norm. A subjective norm includes individual by which you are surrounded, more particularly how strongly a specific action supposed by them. Smoker may consider that people rejects smoking that's why agrees to the smoking ban. Similarly, the advice of a medical doctor to be stopped indicates a permission to perform the particular action. Subsequent, notion might assume smoker's estimation about how possibly or not it is far that he is going to satisfy beliefs of others about cessation (Gibbon, Gerrard, & Lane, 2003).

Perceived behavioral control. The perceived control over behavior is same as the idea of self-efficacy, the self-confidence of a person to effectively perform a behavior. It takes into consideration external factors which could have an effect on the individual's intention to act. Within the context of smoking, someone may keep in mind factors which can facilitate or avoid cessation. As an example, a smoker determines that withdrawal signs will arise after giving up, but confidence over day by day routine help to continue (Gibbon, Gerrard, & Lane, 2003).

Behavioral intention. Theory of the reasoned action and the theory of the planned behavior explain that the purpose of person's to execution of actions related to expectation of the prevalence of that behavior. On the idea the attraction is that, when intent affects actions, strategies can discover and aim causes for instance outlooks, standards, and perceived behavioral control over smoking has an effect on intent. At the same time a study by Godin et al., confirmed this association among intent and performance (Gibbon, Gerrard, & Lane, 2003).

Assumptions and benefits. Theory of the reasoned action and the theory of the planned behavior count on a fundamental connection among the approaches of a person to action, his goal and the real presentation related to action. Some other postulation proposed that humans sort data and behave consequently. The findings of people who smoke show that good intents do no longer always prevent quitting. On the other hand,

analyzing these concepts is useful in sorting the complex action of individuals (Gibbon, Gerrard, & Lane, 2003).

Research by Ajzen (1985) has shown that the theory of well-founded action was not fully informed of the individual's control over their behavior. The results of this research predicted that changes in attitudes, subjective norms and perceived behavioral control would lead to changes in behavioral intentions (Ajzen, 1985). Attitudes, subjective norms, and perceived behavioral control are factors that are based on a corresponding set of beliefs. Therefore, behavioral intentions must try to change the beliefs that ultimately guide an individual's behavior; however, this function only relates to beliefs that are accessible in memory (Ajzen, 1985).

Using statistical data, the study showed that attitudes, subjective norms and perceptions of behavioral control contribute to the prediction of intentions, and that the predictions of intentions contribute to the perception of control and prediction of behavior (Ajzen, 1985). The results of the questionnaire showed that the behavior of the participants is not 100% voluntary and under control. An extension of the theory was added, and thus the theory of planned behavior emerged (Ajzen, 1985).

Importance of Motivation.   The descriptions of quitting smoking constantly mention the motivation that is fundamental requirement for an exit effort. Consequently, there is large importance of realizing the smoker's past and present inspiration to quitting smoking. Many steps has been taken in diverse states to increase motivation such as growing charges of cigarette, banning of smoking in public locations and elevating awareness movements. It's why it appeared essential to investigate reasons for leaving the population wherein many humans stopped smoking by the past 25 years (Buczkowski, Marcinowicz, Czachowski, & Piszczek, 2014).

Smoking Self- Efficacy

Self-efficacy is defined as "assessing the ability of people to prepare and execute the necessary action to obtain certain kinds of advantages". Self-efficacy (also called self-confidence to refer to behaviors) is the self-awareness of the potential to perform a behavior (Bandura, 1977). Smoking Self-efficacy is the notion that smoking behavior can

11
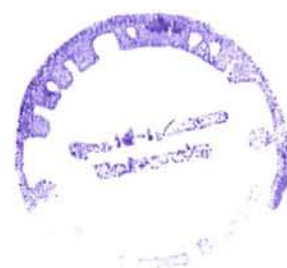
be resisted, and it has been theorized that it is positively related to avoidance of smoking behavior (Bradley & Corwyn, 2001)

History of Smoking self-efficacy.   The researchers believed that the better the level of SE, the more successful it would be to make and keep behavioral modifications. If a person feels they have very little capacity to exercising control over a particular behavior, they are less probably to try to alternate that behavior. If a person chooses to give it an attempt, he will rather give up if the results do not occur immediately or setbacks occur (Bandura, 1997). Evidence for this theory was first determined for anxiety behaviors which includes coping and dreading (Bandura, 1980).

Condiotte and Lichtenstein were the first (1981) to apply SE concept to cigarette smoking. They hypothesized that there would be an effective correlation among SE and a success smoking cessation (Condiotte & Lichtenstein, 1981). The consequences strongly supported the hypothesis and added to the literature corpus the concept that a better SE is more effective for the overall performance of behaviors (Condiotte & Lichtenstein, 1981).

Types of Smoking Self Efficacy.   Dijkstra and Vries (2000) investigated how four forms of SE (Situational SE, skill SE, Relapse SE, and try SE) have been associated with cigarette smoking and smoking cessation and how nicely these SE kinds predicted future termination.

They described the distinctive facets of SE as follows: a) Situational SE is the confidence of a person in his potential to be able to show new behavior in special situations. b) Skill SE is someone's believe that they can use specific skills to fight temptations that threaten their behavioral change. c)   Relapsing SE is the confidence of a person that they can return to the new behavior after a malfunction or a relapse into the old behavior. d) Attempt SE is the confidence of someone in his ability to exchange his behavior partly or briefly (Dijkstra & Vries, 2000).

Of the opposite three kinds of SE, skill SE correlated the maximum so that it will terminate, so that smokers who had extra capacity to deal with triggers and feasible setbacks are extra reason on quitting smoking than people with lower proficiency

12

(Dijkstra & Vries, 2000). Skill SE and Relapse SE have been the most effective predictors of an actual demolition attempt, so that high skill SE predicted that it might damage as a minimum 24 hours, even as excessive relapse SE reduced the chance of an attempted demolition (Dijkstra & Vries, 2000).

It's far exciting to notice that SE is more likely to stop with the intention than the real success. An investigation suggests that in order to quit smoking, SE predicts only one attempt to quit; SE to exit does not predict successful completion of maintenance. It seems that once a person stops smoking, other factors will have more influence on their decision to quit smoking; they are no longer so strongly influenced by confidence in their ability to sustain (Scheiding, 2009). Some of the influences that cause SE to fluctuate include personal mastery (Yzer & Putte, 2006); depressive mood (Scholte & Breteler, 1997); and social and peer pressure (Chang et al., 2006)

Self-Efficacy theory.   Self-efficacy is a theoretical construct postulated in 1977 by Bandura as a cognitive mechanism underlying behavioral change. Self-efficacy theory is a construct derived from socio-cognitive theory (Bandura, 1977). Bandura understood the interactions between person, behavior, and the environment as triadic reciprocity (Bandura, 1977). These factors affect the self-confidence of a person's negative behavior such as tobacco consumption (Bandura, 1977),

Conceptual framework of Self-Efficacy theory.   Function of self-efficacy is proposed by bandura that is in the paradigm of a person who engages in a behavior with the intention to have a regular outcome. Behavior change and maintenance are a function of this paradigm which includes expectancies about the results that result from accomplishing behavior and Expectations about the potential to engage in behavior or to do it.

Therefore, expectancies of outcomes are based on beliefs about whether a given behavior results in specific outcomes, whereas beliefs' ideals about how successful it's far to perform the behavior that leads to those results. It should be emphasized that both outcomes and effectiveness expectations reflect a person's beliefs about behavior and

13

outcome competencies and relationships. It is these perceptions that are not always true abilities that have an effect on behavior.

Bandura defined the self-system as a unifying central mediator dependent on performance, vicarious experience, verbal persuasion, and physiological states. He also differentiates between efficacy expectations and outcome expectations. Efficacy expectation is the belief of the individual as to whether he / she have the ability to perform certain actions. It is a deciding factor as to whether this person is attempting these actions. The expectation of effectiveness can help individuals decide whether or not to participate in the behavior, how much effort will be spent and how long the behavior will last despite possible obstacles (Bandura, 1977).

The role of Self-Efficacy as a mediator for tobacco users. Notion related to beliefs of one's self- efficacy is specifically relevant to awareness related to wellbeing. Regardless of the important effect self-efficacy seems to significant role in initiating and maintaining behavioral modification (Strecher, DeVellis, Becker, & Rosenstock, 1986). Tobacco consumption behavior is a complex phenomenon, and no single theory can cover all aspects of it. Although available data suggest that self-efficacy is valuable as a motivational argument, other diversified motivational sources to induce behavioral changes require further evaluation (Williams & Rhodes, 2014).

The mediating effect of self-efficacy on the association among cravings and tobacco abstinence in heart patients has been reported in the literature. The report showed that cravings had reduced self-efficacy, which in turn reduced the likelihood of tobacco abstinence, especially in those with moderate anxiety. In addition, interventions for heart patients who consume tobacco should aim to reduce cravings and increase patients' self-efficacy in order to stop tobacco consumption after discharge from hospital (Berndt, Hayes, & Verboon, 2013).

Self-efficacy theory plays an important role in cognitive behavioral therapy and its mediating effect in stopping tobacco and nicotine addiction. It is believed that self-efficacy plays an essential role in smoking cessation. Enlightening self-efficacy increases the person's achievement in leaving tobacco and averting relapses. Self-efficacy also

14

affects the choice of behaviors, the effort for a task, and the duration versus difficulties. Influences of self-efficacy are on emotional responses of people for example stress, and depression (Elsharatat, Yacoub, Khraim, Saleh, & Afaneh, 2016).

Pechacek and Danaher developed a model related to quitting smoking by categorizing effect and effectiveness anticipations as forecasters in initiating and maintaining the attitude. The authors propose that the initial expectations convey the initial motivation to stop smoking, while the efficacy expectations influence both the termination and maintenance processes (Pechacek & Danaher, 1979)

Parental and Peer group influence

It has been found that parental smoking plays a key function not only in the initiation of youth, but additionally in the growth of their smoking habits (Tyas & Pederson, 1998). Some studies propose that teenagers with as a minimum one parent who smokes much at risk of beginning smoking (Jackson, 2010). Another research proposed that youngsters who have one parent who smoke are much prone to smoking more than children whose parents do not smoke (Murry, Swan, Johnson, & Bewley, 1983).

It is well known that parents influence the behavior of their children. Adolescent girls with smoking mothers tend to be chronically smokers compared to those whose parents do not (Robinson, Klesges, Zbikowski, & Glaser 1997). Research conducted in Pakistan also established an important connection between teenagers smoking and biological relatives (Rozi, Akhtar, Ali, & Khan, 2005).

A research focusing on females indicated that introduction of smoking habits by relatives, pressure of friends, mass media and cool availability/ small costs cigarettes are significant contribution for initiation of smoking. It also indicates that stress / anxiety-alleviating profits, weight control and risk-free beliefs reduce the recruitment initiative (Scarinci, Silveira, Santos, & Beech, 2007).

Smoking behavior in the family was the main driver for the first time that the younger child started smoking or tried it. It began by attempting to smoke monthly and switched from monthly to daily smoking (Ganley & Rosario, 2012). Strong positive

relationships between individual standard and apparent handiness and strong inverse correlations between apparent parental approvals and smoking (Ma, Shive, Legos, & Tan, 2003).

Researchers indicated that pressure by friends and Closeness to smokers are the most significant aspects that lead to long-lasting smoking in youths. Maximum smokers start in their teens and smoke from there on. Although the addictiveness of nicotine or anxiety in middle-aged smokers appears as a factor, the cause of their practice is opening due to pressure by friends. An interventional smoking prevention strategy should be a main factor for young groups of peer and youths (Sobani, Raza, Baloch, & Khan, 2011).

