Patterns of Delinquency and Personality Traits of Adolescents in Child Labor

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By

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Patterns of Delinquency and Personality Traits of Adolescents in Child Labor

CERTIFICATE

It is certified that M. Phil Dissertation on "**Patterns of Delinquency and Personality Traits of Adolescents in Child Labor"** prepared by **Ms Irum Naqvi** have been approved for submission.

(Dr. Anila Kamal)

Supervisor

Dedicated To,

All innocent victims of child labor

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ABSTRACT

The present research was designed to explore the patterns of delinquency and personality traits of adolescents in child labor. It also investigated whether laborer adolescents with different demographic variables differ on delinquency. It has been accomplished in three parts. Part I dealt with the development of delinquent measures i.e. Self-reported delinquency scale (DRDS) and the Informant-reported delinquency scale (IRDS). A sample of (N= 200) adolescents and their informants (N= 180) involved in different labor work i.e. workshops (n= 65), general stores (n= 47), restaurants (n= 40), beggars (n= 23) and trash collectors (n= 25). The sample was selected from Rawalpindi and Islamabad. The results of factor analysis showed both the scales have well established construct validity with sufficient alpha reliabilities.

Part II of the present research was accomplished in two phases. Phase I dealt with the translation, adaptation and cross language validation of Eysenck Personality Questionnaire (EPQ-Junior) (Eysenck & Eysenck, 1970). In phase II psychometric properties of EPQ-(Junior) Urdu version were established.

The main study (Part III) was carried out on a sample of 250 adolescents. Their age ranged from 13 to 17.11 years (M=16.21; SD=2.1) and their Informants (N=220) with the age ranging from 25-55 years (M=48.37; SD=1.89). About 56% of sample had an education level up to primary and rest of 44% were primary and above. They were working in workshops (n= 80), general stores (n= 49), restaurants (n= 60), beggars (n= 28) and trash collectors (n= 29). It was aimed to find out the relationship between self-reported delinquency and personality traits of adolescents in child labor and to see whether individuals with different demographic variables are differing on the self-reported delinquency and Informant-reported delinquency. Three scales i.e., SRDS, IRDS and EPQ (Junior) Urdu version were administered. The findings revealed satisfactory reliabilities of scales. Findings revealed significant positive correlation between self-reported delinquency and informant-reported delinquency and personality traits. One way Anova findings on the age wise differences, Labor type and self-reported

delinquency enlighten that the increase in delinquency with age and no effect of labor type on delinquency. Findings on the independent sample t- test revealed that participants with less education significantly reported high delinquency, similarly participant with more duration of labor reported high delinquency. Multiple Linear Regression analysis results revealed high predictability of extraversion, psychoticism, and neuroticism traits with self-reported delinquency.

The comparison of mean scores of EPQ-(Junior) for the whole sample of 450 laborer adolescents with age revealed that that there was increase in extraversion with age and decrease in lie with age, and there was no change for psychoticism and neuroticism scores with increase in age. The comparison of the age trends for collective sample of 450 laborer adolescents contributed in part I and part III of the present research was made with the standardization data of EPQ- (Junior)(Eysenck & Eysenck, 1970). Results for both of the data showed increasing trends for extraversion and decreasing trends for lie with age. Similarly as compared to Eysenck there was increase in neuroticism with age for present study sample.

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INTRODUCTION

Man is a social being. He likes to live in a society, needs to socialize or undergo social interactions with other people of society (Aronson, 1995). Socialization is a progression where persons learn and internalize views, values, and beliefs and acquire certain behavior styles or characteristics to one or another culture. The process is life long. Children behavior is mainly determined by the success of socialization process (Bynum & Thompson, 1989). According to the Wegs (1994) person's behavior is affected in one way or the other by all the factors that come in his/her way, but psychologists tend to highlight those personal or social factors such as inborn qualities and the environmental factors that have an immense bearing on the person formation such as attachment patterns, beliefs, family, the school, the media, and friends that have an immense bearing on the persons' development. So it can be concluded that a person's behavior is a combination of genetic and environmental factor.

Development of a child is a complex issue, to Allsopp and Feldman (1976) therefore it is important to speak about all the possible genetic and environmental influences on development patterns of behavior, especially delinquency patterns, or on the contrary, its influence on crime. Moreover, Fonseca and Yule (1995) stressed that no child is a born criminal, thus the environment is the primary institute potential of criminal commencement. For this reason a lot of criminological researches have been carried out, to investigate the interrelations between crime, inherent qualities and social environment (Rankin, 1983).

The word delinquency may refers to the acts performed by any child under the age of eighteen year who has violated any law of the state or city, town or village ordinance, or who by reason of being way ward or habitually disobedient is uncontrolled by his parents, guardian, or so deports himself as to injure or endanger the morals or health of himself or others, so that he comes to the attention of any social agency (Austin, 1978).

Now with understanding of such issues stated above there is growing interest in the integration of psychology and the law, much of the increasing public awareness is narrowly focused on issues restricted to crime perpetration. The nexus of psychology and law is, however, quite vast. Psychology functions to benefit the discipline of law by helping to bring comprehension to some aspects of the law, by helping to evaluate the law and its processes, or by helping to improve the administration of justice (Collins, 1983).

Child labor is a big problem. All around the world, approximately 350 million children are child laborers (Human Rights Watch, 2004). Child labour is, generally speaking, work for children that harms them or exploits them in some way (physically, mentally, morally, or by blocking access to education and normal healthy growth).

This Convention, Employment of Children Act (1999) was adopted from International Labor Organization (ILO) in 1973. It states that minimum age for employment may not be set lower than the age of completion of compulsory schooling and, in any event not less that 15 years (initially 14 years in the case of developing countries). Although spirit of this Convention is reflected in several Pakistani laws, it has yet to be formally ratified by the Government of Pakistan (Magnitude of Child Labor in Pakistan, 2003).

McCarthy and Hulsizer (2002) stressed that working children are the objects of extreme exploitation in terms of toiling for long hours for minimal pay. Their work conditions are especially severe, often not providing the stimulation for proper physical and mental development. Many of these children endure lives of pure deprivation.

Basu (1999) stressed that there are problems with the intuitive solution of immediately abolishing child labor to prevent such abuse. First, there is no international agreement defining child labor, making it hard to isolate cases of abuse, let alone abolish them. Second, many children may have to work in order to attend school so abolishing child labor may only hinder their education.

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Personality traits are the pre disposition to certain traits. Personality factors have for a long time occupied an important role in research on delinquent and antisocial behavior (Arbuthnot, Gordon, & Jurkovic; Tennenbaum, as cited in Wichstrom & Pedersen, 1993). Many of these studies, during the last 30 years, have aimed at testing hypotheses derived from different personality theories such as Eysenck's (1964) trait approach. He hypothsized to link personality traits like extraversion, psychoticism and neuroticism with criminal behavior or delinquency (Fonseca & Yule, 1995).

According to Fonseca (1990) these personality traits emphasize delinquents' difficulty in inhibiting their behavior and relate it to dimesions of personality which, in turn, are believed to reflect individual differences in the functioning of specific areas of the brain. Criminal behavior depends as much or more on age than any other demographic characteristic (Wilson & Herrenstein, 1985). Crime rapidly increases in the early teens, reaches a peak and then declines throughout life (Wichstrom & Pedersen, 1993).

The present research is the venture to explore the patterns of juvenile delinquency in adolescent of child labor and probing its predictive relationship with certain personality traits like extraversion, neuroticism and psychoticism. Similarly some other important variables like age, education, type of labor and duration of labor and their effect on delinquency is also being examined.

Child Labor

The term "child" and "child labour" has different legal and common usage meanings in different countries and even within the same country. The International Labor Organization's Minimum Age Convention sets a basic minimum age for employment of 15 years while allowing light work at 13 years and prohibiting hazardous work until 18 years. But only 49 countries have ratified the Convention and none of these are countries considered to have the highest incidence of hazardous child labour. Pakistan has not ratified this convention (John & Fitzpatrick, 2005).

Kielburger (1999) defined child labor as, generally speaking, work for children that harms them or exploits them in some way (physically, mentally, morally, or by blocking access to education). International conventions adopted by the United Nations and the International Labour Organization (ILO) define child as anyone below the age of 18, and "child labour" as some types of work performed by children below age 18. And yet ILO conventions variously define the appropriate minimum age of work as age 15 or under 14 in developing nations; while, in Convention 1982, the definition of the worst forms of work applies to all children under age 18. Although government legislation does not always use 18 years as the cut-off point for defining a child (John & Fitzpatrick, 2005).

International organizations such as UNICEF, and some social scientists make a distinction between "child work" (not objectionable) and "child labour" (objectionable). Other phrases: exploitative or oppressive child labor because of the fact that there are many working definitions of child labor, statistics dealing with the number of child laborers in the world can vary, however 350 million is generally accepted as the latest correct approximate number (Child Labor in Pakistan,1996).

Child labor is a pervasive problem throughout the world, especially in developing countries. Africa and Asia together account for over 90 percent of total child employment. Child labor is especially prevalent in rural areas where the capacity to enforce minimum age requirements for schooling and work is lacking. Children work for

a variety of reasons, the most important being poverty and the induced pressure upon them to escape from this plight. Though children are not well paid, they still serve as major contributors to family income in developing countries. Schooling problems also contribute to child labor, whether it is the inaccessibility of schools or the lack of quality education which spurs parents to enter their children in more profitable pursuits. Traditional factors such as rigid cultural and social roles in certain countries further limit educational attainment and increase child labor (Mansoor, 2004).

Not all work is bad for children. Some social scientists point out that some kinds of work may be completely unobjectionable — except for one thing about the work that makes it exploitative. A large number of children in rural areas assist their parents with work in the fields and to tend for the family cattle. Their input contributes substantially to the family income. But most of these children also attend schools regularly. But family work becomes exploitative, when the children are denied their education and health rights and have to work for extended hours in the fields or are exposed to dangerous chemicals or machinery (Hazardous Child Labor, 1999).

As UNICEF 's State of the World's Children Report (2003) categorized that, Children's work needs to be seen as happening along a continuum, with destructive or exploitative work at one end and beneficial work - promoting or enhancing children's development without interfering with their schooling, recreation and rest - at the other. And between these two poles are vast areas of work that need not negatively affect a child's development. Other social scientists have slightly different ways of drawing the line between acceptable and unacceptable work. International conventions also define child labour as activities such as pornography, drug-trafficking and prostitution (Hazardous Child Labor, 1999).

McCarthy and Hulsizer (2002) emphasized that working children are the objects of extreme exploitation in terms of toiling for long hours for minimal pay. Their work conditions are especially severe, often not providing the stimulation for proper physical and mental development. Many of these children endure lives of pure deprivation.

According to Basu (1999) there are problems with the intuitive solution of immediately abolishing child labor to prevent such abuse. First, there is no international agreement defining child labor, making it hard to isolate cases of abuse, let alone abolish them. Second, many children may have to work in order to attend school so abolishing child labor may only hinder their education.

According to Boyden (1991) to avoid confusion, when writing or speaking about child labor, it's best to explain exactly what is meant by child labor — or, if someone else is speaking, ask for a definition. The various definitions of child (persons up to the age of 14 or 18 years) depends upon the applicable legal standards and "Child labour" will de defined as the work for children that in some way harms or exploits them (physically, mentally, morally, or by blocking children from education).

With all many other reasons the child labor is the result of lack of social security, poverty, unemployment and excess population. Unless strict measures are adopted by the international community, child labour can't be eradicated. There should be joint efforts by international societies and local governments to reform and minimize poverty, bring social security in unorganized sectors and curtail excessive growth of population (John & Fitzpatrick, 2005).

Nearly 30% of the population in poor countries is the poorest of the poor who are not supposed to earn enough for one day's food. Parents of these children are mainly illiterate or semi-literate. Some percentage of child labour comes from brutality/ harassment by parents or step-parents. They are mainly from lower middle-income group. This percentage is easily controllable by penalties to such parents and by children's rights. But rural poverty, lack of employment or partial employment and illiteracy has given birth to majority of child labour problems and major source of its rise (Allowing Children to Work, 2000).

No parents want their children to work at an age when they are meant to study and play. The system of child labour prevails in countries, which are poor or underdeveloped.

Nearly 70% of the world's poor live in Asia alone and the major contribution is made by China, India, Pakistan, Nepal, Afghanistan, and Bangladesh (Magnitude of Child Labor in Pakistan, 2003).There is also the view that work can help a child in terms of socialization, in building self-esteem and for training (Collins, 1983). The problem is, then, not child labor itself, but the conditions under which it operates (Boyden, 1991). Though restrictions on child labor exist in most nations, many children do work. Their vulnerable state leaves them prone to exploitation. The International Labour Office (1993) reports that children work the longest hours and are the worst paid of all laborers.

John and Fitzpatrick (2005) explain that child labor involves so many issues related to behavior of these children. Among the different behavioral problems, very important one is the delinquency. Their working conditions do not provide the stimulation for proper physical and mental development. Finally, these children are deprived of the simple joys of childhood, relegated instead to a life of drudgery and crime. These children endure work conditions which include health hazards and potential abuse as well.

Child Labor in Pakistan

Under Pakistan's law i.e., Employent of Children Act (1991) 14 years is generally considered as an age under which children should not work. However International Labor Organization marks 18 years as the age, under which children should not be permitted to work in any of the conditions. In 2001 Pakistan ratified ILO's Convention 1982, which is binding for the signatory nation to commit itself to not allowing children under the age of 18 to work in the hazardous working conditions or in worst form of child labor. According to ILO, around the world, some 350 million children between 5 to17 years are working instead of attending school (Shujaat, 2003).