Smoking Self- Efficacy and Motivation to Quit Smoking

Health Action Process Approaches Explain the Importance of Self-efficacy to Predict Intentions (Goals) Along with Other Predictor Self-Efficacy beliefs influences our actions (Schwarzer, 1992). High self-efficacy is associated with better outcomes (Kadden & Litt, 2011). Likelihood expectations and perceived self-efficacy provide the primary motivation to leave smoking, whereas efficacy affects together termination and maintenance practices (Danaher & Pechacek, 1979).

Perceived Risks and Benefits of Leaving and Motivation to Quit

Greater subjectively perceived risk of hunger was associated with the more possible struggle of staying abstinent, and a more perceived risk of enlarged negative affect remained associated with reduced expectancy on cessation, confidence for cessation, and increased expectation that the difficulties would remain abstinent. A higher perceived risk of gaining weight was associated to the likelihood of achieving complete abstinence. The belief in improved self-esteem with cessation was positively associated with the wish to quit, the likely success of giving up, self-reliance on giving up, motivation to quit, and the advanced report on thoughts related to smoking and actions. Increased perception of enlarged negative distress after cessation associated with reduced expected success, declined confidence in the ability to cease and a more likely trouble in staying abstinent.

Overall, perceived leaving risks remained negatively associated to motivation, and the perceived benefits of leaving remained positively associated with motivation to leave. In the context of health promotion, it has been recommended that messages that aim to change health behaviors work best when addressing specific subgroups that deal with this behavior (Latimer et al., 2007).

Barriers which person perceive related to Cessation of Smoking (Asher et al., 2003) can reduce the quitting motivation as enhancing the trouble which is perceived or cost of leaving. For smokers of the overall sample, the disappointment of smoking cessation was more in smokers who gave more reasons (Macnee & Talsma, 1995).

Motivation to Quit and Smoking Self-Efficacy

Understanding the links between tobacco use and other motivational substances to leave smoking is beneficial for developing operative tobacco use interventions in substance-addicted adults. In addition, the theory of social learning expects that the motivation to modify substance use in people with low co-payment is lower. Effectiveness on the capacity of leaving that material (Abrams & Niaura, 1987), sustained for relapse of smoking in different analyzes (Niaura et al., 1989).

The self-esteem associated with giving up was positive, with the wish of leaving, the expected success in quitting, the reliance on giving up, and the motivation to quit. Self-efficacy is forecaster for motivation to quit. (Garvey, Bliss, Hitchcock, Heinold, & Rosner, 1992).

Smoking Self-Efficacy and Disengagement Beliefs

A strong positive relationship was found between smoking self-efficacy and avoidance of smoking (Conrad, Flay, & Hill, 1992). The researchers believed that the better the level of smoking self-efficacy, the more successful it would be to make and hold behavioral adjustments. If someone feels they have very little capacity self-control a particular behavior, they are less probable to attempt to change that behavior. If he chooses to present it an attempt, he will rather surrender if the outcomes do not arise straight away or if setbacks arise (Bandura, 1997). Self-confidence is closely associated with Disengagement beliefs (Dijkstra & Arie, 2003).

17

People, who smoke, fear about their health. As attention focuses on the danger, it become predicted that being concerned for people who smoke might motivate them to give up and prevent relapse amongst ex-smokers.

Further, concerns are estimated to persuade the smoking cessation's process of in interplay with self-efficacy, that is measure of succeed in smoking, and withdrawal's ideas, which misrepresents the frightening significance of capability related to motivational data. The threefold interaction among anxiety, self-efficacy and distancing ideas inside potential estimate of destructive activities and relapses have been massive: among people who smoke with excessive self-efficacy in aggregate with strong decoupling beliefs, concern caused greater exit activity. Performance or notion inside the individual capacity of performing the desired managing abilities can help. In smoking cessation, self-efficacy denotes to a individual's potential to stop smoking. An excessive level of self-efficacy can lead proponents to behavioral decision that is, attempted to stop or abstain. The construct of uncoupling (Bandura, 1996), however, explained alteration or disowning as significance for message that intimidate. The self-efficacy correlated considerably with the weaning notion and the wide variety of cigarettes smoked (Dijkstra, & Broschot, 2003)

Disengagement Beliefs and Motivation to Stop

The belief in an excessive degree of disarmament is negatively associated with the motivation to cease and appears to be an obstacle to the motivation to cease (Kleinjan, Eijnden, Dijkstra, Brug, & Engels, 2006). Further, evidence from Thailand and other countries has proven that risk-minimizing beliefs also are related to a discounted intention to cease smoking (Borland et al., 2009) and the confidence with which stop smoking (Yong, Borland, & Siahpush, 2005). The equal course of affiliation changed into located for useful beliefs (Fotuhi et al., 2013). But, the link among health beliefs and smoking may vary because of specific sociocultural elements and norms in every setting (Yong et al., 2005).

Functional beliefs had been conversely related in order to prevent and consider ceasing smoking. Both the functional beliefs and the risk-minimizing beliefs have been conversely related so that you can prevent and give up alcohol consumption (Jiraniramai,

18

et al., 2017). Research has proven that the denial beliefs are negatively associated with smoking motivation to smoke. More statistics should be left to enlarge their expertise and share reviews with people from comparable socio-cultural backgrounds, and to apply information or personal experiences from remarkable others who are extra credible in decreasing or questioning these beliefs to them to motivate them to end smoking (Dijkstra & Broschot, 2003)

Rationale of Study

Tobacco use is still an important health problem worldwide. Tobacco addiction is a strong motivation to repeatedly engage in activities that are harmful and often accompanied by a diminished ability to self-control. The World Health Organization recommends that countries regularly monitor tobacco use. The death of 10 million people occurs annually, which is more than the overall mortality rate of malaria, maternal and other related causes (Khurram, Nasir, & Rehan, 2001).

The outcomes of smoking are all bad and consist of an elevated resting coronary heart rate, shortness of breath, decreased lung potential and an extended chance of alcohol, marijuana and cocaine use. Cigarette smoking is related to pneumonia and most cancers of the mouth, pharynx, larynx, esophagus, belly, pancreas, cervix, kidney, bladder, and persistent bronchitis and emphysema (Gao et al., 2009).

Negative health issues related to smoking is clear but there are great psychological consequences as well for example psychological distress, psychotic disorders and oral fixation. Worse physical and psychological health leads to reduced social activity and quality of life among smokers (Kalucka, 2012). Each quantitative and qualitative analyses imply that normal people who smoke document smoking cigarettes to relieve emotional issues and emotions of despair and tension, to stabilize temper, and for rest in addition to relieving stress. Measuring mental health fame with the aid of anxiety, depression, positivity, stress and mental quality of lifestyles, the researchers observed that quitting smoking was related to enhancements in all of those elements (Mcnamee, 2014).

According to the World Health Organization, smoking kills' more than 7 million people every year, more than 6 million deaths occur as a result of direct tobacco use, while another 890,000 are the result of secondhand smoke. Active smoking is referred to person's inhaling actively by lightening up a cigarette. Passive smoking is also related to similar health hazards but to lesser extent (Dinusha, 2011). Second hand smoking is caused by particles exhaled in air by active smoker. Each year, 890000 premature deaths occur due to passive smoking. In 2004, 28% of the deaths of children have been

20

attributed to secondhand smoke. In Pakistan, there are about 100,000 deaths in 2014 alone due to smoking-related illnesses. In Pakistan, 50,000 hectares of fertile land for tobacco cultivation is used. According to the chairman of the National Alliance for Tobacco Control (NATC), Pakistan is one of the top 4 countries where tobacco use is growing rapidly, an alarming situation (Nasir & Rehan, 2001).

Individual health beliefs play a pivotal role in how people respond to knowledge and information about possible harm from smoking. It is believed that certain smokers might not consider negative consequences of smoking due to disengagement beliefs, which consequently lead to low Motivation to quit (Dijkstra & Brosschot, 2003). Disengagement beliefs act as "excuses or justifications" (Kleinjan et., 2006) that moderate the expected tension associated with smoking, as a consequence permitting the smoker to understand the behavior as "much less risky" (Oakes et al., 2004) and facilitating the continuation of smoking without the sensation of steady personal risk. self-Researchers conducted in the past confirm that most of the smokers continue to smoke despite of being aware of negative health consequences associated with it (Dijkstra & Brosschot, 2003).

As an end result, people who smoke with those beliefs are much less probable to consider quitting. Dijkstra & Brosschot (2003) observed that individual who had successfully given up smoking had lower disengagement beliefs than current smokers.

Self-efficacy is a key element within the causal structure as it operates on motivation and action both immediately and via its effect on the alternative determinants. People's beliefs in their efficacy to alter their very own motivation and behavior affect each phase of personal change (Bandura, 1998). It is a construct derived from social learning theory (SLT), refers to an person's conviction that he or she is able to perform a behavior to provide a given outcome (Bandura & Adams, 1977). Social learning theory (SLT) indicates that there's interplay amongst behavioral, subjective, and environmental elements. Such factors via the method of reciprocal resolution may additionally effect a person's self-belief that he or she will be able to withstand a negative behavior or addiction, asaninstance, smoking. Self-efficacy beliefs additionally decide how risks and

21

benefits related to behavior change are considered. People with low efficacy and motivation quickly give up attempting however people with excessive efficacy view barrier as manageable by using development of self-control abilities and effort (Bandura, 2004). Perceived risks of quitting smoking (e.g., nicotine withdrawal signs and symptoms and weight benefit) and perceived benefits of quitting smoking (e.g., progressed health, social approval, and finances) had been determined to have an effect on motivation of quitting Perceived risks and disengagement beliefs are negatively whereas perceived benefits are positively related to motivation to quit smoking (McKee et al., 2005).

With this research an attempt is being made to investigate whether Disengagement beliefs, Perceived risks and benefits of quitting and Self-efficacy are related to motivation of quitting smoking or not. There is lack of research work indigenous scenarios regarding role of Perceived risks and benefits of quitting and Smoking Self efficacy which is needed to explore for bringing positive behavioral change among adult smokers. As it can aid in planning of activities that can be effective in designing prevention programs for quitting smoking.

METHOD

METHOD

Objectives

Objectives of the present study are as follows

1. To study the relationship between Disengagement Beliefs, Perceived risks and benefits of quitting, Motivation to quit and Smoking Self Efficacy among adult smokers.

2. To study the role of demographic variables (i.e. age, gender, education, marital status, Parent smoking status, peer group influence) with study variables.

3. To study the mediating role of Smoking Self-Efficacy between disengagement beliefs and Motivation to quit smoking among adult smokers.

Hypotheses

The hypotheses of present study are

1. There will be a negative relationship between Disengagement Beliefs and Motivation to quit smoking among adult smokers.

2. There will be a positive relation between Perceived risks of quitting smoking and disengagement beliefs among smokers.

3. There will be a negative relation between perceived benefit and disengagement beliefs among smokers.

4. There will be a negative relationship between Smoking Self Efficacy and Disengagement Beliefs among adult smokers.

5. There will be a positive relationship between Smoking Self Efficacy, Motivation and confidence to quit among adult smokers.

6. There will be a positive relation between smoking Self-Efficacy and perceived benefits of quitting.

7. There will be a positive relation between smoking Self-Efficacy and Confidence to quit smoking.

8. Disengagement beliefs and perceived risks will negatively predict Motivation and confidence to quit among adult smokers.