A Child labor free week concluded by highlighting repercussions of the ever-increasing child labour in the country and its impact on the lives of children. According to the Human Rights Commission of Pakistan (HRCP), the number of children working in almost every economic sector is rapidly growing, with the estimates reaching 10

million. Child labour cannot be justified on the basis of poverty and rather it promotes poverty (Shujaat, 2003).

Aslam (2005) reported 6.8 million people are subjected to compulsory labour for the landlord on their farm or house (beggar). There are large number of incidents of debt bondage in brick kilns, carpet weaving, mining, and glass and fishing industries. He added that "it was estimated that there could be as many as one million brick kilns workers in bonded labour across the 4,000 brick kilns in Pakistan" (p. 3).

The International Labor Organization (1992) conducted a survey in Pakistan and concluded that more than 2.9 million children work in rural and 400,000 in urban areas, making the number of working children in rural areas more than seven times that of urban areas. About 60% (1.94 million) of working children are found in the Punjab, followed by NWFP with 1.06 million young workers, Sindh with 298,000 and Balochistan with 14,000 child workers.

Like many other global trends, the child labour, which is, certainly at the top of the global agenda, once again has been adopted as a trendy agenda in Pakistan by the mushrooming NGO sector and NGO-trained public sector (Magnitude of Child Labor, 1996). Perveen (1997) Child labour is a multi-dimensional issue and the organizations involved in condemning it have their own perspectives, objectives and interests. With no intentions of demystifying this complex, one would focus on the difference between child labor and child work, and possible consequences of deliberate or unapprised exercise of the two terms interchangeably.

Perveen (1997) reported that the workshops for our cars are reliant on a mechanic who is the well-known "Chhota." These "Chhotas" are also serving tea and snacks in tuck shops either by the roadside or inside any College, university or office canteen. Who are these children? Are they child laborers or child workers? All of them hail from poor families with more mouths to feed than hands to earn? Are not these children, who are

putting so much sweat for a large family to survive, personified violation of human rights and a big slap in the face of our socio-political system.

Chaudhry (2004) analyses the implications of a subsidy policy on education and of different liberalized trade and investment policies on the incidence of child labour in a developing economy in terms of a three-sector general equilibrium model with informal sector and child labour. The supply function of child labour is endogenously determined. The paper shows that different policies, if undertaken concurrently, may produce mutually contradictory effects, thereby producing little or no impact on the incidence of child labour. The paper provides a theoretical answer as to why the incidence of child labour has not significantly declined in the developing economies in spite of economic development and globalization.

Child labor reflects the violation of child rights leading to exploitation and deprivations of all kinds. Child work reflects social inequity and insecurity, dearth of social safety networks, magnitude of poverty, paucity of opportunities for health and education, and financial independence. Have the Development Pundits ever thought of the catastrophe or tragedies bound to materialize due to this horrendous perplexity of a misnomer. One does not need to wait for a foreign donor funding to undertake any complex research to answer these questions. One only needs to look deeper while seeing around and listen carefully while hearing the sound in one's environment to seek answers to such questions (Mansoor, 2005).

Juvenile Delinquency

Before discussing juvenile delinquency, the important issue that comes across the attention of all, is the definition of this construct. Different researches define it differently but certain deliberations remain constant. Anything done that is out of the norms of society is considered deviant, but some issues seem to be more common than others when discussing juvenile delinquency. These types of issues are alcohol, drug abuse, robbery, murder, physical and sexual abuse, and vandalism, etc (Wichstrom & Pedersen, 1993).

Juvenile delinquency is not a new topic for researchers. It has been studied around the world for a number of years and the research continues, to strive and find out what causes youth to fall into a life of crime (Gest, 1997). Structural functionalist theory takes the angle of environmental pressures and tries to explain the function of delinquency, while sociobiologists try to find common genetic patterns in juvenile delinquents. Symbolic researchers try to explain juvenile delinquency by showing that it is all a way of life based on symbols that influence behavior (Bernier, 1997). What ever the reason for children to become delinquent they all agree there is a need for treatment and more programs to help the number of youth involved in delinquent crimes decrease dramatically(Fonseca & Yule, 1995).

The law, along with professional regulatory boards, also serves to regulate the practice of psychology both inside and outside the courts of law. In the aforementioned capacities, law and psychology are melded on topics such as crime perspectives with psychological attributes, child maltreatment, child custody, competence, insanity, policing, jury selection and decision making, rights of the mentally ill, evidence admissibility, gay and lesbian adoption, zoning, taxation, negligence, obscenity, legislative, and judicial motivation and decision-making, and operational zing constitutionality (McCarthy & Hulsizer, 2002).

Criminologist like, James Fox (as cited in Stephens, 1997) predicts that "the crimes committed by teenagers will skyrocket as the 39 million children in America now under age 10 swell the ranks of teenagers by 20% in the first decade of the twenty first century" (p. 18). The result could be a juvenile crime wave such as the United States has never seen (Stephens, 1997). Based on these and other statistics, researchers continue their search for answers as to why this is happening and how can it be stopped (Bernier, 1997).

Structural and functionalist theorists do not believe that a child grows up abusing others and taking drugs, they believe the child is introduced to these things from the environment that he or she lives in. For some that is their family and for others it may be

their peers. Singling out specific problems is difficult, for most are interrelated. For example, children left alone without adult attention are more likely to be involved in delinquent behavior (Stephens, 1997).

Children who experiment with sex increase their likelihood of becoming unmarried teenage parents. Children who are physically and sexually abused are more likely to adopt abusive behavior towards others. These children are more likely to run away from home, drop out of school, commit rape, be substance abusers, and end up in prison (Bernier, 1997). The U.S. Bureau of Justice Statistics (as cited in Boyeden, 1993) states that there is substantial evidence of child abuse or neglect in the background of every known serial killer, with most cases, the abuse was physically or sexually severe.

Definitions of Juvenile Delinquency

The development of disruptive and delinquent behavior in boys generally takes place in an orderly, progressive fashion, with less serious problem behaviors preceding more serious problems. Three distinct developmental pathways were identified: authority conflict (e.g., defiance and running away), covert actions (e.g., lying and stealing), and overt actions (e.g., aggression and violent behavior). Individuals may proceed along single or multiple developmental pathways toward serious antisocial behavior.

Connor (2004) Juvenile delinquency is a legal term whose definition varies from state to state. Generally, however, the term is used to describe minors whose behaviors have been adjudicated as illegal by a juvenile court. Delinquency usually refers to behavior that would be criminal if the child were an adult. The legal system terms behavior that is illegal only if committed by a minor, such as running away, a status offense or unruly behavior.

It is hard to define this term in a single perspective, as researchers have defined the term from different angles. Similarly the definitions of delinquency are different among

different groups (Hirschi, 1983). Some of the definitions according to sociological, psychological and legal perspective of delinquency are as follows:

Juvenile justice perspective

According to this perspective maladaptive youth emphasize the terms "antisocial behavior", "delinquency", and "criminality". In the context of criminal justice the term "antisocial behavior" refers to any act that violates the rules and laws of society – illegal acts, many of which go unreported (Connor, 2004).

Legal perspective

From this perspective a child and adolescent manifestations of antisocial behavior are termed "delinquent". Elliott and Menard (1996) conceptualize delinquency as involvement in an observable class of illegal behaviors. Thus, juvenile delinquency refers to a participation in illegal behavior by a minor who falls under a statutory age limit (Siegel, Welsh, & Senna, 2003). Connor (2004) states that juvenile justice definitions of delinquency generally refer to both serious criminal acts and less serious offences and antisocial acts committed by a minor. The latter includes "status offences" – the acts that are illegal only because committed by a minor (e.g., underage drinking, breaking curfew, school truancy).

Similarly to "delinquency", "criminality" is also a subset of antisocial behavior. According to Connor (2004) "criminality" generally refers to "serious offences and antisocial acts committed by an adult" (p.7). Thus, criminal behavior usually refers to adult illegal behavior.

Clinical mental health definition

In this perspective definition of aggressive and antisocial youth often refer to "conduct disorder" (Connor, 2004). In the current psychiatric diagnostic categories one also encounters terms such as "attention deficit/hyperactivity disorder" (ADHD) and "oppositional defiant disorder" (ODD). The latter is often viewed as a mild variant of 'conduct disorder'(CD) (Connor, 2004; Loney & Lima, 2003). These diagnoses are the

mainstays of the "disruptive behavior disorders" (APA, 1994). ADHD refers to developmentally inappropriate levels of attention problems, motor hyperactivity, and impulsive behavior; ODD refers to developmentally inappropriate levels of irritable, argumentative and defiant interactions with others; CD is defined as persistently high levels of fighting, lying, bullying, vandalism, and other antisocial behaviors during childhood and adolescence (Lahey & Loeber, 1997).

Psychometric perspective

According to this perspective, antisocial behavior has been evolved by psychologists employing multivariate statistical approaches to identify covarying symptom patterns or empirical syndromes of child behavior problems (Loney & Lima, 2003).

A well-known distinction in the field emerging from these multivariate analyses is the distinction between "externalizing" and "internalizing" syndromes (Achenbach, 1978). Externalizing behaviors refer to a grouping of behavior problems that are manifested in children's outward behavior and reflect the child negatively acting on the external environment (Campell, Shaw, & Gillrom, 2000; Eisenberg, 2001). These externalizing disorders consist of impulsive, disruptive, hyperactive, aggressive, and delinquent behaviors (Connor, 2004; Hinshaw, 1987).

Other terms used to describe externalizing behavior problems include "conduct problems", "antisocial" and "under controlled" (Hinshaw, 1987). In contrast, children may develop internalizing behavior problems such as withdrawn, anxious, inhibited, and depressed behaviors, fearfulness, and social withdrawal, problems that more centrally affect the child's internal psychological environment rather than the external world (Connor, 2004; Liu, 2004). Other terms for this cluster of behavior problems include "neurotic" and "over controlled" (Campell, et al 2000; Eisenberg, 2001; Hinshaw, 1987). Connor (2004) states that although "externalizing behavior" is not synonymous with "delinquency" or "CD", it captures many of the same problems.

Personality and social psychology perspective

It includes terms such as "psychopathic personality" and "psychopathy" that are closely related and refer to a subset of individuals with chronic serious criminality and recidivistic antisocial behavior (Connor, 2004). The psychiatric diagnosis of antisocial personality disorder (ASPD) is closely related to the concept of psychopathy and is characterized by a pervasive pattern of disregard for and violation of the rights of others occurring since that begins in childhood or early adolescence and continues into adulthood (APA, 2000, p. 43).

The concept of psychopathy expands beyond the diagnosis of ASPD to include deviant personality traits as well as antisocial behaviors such as egocentricity; impulsivity; irresponsibility; shallow emotions; lack of empathy, guilt, or remorse; pathological lying; manipulative ness; and the persistent violation of social norms and expectations (Cleckley, 1976; Hare, 1996). Even though this terminology has generally reserved for adults, research is beginning to examine psychopathic traits in children and adolescents (Frick, Cornell, Barry, Bodin, & Dane, 2003; Myers, Stewart, & Brown, 1998).

Parent's perspective

Parents may consider disruptive and delinquent behavior as disobedience, fighting with siblings, destroying or damaging property, stealing money from family members or threatening parents with violence (Lutz & Riera, 1999).

Educational perspective

School teachers often regard delinquency as that behavior which interrupts or disturbs classroom learning and violation of school code of conduct and which threatens the safety of faculty and students (Lutz & Riera, 1999). Rutter (1998) notes that these disorders often involve engaging in delinquent behavior, but they are far from synonymous with crime: the criteria for their diagnosis involves many behaviors that do not involve breaking of the law; and many individuals who receive convictions, do not

show the social impairment and psychological dysfunction that are required for a psychiatric diagnosis.

The Psychoanalytic perspective

This perspective asserts that "delinquency is super-ego deficiency" (Robin & Prinz, 1997, p.123). This implies that the delinquent fails to incorporate primitive taboos of the society and fails to internalize the moral values of his family. He seeks pleasure and gratification of his needs by ignoring the principles of reality and morality. The super-ego of delinquents is weak and improperly developed and hence the antisocial behavior is not checked by the super-ego. Adolescents who have weak super-ego may develop anti-social behavior.

Learning theorists' perspective

It defines delinquency as delinquent behavior reflects the moral deficiency of the individual which is caused by improper training in early childhood. This means that learning theorists emphasize the importance of the early childhood learning if early childhood training fails to develop proper moral values in children, the children may become delinquents (Olson & Laves, 1985).

According to Quay and Peterson (1987), delinquency is defined as every element that prevents children for developing in a healthy way both physically and emotionally, tends to bring about a pattern of emotional disturbances which is always at the root of antisocial or criminal behavior. Such behavior when found in youngsters, is called juvenile delinquency. Trojanowicz and Morash (1987) define delinquency as a condition arising in the matrix of experience and influence that shape behavior problems. It is a process, involving numerous variables and the failure of personal and social controls. It is a symptom of deep socio-economic and social ailment.

In sum, "Antisocial behavior" is the general descriptive term commonly used to describe the subclass of externalizing actions in which the rights of others or society are violated (Hinshaw & Zupan, 1997). Hence, antisocial behavior is a wider term

encompassing both illegal acts as well behavior that is outside the realm of law and for which children below the age of criminal responsibility cannot be prosecuted. It is a term that refers to a spectrum of behaviors that violate the societal norms. Many of these above mentioned terms will be used in the text occasionally to facilitate a more complete understanding of antisocial behavior and related behaviors focusing on acts that involve breaking the law and on the individuals who engage in such antisocial behavior.

Categories of Delinquent Behavior

It is believed that, the emergence of behavior problems or problematic behavior can be detected as early as age two. Opposition to parents and aggressive behavior with other children is natural developmental pathways for toddlers (Loeber & Hay as cited in khurshid, 2003). These oppositional behaviors typically decline between the ages of 3 and 6 as children acquire the ability to use appropriate speech; this ability facilitates the expression of needs and feelings as well as the resolution of conflict. Starting from passive aggressive behavior to oppositional defiant disorder, this problematic behavior may persist through out the life and may turn out to be a psychopathic personality disorder (DSM-IV, 2004).

However, failure to develop complementary behaviors such as honesty, non-aggression and respect for authority figures may lead to problematic behaviors such as conflict with authority figures, stubbornness and defiant behavior, disobedience to parents and other authority figures, skipping classes or not attending school at all and running away from home as a means of avoiding rules and regulations. Covert acts like, lying, shoplifting, property damage (including vandalism and fire-setting) or more serious forms of property damage such as burglary. Overt acts of annoying and bullying others, physical fighting, gang fighting and other violent behaviors, such as attacking others with a weapon and sexual assault (Sommers, Fagan, & Baskin as cited in Kurshid, 2003).

According to Kratcoski and Kratcoski (as cited in Rankin, 1983) delinquent act is a distinct form of crime in a sense that crime is considered an act that breaks criminal code, that is created by society through written law, whereas, delinquency and deviance are acts

that merely break 'cultural law' (norms). Shields and Clarck (1995) states that….. "The legal concept of delinquency simply states which type of behavior is forbidden by law, in which state, for which age group of children and so forth. The cultural meaning of the word might summarize all statements indicating that a piece of behavior is in contradiction with the value demands of the dominant culture within which a given child moves" (P. 96).

According to the Federal Bureau of Investigation (1999) crimes committed by juvenile delinquents include the following categories: Breaking curfew, underage drinking, running away, vandalism, motor vehicle theft, larceny / theft, Burglary, robbery and arson.

Deliberations of Juvenile Delinquency

There are no definite predictors that indicate exactly which children will engage in delinquent behavior and activities. However some statistics indicate that girls are arrested less frequently than boys and children from lower socioeconomic levels perpetrate delinquent acts at a higher rate than children from other socioeconomic classes. Nonetheless, although social conditions are linked to higher rates of delinquency. The youngsters growing up in disadvantaged environment such as living in poverty ridden areas, orphan, deprived and early exposure to non conventional and law abiding behavior of adults are more vulnerable to delinquent behavior as compared to some other youngsters growing up in comparable advantaged environment (Stott as cited in Polk, 1991).

According to Steinberg (1996) there are two types of adolescent delinquents: (1) Early onset and (2) late onset. He provided the lists of characteristics for the two groups: For example, the early onset can be described as where symptoms occur early in childhood and it usually has an effect on males than females. Similarly some other characteristics are less effective socialization skills, poor peer relationships, families in crisis and later become chronic adult offenders. On the other hand, the late onset refers to those delinquent symptoms which occur in adolescence and affects both males and

females. Such delinquents have greater understanding of norms and standards; have very influential peer group and permissive families. They usually commit less serious crimes and unlikely to violate laws as an adult.

Moreover the early-onset delinquents are usually males who have a history of aggression and violent behavior beginning as early as elementary school age. There may be a link to attention disorders which are characterized by several symptoms including impulsiveness and oppositional and defiant behavior which is characterized by aggression and rule-breaking (Steinberg, 1996).

Polk (1991) Antisocial Personality Disorder (APD) is practically synonymous with delinquent or criminal behavior, but as with all distributions of a disease or whatever in a population, it is probable that the majority of people with this particular affliction are law-abiding. Aging, over involvements, and/or relationships might hold sway over the control (or lack of control) in these kinds of people, and although approaching the study of offenders from a relationship & personality disorders point of view may or may not be as productive

On the other hand, the field of criminology tends to treat Anti social Personality Disorder or APD as so synonymous, in fact, with criminal behavior that practically all convicted criminals (65-75%) have it, with criminologists often referring to it as a "wastebasket" category (Lykken, 1995, p.89). Antisocials come is all shapes and sizes, and psychologists consider the juvenile version of it to be a juvenile conduct disorder. Jenkins (1996) the main characteristic of it is a complete and utter disregard for the rights of others and the rules of society. They seldom show anxiety and don't feel guilt.

A significant number of early onset delinquents have an exaggerated tendency to believe that others have hostile intentions towards them. This belief along with the impulsiveness characteristic of attention disorders may make it extremely difficult for the child or adolescent to appropriately evaluate perceived threats in the environment. This combination frequently leads to conflicts with family members and peers as well as

problems adjusting to different school situations (Parker & Asher, 1987; Steinberg, 1996).

Tawfiq (2003) studied that early offenders often come from families from low socioeconomic levels in which parents are experiencing financial crises. Undoubtedly, if a child is deprived of adequate food and clothing in the home, he will be forced to look for his sustenance elsewhere. While engrossed in this innocent search, he may become influenced by certain criminal elements of the society, which could result in him becoming a criminal and a menace to others.

It has been studied by a number of longitudinal researches that those, hyperactive children whose symptoms persist into adolescence are the ones at high risk to conduct disorder and substance abuse (Hinshaw, 1987; Mendelson, Johnson, & Stewart, 1971). Gittelman , Mannuzza, Shenker, and Bonagura (1985) followed a group of boys who were initially diagnosed as hyperactive between the ages of 6 and 12. They attempted to find a group of "pure" hyperactives by excluding children with clear-cut conduct disorders at the beginning of the study. Even so, when they examined these boys at 16 years of age or older, they found that the hyperactive subjects whose symptoms persisted into middle adolescence were significantly more likely to develop an antisocial or delinquent behavior than those who did not have persisting ADHD symptoms (Tarter, Laird, Kabene, Bukstein, & Kaminer, 1990).

Similarly, those in the original hyperactive group whose symptoms remitted by age 16 were no more likely to have an antisocial disorder than the control subjects. These studies generally show, then, that children with ADHD are at high risk of developing conduct disorder (particularly if their ADHD symptoms persist rather than remit) and that those subjects who do go on to develop conduct disorder then become more prone to be delinquent. So with many other predictors of delinquent or criminal behavior, the conduct disorder or attention deficit and hyper active disorder is the one. (See, for example, Gittelman, Mannuzza, et al., 1985; Satterfield, Swanson, Schell, & Lee, 1994).

Many longitudinal studies show that severe criminal behavior have proper history of antisocial behaviors in childhood, such as frequent fighting, hitting, stealing, destroying or vandalizing property, or lying, are the strongest predictors of chronic delinquency. Both criminological and psychological research converge on a distinction between two groups of youths: one whose antisocial behavior or delinquent "career" is limited to adolescence and one whose antisocial behavior or delinquent career starts early—often in early childhood—and persists into adulthood (Lyken as cited in Rutter, 1998).

Adolescents who begin to exhibit delinquent behavior at an early age may be more likely to go on to commit more serious crimes and become chronic adult offenders. Late-onset delinquents (that is those who become involved in delinquent behavior during their teenage years) rarely continue this behavior into adulthood. For these with other factors juveniles peer pressure is likely to be the biggest factor in their decision to engage in problematic behavior. These adolescents often come from permissive families in which they are given a lot of freedom and are not very closely monitored by the adults who are responsible for them (Steinberg, 1996).

Measurement of Juvenile Delinquency

Juvenile Delinquency is rooted in law. It does not include all misbehaviors of children, but is essentially concerned with the prohibited acts upon which the community has legislated, however loosely some statues are drawn. As with all law minor infractions escape attention or enforcement, and other conditions intervene to prevent complete identification or accounting of all delinquent acts or actors (Ressey & Donald as cited in Steinberg, 1987).

Palmer and Hollin (as cited in Rankin, 1983) enlightens this issue for youthful offender basic disagreements exist as to which offenses should receive official attention and whether many offending children should be regarded as neglected or dependent, rather than delinquent. The number who are counted or registered is greatly affected by

the vigilance or reluctance of police officers in reporting or arresting children, public willingness to use juvenile court machinery or the victim's refusal to prosecute youth, and the establishment of procedures for handling offenders in a straightforward and regular way.

Paternal and humanitarian attitudes of persons in authority also tend to prevent systematic identification of youth or infractions of the law with increase in formal control of group behavior and enlargement of juvenile court authority, changes in community attitudes, legal proscriptions and age limits and with the administrative innovations in methods of handling child offenders, the proportion who fall under the title "delinquent" may rise or fall without any alteration in the number of offenses or offenders, even in the same locality (Cohmk, 1995).

According to Herbert and Bloch (as cited in Hirschi, 1969) the rise or fall in the frequency or rate of youthful misbehavior is a basic concern of the community. While it is true that it is extremely untrustworthy to compare the rates of delinquency from one community to another because of differences in what local customs call "delinquency", or because of variable practices of handling cases without making any record, it is nevertheless true that we can obtain fairly reliable information on those cases which require formal attention and in some localities even unofficial cases (including purely police actions) may be brought into the picture.

The local analyst, of course, should be careful to discover any peculiarities in his data, or any shifts in their meaning from year to year, especially when they may differ from the prevailing pattern in other communities. There is no need to disregard all local data merely because of singular vagaries which may have an explanation or because the statistics of some communities are too unrepresentative of the total problem or unreliable (Cernkovich & Giordano as cited in Shields & Clark, 1995).

The basic weakness of national figures on delinquency is that they are conglomerate of locally collected data whose consistency and validity are far from satisfactory in many

instances. Because of all this and more, some criminologists take the position that data from juvenile courts are useless in measuring the rate or the change in the rate of delinquency (Herbert & Bloch as cited in Hirschi, 1969).

An overwhelming number of concepts have been utilized for the measurement of criminal behavior. Some have roots in traditional epidemiology (prevalence, incidence), and some have been developed in the criminological literature including intensity, density, gravity, diversity, polymorphism, specialization (Wichstrom & Pedersen, 1993). Gordon (as cited in Jessor, 1987) has argued that the adoption of epidemiological concepts in criminology has been a source of confusion, and based on this argument Blumstein, Frechette, and Le Blanc (as cited in Wichstrom & Pedersen, 1993) suggested a more precise terminology and elaborated this framework further. Three defined nucleus concepts are participation, frequency and variety. Instead of prevalence, the term participation describes the proportion of the population that is criminally active over a given period of time.

The number of offences committed by an individual over a given period of time is called frequency. Le Blanc and Frechette (as cited in Wichstrom & Pedersen, 1993), maintained that participation and frequency have proved to be relatively independent. Frequency seems to be more associated with situational factors, whereas participation probably depends more on structural factors. Blumstein et al (as cited in Wichstrom & Pedersen, 1993) denoted frequency by the Greek letter lambda annual (λ), and claimed that there is little evidence of systematic changes with age in the annual λ. Wichstrom (1991), however, reported that λ varied with age and that the variations were different for different types of crimes. He found a peak at age 15 for λ of the total crimes of offenders in the Stockholm.

Variety refers to cumulative participation in several categories of crime during a given period of time. Other similar terms are diversity and polymorphism. Although frequency is a commonly used measure, variety is less often included. This is unfortunate, as a number of studies have reported that variety is connected with

development of chronic patterns of delinquency. A closer inspection of relationship between variety and frequency must thus be regarded an important tasks (Farrington & Blanc as cited in Wichstrom & Pedersen, 1993).

Lipsey and Derzon (1998) in a comprehensive research review concluded that stratified and selected samples increase the precision of estimates for high-risk sub populations and for serious offenders in the aggregate population. On the other hand, normal population samples give the highest precision of estimates with the low-yield general population. However Wichstrom and Pedersen (1993) maintained that self-report normal population studies often do not have large enough samples to give reliable measures, especially with serious but less common offences. In addition, the validity of many studies is restricted because samples are drawn among males only, cities only, or student populations.

Child Labor and Delinquency

The basic difficulty with all juvenile delinquency is the one-time apparently humane program of forbidding children to labor in any way. Doubtless, it was once a fact that child labor was abused, that children were worked too hard, that their growths will be stunted. The legislation to prevent children from working with all the good intention of the world is, however, directly responsible for juvenile delinquency (McCarthy & Hulsizer, 2002).

Forbidding children to work, and particularly forbidding teenagers to make their own way in the world and earn their own money, creates a family difficulty so that it becomes almost impossible to raise a family, and creates as well, and particularly, a state of mind in the teen age that the world does not want him, and he has already lost his game before he has begun it. Then with something like universal military training staring him in the face so that he dare not start a career, he is of course thrust into a deep sub apathy (state of disinterest below apathy) on the subject of work, and when he at length is faced with the necessity of making his own way in the world, he rises into an apathy and does nothing about it at all (John & Fitzpatrick, 2005).