9. Perceived benefits will positively predict Motivation and confidence to quit among adult smokers.

10. Smoking self-efficacy (Internal and external) will mediate the relationship between Disengagement Beliefs and motivation to quit smoking.

11. Adults whose parent smoke will score high on disengagement beliefs as compared to adults whose parents don't smoke cigarettes.

12. Female smokers will be high on Motivation to quit smoking as compared to male smokers.

Operational Definitions OF Variables

Smoking Self-Efficacy. Smoking Self-Efficacy is defined as confidence in ability to refrain from smoking when facing internal stimuli (e.g. feeling depressed) and external stimuli (e.g. being with smokers). The present study operationalized Smoking Self-Efficacy through scores obtained on Smoking Self-Efficacy scale. High scores on Smoking self-efficacy internal and external indicate high Self-efficacy and vice versa (Etter et al., 2000).

Disengagement Beliefs. Rationalizations or justifications for continuing smoking are referred to as Disengagement Beliefs (also known as self-exempting beliefs or permission giving beliefs). Disengagement beliefs scale (Kleinjan et al., 2009) has been used to access disengagement in smokers. Higher score on disengagement scale indicate higher disengagement beliefs in smokers whereas low score indicate low disengagement among smokers (Solomon & Manson, 1997).

Motivation to Quit Smoking. Motivation is defined as the internal and external drive factors that stimulate the desire and energy to initiate, guide and maintain goal-orientated behaviors (Curry et al., 1990). Theories describing smoking cessation always refer to motivation, which is the basic prerequisite for undertaking a quit attempt (Krzyszto et al., 2014). In this study Motivation to quit Smoking is operationalized through scores obtained on Motivation, intention and confidence to quit smoking scale.

24
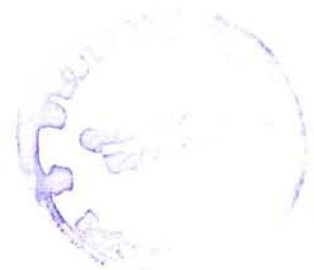
High scores on both scales indicate high motivation to quit smoking whereas low scores indicate low motivation and confidence to quit smoking.

Perceived Risks and Benefits Questionnaire. Smoker's beliefs about the benefit (e.g., improved health) and risks (e.g. weight gain) are referred as perceived risk and benefits of smoking and those are related to smoking cessation behavior. Risks and benefits of smoking are related to treatment motivation (McKee et al., 2005). Perceived risks and benefit (McKee et al., 2005) questionnaire was used to assess benefits and risks associated with smoking. Higher scores on both subscales indicate higher perceived risks and benefits whereas low score indicates low perceived risks and benefits (Weinberger, Mazure, & McKee, 2010).

Instruments

Demographic sheet. To explore various important demographic variables e.g. age, education, marital status, smoking status, nicotine dependency etc. A detailed and comprehensive demographic sheet was devise (See Appendix B)

Disengagement Beliefs. Disengagement beliefs are measured using twelve items scale that had been developed, tested and validated in an earlier study (Dijkstra et al., 1999). The items gave reasons (or excuses) why it was okay to smoke, despite the well-known detrimental effects. It is a 5 point Likert scale. The scoring system for each item is completely disagree = 1, disagree = 2, neutral 1 = 3, agree = 4, completely agree = 5. All 12 items are then added to get composite scores. Alpha reliability of Disengagement beliefs has been found to .84 (See Appendix C).

Perceived Risks and Benefits Questionnaire (PRBQ). PRBQ (McKee, Malley, Salovey, Kvishnan & Mazure, 2005) is a 39-item measure assessing risks and benefits of smoking cessation on a 7 point Likert Scale (1 = no chance, 7 = certain to happen). The alpha coefficient for perceived risk and benefit are .86 & .88 respectively (See Appendix D)

Motivation to Quit Smoking. It is developed by Kathleen, Clara, Loreta, Richard and Jennifer in 1994. Readiness and motivation to change smoking behavior is

25

assessed with the 6 items scale. Four items measured the respondent's motivation to cut down and to quit (1, 3, 4, 6), and two assessed her confidence in her ability to do so (2, 5) (Kathleen et al., 1994). Items of motivation and confidence assessed by 4 point Likert scale (α = .84, & .80 respectively) (See Appendix E)

Smoking Self-Efficacy. "Smoking Self-Efficacy Questionnaire" (Etter et al., 2009) is comprise of two six-item subscales measure confidence in ability to refrain from smoking when facing internal stimuli (e.g. feeling depressed) and external stimuli (e.g. being with smokers). It is a 5 point likert scale. The scoring system for each item is ranges from not at all sure = 1, not very sure = 2, more or less sure = 3, fairly sure = 4 to absolutely sure = 5. The alpha reliability of both sub scales has been reported as .82 and .86 respectively (Etter et al., 2009) (See Appendix F).

Research Design

The present study is a correlational cross-sectional research. Survey method is used for data collection and analyses are quantitative in nature. The study comprise of two phases. In first phase pilot study/tryout was conducted whereas the second phase comprise of main study.

Phase I: Tryout phase.

Objectives. The tryout phase was carried out to determine the cultural appropriateness and ease of comprehension of the instruments used in the research i.e., Disengagement beliefs, Perceived risks and benefits of quitting (PBRQ-39), Motivation to quit scale and Smoking Self efficacy questionnaire respectively. This was done keeping in consideration of sample of adult smokers with ages range from 18 to 35 years.

Procedure.

Step I: Author's consent. In order to follow research ethics for utilizing the instruments of Disengagement beliefs, Perceived risks and benefits of quitting (PBRQ-39), Motivation to quit scale and Smoking Self efficacy questionnaire respectively, it was necessary to obtain the consent to do so from the author of each instrument. For this

purpose Author of each scale were contacted via email. All authors showed their support in the matter and granted their consent to use the instruments in the research.

Step II: Expert opinion. For the purpose of obtaining expert opinion, five experts were selected, including one assistant professor, two lecturers, a research associate lecturer and a PhD scholar. The experts were individually approached in their official place of employment and were explained the purpose of the study. After taking informed consent of the experts they were given verbal as well as written instructions to provide their opinion on the cultural appropriateness and ease of comprehension of each item of four scales.

Step III: Sample opinion. To obtain the sample opinion 10 adult smokers were approached in their setting. The age of the sample ranged from 18 to 35 years. Each individual was explained the purpose of the study and their consent to participate was taken. Sample was given verbal as well as written instructions to give their opinion on the cultural appropriateness and ease of comprehension of all four scales. The participants were assured that the collected information will be kept confidential and will be used for the research purpose alone. The participants rated all scales at minimum level of difficulty and scales were reported to be culturally appropriate as well.

Step IV: Committee approach. After the experts and sample opinions were collected, a committee approach was called to reflect on the feedback obtained thereof and to decide further procedure to be followed in the research. Among the four members of the committee were two lecturers, including one assistant professor, a research associate lecturer and a PhD scholar. After keeping every feedback from the experts as well as the sample, the committee then decided on the unanimous conclusion.

Step V: Results. The committee suggested that all instruments were culturally appropriate to be used in this research.

Phase II: Main study.

Objective. The purpose of the main study was to test the proposed objectives related to hypothesis and study relationship between Disengagement beliefs, Perceived

27

risks and benefits, Motivation to quit and smoking Self-efficacy internal and external among adult smokers.

Consent form. An informed consent form of detailed information about voluntary nature of participants, right to quit at any time, anonymity and confidentiality of data was provided. Willingness to participate and instructions to read carefully and fill out the scale genuinely was given. It was assured that the information provided by the participants would only be used for the purpose of research (See Appendix A).

Sample. Employing the technique of purposive convenience sampling 250 adult smokers was approached from area of Islamabad and Rawalpindi. Adult smokers from different socio-economic-status and different educational level were included. Whereas snowball sampling technique has been used to collect data from female smokers. Inclusion criteria include Smoker who can understand and read English because instruments used in present study were in English language. Those smokers who were taking any other drug along with cigarettes were excluded from sample as the study solely framed on individual taking tobacco.

Table 1

Frequencies and Percentages of demographic variables (N = 250)

Demographics variables	f (%)
Gender	
Male	141(56.4)
Female	109(43.6)
Education	
Matric	14(5.6)
Intermediate	26(10.4)
Graduate	191(76.4)
M.Phil. & PhD.	19(7.6)
Age	
Young adults(20-25)	186(74.4)
Middle adults(25-35)	64(25.6)
Marital status	
Single	218(87.2)
Married	32(12.8)

In Table 1 demographic variables have been summarized by their frequency and percentage. 56.4 % of the sample comprised of male and 43.6% comprised of females. 76.4% had education level of graduation. 74.4% of the sample comprised of individuals whose age was between 20 to 25 years. 87.2% of sample was single.

Procedure. Participants of the study were approached from different areas of Rawalpindi and Islamabad. For the purpose of data collection, participants were informed about the study purpose and subsequently consent to participate in the study was acquired from them. After providing verbal instructions, participants were asked to fill demographic sheet along with instruments measuring study variables. Participants were assured that the data provided by them will be kept confidential. They were informed that they can leave the study any time. On average, participants took 10-15 minutes for filling

29

questionnaire. 300 questionnaires were distributed 250 were received. At the end, participants were thanked for their cooperation.

RESULTS

RESULTS

To explore the objectives and test the hypotheses of the present study, quantitative analyses were carried out by using SPSS version 21. The statistical analysis consists of descriptive and inferential statistics. Descriptive statistics includes Cronbach α, mean, standard deviation, range, skewness, and kurtosis. Furthermore graphs were used to show percentages of group differences on demographics. Whereas, in inferential statistics Pearson Product Moment Correlation, *t-test*, Simple linear regression and mediation were used.

Figure 1

Place of cigarette smoking among male and female (N = 250)
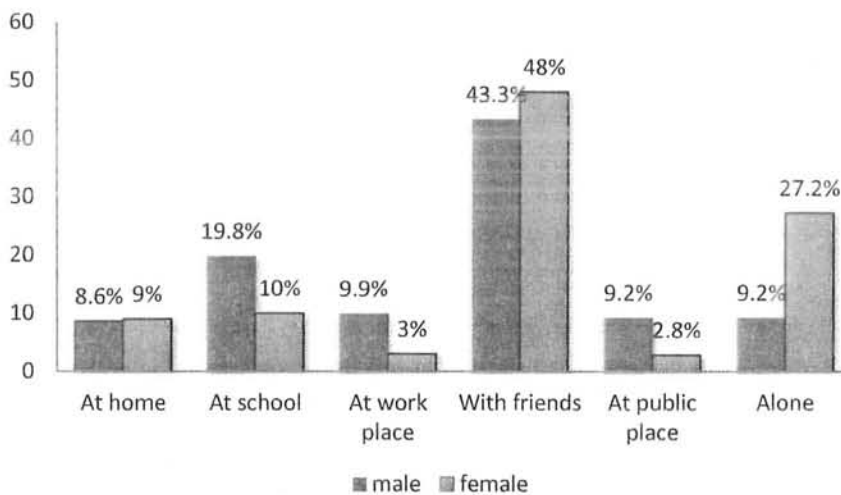
Figure 1 illustrates percentages of place of cigarette smoking across gender. 43.3% of males whereas 48% of females reported smoking with friends. 9.2% males and 27.2% females reported smoking alone. 19.8% males and 10% females reported smoking at school. 9.2% males and 2.8% females reported smoking at public places. 8.6 % of males whereas 9% of females reported smoking at home. 9.9% males reported smoking at work place whereas 3% females reported smoking at work place.