It is highly supportive of this fact that our greatest citizens worked, usually when they were quite young. In the Anglo-American civilization the highest level of endeavor was achieved by boys who, from the age of twelve, on farms, had their own duties and had a definite place in the world. According to McCarthy and Hulsizer (2002) children are quite willing to work. A two, three, four year old child is usually found haunting his father or her mother trying to help out either with tools or dust rags; and the kind parent who is really fond of the children responds in the reasonable and long-ago-normal manner of being patient enough to let the child actually assist. A child so permitted then develops the idea that his presence and activity is desired and he quite calmly sets about a career of accomplishment.

The child who is warped or pressed into some career, but is not permitted to assist in those early years, is convinced that he is not wanted, that the world has no part of him. And later on he will come into very definite difficulties regarding work. However, the child who at three or four wants to work in this modern society is discouraged and is actually prevented from working, and after he is made to be idle until seven, eight or nine, is suddenly saddled with certain chores (Boozer & Suri, 2001).

Now, this child is already educated into the fact that he must not work and so the idea of work is a sphere where he "knows he does not belong," and so he always feels uncomfortable in performing various activities. Later on in his teens, he is actively prevented from getting the sort of a job which will permit him to buy the clothes and treats for his friends which he feels are demanded of him, and so he begins to feel he is not a part of the society. Not being part of the society, he is then against the society and desires nothing but destructive activities (Brown, 2000).Global Task Force on Child Labor and Education for All (2006) cited that by the year 2020, 730 million new workers will have joined the adult workforce, 90% from developing countries, where child labor is most common.

Some of these new workers who will be the new builders of the world's society will have been child laborers growing up. This will likely render them crippled, unhealthy, and, most importantly, uneducated. Many child laborers will have died before reaching

the age of 18 years, and not even have made any impact on the world's future. These new former child laborers who are now formal workers will almost certainly affect the world's economy – in a bad way – because job positions that require an education may go unfilled, and manual labor jobs may also see vacancies due to the fact the new workers are already crippled.

Child laborers may not have much of an effect now on the world's economy; they will play a role in shaping the world when they grow up. This is a key reason why we should try to solve child labor now. Entrusting the world to uneducated and crippled people has never been desirable. In order to have educated, healthy, contributing members to the world's economy later, it is necessary to eliminate child labor now, before the economic effects start to show up (Hazardous Child labor, 1999).

Any plan of abolishment of delinquency depends on schooling. The state could help by making it worthwhile for a child to attend school, whether it is by providing students with nutritional supplements or increasing the quality and usefulness of obtaining an education. There must be an economic change in the condition of a struggling family to free a child from the responsibility of working. Family subsidies can help provide this support (Lipsey & Derzon, 1988).

Though restrictions on child labor exist in most nations, many children do work. This vulnerable state leaves them prone to exploitation. The International Labour Office reports that children work the longest hours and are the worst paid of all laborers (Bequele & Boyden,1988). They endure work conditions which include health hazards and potential abuse. Employers capitalize on the docility of the children recognizing that these laborers cannot legally form unions to change their conditions. Such manipulation stifles the development of youths. Their working conditions do not provide the stimulation for proper physical and mental development. Finally, these children are deprived of the simple joys of childhood, relegated instead to a life of drudgery (Brown, 2000).

According to John and Fitzpatrick (2005) there are problems with the obvious solution of abolishing child labor. First, there is no international agreement defining child labor. Countries not only have different minimum age work restrictions, but also have varying regulations based on the type of labor. This makes the limits of child labor very ambiguous. Most would agree that a six year old is too young to work, but whether the same can be said about a twelve year old is debatable. Until there is global agreement which can isolate cases of child labor, it will be very hard to abolish. There is also the view that work can help a child in terms of socialization, in building self-esteem and for training (Collins, 1983). The problem is, then, not child labor itself, but the conditions under which it operates (Boyden, 1991).

Predicting Factors of Delinquent Behavior

Various researchers categorize risk factors for the determination of delinquent behavior in different ways. Mainly, risk factors fall under three broad categories: individual, social, and community. Each of these categories includes several subcategories (e.g., family- and peer-related risk factors are grouped under the social category and so on) (see for example, Herrenkohl, Hawkins, Chung, Hill, & Battin, 2001).The following summarizes the major risk factors associated with juvenile delinquency and violence. Several juvenile justice researchers have linked risk factors to delinquency (Hawkins, Pollard, & Arthur, 1999; Lipsey & Derzon, 1998), and many have also noted multiplicative effects if several risk factors are present. Herrenkohl, Maguin, Hill, Hawkins, Abbott, and Catalano (2000) report that a 10-year-old exposed to six or more risk factors is 10 times as likely to commit a violent act by age 18 as a 10-year-old exposed to only one risk factor.

1.   Individual Factors
2.   Social Factors
3.   Community Factors

Individual Factors

Prenatal and perinatal factors. Several studies have linked prenatal and perinatal complications with later delinquent or criminal behavior (Kandel, Brennan, Mednick, & Michelson, 1989; Kandel & Mednick,1991; Raine, Brennan, & Mednick, 1994). Prenatal and perinatal complications can lead to a range of health problems that negatively influence development (McCord, Wisdom, & Crowell, 2001). In a prospective study of youth at high risk for delinquency, Kandel and Mednick (1991) found that 80 percent of violent offenders rated high in delivery complications compared with 47 percent of non offenders.

However, some of the evidence regarding the association between pregnancy and delivery complications and delinquency has been conflicting (Hawkins, Herrenkohl, Farrington, Brewer, Catalano, & Harachi, 1998). For example, neither Denno's (1990) study of Philadelphia youth nor Farrington's (1997) study found a connection between pregnancy and delivery complications and violence. Mednick and Kandel (1991) linked pregnancy and delivery complications to violent behavior, but not to nonviolent criminal behavior. In addition, some studies have shown that children whose mothers smoked cigarettes frequently during pregnancy were more likely to display conduct disorders and other behaviors problem (Fergusson, Horwood, & Lynskey, 1993; Wakschlag, Lahey, Loeber, Green, Gordon, & Leventhal, 1997). Although the results are inconsistent, the available data illustrate the need to study further the relationship between prenatal care, delivery complications, and the resulting health problems and juvenile delinquency (Hawkins et al., 1998).

Psychological, behavioral, and mental characteristics. Several individual-specific characteristics are linked to delinquency. Tremblay and LeMarquand (2001) remarked that "the best social behavior characteristic to predict delinquent behavior before age 13 appears to be aggression" (p.141) In addition, Hawkins et al., (1998) reviewed several studies and reported "a positive relationship between hyperactivity, concentration or attention problems, impulsivity and risk taking and later violent behavior" (p. 113). Low verbal IQ and delayed language development have both been linked to delinquency; these

links remain even after controlling for race and class (Moffitt, Lynam, & Silva, 1994; Seguin, Pihl, Harden, Tremblay, & Boulrice, 1995).

Similarly, problems at school can lead to delinquency. Herrenkohl, et al. (2001) noted that "children with low academic performance, low commitment to school, and low educational aspirations during the elementary and middle school grades are at higher risk for child delinquency than are other children" (p. 223). The single strongest individual-level predictor of delinquency in adolescence and adulthood is antisocial behavior (aggression, stealing, lying, dishonesty, and so on) during late childhood and early adolescence. In particular, aggressive behavior during childhood has been found to be related to adult violence. Few studies (See, for example Hawkins et al., 1998) have examined preschool conduct problems and violent behavior in adolescence or beyond. White (as cited in Moffitt, 1993) reported that of a host of measures of physical health, cognitive and motor abilities, language development, and behavior, preschool behavior problems measured at ages three and five were the best predictors of persistent antisocial outcomes in early adolescence.

Social Factors

Family structure. Family characteristics such as poor parenting skills, family size, home discord, child maltreatment, and antisocial parents are risk factors linked to juvenile delinquency (Derzon & Lipsey, 2000; Wasserman & Seracini, 2001). McCord's (1979) study of 350 boys found that among boys at age 10, the strongest predictors of later convictions for violent offenses were poor parental supervision, parental conflict, and parental aggression, including harsh, punitive discipline. Some researches have linked being raised in a single-parent family with increased delinquency (McCord, Wisdom, & Crowell, 2001). However, when researchers control for socioeconomic conditions, these differences are minimized (Austin, 1978; Crockett, Eggebeen, & Hawkins, 1993).

Family factors which may effect the development of juvenile delinquency include intense and relentless family conflict. Such conflict could be characterized by domestic

violence, dysfunctional family cohesiveness, child abuse and neglect parental inability to express appropriate affection toward a child lack of adequate supervision of a child and rigid and non-democratic child rearing practices (Cavan & Friedman as cited in Kurshid, 2003).

Peer influences. Several studies have found a consistent relationship between involvement in a delinquent peer group and delinquent behavior. Lipsey and Derzon (1998) noted that for youth ages 12–14 years, a key predictor variable for delinquency is the presence of antisocial peers. McCord et al. (2001) found adolescence is that stage of development in which acceptance by peers becomes extremely important to the juveniles sense of self worth. Associating with a circle of friends who exhibit delinquent behaviors and perform delinquent acts increase the risk of non-conformity to social norms as well as deviant and delinquent behaviors (Lemos, & Stewart; Parker & Asher; Paetsch & Bertrand, as cited in Kurshid, 2003).

Poor academic performance and classroom conduct problems may also be taken as are predictors of later delinquency. Lack of academic competency creates feelings of alienation, worthlessness and low self-esteem. Truancy is often a child's way of dealing with school related failures (Quay, 1987).Factors such as peer delinquent behavior, peer approval of delinquent behavior, attachment or allegiance to peers, time spent with peers, and peer pressure for deviance has all been associated with adolescent antisocial behavior (Mc Cord et al., 2001). Conversely and Elliot (as cited in Ellioy & Menard, 1996) reported that spending time with peers who disapprove of delinquent behavior may curb later violence. The influence of peers and their acceptance of delinquent behavior is significant, and this relationship is magnified when youth have little interaction with their parents (Steinberg, 1987).

Community Factors

Farrington (2000) noted that "only in the 1990's have the longitudinal researchers begun to pay sufficient attention to neighborhood and community factors, and there is still a great need for them to investigate immediate situational influences on offending"

(p. 5). As described below, the environment in which youth are reared can influence the likelihood of delinquency.

School policies. The National Research Council and the Institute of Medicine (1997) reviewed the impact of school policies concerning grade retention, suspension and expulsion, and school tracking of juvenile delinquency. These organizations reported that such policies, which disproportionately affect minorities, have negative consequences for at-risk youth (McCord, Wisdom, & Crowell, 2001). For example, suspension and expulsion do not appear to reduce undesirable behavior, and both are linked to increased delinquent behavior. In addition, Heal (1978) cross-sectional study of primary and secondary schools in England found that large schools with formal and severe punishment structures in place had more incidents of students misbehaving.

Neighborhood. Existing research points to a powerful connection between residing in an adverse environment and participating in criminal acts (McCord, Widom, & Crowell, 2001). Sociological theories of deviance hypothesize that "disorganized neighborhoods have weak social control networks; that weak social control, resulting from isolation among residents and high residential turnover, allows criminal activity to go unmonitored" (Herrenkohl et al., 2001 p.221). Although researchers debate the interaction between environmental and personal factors, most agree that "living in a neighborhood where there are high levels of poverty and crime increases the risk of involvement in serious crime for all children growing up there" (McCord et al., 2001, p.89).

Theories of Delinquency

To describe the facts regarding the delinquency there are different theoretical approaches. Some theories focus more on psychological factors including personality characteristics. However, other view point focuses more on sociological factors (Polk, 1991). Some perspectives are as follows:

The Cultural Deviance Theory

The cultural deviance theory focuses on environment and sub-cultures and this perspective sees delinquency as a function of the surroundings or environment that a juvenile lives in (Ainsworth, 1982). The saying, "society made me does it" could help to better understand this perspective. The cultural deviance theory would state that juvenile delinquency is a function of the environment. It is the environment that produces juvenile delinquents. So what are the environmental conditions that are conducive to creating a delinquent environment (Loeber & Dishion, 1983). The social conditions that make up these areas are physical deterioration; economic segregation; racial and ethnic segregation; a high incidence of social ills, such as infant mortality, mental illness, unemployment, divorce and desertion; and a high rate of dropping out of school (Leighninger as cited in Kempf, 1993). More over Ainsworth (1982) argued that "a juvenile growing up in a culturally deviant area will be subjected to criminal life styles, and could learn deviant practices, patterns of behavior, and norms" (p. 29).

Social Conflict Theory

A conflict theorist would say that juvenile delinquency comes as a result of a conflict in society between two or more groups. This conflict is most often class based and economic. Conflict can also be as a result of a power struggle in society. Conflict can arise between the legal system (judges, police officers and, etc.) and minority groups who feel oppressed by the legal system. This conflict can also be ethnocentric, racial or be grounded in merely any ideological grievance between groups in society. From this perspective juvenile delinquency can be viewed as a function of acting out against those in a conflicting group in society (Reiss, 1951).

The Rational Choice Theory

The rational choice theory is upheld by many conservatives who view juvenile delinquency from an individual based perspective. There are some psychologists who

will argue that those who deviate do not know what they are doing (Calhoun as cited in Wegs, 1994) . Rational choice theorists will argue this perspective. They argue that in many (if not most) a case, deviance is a result of highly rational calculation of risks and awards. Prospective deviants weigh their chances of gain against the risks of getting caught, and thereby decide a course of action (Johnson & Deli, 2001). Juveniles however, do not always choose the most rational actions. There values are different than adults (and in many cases their values have not developed/formed fully yet), and there motives may be different than an adult criminal. Adolescents are also notorious for not thinking before they act! There actions which constitute delinquency may come as a result of acting out against authority, or to rebel against cultural norms and goals (Johnson & Deli, 2001).