Figure 2

Age of smoking cigarette first time (N = 250)
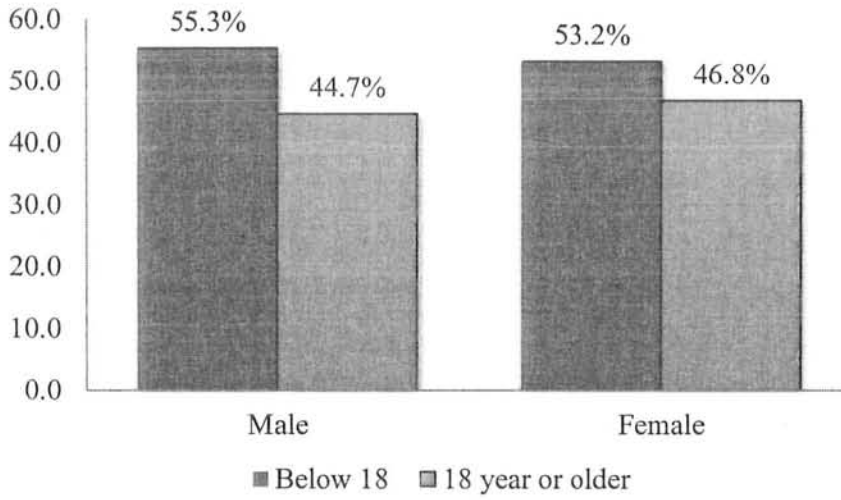
Figure 2 illustrates the age at which adult smokers smoked first cigarette. 55.3% of male whereas 53.2% of female reported that they started smoking before 18 year of age. 44.7% of male whereas 46.8% of females reported that they started smoking either at 18 year or more.

Figure 3

Smoking status of parent (N = 250)
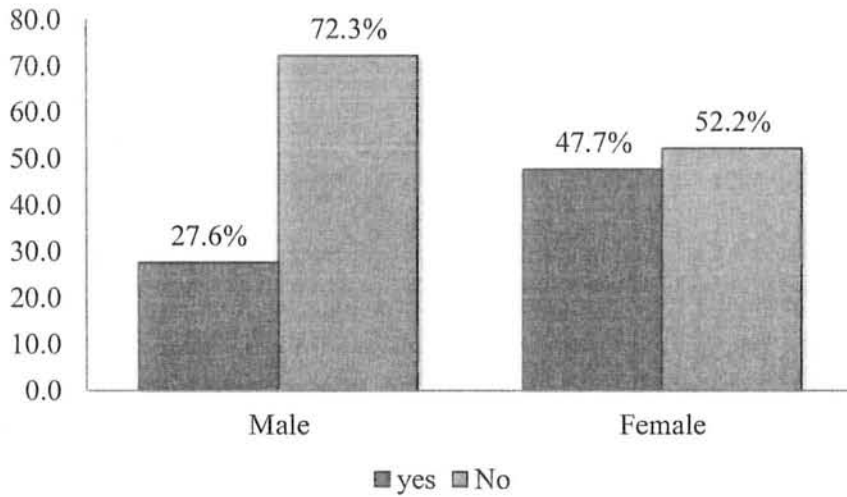
Figure 3 illustrates smoking of parents in adults smokers across gender. 72.3% of males whereas 52.2% of females reported that their parents don't smoke cigarettes. 47.7% of females whereas 27.6% of males reported that their either one or both of the parents smoke cigarettes.

Figure 4

Pressurization by friends to smoke (N = 250)
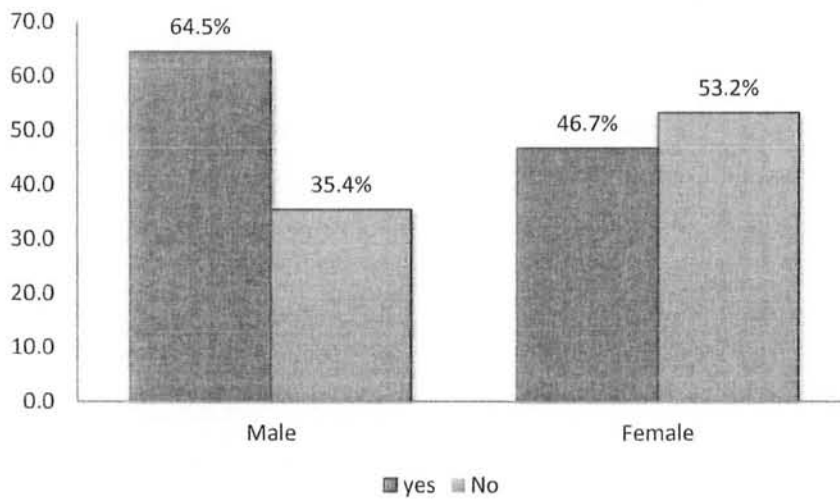
Figure 4 illustrates percentages of smokers pressured by their friends to smoke cigarettes among adult smokers across gender. 64.5% of male whereas 46.7% of female reported that they were pressurized by their friends to smoke. 53.2% of female whereas 35.4% of male reported that they were not pressured by their friends to start smoking.

Figure 5

Time period being a smoke (N = 250)
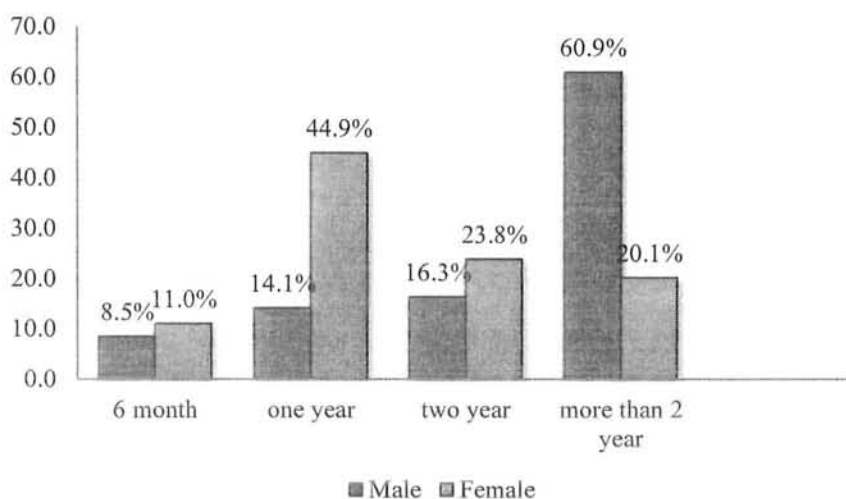
■ Male ■ Female

Figure 5 represents time of adult smokers being smokers. 60.9% of male whereas 20.1% of the female reported that they have been smoking since more than two years. 44.9% of females whereas 14.1% of male reported that they have been smoking since past one year.

Figure 6

Smoking status of closest friends (N = 250)
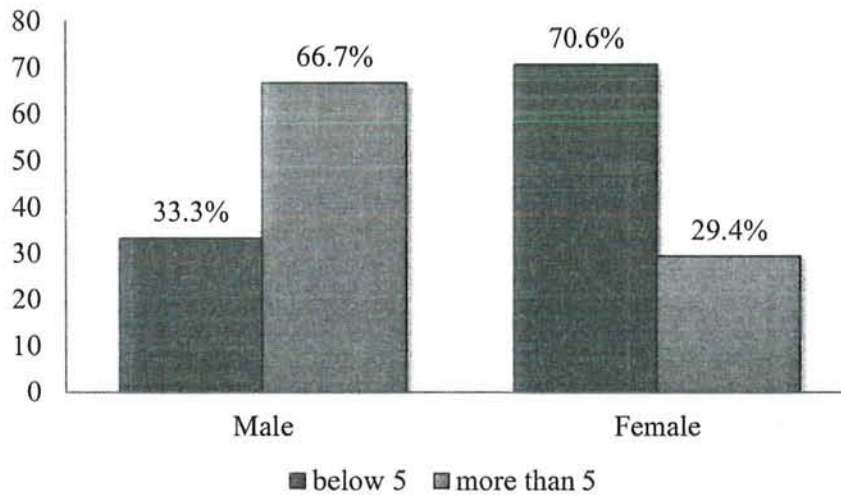
Figure 6 illustrates that 70.6% of female whereas 33.3% of male reported that they have less than five smoker friends. 66.7% of male whereas 29.4% of female reported that they have more than 5 smokers' friends.

Figure 7

Number of cigarettes per day (N = 250)
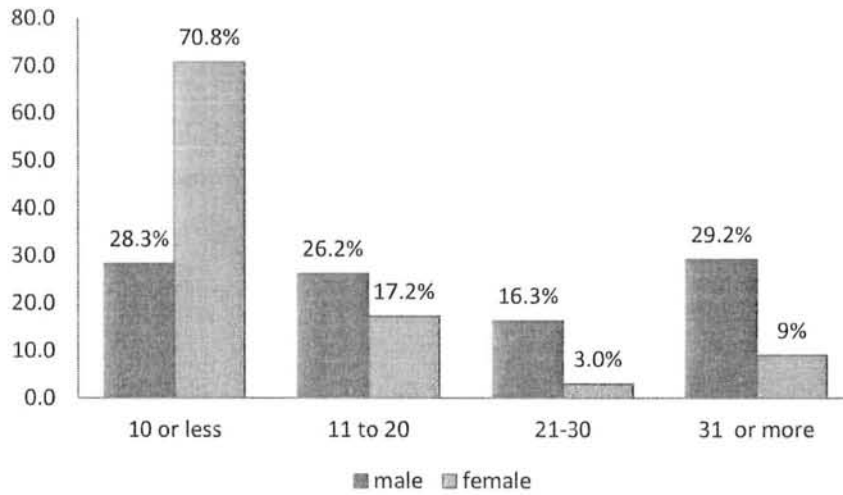
Figure 7 illustrates number of cigarettes per day consumed by adult smokers across gender. 70.8% of female whereas 28.3% of male reported that they consume five or less cigarettes per day. 29.2% of male whereas 9% of female reported they consume 30 or more cigarettes per day. 26.2% of male whereas 17.2% of female reported that they consume 11-20 cigarettes per day.

36

Figure 8

Frequently smoking during first hour of the day
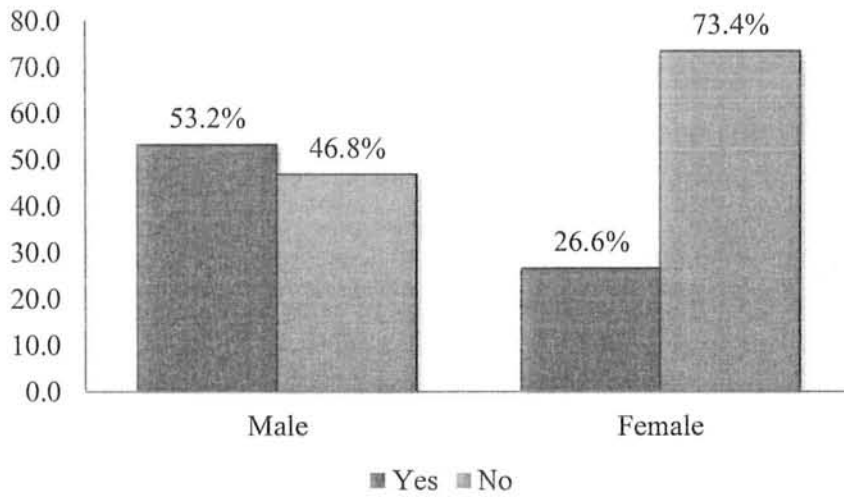
Figure 8 illustrates percentages of taking first cigarette in morning across gender. 73.4% of female whereas 46.8% of male reported that they don't take their cigarette during first hour of morning. 53.2% of male whereas 26.6% of female reported that they take their first cigarette during first hour of morning.

Figure 9

Time of taking first cigarette of the day (N = 250)
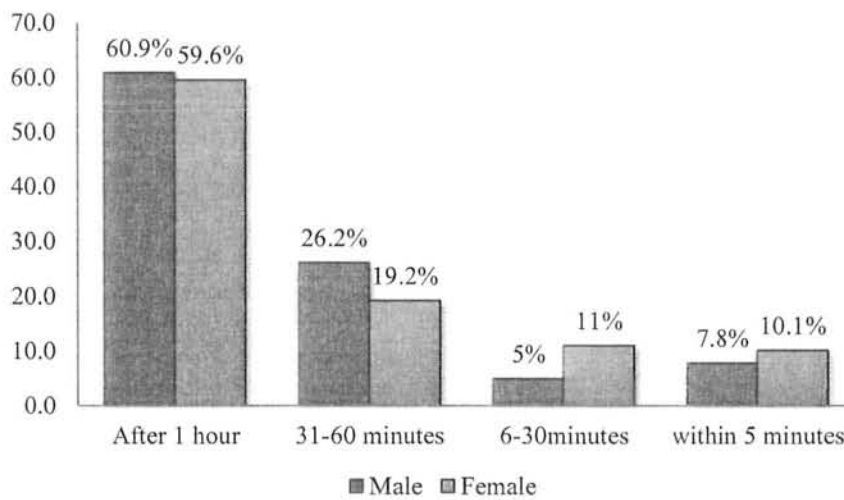
Figure 9 illustrates time of smoking first cigarette after waking up across gender. 26.2% of male whereas 19.2% of female reported that they take their first cigarette within 31-60 minutes after waking up. 60% of male and female reported that they take their cigarette after one hour of waking up.

Figure 10

Cigarette hated most to give up (N = 250)
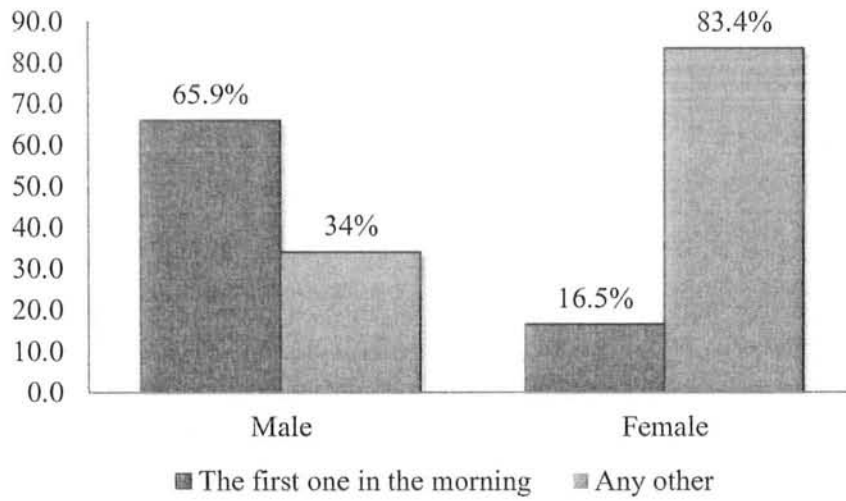
Figure 10 illustrates that 65.9% of male whereas 16.5% of females hated morning cigarette to give up. 83.4% of females and 34% of males reported that they hate to give up any cigarette other than morning one.

Figure 11

Difficulty refraining from smoking in public places
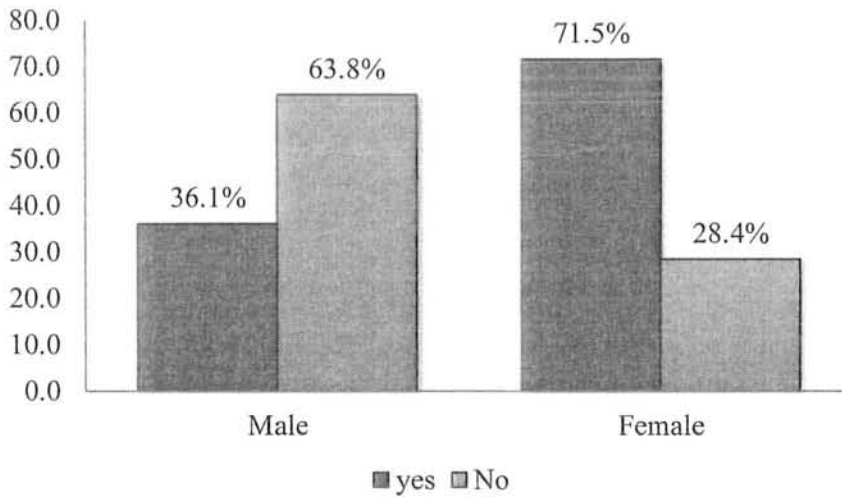
Figure 11 illustrates that 71.5% of females whereas 36.1% of males reported difficulty to refrain from smoking at public places. 63.8% of males whereas 28.4% of females reported that they don't find it difficult to refrain from smoking at public places.

Figure12

Smoking during illness (N = 250)
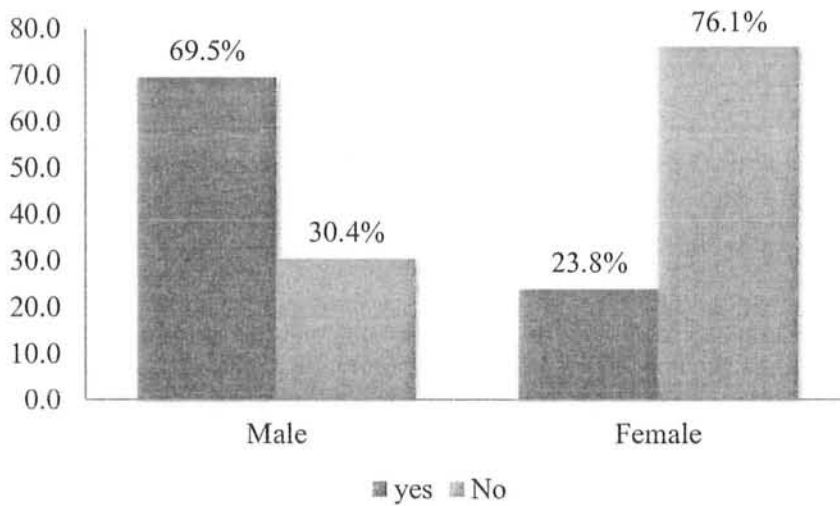
Figure 12 illustrates that 76.1 % of females whereas 30.4% of males reported that they don't smoke during illness. 69.5% of males whereas 23.8% of females reported that they smoke during illness.

Descriptive Statistics and Psychometric Properties of Scales

To see the descriptive statistics and psychometric properties alpha coefficients, mean standard deviation, range, skewness and kurtosis of Disengagement Beliefs , Motivation and Confidence to Quit Smoking, Perceived risk and benefits of quitting smoking, Smoking Self Efficacy and its Subscales were computed.

Table 2

Cronbach alpha and descriptive statistics for study variables (N = 250)

Scales/subscales	Items	α	M	SD	Range		Skewness	Kurtosis
					Potential	Actual		
SSE	12							
SSEI	06	.86	17.4	6.32	6-30	6-30	-.80	-.04
SSEE	06	.81	17.9	6.53	6-30	6-30	.03	-1.01
DISE	12	.86	43.6	8.56	12-60	20-59	-.51	-.32
PRB	39							
PR	18	.90	68.5	23.0	18-126	22-113	-.18	-.83
PB	21	.91	98.4	20.8	21-147	43-142	-.29	-.71
MAC	06							
MO	04	.81	10.7	3.19	4-16	4-16	-.24	-.85
CO	02	.74	5.38	1.55	2-8	2-8	-.30	-.45

Note: SSE = Sum of Smoking Self Efficacy, SSEI = Smoking Self Efficacy Internal Subscale, SSEE = Smoking Self Efficacy External subscale, DISE = Disengagement beliefs, PRB = Perceived risk and benefit, PR = Perceived risk, PB = Perceived Benefits, MAC = Motivation and Confidence, MO = Motivation, CO = Confidence.

Table 2 shows alpha reliability coefficients of study variables. Cronbach alpha for 2 subscales of Smoking Self Efficacy (Smoking Self Efficacy external and Smoking Self Efficacy internal) were .89 & .86 respectively. Cronbach alpha of Disengagement Beliefs in Smokers Questionnaire was .86. Cronbach alpha of Perceived risks and benefits scale were .90 & .91 respectively. Then Cronbach alpha of Motivation and Confidence to quit smoking scale is .88. The reliability of its subscales ranged from .75 to .82. Values of skewness and kurtosis indicated that the data is normally distributed.

Table 3

Correlation matrix among study and demographics and variables (N = 250)

Sr.	Variables	DIS	PR	PB	MO	CO	SSEI	SSEE	Age
1	**DIS**	-	.23**	-.15*	-.25**	-.20**	-.27**	-.23**	.07
2	PR		-	-.31**	-.48**	-.41**	-.32**	-.34**	.21**
3	PB			-	.43**	.27**	.40**	.30**	-.17**
4	**MO**				-	.75**	.28**	.25**	-.23**
5	CO					-	.22**	.18**	-.21**
6	SSEI						-	.62**	-.12*
7	SSEE							-	-.09
8	**Age**								-

Note: DISE = Disengagement beliefs, PR = Perceived risk, PB = Perceived Benefits, MO = Motivation, CO = Confidence, SSEI = Smoking Self Efficacy Internal Subscale, SSEE = Smoking Self Efficacy External subscale.

Table 3 shows correlation coefficient between study variables and demographics. Significant positive relationship was apparent between disengagement beliefs and perceived risks of quitting whereas significant negative relationship was observed between disengagement beliefs, perceived benefits, motivation, Confidence, Smoking self-efficacy internal and external. Significant positive relation was apparent between perceived risks and age whereas significant negative relation was observed between perceived risks, perceived benefits, Motivation, Confidence, Smoking self-efficacy internal and external.

Moreover significant positive relation was apparent between perceived benefits, Motivation, Confidence, Smoking self-efficacy internal and external whereas age was negatively related to perceived benefits of quitting. Significant positive relation was exhibited between motivation, Confidence, Smoking self-efficacy internal and external whereas age was negatively related to it. Significant positive relationship was observed between Smoking self-efficacy internal and external whereas significant negative relation was apparent between Smoking self-efficacy internal and age.