The Social Control Theory

Social control theorists start with the premise that human behavior is by nature antisocial and delinquent. Hirschi (1969) states that we are all animals, and thus all naturally capable of committing criminal acts, and people commit crimes because it is in their nature to do so. The question that really needs an answer is why do most people not commit crimes (Leighninger as cited in Kempf, 1993). Social Control theorists would view delinquents as acting out of their most primal inclinations.

This perspective states that members in society form bonds with other members in society or institutions in society such as, parents, pro social friends, churches, schools, teachers, and sports teams, to name a few. The social bonds identified by Hirschi (1969) include: the ties and affection that develop between children and key people in their lives, such as parents, teacher, relatives, and friends; commitment to social norms of behavior and to success in regard to such values as getting a good education, a good job, and being successful; involvement in activities because the more activities a person is involved in, the less time he or she will have to get into trouble; and finally the fact that most persons are brought up to believe in and respect the law (Leighninger as cited in Kempf, 1993).

This perspective would address juvenile delinquency as the juvenile failing to form the same bonds and creating the same levels of social capital as a law abiding citizen. Because of this deficiency in their socialization, the juvenile is far more prone to engage in criminal activity (Kempf, 1993).

The social Learning Theory (The Differential Association Theory)

Hirschi (1983) characterized Social learning theory or the differential association theory that crime is learned behavior. People learn criminal behavior through the groups with which they associate. If a person associates with more groups that define criminal behavior as acceptable as groups that define criminal behavior as unacceptable, the person will probably engage more in criminal behavior (Leighninger as cited in Kempf, 1993).Put another way, just as people must learn though socialization how to conform to their society's norms, they must also learn how to depart from those norms. In other words, deviance, like conforming behavior, is a product of socialization (Calhoun as cited in Wegs, 1994).

This theory shows how a juvenile can socially learn deviant behavior from those around him/her such as family, peers, schoolmates or anyone else that he or she may come in contact with. The parents and peers are probably the most powerful agents in socialization. To exemplify this theory, imagine a child growing up in a home where the parent's routinely engaged in criminal acts. The child would grow up assuming that these acts may not be as wrong as society or the law has defined them. If a child is around delinquent peers, one can also learn the activities of their peers and be much more prone to engaging in criminal activity (Gottfredson & Hirschi, 1986).

Strain Theory

Merton (1994) believes that there is a serious relationship between poverty and crime. His theory suggests that if you are poor you are more likely to commit crimes and become a criminal. He feels that there are institutionalized paths to happiness in our

society. He believes in a society of equilibrium where goals = means. Merton's <u>Strain Theory</u> suggests five attributes.

1.   Innovation: individuals who accept socially approved goals, but not necessarily the socially approved means.

2.   Retreatism: those who reject socially approved goals and the means for acquiring them.

3.   Ritualism: people who buy into system of socially approved means but lose sight of the goals (Merton believed that drug users are in this category).

4.   Conformity: those who conform to the system's means and goals.

5.   Rebellion: people who negate socially approved goals and means by creating a new system of acceptable goals and means.

The strain theory argues that people who commit crimes have basically the same values as everyone else. Primarily among these values is an emphasis on achievement and success. According to this theory, the avenue for the achievement of success is greatly restricted for people in the lower class. Thus, they are faced with a cruel dilemma; either they abandon the major American values of success and prosperity or they abandon another obedience of the law (Mc Carthy, Gerstein, & Langner, 1982)

Low Self Control Theory

Gottfredson and Hirschi (1986) low self control theory makes individualistic causal arguments; that is, each and every act of criminal behavior is the result of unique individual factors such as traits, which are semi-permanent enduring personality characteristics. Individuals possess three sets of traits: (1) traits composing low self-control; (2) traits predicting involvement in crime; and (3) other traits that are the result of socialization. LSC traits appear in the first six or eight years of life, and include only "factors affecting calculation of the consequences of one's acts" (Barker & Knaul, 1991, p.54). The second set of traits includes low intelligence, high activity level, physical strength, and adventuresome ness. The third set of traits includes impulsivity, insensitivity, and inability to delay gratification (Wilson & Herrnstein, 1985).

Chaplin (1985) describes the important trait in the result of socialization that predicts the delinquency is Impulsivity. It is sometimes defined as acting on impulse without reflecting upon consequences. Impulsiveness connotes irrationality and an inability to profit from experience. Insensitivity, or lack of guilt, is a trait associated with psychopathy (Cleckley as cited in Bryer, Nelson, Milner, & Krol, 1987) and has been included in scales measuring social control (Agnew,1985; Wiatrowski, Griswold, & Roberts, 1981).

Guilt is painful and lack of guilt is pleasurable. This modified hedonism in LSC theory is consistent with control theories in general which assume that pleasures are constant and motivation unproblematic. Immediate gratification is also associated with psychopathy and means self-absorption in one's own needs which vehemently demand satisfaction (McCord & McCord as cited in Quay & Peterson, 1987). LSC theory treats it as an individual decision process. There is some support for this in the work of Mischel (as cited in Jessor, 1987) who equates self-control with self-regulation during the waiting period when rewards are delayed. This author says that the ability to keep one occupied and to tolerate frustration is the skills that self-control demands. Adventuresome ness or spontaneity is defined as self-initiating behavior occurring without the necessity of external stimulation (Chaplin, 1985).

It is the only non-biological factor in this second category of traits in LSC theory. It is a personality trait that loosely differentiates between delinquents and non delinquents. It is furthermore a valued trait given the societal trend toward greater tolerance for self-expression and assertiveness. While possibly related to extroversion, spontaneity per se is nothing more than a weak predictor because it suggests concern, not insensitivity, for others and also suggests self-esteem, or a concern for a positive image of one's self. A person could be adventuresome and still not have LSC traits (Wilson & Herrnstein 1985).

Personality Traits

Personality is the dynamic organization of different traits within the individual of those psychophysical systems (habits, attitudes, beliefs, emotional states, sentiments and emotions and etc) that determine the individual's unique adjustment to the environment (Allport, 1961, p.28). Personality is the complex organization of different traits e.g., Aggressive , assertive ,unsympathetic manipulative, achievement-oriented, sociable, irresponsible, dominant ,impulsive Risk-taking, expressive, active, anxious, depressed, guilt Feelings, Low self-esteem, tense, moody, hypochondriac, lack of autonomy ,obsessive and etc (Eysenck & Gudjonsson, 1989).Trait approaches of personality emphasize the uniquness of individual personality, Allport (as cited in Schultz, 2001) stated that "we reflect both our heredity and our environment" (p. 247). Heredity provides the personality with raw materials (such as physique, intelligence,and temprament) that may be shaped, expanded, or limited by the conditions of our environment (Pervin & John, 2001, p.267). In this way all the trait theorists invoke both personal and situational variables to denote the importance of both genetics and learning.

Eysenck's Personality Theory or PEN Model

The importance of describing the major patterns of behavior in human subjects has always been recognized by psychologists, and the search for the main dimensions of personality has been pursued by many well known figures. A review of the literature by Eysenck (1970) has disclosed strong support for a view which recognizes the existence of two very clearly marked and outstandingly important dimensions; these have been called, respectively, Extraversion-Introversion, and Neuroticism, emotionality or stability-instability. Eysenck's theory is based primarily on physiology and genetics. Although he was a behaviorist who considered learned habits of great importance, he considered personality differences as growing out of our genetic inheritance. He was, therefore, primarily interested in what usually called temperament. Eysenck's original research found two main dimensions of temperament: neuroticism and extraversion-introversion. Later, when he began to study patients in mental institutions, he added another dimension to his temperament scale; psychoticism (Boeree, 1998; Hollin, 1992).

Figure I. Relationship of extraversion-introversion, neuroticism-stability to early scheme of temperament (Eysenck & Eysenck, 1970, p.4).

Figure I show a relationship between these factors or dimensions and the ancient Galen-Kant-Wundt scheme (as cited in Eysenck & Eysenck, 1970) of the four temperaments. The traits shown on the outer rim of this figure represent in diagrammatic form the results of large numbers of factor-analytic attempts to discover the interrelations of various of these traits in many different human populations; it is an empirical fact that a large proportion of the total common variance produced by the observed correlations between these traits can be accounted for in terms of these two factors. Then Eysenck (1951) hypothesizes that a third dimension of personality could be postulated which was independent of extraversion and neuroticism.

UNSTABLE

Moody | Touchy

Anxious | Restless

Rigid | Aggressive

Sober | Exciteable

Pessimistic | Changeable

Reserved | Impulsive

Unsociable | Optimistic

Quiet | Active

Melancholic | Choleric

INTROVERTED — EXTRAVERTED

Phlegmatic | Sanguine

Passive | Sociable

Careful | Outgoing

Thoughtful | Talkative

Peaceful | Responsive

Controlled | Easygoing

Reliable | Lively

Even-tempered | Carefree

Calm | Leadership

STABLE

This third dimension was labeled as "psychoticism" and it was argued that just as neurosis is a pathological exaggeration of high degrees of some underlying trait of neuroticism, so psychosis is a pathological exaggeration of high degrees of some underlying trait of psychoticism. This hypothesis was based on two main theoretical considerations (1) psychiatric abnormalities are essentially continuous with normality, and (2) neurosis and psychosis are entirely different and independent dimensions. Both hypothesis have received experimental support (Eysenck & Eysenck, 1970), and appear to be along the right lines, as far as we can tell at the moment. In a number of studies it has been found out that there is a strong relationship between psychosis and psychopathy. Off-spring of psychotic mothers, removed shortly after birth and brought up by normal parents, have been found to demonstrate high degrees of psychotic and

psychopathic/criminal conduct, to take one example of the many which prove the existence of the close relation between psychosis (particularly schizophrenia) and psychopathy. Psychoticism, then, is accepted by us as the third major personality dimension (Elliott, 1994).

Many other researchers and psychologists have developed theories similar to Eysenck's and have also made uses of factor analysis research techniques to extend the study of criminal behavior (Anastasi, 1997; Darley, Glucksberg, & Kinchla, 1991; Hollin, 1992; Link & Mealey, 1992).

Neuroticism

Neuroticism is the name Eysenck gave to a dimension that ranges from normal, fairly calm and collected people to one's that tend to be quite nervous. Perez (1986) emphasized that Eysenck's research showed that these nervous people tended to suffer more frequently from a variety of "nervous disorders" that is called neuroses, hence the name of the dimension. But understand that he was not saying that people who score high on the neuroticism scale are necessarily neurotics but they are more susceptible to neurotic problems (Hollin, 1992; Link & Mealey, 1992).

Eysenck (1989) was convinced that since everyone in his data-pool fit somewhere on this dimension of normality to neuroticism, this was a true temperament, i.e. this was a genetically-based, physiologically supported dimension of personality. He, therefore, went to the physiological research to find possible explanations. The most obvious place to look was at the sympathetic nervous system. This is a part of the autonomic nervous system that functions separately from the central nervous system and controls much of our emotional responsiveness to emergency situations. The traditional way of describing the function of the sympathetic nervous system or in other words, it is to say that it prepares us for "fight or flight" (Hollin, 1992).

Eysenck (1975) hypothesized that some people have a more responsive sympathetic nervous system than others. Some people remain very calm during emergencies; some

people feel considerable fear or other emotions; and some are terrified by even very minor incidents. He suggested that this latter group had a problem of sympathetic hyperactivity, which made them prime candidates for the various neurotic disorders.

Extraversion-Introversion

Eysenck's second dimension is extraversion-introversion. By this he means something very similar to what Jung meant by the same terms, and something very similar to our common-sense understanding of them: Shy, quiet people "versus" out-going, even loud people. Moreover he emphasized that "this dimension, too, is found in everyone, but the physiological explanation is a bit more complex" (Gibson, 1980, p. 134).

Eysenck (1975) hypothesized that extraversion-introversion is a matter of the balance of "inhibition" and "excitation" in the brain itself. These are ideas that Pavlov came up with to explain some of the differences he found in the reactions of his various dogs to stress. Excitation is the brain waking itself up, getting into an alert, learning state. Inhibition is the brain calming itself down, either in the usual sense of relaxing and going to sleep, or in the sense of protecting itself in the case of overwhelming stimulation.

Someone who is extraverted, he (1975) hypothesized, has good, strong inhibition: When confronted by traumatic stimulation -- such as a car crash -- the extravert's brain inhibits itself, which means that it becomes "numb," you might say, to the trauma, and therefore will remember very little of what happened. After the car crash, the extravert might feel as if he had "blanked out" during the event, and may ask others to fill them in on what happened. Because they don't feel the full mental impact of the crash, they may be ready to go back to driving the very next day.

The introverts, on the other hand, (as cited in Cooper, 2002) have poor or weak inhibition: When trauma, such as the car crash, hits them, their brains don't protect them fast enough, don't in any way shut down. Instead, they are highly alert and learn well,

and so remember everything that happened. They might even report that they saw the whole crash "in slow motion!" They are very unlikely to want to drive anytime soon after the crash, and may even stop driving altogether.

One of the things that Eysenck discovered was that violent criminals tend to be non-neuroticistic extraverts. This makes common sense, if one thinks about it: It is hard to imagine somebody who is painfully shy and who remembers his/her experiences and learns from them holding up a seven-eleven! It is even harder to imagine someone given to panic attacks doing so (Andrews & Bonta, 1994).

Psychoticism

Eysenck (as cited in schultz, 1998, p. 84) came to recognize, "although a large sample is being used to represent the most of populations for research but there were some populations, was not tapping". Later he began to take his studies into the mental institutions of England. When these masses of data were factor analyzed, a third significant factor began to emerge, which he labeled Psychoticism. Like neuroticism, high Psychoticism does not mean you are psychotic or doomed to exhibit some qualities commonly found among psychotics, and that you may be more susceptible, given certain environments, to becoming psychotic.

As one might imagine, the kinds of qualities found in high psychoticistic people include certain recklessness, a disregard of common sense or conventions, and a degree of inappropriate emotional expression. It is the dimension that separates those people who end up institutions from the rest of humanity (Chapman & Kwapil, 1994).

Over the years, Eysenck has devised several techniques to measure these three dimensions of personality, by use of scales such as the Maudsley Medical Questionnaire (MMQ), The Eysenck Personality Inventory (EPI) and most recently, the Revised Eysenck Personality Questionnaire (EPQ-R). Some sample items are given by Eysenck and Eysenck (1985). Unlike some of the other questionnaires considered earlier, the items

in Eysenck's scales do form three clear factors precisely in accordance with expectations (Barrett & Kline, 1982).

A children's version of the test is also available. Eysenck has concentrated on two of the personality traits which emerge from the five factor theorist, and as 'second-order' factors from the 16PF (Hundleby & Connor, 1968), together with a dimension of psychoticism which he finds to be appreciably negatively correlated with Costa and Mc Crae's 'agreebleness' and 'conscientiousness'. According to Eysenck (1992), Goldberg found a correlation of -0.85 between psychoticism and these two measures (combined), indicating that agreeableness and conscientiousness may well be components of psychoticism, rather than factors in their own right (Cooper, 2002, p. 114). As for as children are concerned, we obtain a fairly congruent picture of an odd, isolated, troublesome child; glacial and lacking in human feelings for his fellow beings and for animals; aggressive and hostile, even to near and dear ones.

The Three Temperament of Eysenck Personality

The following table describes the traits that are associated with the three temperaments in Eysenck's model of personality (Eysenck & Eysenck as cited in Lipsey & Derzon, 1998)

Psychoticism	Extraversion	Neuroticism
Aggressive	Sociable	Anxious
Assertive	Irresponsible	Depressed
Egocentric	Dominant	Guilt Feelings
Unsympathetic	Lack of reflection	Low self-esteem
Manipulative	Sensation-seeking	Tense
Achievement-oriented	Impulsive	Moody
Dogmatic	Risk-taking	Hypochondriac
Masculine	Expressive	Lack of autonomy
Tough-minded	Active	Obsessive

It is clearly seen from the table that the different independent traits are associated with the each personality temperament explained by Eysenck.

Personality Traits and Delinquency

Bernier (1997) has well established that personality factors are implicated in the psychological well-being of teenagers. Thus, it is possible to make predictions about an adolescent's level of suicide ideation or the likelihood of their participation in delinquent and criminal activities based, in part, on their particular personality traits.

The study of personality traits is now well advanced and there seems to be general agreement among many personality theorists as to their structure and, with respect to some traits, their origin. Trait theorists appear unanimous in suggesting that traits are important in predicting a wide range of social behaviors (Bernier, 1997).

On the basis of this view, McCrae and Costa (as cited in Gest, 1997) suggested the following: 1. Traits are not merely summaries of behavior. In fact, they are able to predict and do account for one's thoughts, feelings and actions. 2. Personality traits are not explained by such factors as cultural norms or learned responses. Indeed, the pattern of personality traits appears to be reliably present across cultures and may even have a genetic basis, as evidenced in twin studies. 3. We can use personality traits to predict unseen or unobservable behaviors. 4. Some personality traits have an identifiable and discernible biological basis. 5. Traits can interact with the environment so as to produce unique adaptations to effect attitudes, relationships, and so on. 6. These unique adaptations interact with the situation and have an indirect effect on both adaptive and maladaptive behaviors.

Considerable scientific research has been conducted on the biological bases of personality. For example, Eysenck (1975) has argued that a distinguishing feature of introversion-extraversion can be found in the functioning of the ascending reticular activating system, a structure in the brain that determines cortical arousal. Typically, extraverts are under-aroused such that they tend to be stimulus-hungry. Thus, they seek out `arousal jags' and tend to score higher on measures of sensation-seeking. Because

introverts are over-aroused, they are stimulus-shy. One consequence of this difference is that extraverted teenagers are more likely to study successfully while distracted (for example, while having the television on), than are introverts who are much more easily distracted.

Personality has also been shown to have hormonal and psycho physiological bases. For example, both extraversion and Eysenckian psychoticism (both predicted to be related to high delinquency levels in adolescents), are said to have links with gonadal hormones (testosterone) and dopamine. It therefore seems to be highly likely that anti-social and delinquent teenage behaviors, while no doubt influenced by family and socioeconomic circumstances, may also be due to biological factors beyond one's control. This would have important implications for policy development, which would have to shift from a strongly economic perspective (for instance, alleviating poverty) to how best to manage innate behavior (Eysenck as cited in Fonseca, 1990).

Criminal behavior is associated with personality traits that have been shown to have a high degree of heritability. Intelligence, impulse control, and aggression are such traits; they can be identified in relatively young children and are resilient to environmental manipulation (Newman as cited in Fonseca & Yule, 1995).

Roth (as cited in Rafail & Haque, 1999) found that children with chronic histories of delinquency exhibit characteristic trait patterns, of which the most important appear to be low intelligence, especially in verbal abilities, deficient impulse control, and irritable or aggressive temperament. They also believe that while large numbers of adolescents exhibit delinquent behavior, relatively few become criminals.

Moffitt (as cited in Stephens, 1997) try to differentiate between childhood-onset delinquents, who have histories of problem behavior going back to early childhood, and adolescent-onset delinquents, who have no such troubled childhoods. They do this by defining adolescent-onset delinquents as quite common. They believe such behavior to be an extreme form of the more or less normal response of young males to the social

restrictions on their emerging maturity. Childhood-onset delinquency is far less common. Moffitt (1997) states that while both groups engaged in considerable criminal behavior, the child-onset offenders were three times as likely to have been convicted of a violent crime, and they committed those crimes at a much younger age than the adolescent-onset offenders.

According to Bernier (1997) sociobiologists try to stress the importance of not overlooking the likely genetic similarities between parent and offspring and mistakenly attributing such similarities to upbringing. Sociobiologists also stress that individuals tend to shape their own environments. Due to this, adolescents prone to criminality tend to select friends with similar inclinations. Kelley (1996) did a study to refine the principals of psychology of mind and tried to show how logical interaction can help explain the comparative amounts of both deviant and conforming behavior engaged in by youthful offenders. In doing this study he found that becoming attached to delinquent peers which is an environmental factor makes sense only as a solution to the insecure feelings and distorted conditioned thinking which signals less healthy functioning.

Psychologically healthy children may have genuine compassion for their delinquent peers, but they will not see attachments with such children as particularly valuable unless they have lost their own psychological bearings and do not understand what has occurred. Concluding, therefore, that genetically influenced behaviors may also be mistakenly attributed to erroneous environmental influence (Roth as cited in Rafail & Haque, 1999).

Eysenck's General Arousal Theory of Criminality

To try and explain the connection between temperament, delinquency, sociopathy, and criminal behavior, Eysenck (1975) devised the "General Arousal Theory of Criminality" determined that person's behavioral predispositions are based on the inheritance of a nervous system which is insensitive to low levels of stimulation (Hollin, 1992). Individuals of such a type will be extroverted, impulsive, and sensation-seeking, because under conditions of relatively low stimulation they find themselves at a suboptimal level of arousal and arousal facilitates conditioning, so they are less likely to

learn new and more acceptable forms of behavior. To increase their arousal, many will participate in high-risk activities such as crime (Boeree, 1998; Hollin, 1992; Link & Mealey, 1992).

Theoretically, neuroticism has been linked to delinquency through anxiety and individuals high on neuroticism have been found to be anxious. Because anxiety acts as a drive multiplying with habit, certain delinquent behaviors tend to be repeated (or amplified) if the individual scores high on measures of neuroticism (Eysenck & Eysenck, 1985). The model also predicts that psychoticism is useful for distinguishing criminals from non-criminals (Eysenck & Gudjonsson, 1989). Those scoring high on this dimension have been found to be aggressive, uncaring, insensitive to the feelings of others, and to experience little guilt. It is perhaps not surprising, therefore, that high psychoticism scorers tend to manifest antisocial and delinquent behavior.

In general support of this model, Ellis (as cited in Stephens, 1997) performed a meta-analysis which found that both criminality and sociopathy were associated with childhood hyperactivity (in the past), recreational drug use, risk-taking, failure to persist on tasks and a preference for wide-ranging sexual activity - all known indicators of suboptimal arousal. As Eysenck's Personality Questionnaire is easy to administer, his theory regarding personality and criminal propensity, is easy to test (Hollin, 1992) and many psychologists have done (see, for example Darley, Glucksberg, & Kinchla, 1991; Hollin, 1992; Link & Mealey, 1992).

Eysenck theorized that criminality and antisocial behavior are both positively and causally related to high levels of psychoticism, extroversion and neuroticism (Holman & Quinn, 1992; Hollin, 1992; Vaughan & Hogg, 2002). The theory says that in extroverts, and possibly also in people high on the psychoticism scale, biologically determined low degrees of arousal and arousability lead to impulsive, risk-taking and sensation-seeking behavior that increase the level of cortical (brain) arousal to a more acceptable and enjoyable amount (Holman & Quinn, 1992). Eysenck did find that extroverts experience cortical under-arousal, prefer higher levels of stimulation, and are less responsive to

punishment. They therefore do not learn behavioral alternatives with the use of disciplinary action (Darley et al., 1991).

Eysenck (1992) first postulated then documented that sociopathy in particular was correlated with high scores on all three of the personality dimensions of the Eysenck Personality Questionnaire - extroversion (the opposite of introversion), neuroticism (the opposite of emotional stability), and psychoticism (psychopathy, not psychotic mental illness). All three of these dimensions exhibit substantial inheritability, and since psychoticism is typically much higher in males than females, it is a likely candidate for one of the relevant gender-limited traits which fits Cloninger's two-threshold risk model explaining the sex difference in expression of sociopathy (Link & Mealey, 1992).

Additional confirmation of this arousal model comes from Zuckerman (1980), who found a similar pattern of behavior associated with his measure of sensation-seeking. Zuckerman showed that sensation-seeking as a temperament starts at an early age, shows a high degree of inheritability, decreases with age, and exhibits gender differences - with higher scores more often in males. Because it shows a relationship with both gender and age, sensation-seeking (and its presumed underlying under arousal) may also be a good candidate for a trait that can explain the distribution and expression of sociopathy. However, it has been argued by Furnham and Thompson (1991) that the findings for psychopathy reflect the type of questions asked (Hollin, 1992; Arbruthnot, Gordon & Jurkovic as cited in Hambleton, 1994) that there was "Is there any evidence of a relationship" between personality inventories and criminality (Goldsmith, Israel & Daly, 2003, p. 72).

According to Eysenck's theory (1975), three personality dimensions are associated with delinquent behavior: extraversion (E), neuroticism (N), and psychoticism (P). Subjects with high scores on extraversion are more difficult to condition and consequently have more difficulties in inhibiting their antisocial tendencies; subjects with high scores on neuroticism tend to repeat antisocial behavior since anxiety is believed to act as a drive which multiplies habit or increases whichever drive is dominant; subjects scoring high on psychoticism are more prone to delinquency because of their reduced

sensitivity toward people's feelings and because of their lack of guilt. These differences are believed to be related to specific neurological bases in the case of the extraversion and neuroticism and to an imbalance between androgens and estrogens in the case of psychoticism (Eysenck as cited in Fonseca, 1990).

Results from studies testing these hypotheses have been inconsistent with regard to extraversion and neuroticism. However, support has been found for the hypothesis of a relationship between psychoticism and juvenile delinquency (Eysenck & Gudjonsson, 1989; Perez, 1986; Rutter & Giller, 1983). Studies with children and preadolescents are still rare but generally present the same conflicting picture (Allsop & Feldman, 1976; Powell, 1977). The only study reporting full support for Eysenck's theory was conducted by Gabrys (1988), who found that a group of American conduct-disordered (CD) children referred to an outpatient facility run by the Ministry of Health scored higher than the children with either diagnoses on psychoticism and neuroticism. However, this study was restricted to clinical referred samples and no effort has been made, so far, to replicate these findings in other places by other researchers (as cited in Fonseca & Yule, 1995).

Eysenck's contribution to the study of criminality has been many pronged. He contributed by formulating research theories and testing large groups of participants - as did Allport before him (Kristal, 1979). Eysenck presented theories and procedures that other people could use and reformulate, therefore continuing and advancing the study of criminal behavior (Anastasi, 1997; Darley et al., 1991; Hollin, 1992; Link & Mealey, 1992).