To check the predictive role of Disengagement beliefs, Smoking Self Efficacy and Perceived risk and benefits for Motivation and Confidence to quit Smoking linear regressions analysis was conducted (*see Table 4*)

Table 4

Simple Linear Regression analysis for predictor of motivation among adult smokers (N=250)

Variables	B	β	S.E	95% CI	
				LL	UL
(Constant)	11.6		1.40	8.85	14.3
DisB	-.04	-.12**	.02	-.08	-.00
PR	-.05	-.36***	.00	-.06	-.03
PB	.04	.30***	.00	.02	.06
R^2	.33				
ΔR^2	.32				
F	41.0***				

Note: DISE = Disengagement beliefs, PR = Perceived risk, PB = Perceived Benefits

Table 4 illustrates linear regression analysis with Disengagement beliefs, Perceived risks and Perceived benefits of quitting smoking as predictor variables of Motivation to quit among adult smokers. Results indicate that Disengagement beliefs, and Perceived risks negatively predict Motivation to quit smoking whereas Perceived benefits positively predict Motivation to quit smoking. The overall model accounts for 32% variance.

Table 5

*Simple Linear Regression analysis for predictor of confidence among adult smokers
(N=250)*

Variables	B	β	S.E	95% CI	
				LL	UL
(Constant)	6.72		.74	5.25	8.18
DisB	-.01	-.10*	.01	-.04	.00
PR	-.02	-.34***	.00	-.03	-.01
PB	.01	.14**	.00	.00	.02
R^2	.20				
ΔR^2	.19				
F	12.2***				

Note: DISE = Disengagement beliefs, PR = Perceived risk, PB = Perceived Benefits

Table 5 illustrates linear regression analysis with Disengagement beliefs, Perceived risks and Perceived benefits of quitting smoking as predictor variables of Confidence to quit among adult smokers. Results indicate that Disengagement beliefs, and Perceived risks negatively predict Confidence to quit smoking whereas Perceived benefits positively predict Confidence to quit smoking. The overall model accounts for 19% variance.

Mediation

A Mediation model is one that seeks to identify the mechanism or process that underlies an observed relationship between independent variables (X) and a dependent variable (Y) via the inclusion of a third variable, known as a mediator (M). Mediating role of Smoking Self efficacy in predicting motivation to quit smoking. Mediation is a hypothesized causal chain in which one variable (Disengagement beliefs get affected by a second variable (smoking Self Efficacy) and in turn, affects a third variable (Motivation to quit).The intervening variable, M, is the mediator. It mediates the relationship. Mediation can only occur based on the assumptions proposed by Barron and Kenny (Kenny, 2014), that all three intervening variable must be significantly related with each other, either positively or negatively.

The mediation process stated below occurred below due to significant relationship among variables. The dependent variable Y (Motivation) has been tested to see direct effect (X→ Y) of Independent variable X (Disengagement beliefs) as partial mediation process or whether Disengagement beliefs has been mediated through Smoking self-efficacy as indirect effect (X→ M →Y) with complete mediation process. Mediation analysis was conducted to see mediating role of smoking self-efficacy for disengagement belief in predicting motivation quit.

Table 6

Mediation analysis for Smoking Self-Efficacy Internal in Relationship between Disengagement beliefs and Motivation

Variables	Model 1	Model 2		95% CI	
	B	β	S.E	LL	UL
Constant	14.8***	11.77***	1.29	9.23	14.3
Disengagement Beliefs	-.09***	-.07***	.02	-.11	-.02
SSEI		.12	.03	.05	.17
R^2	.06	.11			
F	16.7***	15.6***			

Note: DISE = Disengagement beliefs, SSEI = Smoking Self Efficacy Internal

The mediation results of model 1 shows that the disengagement beliefs significantly predicts relationship with motivation ($B = -.09^{***}$). The R^2 value shows that Disengagement beliefs explain 6% variance in relationship between motivation and B is negative shows that relationship is negative. As the disengagement beliefs increases motivation decreases.

In the model 2 when self-efficacy is added to the equation the value of disengagement decreases. The variance accounted for model 2 is 11 % which is different from zero. This mean self-efficacy has indirect positive effect on motivation to quit. Since sobel effect showed indirect effect ($B = -.02$), the standard error, associated z-score ($z = -2.80$) and p-value (.01). It shows significant indirect effect of smoking self-efficacy.

Note: SSEI = Smoking Self Internal, DISE = disengagement beliefs, MO = motivation.

Figure 13. Mediation analysis for Smoking Self-Efficacy Internal in Relationship between Disengagement beliefs and Motivation

Table 7

Mediation analysis for Smoking Self-Efficacy external in Relationship between Disengagement beliefs and Motivation

Variables	Model 1	Model 2		95% CI	
	B	B	S.E	LL	UL
Constant	14.8***	12.20***	1.26	9.71	14.6
Disengagement Beliefs	-.09***	-.07***	.02	-.12	-.03
SSEE		.10***	.03	.04	.16
R^2	.06	10.4			
F	16.7***	14.4***			

Note: DISE = Disengagement beliefs, SSEE = Smoking Self Efficacy external

The mediation results of model 1 shows that the disengagement beliefs significantly predicts relationship with motivation to quit smoking, $B = .09***$. The R^2 Value shows that Disengagement beliefs accounts for 6% variance in the relation between disengagement beliefs and motivation to quit and B is negative which shows that relationship is also negative. As the disengagement increases motivation to quit decreases.

The model 2 is mediating effect of Smoking self-efficacy external for predicting motivation from Disengagement Beliefs. In the model 02 when self-Efficacy is added to the equation the value of Disengagement decreases from (-.09*** to -.07***). The variance accounted for model 2 is 10% which is different from zero. This means Self efficacy has an indirect and positive effect on motivation to quit smoking.

Since sobel effect showed indirect effect ($B = -.02$), the standard error, associated z-score ($z = -2.46$) and *p*-value (.01). It shows significant indirect effect of smoking self-efficacy.

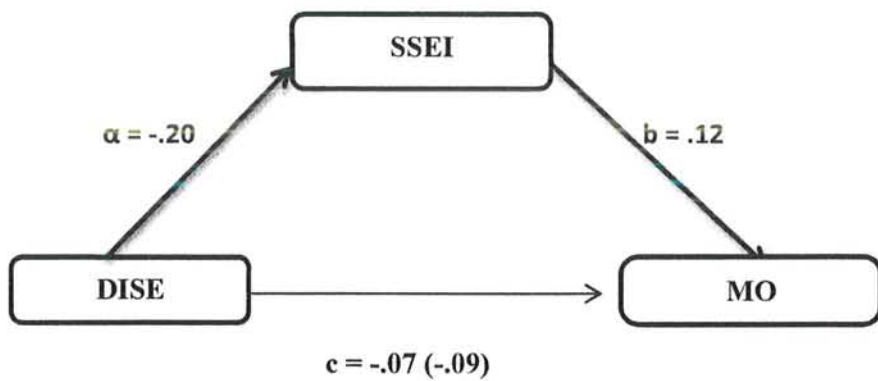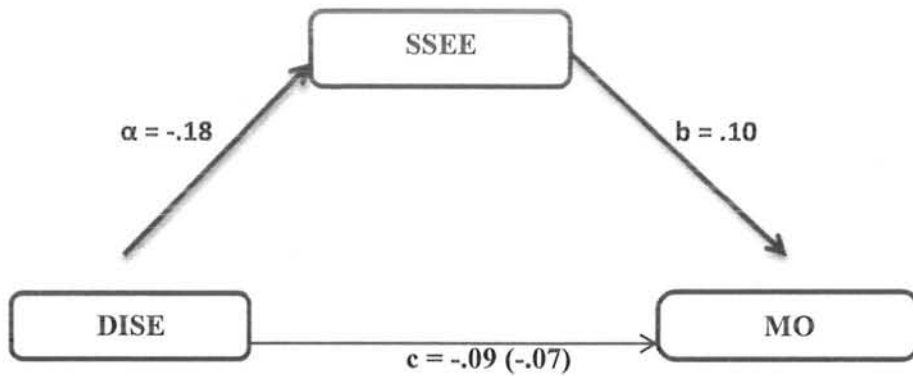*Note:* SSEI = Smoking Self Internal, DISE = disengagement beliefs, MO = motivation.

Figure 14. Mediation analysis for Smoking Self-Efficacy external in Relationship between Disengagement beliefs and Motivation

Group Differences on Study Variables

Independent sample t-test has been conducted to see group differences on study variables (Disengagement beliefs, Smoking Self-Efficacy, Perceived risk and benefit of smoking Motivation to quit Smoking) with reference to demographic variables i.e. Gender, marital status, age first of smoking cigarette ,number of friend who smoke cigarettes etc.

Table 8

Gender differences on study variables (N = 250)

Variables	Male (n =141)		Female (n =109)				95% CI		Cohen's D
	M	*SD*	*M*	*SD*	*t*(248)	*P*	*LL*	*UL*	
SSEI	17.0	6.40	17.5	6.02	.57	.56	-2.02	1.10	
SSEE	18.5	6.82	17.3	6.17	1.46	.14	-.42	2.86	
DISE	44.2	9.54	43.3	8.17	.71	.47	-1.43	3.07	
PR	77.2	19.9	78.4	18.5	.45	.65	-5.98	3.73	
PB	94.9	21.1	94.9	19.2	.00	.99	-5.11	5.11	
MO	9.17	3.20	8.77	2.98	1.02	.30	-.37	1.18	
CO	4.61	1.75	4.45	1.50	.75	.45	-.25	.57	

Note: SSEI=Smoking Self Efficacy Internal Subscale, SSEE= Smoking Self Efficacy External subscale, DISE =Disengagement beliefs, PRB=Perceived risk and benefit, PR=Perceived risk, PB= Perceived Benefits, MAC= Motivation and Confidence, MO=Motivation, CO=Confidence.

Non-significant gender differences were apparent on study variables with refer to gender (*see Table 8*).

Table 09

Marital Status differences on study variables (N=250)

Variables	Single (n =218)		Married (n = 32)		t(248)	95% CI		Cohen's
	M	SD	M	SD		LL	UL	d
SSEI	17.6	6.17	14.6	6.10	2.74 ***	.91	5.56	.48
SSEE	18.5	6.51	14.4	5.81	3.53***	1.88	6.64	.61
DISE	43.4	9.17	46.8	6.77	2.22**	-6.74	-.40	.42
PR	67.0	23.2	78.4	18.7	2.64***	-19.8	-2.90	.50
PB	95.4	20.7	92.5	20.5	1.72**	-.95	14.5	.14
MO	10.9	3.23	9.59	2.67	2.18**	.12	2.49	.44
CO	5.45	1.60	4.87	1.07	1.99**	.00	1.15	.42

Note: SSEI = Smoking Self Efficacy Internal, SSEE = Smoking Self Efficacy External, DISE = Disengagement beliefs, PRB = Perceived risk and benefit, PR = Perceived risk, PB = Perceived Benefits, MO = Motivation, CO = Confidence.

Table 09 indicates marital status differences on study variables. Significant mean differences were observed on Smoking Self Efficacy, Disengagement beliefs, Perceived risks, Perceived Benefits, Motivation and confidence single smokers score significantly high on both scales of Self efficacy than married smokers. Single smokers scored significantly high on disengagement beliefs as compared to unmarried smokers. Significant mean difference was observed on Perceived risk and perceived benefits of quitting. Married smokers score significantly high on perceived risks on quitting with respect to singles that scored significantly high on perceived benefits. Single smoker scored significantly high on Motivation and Confidence with respect to married smokers.