Researches on Personality as a Predictor of Delinquency

There is now considerable evidence that a range of attitudinal and individual difference variables are implicated in antisocial and delinquent behavior (e.g., Eysenck & Gudjonsson, 1989; Farrington, 1992; Fergusson, Horwood, & Lawton, 1990; Furnham & Thompson, 1991; Heaven, 1993, 1994; Rutter & Giller, 1983). Numerous studies on the relationship between personality and delinquency have adopted the Eysenckian model

(Eysenck & Eysenck, 1985; Eysenck & Gudjonsson, 1989) is implicated in antisocial and criminal behavior.

There is great need for increased knowledge of the earlier symptoms of criminal and other maladjusted behavior. For example, many aspects of mental hygiene movement rest upon the assumption that therapeutic work with children will decrease the likelihood of their later delinquency or mental illness.

Chess and Thomas's study (as cited in Avshalom as cited in Lipsey & Derzon, 1998) suggests that children's early temperamental characteristics shape their later personality development and psychopathology. For example, the data of their research from the New York in a longitudinal study revealed that individual differences in irregularity, non adaptability, intensity and negative mood during early child hood were related to externalize behavioral problems in adulthood. More over, the easy/difficult temperament constellation, when measured at younger age was significantly related to various adjustment problems at home, in school in adolescent age and in occupation during early adult hood.

Considering these and other difficulties, it seemed desirable to try a longitudinal approach by collecting large sample data on children most of whom had not as yet manifested severe behavioral problems. The majority of the published studies (Freeman & Flory,1998; Trman,1995; Teman & Oden as cited in Quay & Peterson, 1987; Gluckes, 1992) amongst others under taken to discover the personality characteristics of young people who later develop behavioral disorders, have been based upon the data collected after the individuals became deviant. Roth (as cited in Rafail & Haque, 1999) found that children with chronic histories of delinquency exhibit characteristic trait patterns, of which the most important appear to be low intelligence, especially in verbal abilities, deficient impulse control, and irritable or aggressive temperament. They also believed that while large numbers of adolescents exhibit delinquent behavior, relatively few become criminals.

Researches on child labor and juvenile delinquency in Pakistan

In the countries like Pakistan which is on the way of development and progress and where the social problems are not properly dealt with the observable solution. These social ailments need to be studied and worked over scientifically. Unfortunately in the search of literature review with limited technological capacity no single study has been found out conducted on the child labor with reference to delinquency in all over the world and exclusively in Pakistan. Few evidences regarding the under discussion of psychological construct are as follows. There are ever increasing incidents related with delinquent behavior either it is firing in the school or shoplifting or the run away from school etc. (Branden, 1994; Grove & Crutechfield, 1982; Paetsch & Bertrand, 1997; Perpler & Craig as cited in Tariq, 1991).

Statistics compiled by intelligence agencies reveal the high incidence of crime over the years in Pakistan and the failure of the police and law agencies to curtail crime in the all over country. The figures showed that murders, car snatchings, robberies and burglaries increased during the last years. More than 469716 over all cases are reported in Punjab. In which the crime against person 49166, against property 62982, local and especial laws 105418 and miscellaneous 50050. There are number of crime cases that are unreported. So these figures did not provide correct picture but the estimate only (Crime Profile, 2006). In different cities of the country over all reported crimes in year 2005 are 14158 in Islamabad, 21984 in Karachi, 162198 in Rawalpindi, 178342 in Lahore, 9313 in Multan, 25329 in Faisalabad, and 234765 in Koetta (Crime Profile, 2006).

These figures provide two to three times inflation in crimes as compared to last few years. Despite these figures, investigation wings of the police claimed that they had busted several criminal gangs. It has also been observed during 2006 a number of those robbed had not received their valuables from police officials who had recovered stolen goods (Sheikh, 2003).

In Pakistan increasing incidents of crime and delinquency manifested in a wide variety of behavior. Few researches have been conducted to study the juvenile

delinquency. Altaf (1988) carried out a study to develop a profile of delinquent and non-delinquent on the California Psychological Inventory (CPI).The main purpose of the study was to test the validity of socialization scale of the CPI in Pakistan. Moreover the difference between delinquents and non-delinquents on socialization scale was also confirmed.

Rafai and Tariq (1999) developed some indices in the form of checklist measuring the self reported delinquency in normal Pakistani adolescents. In this study, it was found that self- esteem is negatively related with delinquency. Delinquent adolescents usually have low self-esteem.

Zaeema (2003) determined the role of family functioning and psychological problems of juvenile delinquents and non delinquents by assessing the difference between the two groups. It was found in this study that scores on the variable of communication, value and norms, affective expression and control among family members of juvenile delinquents will be high than non delinquents.

Kurshid (2003) studied the role of family and peer relations on the self-esteem of juvenile delinquents. In this study it was found that juveniles have faced higher stressors in intra-familial and peer relations as compared to those juveniles having high self-esteem. It has also been found out in this study that the family environment like single parent family, abusive child and criminal parents also have an impact on the self-esteem, intra-familial and peer stressors of juveniles.

Child labor is an overwhelmingly issue in Pakistan as all over the world. In Pakistan, a large number of children are involved in different labor work as mentioned earlier, not getting education properly but no scientific study to evidate the behavioral issues like crimes or delinquency of these children. Boys are more likely to work than girls, and older children are much more likely to be employed than their younger siblings (Child labor in Pakistan, 1996). Children, who are the victims of labour, lived a life of deprivation, neglect and exploitation. Their basic right to education, health, recreation, parental love, happy environment, and a childhood are violated and compromised

(Gulrez, 2003). The present study will be an attempt to explore the patterns of delinquency with certain personality traits of adolescents involved in child labor.

Rationale of the Present Study

Child labor is a big problem all around the world. It has been estimated that approximately 350 million children are child laborers and most of them are from early adolescent age i.e., 11-16 years (Human Rights Watch, 2006). With all respect these children are at the disadvantaged end. They are also more vulnerable to develop the maladaptive pattern of behavior. In the light of these facts they were selected as sample of present research. Juvenile delinquency is a topic that has been discussed for years and researches have been carried out with hope that some day they will have the more authentic scientific based answer as to why so many of our youth choose to follow a life of crime (Austin, 1978).

It has been studied over the time that some characteristics associated with juvenile delinquency are possibly related to innate factors - but that the relationship between personality factors and deviant behavior is quite straightforward or necessarily predictable. Personality factors have for a long time occupied an important role in research on delinquent and anti-social behavior (Arbuthnot, Gordon, & Jurkovic; Tennenbaum as cited in Wichstrom & Pedersen, 1993). It has been analyzed in different researches certain biologically based personality features, that are inherited, are more prone to antisocial behavior when they interact with various socialization processes (Boeree, 1998; Eysenck, 1985 Hollin, 1992; Holman & Quinn, 1992).

Keeping above-mentioned facts and views in mind, it was decided to study the personality traits and behavioral problems like delinquency of adolescents in child labor. There is a need of proper attention toward these children to bring relief in their life and make them the useful and productive part of the society. But before taking any step, it is required to explore the nature of different behavioral and personality problems among them.

The insufficient researches regard in personality traits in young adolescents in Pakistan may be explained by the difficulty faced by the researchers in the instrument used to measure the personality trait under the age of 18 years. The scale used by the present researcher EPQ-(Junior) is a relatively good personality measure for young adolescents.

To assess the patterns of delinquency among laborer adolescents, it was important to develop the delinquent measure. Self-report measures have the advantage of allowing a more representative picture of the incidence and distribution of delinquent behavior to be obtained. Furthermore, the fact that many measures are anonymously administered means that the offender's natural reluctance to admit more serious offences may be reduced (Connell & Farrington, 1996). However, these potential advantages of self-report measures must be balanced against the possibility of inaccuracy in at least two areas: The deliberate falsification of answers and inaccurate recall of past events (Connell & Farrington, 1997; Hardt & Petterson, 1991; Huizinga & Elliott, 1986).

To overcome these limitations of self-report measures, in the present research it was decided to develop an informant-reported delinquency scale as well to obtain more authentic information about the criminal and covert anti-social behavior among them. Giordano (as cited in Shields & Clark, 1995) emphasized different sources of considering the same information of delinquency, for example teacher ratings, information from peers and parents and significant others. These sources of information provide further check on reliability of self-report measure.

There are number of reasons for conducting this study. Adolescents of child labor were selected as a sample most important one, psychologically there has not been conducted much work on child labor. Human Rights Watch (2006) estimates cite figures of 350 million working children in the world .This large population size demand to work on this sample and to determine the psychological attributes of these children. The necessity of child labor to poor families and the role of poverty as a determinant have been examined in different studies. Pagani, Boulerice, and Vitaro (as cited in Rutter, 1998) examined the impact of poverty (and its correlate, family configuration status) and

self-reported delinquency in boys at age 16 years. Results revealed that with other correlates poverty had a strong effect on extreme delinquency. This shows that poverty is one of the important predictor of delinquency. Poverty is the major hallmark of laborer children's lives as well and its impact needs to be studied scientifically.

As there is no research that examined the relationship between patterns of delinquency and personality traits of laborer adolescents in Pakistan, so the present research would contribute to improve our understanding to the behavioral problems of these adolescents. It is expected that it would be a useful contribution in the field of psychology especially with reference to social issues in Pakistani culture.

The basic inspiration of this exploratory research is to identify the behavioral problems among these children. Moreover, this study can be used by social scientists to create awareness among society and the legislative institutions to make more targeted or effective preventive programmes and intervention plans to overcome the identified behavioral problems of these children.

RESEARCH DESIGN, OBJECTIVES, HYPOTHESIS, AND OPERATIONAL DEFINITION OF VARIABLES

Research Design

In the present research mainly two variables were analyzed. These variables were (1) Juvenile delinquency (2) Personality traits i.e., Extraversion, Psychoticism, Neuroticism. The Lie scale was used to measure the element of faking among laborer adolescents. The present research was completed in following three studies:

Study I

Study I was aimed to develop indigenous delinquent measures i.e. Self-reported delinquency scale (SRDS) and Informant-reported delinquency scale (IRDS). This study was completed in three phases i.e. generation of items pool, Item evaluation and empirical evaluation through factor analysis.

Study II

Study II of the present research was dealt with translation, adaptation and validation of Junior Eysenck personality questionnaire or EPQ (Junior) (Eysenck & Eysenck, 1975). This study mainly comprised two phases. In phase one translation, adaptation, and cross language validation was done while phase two consists of the establishment of psychometric properties of scale.

Study III (Main study)

This study of the present research (main study) was anticipated to develop the psychometric properties of all three scales used in this study i.e. Self-reported delinquency scale, Informant-reported delinquency scale, and EPQ (Junior)- Urdu version. Moreover, this study was intended to explore the relationship between self-reported delinquency and Informant reported delinquency scales. Similarly the different

dimensions of personality traits i.e. extraversion, Psychoticism, Neuroticism, and lie were explored with reference to delinquency and some other hypotheses were also tested in this study.

Objectives

The present research aimed to explore the patterns of delinquency and personality traits of adolescents in child labor. To achieve this major goal, certain objectives were accomplished in different phases of the research. These objectives were as follows:

1. To develop the instruments for the measurement of the delinquency i.e., Self-reported delinquency and Informant-reported delinquency of adolescents in child labor.
2. To see the different patterns and dimensions of delinquency among adolescents in child labor.
3. To translate and adapt the Eysenck Personality Questionnaire (Junior) to assess the personality traits of the adolescents in child labor.
4. To see the dimensions of different personality traits i.e. extraversion, neuroticism, Psychoticism, and lie of adolescents in child labor.
5. To find out relationship between Personality traits and Self-reported delinquency of adolescents in child labor.
6. To find out the age related differences and delinquency of adolescents in child labor.
7. To find out the difference between type of labor and delinquency of adolescents in child labor.
8. To find out the difference between duration of labor and delinquency of adolescents in child labor.
9. To find out the difference between education and delinquency of adolescents in child labor.
10. To see the predictability of different personality traits on Self-reported delinquency.

Hypotheses

To convene the objectives of the present research the following hypotheses were formulated:

1. There will be positive relationship between Self-reported delinquency and Informant-reported delinquency of adolescents in child labor.
2. Self-reported delinquency will be positively related with the extraversion, Psychoticism and neuroticism of adolescents in child labor.
3. There will be increase in delinquency with increase in an age of adolescents in child labor.
4. More educated adolescents will have less delinquency as compared to less educated adolescents in child labor.

Operational Definition of Variables

In this study, mainly two types of variables were studied i.e. Juvenile Delinquency and Personality traits. Further there were three types of personality traits have been studied in this research. These personality traits were Extraversion, Neuroticism, and Psychoticism.These three were taken as independent variables in the present study. To have the complete understanding of these constructs, they have also defined conceptually with operational definition. The operational definitions of these variables are as follows:

Juvenile Delinquency

Juvenile Delinquency and adult deviant behavior is completely defined with the help of following two perspectives. The legal perspective of Juvenile delinquency simply states which type of behavior is forbidden by law, in any state for the children under 18 years of age. The cultural meaning of the word might summarize all statements indicating that a piece of behavior is in contradiction with the value demands of the dominant culture or norms within which a child moves (Shields & Clark, 1995).

In the present research the juvenile delinquency of the participants were measured with the help of two scales i.e., self-reported delinquency scale and Informant-reported delinquency scale, developed in the present research.