Table 10

Differences on the base of parent smoking on study variables (N=250)

Variables	With smoker parent (n =121)		Without smoker parent (n = 129)		t(248)	95% CI		Cohen's D
	M	SD	M	SD		LL	UL	
SSEI	16.1	6.24	18.2	6.27	2.44**	-3.64	-.39	.33
SSEE	16.0	6.40	19.0	6.36	3.64***	-4.71	-1.4	.47
DISE	45.5	8.10	42.6	8.67	2.54**	.63	5.03	.34
PR	71.2	22.9	67.0	23.0	1.37	-1.79	10.1	
PB	95.8	20.9	99.9	20.7	1.52	-9.55	1.2	
MAC	15.5	4.52	16.4	4.44	1.55	-2.07	.24	
MO	10.2	3.16	11.0	3.18	1.75*	-1.55	.09	.25
CO	5.26	1.49	5.45	1.58	.89	-.58	.22	

Note: SSEI = Smoking Self Efficacy Internal, SSEE = Smoking Self Efficacy External, DISE = Disengagement beliefs, PRB = Perceived risk and benefit, PR = Perceived risk, PB = Perceived Benefits, MO = Motivation, CO = Confidence.

Table 10 indicates differences on the basis of smoking status of parents. Result showed that Smoker without having any smoker parent displayed significant high Smoking self-efficacy internal, smoking self-efficacy external and motivation to quit than smoker having parents who smoke cigarettes. However smokers who have parents' who also smoke scored high on disengagement beliefs as compared to those smokers whose parents don't smoke. Non-significant mean differences were observed on Perceived risks, benefits and confidence.

DISCUSSION

Discussion

The current study aimed to find out the relationship between Smoking Self-efficacy, Perceived risks and benefits of quitting smoking, Disengagement beliefs and Motivation to quit smoking in adult smokers. It also aimed to explore the relationship of study variables with demographic variables i.e., gender, marital status, and smoking status of parents. The major constructs of the study were assessed with Disengagement beliefs (Dijkstra et al., 1999), Perceived risks and benefits Questionnaire (McKee et al., 2005), Motivation to quit (Kathleen et al., 1994) and Smoking Self efficacy (Etter et al., 2009) respectively.

In the present study correlational research method was used. Data has been conducted by purposive and convenience sampling technique from adult smokers living in area of Rawalpindi and Islamabad. The sample comprised of adult smokers from area of Rawalpindi and Islamabad by convenience and snowball sampling technique. The age range was targeted for 18 year and above. In order to find out relationship between variables studied in the population, Pearson product moment correlation, linear regression and t -test was conducted along with mediation analysis.

Graphs were used for better representation of data across gender. In present study 35.8% of female whereas 9.2% of male reported that they smoke alone (*see figure 1*) For socio-cultural reasons in Pakistan, smoking among men is socially acceptable and is considered "very typical" but again, smoking of female is viewed as an unthinkable, and not acceptable. Taboo related to smoking of women cause them to not smoke in front of others (Rozi & Akhtar, 2004).

In *figure 2* 55.2 % of male and 44.7% female reported they started smoking below 18 year of age. Adolescence is a critical time period for various health risk behaviors such as cigarette smoking (Jessor, 1991). Various studies have identified variables associated with the likelihood that an individual will experiment with smoking or become

a regular smoker. These include low socioeconomic status, access to tobacco products, perceptions that tobacco use is normative, smoking by peers and siblings, low academic achievement, low perceived risks etc. (Durant, Smith, Kreiter, & Krowchuk, 1999). 47.3% of female 27.6% of male reported that their parents smoke cigarettes (*see Figure 3*). Some studies propose that teenagers with minimum one parent smokes are at greater risk of initiation of smoking habit (Jackson, 2010). Studies described children whose parents smoke are more prone to smoking as compared to others whose parents do not smoke (Murry et al., 1983).

It is well known that parents influence the behavior of their children. Adolescent girls are at more risk of getting influenced by their parents about smoking (Robinson et al., 1997). Study conducted in Pakistan establish a noteworthy relationship concerning youngsters's smoking and parent's and family smoking, smoking of friends and opportunity of passing time outside for relaxation (Rozi et al., 2005).

Pressure by friends play significant role in initiation and maintenance of smoking 64.5% of male whereas 46.7% of females reported that they pressured by friends to smoke cigarettes (*see figure 4*). Smoking of men is more acceptable as compare to females; prevalence of male smokers is also high as compare to female smokers so they reported more pressure by their friends to smoke. Target of intervention programs for prevention of smoking must focus on social network of young adults (Sobani et al., 2011).

71.5% of female and 36.1% of male reported that they find it difficult to control craving in public places (*see figure 11*). Women reported more difficulty as they face more difficulty to smoke in public place. Experiencing smoking in outdoors settings additionally has an impact on tobacco use initiation, protection and cessation. Anti-smoking laws for public regions have only currently come into the limelight, and even they are no longer being well applied regardless of the endorsement of the Ban of Smoking and protection of Non-smokers health Ordinance 2002, it is yet to be applied via the Islamabad Capital Territory (ICT). Still men can be seen smoking freely at public places but taboo associated with female smoking don't allow them to smoke freely which

54

results in more difficulty to control craving at public places as compared to males (Ahmed, Rashid, McDonald, & Ahmed, 2004).

As an effect, maximum public departments and enterprises within the capital do no longer have a right plan in region for implementation of tobacco laws and assessment of smoking at public place so violation, therefore compromising the health of citizens through exposing them to the dangerous results related to smoking (Sher, 2011).

Based upon existing literature hypotheses were tested. The very first objective is to test the relationship between study variables. *Hypothesis 1* is related to the first objective, that disengagement beliefs and motivation to quit will be negatively related to each other. Pearson product moment correlation indicated significant negative relation between disengagement beliefs and motivation to quit. Result of simple linear regression also indicated that disengagement beliefs negatively predict motivation to quit. Model included perceived risks and benefits as well. Disengagement beliefs, and Perceived risks negatively predict Motivation and confidence to quit smoking whereas perceived benefits positively predict Motivation and confidence to quit smoking. The overall model accounts for 32% of variance in Motivation to quit whereas 19% of variance in confidence to quit smoking is accounted by model (see table 5).

Past literature also confirm these findings too. High Disengagement Beliefs are negatively related with motivation to quit and seems as inhibitor for motivation to quit. Adult smokers who have continued to smoke in spite of their understanding of the health dangers are anticipated to have evolved strong conflict lessening mechanisms in the form of counterarguments in favor of smoking and rejecting or altering intimidating evidences, additionally referred to as disengagement beliefs. Study on adults reported that disengagement beliefs are negatively associated with the motivation of termination of smoking. The literature review shows pressure by friends and Closeness to smokers as the most significant aspects that lead to long-lasting smoking in young adults. Maximum smokers start in their teens and smoke from there on (Kleinjan, 2009).

Hypothesis 2 stated that perceived risks of quitting smoking and disengagement beliefs in smokers will be positively related to each other. Pearson product moment correlation shows significant positive correlation between the perceived risks and disengagement beliefs thereby supporting our second hypothesis. These findings are consistent with the past literature which states that Perceived barriers to quitting smoking drop the motivation related to cessation of smoking by enhancing the superficial strain or risks related to quitting of smoking (Asher et al., 2003). Beliefs related to the risks of smoking cessation have a negative effect on smokers' motivation to stop smoking. It is reported that Failure in smoking termination is more evident for smokers who consider more barrier in term of quitting (Macnee & Talsma, 1995). Smokers with higher degrees of perceived risk discover it greater difficult to quit due to the fact they have got more reasons (rationalization) of their behavior, which lead them to maintain smoking behavior (Weinberger, Mazure, & McKee, 2010).

Hypothesis 3 stated that perceived benefit and disengagement beliefs in smokers will be negatively related to each other. The results were computed through Pearson product moment correlation that shows significant negative correlation between the perceived benefit and disengagement beliefs thereby supported our third hypothesis. Studies have also shown that disengagement beliefs were negatively related to motivation to quit smoking. When smokers consider quitting of smoking as related to more positive outcomes they are less likely to hold more reasons of continuing smoking eventually leading to smoking cessation (Dijkstra & Brosschot, 2003). While holding more reason or justifications (Disengagement beliefs) of behavior smoker don't consider about quitting smoking but on the other side having less reasons for continuing any harmful behavior lead one to perceive more positive results of cessation (Kleinjan et al., 2006).

Hypothesis 4 stated that the Smoking self-efficacy will be negatively related to disengagement beliefs. Pearson product moment correlation indicated significant negative relationship among Smoking self-efficacy and disengagement beliefs. Past literature confirms these findings too. A strong positive relationship was observed between smoking self-efficacy and avoidance of smoking. When a person have more confidence in his or her ability to stop smoking behavior it leads to actual progress

towards discontinuing that behavior. Disengagement beliefs in smokers are used as protection for continuing behavior higher disengagement beliefs leads to low self-efficacy in term of getting rid of that harmful behavior. Self-efficacy is incorporated in several models because it is believed that better confidence about quitting is negatively related to continuation of harmful behavior (smoking) (Conrad et al., 1992).

Hypothesis 5 stated that Smoking Self Efficacy will be positively related to Motivation and confidence to Quit among adult smokers. Pearson product moment correlation indicated significant positive relation among Smoking Self Efficacy, Motivation and Confidence to Quit. Information the relationships of tobacco use and different substance use to motivation to cease smoking is beneficial for designing powerful interventions for tobacco use amongst substance dependent adults. Moreover, social learning theory predicts that motivation to change substance use might be lower amongst people with decrease self-efficacy about their potential to give up that substance (Abrams & Niaura, 1987). Motivation is predictor of self-efficacy about smoking cessation. Higher self-efficacy has been linked to higher motivation to quit.

Self-efficacy is individual's confidence in his abilities to succeed in quitting any harmful behavior. When smoker achieved that confidence they become more motivated to stop smoking. Therefore Self efficacy and motivation to quit positively related to each other (Schnoll et al., 2004). Self-esteem associated with quitting was positively associated with desire to stop, anticipated fulfillment at quitting, self-belief in quitting, and motivation to cease. Self-efficacy means individual's confidence in ability so they relate to each other positively. When individual's beliefs in his/her abilities are high it adds in his confidence to initiate that behavior that's Self- Efficacy and confidence positively related to each other (Garvey et al., 1992).

Findings further indicated that self-efficacy mediates the relationship between disengagement beliefs in predicting motivation and confidence to quit, thereby providing evidence to 10th hypothesis and in accordance with early literature. Results of mediation analysis show that Smoking self-efficacy Internal and self-efficacy external are the significant predictors for disengagement beliefs, in predicting motivation and confidence to quit. These findings are consistent with the past literature which suggests that Improving self-efficacy enhances the individual's success in leaving tobacco and

57

preventing relapses. Self-efficacy affects the choice of behaviors, the effort for a task, and the duration versus difficulties. At the end efficacy beliefs effects emotive reactions of individual for instance, worry and strain (Elsharatat et al, 2006)

Model of Pechacek and Danaher (1979) related to quitting smoking pinpoints result and effectiveness hopes as forecasters for initiation and maintenance of thought pattern. Researchers suggested that the early anticipations express the preliminary motivation to stop smoking, whereas the anticipations of efficacy effect both termination and continuing behavior (Pechacek & Danaher, 1979).

Hypothesis 6 of the present research was that smoking Self-Efficacy and perceived benefits of quitting will be positively related to each other. Pearson product moment correlation shows significant positive correlation between the smoking Self efficacy and perceived benefit of quitting. Findings of the present research are supported in line with past literature. Beliefs in improved Self-esteem related to quitting have been positively associated with desire to quit, predicted achievement at quitting, confidence in quitting, motivation to cease, and better report of quit-associated thoughts and behaviors. Perceived benefits of quitting were positively related to motivation to quit smoking because when smokers has considered smoking cessation as overall beneficial, Motivation and confidence (Self efficacy) related to quitting increases. More perceived benefits of quitting smoking incline smokers to achieve those benefits which in turn increase their confidence to perform that behavior that's why perceived risks and benefits positively related to each other (Latimer et al., 2007).

It was hypothesized that adults whose parent smoke will be high on disengagement beliefs compared to adults whose parents don't smoke cigarettes. Independent Sample t-test has been conducted to see mean difference on study variables (Disengagement Beliefs, Smoking Self Efficacy and Perceived risk and benefits and Motivation and Confidence to quit Smoking) along the demographic variable that is smoking status of parents. Result showed that smoker whose parent smoke cigarettes scores high on disengagement beliefs with respect to smoker whose parent doesn't smoke thereby supported our 9th hypothesis. Findings of the present research are confirmed with

the past literature. Study conducted in Pakistan found a significant association between Youngsters's smoking and, Smoking by family friends (Rozi et al., 2005). Smoking of Parents is observed to add a main role in starting and growing habits of smoking (Tyas & Pederson, 1998). Researchers also have found that those children are more prone to smoke who have at least one parent who smoke as compared to non-smoker parents (Murry et al., 1983).

It was hypothesized that female smoker will be low on motivation to quit smoking.   Independent sample *t-test* has been conducted. Non-significant group differences were observed. Previous researches confirm these findings there were no gender differences in the relationship of perceived risks, benefits and motivation of quitting (Weinberger, Mazure, & McKee, 2010). Women and men did not differ in their endorsement of the other risks, the benefits of quitting, or the relationship between risks and benefits and quit motivation or confidence (Weinberger, Seng, Esan, & Shuter, 2017).

To check the group differences of marital status on study variables *t*-test was used. Significant mean differences were observed on Smoking Self Efficacy, Disengagement beliefs, Perceived risks, Perceived Benefits, Motivation and confidence. Age and marital status is positively related, as getting older cigarette dependency increases which causes smokers to adhere to more disengagement beliefs. Older adults are less likely to quit smoking as compare to young adults (Kleykemp & heishman, 2013).

Conclusion

Present study explored the role of smoking self-efficacy, Perceived risks and benefits of quitting, Disengagement beliefs and motivation to quit smoking among adult smokers. Findings of the present study revealed that Smoking self-efficacy Internal and self-efficacy external is positive predictor of disengagement beliefs, perceived risks, perceived benefits in predicting motivation and confidence to quit.

Limitation and Suggestions

There are some limitations of this study which may restrict generalizability and some suggestions for future studies to improve, continue and develop further information in understanding the topic of motivation to quit smoking.

By using convenient sampling techniques, participants of the study were approached from area of Rawalpindi and Islamabad. Because of this sampling technique, most of the sample comprised of educated people. So the findings of the study would not be generalized to all levels of literacy level across Pakistan. For better generalization of results, data can be collected from larger sample from different areas and equal number of participants from different educational level.

The use of self-report measure results in bias responses, as socially acceptable acquiescence response style. So, it suggests to future researchers, use longitudinal or mixed method approach to explore factors that are contributing in disengagement beliefs, smoking self-efficacy perceived risks and benefits of quitting, among adult smokers because the cross sectional research method limit our ability to make a causal inference between smoking self-efficacy, disengagement beliefs, perceived risks and benefits of quitting and motivation to quit smoking among adult smokers.

Translations and adaptions of scales used in the present study are suggested, to make the instruments more indigenous for enhancing the validity and reliability of measures so that smokers with low education can also be selected. Further research should be made to understand cultural differences as well.

Implications

The present study makes a comprehensible connection between perceived risks and benefits, Smoking self-efficacy, disengagement beliefs and motivation to quit smoking and add to the above mentioned gap in literature regarding perceived risks and benefits, Smoking self-efficacy, disengagement beliefs and motivation to quit smoking among adult smokers.

60

Present study also has theoretical implications because this study supports the previous literature. Findings of the current study shows partial implications in health and results indicate that self-efficacy play a significant mediating role in improving motivation to quit smoking among adult smokers. Prevention program focusing on self-efficacy can be designed for increasing motivation of quitting in adult smokers.

This study will also help adult smokers to enhance motivation to quit by using different methods and reduce perceived risks and disengagement beliefs related to smoking.

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64

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APPENDICES

Informed consent

I Iram Azhar, student of MSc at National Institute of Psychology, Quaid-i-Azam University Islamabad. I am conducting research on smoking behaviors.

As per research, I need to collect data from the regular Cigarette smokers, so I would request you to participate in it. It would take15-20 minutes of your precious time. Your responses and views will be very helpful in this research.

I assure you that all information provided will be kept confidential and will be used only for research purpose. You have all the rights to discontinue participation at any point.

Please sign below if you have read and agree to the above-mentioned conditions.

_____

Signature

Regards

Iram Azhar

National Institute of Psychology

Quaid-i-Azam University, Islamabad

Email: Iramazhar1513@gmail.com

Demographic sheet

Age_____   Education_____   Gender_____

Marital Status   □ Single   □ Married

Where do you smoke cigarettes?

□ At home   □ At school

□ At work place   □ with friends

□ At public places (restaurants, shopping malls)

□ Alone

Do you take any other drug along with cigarette?   □ Yes   □ No

If Yes specify_____

How old were you when you smoke cigarette for first time?

□   Below 18   □ 18 year or older

Does anyone who lives with you now smoke cigarettes?   □ Yes   □ No

Do your parents smoke?   □ Yes   □ No

Did you ever pressured by your friends or other person to smoke?   □ Yes   □ No

How long have you been a smoker? _____years

How many of your closest friends smoke cigarettes _____?

How many cigarettes per day do you smoke? (There are 20 cigarettes in a pack)

- ☐ 10 or less
- ☐ 11-20
- ☐ 21-30
- ☐ 31 or more

What brand of cigarettes do you smoke? (Specify if they are regular, light or ultra-light)?_____

Do you smoke more frequently during the first hours after waking than during the rest of the day?

☐ Yes   ☐ No

How soon after waking do you smoke your first cigarettes?

- ☐ After 1 hours
- ☐ 31-60 minutes
- ☐ 6-30 minutes
- ☐ Within 5 minutes

Which cigarettes would you hate to give up most?

- ☐ The first one in the morning
- ☐ Any other

Do you find it difficult to refrain from smoking in places where it is forbidden (e.g. in a mosque, at the library, at the movies, etc.)?

- ☐ Yes
- ☐ No

Do you smoke even when you are so ill that you are in bed most of the day?

- ☐ Yes
- ☐ No

You are requested to read each statement carefully and answer it as it represents you. Please note that there are no right and wrong answers. Against each statement, provide your answer by choosing from the following scale:

Completely disagree,	Disagree	Neutral	Agree	Completely agree
1	2	3	4	5

S no.	Items	Completely disagree	disagree	Neutral	Agree	Completely agree
1	I would rather live a short and good life than a long and boring life.					
2	Medical scientists will find some cure in the future.					
3	I know heavy smokers who lived long.					
4	You are exposed to many risks in your life.					
5	Not all smokers get ill because of smoking.					
6	If smoking was really that bad, it would be banned.					
7	You have to die from something					
8	Everything is unhealthy these days.					
9	Health is not the only thing in life.					
10	For the rest I live a healthy life.					
11	Air pollution is just as unhealthy as smoking.					
12	Everybody does something unhealthy.					

Below is a collection of statements about perceived risk and benefits of quitting smoking. Using the 1-5 scale below, please indicate how much you agree or disagree. Please treat each item separately from each other item.

No chance	Very unlikely	Unlikely	Moderate	Likely	Very likely	Certain to happen
1	2	3	4	5	6	7

S.no	Items	No chance	Very unlikely	Unlikely	Moderate Chance	likely	Very likely	Certain to happen
1	I will eat more.							
2	I will gain weight.							
3	I won't be able to lose weight as easily.							
4	I will be more irritable.							
5	I will be less able to deal with stress.							
6	I will feel less calm.							
7	I will have a shorter attention span.							
8	I will be less able to concentrate.							
9	I will be less able to focus my attention.							
10	My thought will be more likely to wander.							
11	I will be more inattentive.							
12	I will be less welcome around my friends who smoke.							
13	I will feel uncomfortable around smokers.							
14	I will miss the taste of cigarettes.							
15	I will miss the pleasure I get from cigarettes.							
16	I will experience intense cravings for cigarettes.							
17	I will have strong urges for cigarettes.							
18	I will desire cigarettes.							

S.no	Items	No chance	Very unlikely	Unlikely	Moderate Chance	likely	Very likely	Certain to happen
19	I will lower my chances of developing bronchitis.							
20	I will lower my chance of developing lung cancer.							
21	I will lower my chance of developing heart problems.							
22	I will avoid health problems down the road.							
23	I will live longer.							
24	I will get instant health benefits.							
25	I will breathe easier.							
26	I will feel more energetic.							
27	I will be healthier.							
28	I will feel proud that I was able to quit.							
29	I will be more in control of my life.							
30	I will feel a sense of achievement.							
31	I will prove I can achieve abstinence from cigarettes.							
32	I will have more money for items besides cigarettes.							
33	I will be able to save more money.							
34	I will smell cleaner.							
35	My breath will be fresher.							
36	The people who care most about me will approve.							
37	I will have the respect of my friends.							
38	I will set a good example for others (e.g., children).							
39	I will no longer offend others by smoking.							

You are requested to read each statement carefully and answer it as it represents you. Please note that there are no right and wrong answers. Against each statement, provide your answer by choosing from the following scale:

At present, how much do you want to cut down the number of cigarettes you smoke?

☐ Not at all　　　☐ A little　　　☐ Some　　　☐ Very much

If you wanted to cut down now, bon sure are you that you would be able to do it?

☐ Not at all sure　　☐ A little sure　　☐ Somewhat sure　　☐ Very sure

How determined are you to cut down?

☐ Not at all determined　　☐ A little determined

☐ Somewhat determined　　☐ Very determined

How, much do you want to quit smoking?

☐ Not at all　　　☐ A little　　　☐ Some　　　☐ Very much

If you decided to quit smoking completely, how sure are you that you would be able to do it?

☐ Not at all　　　☐ A little　　　☐ Some　　　☐ Very much

If you plan to quit smoking, how determined are you to quit?
☐ Not at all determined　　☐ A little determined　☐ Somewhat determined　　☐　Very determined

Jean-Francois.Etter@unige.ch

Gmail

COMPOSE

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sanwal   +

No recent chats
Start a new one

Jean-François Etter <Jean-Francois.Etter@unige.ch>
to me

Dear Iram

Here are 2 articles about the scale, it includes all the indications on how to use the
you can use the scale even without authorization, since it is published.

Good luck with your study

JF Etter

De : sanwal raja [mailto:iramazhar1513@gmail.com]
Envoyé : samedi 11 novembre 2017 21:45
À : Jean-François Etter <Jean-Francois.Etter@unige.ch>
Objet : Permission for The Scale

Hello,
     Sir, I'm planning my M.Sc research work in the domain of "Smoking Self-Efficacy
construct I came to know the " Smoking Self-Efficacy Scale" as a most suitable measur
     As a matter of research ethics, please grant me permission to use this scale. Kinc
peruse my research work as soon as possible. If granted, I would ensure that I would u
anticipation for your kind help cooperation.

Regards,