Extraversion

The typical extravert is sociable, like parties, has many friends, needs to have people to talk to, and does not like reading or studying by him. He craves excitement, take chances, often sticks his neck out, acts on the spur of the moment, and is generally an impulsive, found of practical jokes, always has a ready answer, and generally likes change; care free, easy going, optimistic, and likes to be laugh and to be marry. Prefers to keep moving and doing things, tends to be aggressive and lose temper quickly; altogether his feelings are not kept under tight control, and he is not always a reliable person (Eysenck & Eysenck, 1973).

In the present study participants were characterized as extraverts on the basis of their scores on the subscale of extraversion in Eysenck Personality Questionnaire (Junior) (Eysenck & Eysenck, 1970).

Psychoticism

Psychotic individual may be described as being solitary, not caring for people; often troublesome, not fitting in anywhere. A person with psychotic traits may be cruel and inhumane, lacking in feeling and empathy, hostile to others and aggressive and altogether insensitive. He has liking for odd and unusual things, and a disregard for danger (Eysenck & Eysenck, 1973).

In the present study participants were characterized as psychotics on the basis of their scores on the subscale of psychoticism in Eysenck Personality Questionnaire (Junior) (Eysenck & Eysenck, 1970).

Neuroticism

The typical neurotic individual may be characterized as anxious, moody and frequently depressed. A neurotic likes to sleep badly, and suffer from very psychosomatic disorders, overly emotional, reacting too strongly to all sorts of stimuli, and finds it difficult to get back on an even keel after each emotionally arousing experience (Eysenck & Eysenck, 1973).

In the present study participants were characterized as neurotics on the basis of their scores on the subscale of neuroticism in Eysenck Personality Questionnaire (Junior) (Eysenck & Eysenck, 1970).

Lie Scale

This scale attempts to measure a tendency on the part of some subjects to "fake good", there are certain difficulties in regarding scores as nothing but indictors of dissimulation. The main difficulty seems to be that in addition to measuring dissimulation, the L scale also measures some stable personality factor which may possibly denote some degree of social naïveté (Eysenck & Eysenck, 1970).

In the present study participants were characterized as dissimulating and faking on the basis of their scores on subscale of lie in Eysenck Personality Questionnaire (Junior) (Eysenck & Eysenck, 1970).

PART I: DEVELOPMENT OF
SELF- REPORTED AND INFORMANT REPORTED
DELINQUENCY SCALES

Part one of the present research comprised development of two delinquency scales i.e. Self-reported and Informant-reported. The delinquency measures (self-reported and informant-reported) were developed in following three phases:

Phase I: Generation of items pool.

Phase II: Judges' opinion/ Item evaluation.

Phase III: Empirical evaluation through Factor analysis.

Phase I: Generation of items pool

To develop the scales items pool was generated in following four phases.

1.   Literature Review.

2.   Focus Group Discussion with different segments of society.

3.   Open ended Interviews with laborer adolescents.

4.   Open ended questionnaire.

Literature Review

After the comprehensive study of research articles following scales have been identified developed on self-reported delinquency over the time. On the basis of these scales, different dimensions of delinquency were identified that helps the researchers to construct items.

1.   Gold (1970) developed self-reported delinquency measure. This instrument assesses two forms of delinquency namely: interpersonal violence (six items) and vandalism

and theft (eight items). Respondents used four response options from never (scored 1) through to often (scored 4).

2. Elliot and Ageton (1980) developed a self-reported delinquency scale of 46 items. The items on the self-reported delinquency scales are classified into five sub scales namely: (1) crimes against person (assault, rape and robbery), (2) crimes against property (theft and vandalism), (3) illegal service crimes, (4) public disorder crimes and (5) status crimes.

3. Rowe (1985) developed an instrument measuring delinquent behavior. The identified dimensions of the items can be classified as vandalism and trespassing (6 items); shoplifting and theft (4 items); lying (1 item); speeding a car (1 item); non compliance to adult (1 item) and aggression (7 items).

4. Leblanc and Tremblay (1988) developed a scale of self-reported delinquency for adolescents consisting of 27 items. This scale included four sub scales; physical aggression (7 items); Stealing (8 items); Vandalism (7 items); Alcohol and drug use (5 items).

5. Pedersen and Wichstrom (1995) developed a measure of self- reported delinquency. This instrument measures different types of behaviors from pretty conduct problems to more serious crimes. The identified dimensions of delinquency in this scale are, (1) School opposition (4 items) reflects school related conduct problems of an overt aggressive character such as cursed in front of a teacher, summoned to principal. (2) Covert anti social behavior (5 items) includes minor conduct problems and acts on the fringe of ordinary crime such as refrained from paying on buses, stayed out at night without parents' permission, passive-aggressive tendency to avoid arenas under adult control. (3) Crime (6 items) reflects typical criminal behavior of theft, major vandalism and burglary.

6. Gomes (2000) developed a self-reported delinquency scale. The scale has following two subscales; (1) property related delinquency (6 items); (2) Violence related delinquency (7 items).

7. Rafai and Tariq (1999) developed a self-reported delinquency check list. This checklist is unifactor with 37 items. In the present research a scale was developed because this check list only helps to identify behavior do not measure the intensity

of construct. Similarly the items of this scale do not best described the context in which laborer adolescents operate. There were many items which were not suitable for present sample.

Results of literature review

The identified categories/ dimensions of delinquency from literature review were as follows: (1) Physical aggression (2) Stealing (3) Vandalism (4) Alcohol and drug abuse (5) Public disorder crime (6) Status crime (7) Lying (8) Speeding a car (9) Non-compliance to adults (10) Violence (11) Assault (12) Rape and (13) Robbery. These categories were further used to formulate interview guide.

Focus Group Discussion

To explore the phenomenon of delinquency in Pakistani culture or, to assess its different dimensions among laborer adolescents, the three focus group discussions were conducted. These discussions were arranged with the people from different segment of society including lawyers, social workers, and social science researchers. The size of each focus group was limit from 6 to 10 people. So that, with the diversity of perceptions every one got the proper opportunity to shares his/her imminent opinions regarding the concerned topic. In each focus group researcher welcomed the participants and thanked them for their participation. Then it was explained why the participants were chosen, included the importance of their knowledge and information regarding the topic. A group discussion was built around certain questions already set in interview guide.

During the discussion it was carefully monitored that every member should take part in discussion. A focus group session should last for around 1.5 hours. Participants were asked permission to record the session. It was told them that their recording will be used only for the purpose of research. At the end of each focus group participants were thanked for their quality time. For facilitation in focus groups a helper was trained. After the each focus group discussion, detailed notes were prepared by listening the recording again and again.

After notes taking, highlighted those items which researcher wish to review in detail. It helped the researcher to locate important points or quotes of the recording. It was carefully seen that written report should follow the questions contained in the discussion guide. After reviewing the recording the coding categories were generated. Frequency of responses on each coding category was noted and used as criterion for any dimension to generate items pool.

Focus Group Guide

For this purpose, the focus group guide was prepared by researcher. To prepare this guide the identified categories of delinquency from literature review were considered and questions were made accordingly (See Appendix, AI).There were specific set of questions in the guide so that a really detailed idea about the area of interest could be obtained. Participants in each focus group shared some common characteristics, such as age, sex, educational background, profession, religion, or something directly related to the topic being studied. The questions in the guide line were arranged in a manner so that covering issue possibly. The questioning route was from general to specific. The topic guide was modified after every focus group.

Focus Group 1

Sample. The first focus group was comprised on men (*n= 10*) Lawyers of High Court. Their age range was from 35-50 years with mean age 42.7 years. Minimum five years experience of practice was the inclusive criteria in focus group. This criteria was set so that, they have sufficient experience by dealing with the number of cases regarding the under discussion issue.

Procedure. The participants were approached individually from *kachahry* Rawalpindi and after having their consent for participation they were included in the focus group. They were given the oral instructions about area under investigation. The session took almost 90 minutes. The discussion was recorded and at the end participants were acknowledged for their cooperation and participation. In this focus group this

attempt was made that participants should share their maximum observations regarding delinquent patterns of laborer adolescents

Focus Group 2

Sample. The second focus group was conducted with the 8 M.Phil students of psychology. They were all girls and involved in research work. Their age range from 24-35 years with the mean age 27.6 years. These all students have the history of different projects with child labor.

Procedure. They were approached individually. After having their agreement they were included in focus group discussion. It also took an hour to finish. At the end of discussion participants were thanked for their cooperation. In this discussion psychological importance of issue is especially monitored and discussed.

Focus Group 3

Sample. The participants of the third focus group comprised on 10 social sciences research students from the field of anthropology, Pakistan studies and sociology. It was made clear that participants should have history of work and assignments regarding the under discussion topic. The participants were included both male and female M.phil/Ph.D students, men *(n= 6)* and women *(n= 4)*. Their age range was from 25-37 years with the mean age of 35.4 years.

Procedure. The same procedure of the previous focus group was followed. In this focus group different experiences with adolescents involved in labor were deliberatively discussed.

Results of Focus Group Discussion

At the end of these three focus groups, content analysis was made. For this purpose on each question of the focus group guide the maximum coding categories were generated. The recording of focus group session was carefully listened again and again by researcher to fit in the answers of participants in predetermined categories. Moreover, any

new concept from each focus group was taken to generate more coding categories. The maximum frequency of responses on each category was taken as criteria for the selection of items in items pool. At the end of this laborious process 25 items were generated covering the following categories: Theft (5 items), lying (3 items), shop lifting (2 items), drug abuse (3 items), and use of weapons (2 items), damaging public property (3 items), cheating (2 items), sex business (3 items) and physical aggression (2 items).

Qualitative interviews with Laborer Adolescents and their Informants

At the most basic level, interviews are conversations. Kvale (as cited in Elliott, 1994) defines qualitative research interviews as "attempts to understand the world from the subjects' point of view, to unfold the meaning of peoples' experiences, to uncover their lived world prior to scientific explanations**.**

In qualitative interview open-ended responses to questions provide opportunity to reveal the respondents' levels of emotion, the way in which they have organized the world, their thoughts about their experiences, and their basic perceptions (Patton, 1990). For the conduction of interview the interview guide was constructed which was more or less same as the focus group guide. The task for the qualitative interview guide is to provide a framework within which people can respond in a way that represents accurately and thoroughly their point of view about the phenomenon. For the construction of interview guide following points were considered define by Patton (1990).

- Wording should be open-ended**.** Respondents should be able to choose their own terms when answering questions.
- Questions should be as neutral as possible**.** Avoid wording that might influence answers, e.g., evocative, judgmental wording.
- Questions should be asked one at a time.
- Questions should be worded clearly**.** This includes knowing any terms particular to the program or the respondents' culture.

- Be careful asking "why" questions**.** This type of question infers a cause-effect relationship that may not truly exist. These questions may also cause respondents to feel defensive, e.g., that they have to justify their response, which may inhibit their responses to this and future questions

Keeping in mind these points interview guide was finalized which was exactly same as the focus group guide (See Appendix, AI). This may be the most widely used format for qualitative interviewing. In this approach, the interviewer has an outline of topics or issues to be covered, but is free to vary the wording and order of the questions to some extent. The major advantage is that the data are somewhat more systematic and comprehensive than in the informal conversational interview, while the tone of the interview still remains fairly conversational and informal.

Like the conversational interview, this type of interview also requires an interviewer who is relatively skilled and experienced, since he or she will need to know when to probe for more in-depth responses or guide the conversation to make sure that all topics on the outline are covered. A possible drawback is that sticking to the outlined topics will prevent other important topics from being raised by the respondent. Also, while this format is more systematic than the conversational interview, it is still difficult to compare or analyze data because different respondents are responding to somewhat different questions.

Sample

For the generation of more items five detailed qualitative interviews were conducted with the adolescents and their informants involved in child labor. For the adolescents age range from 13-17 years with the mean age of 15.2 years. They were involved in different type of labor for example work shop, general stores, hotels, trash collectors and work at bricklin factory.

Similarly the five interviews with the informants were made. The criterion for informant selection was the person who spent at least five hours a day that is older than the concerned person at least ten years. They were usually their senior colleagues and the

person whom they were employed. Their age range from 32-45 years with the mean age of 43.4 years. They were all contacted at the same workplace of adolescents.

Procedure

The adolescents and their informants were randomly selected by the researcher. They were all contacted individually at their work place. After having their consent, detailed open ended qualitative interviews are conducted with each participant. Before the interview it was assured to each participant that their provided information will be kept confidential and will be used only for research purpose. At the start of each interview proper rapport building was done by researcher, so that participants feel relaxed and trust on researcher to share their experiences. At the end of interview they were thanked for their cooperation and time.

Results of Qualitative Interviews

Patton (1987, 1990) also addresses a number of techniques for quantifying and analyzing qualitative interview data. The most appropriate method of analysis for any given study will depend on the purpose of your evaluation and the nature of the material, as well as the time and resources available for this part of the process. Some methods attempt to be more objective, while others depend more heavily on subjective judgments and insights of the researcher. Researcher must carefully look in categorizing interview statements or counting key words, which may allow some forms of quantitative analysis.

Similarly the interview contents have been analyzed in the same format. For the present research interviews were analyzed on pre-determined coding categories. Any new information was also taken to generate any new coding category. At the end of this process 30 items were generated covering the following categories: Drug abuse (3 items), vandalism (2 items), sex harassment (3 items), physical abuse (2 items), loose talk (3 items), police encounter or escape (2 items), sexual promiscuity (3 items), damaging public property (2 items), violation of laws (3 items), drug business (2 items), extortion (2 items), cheating (3 items).

Open ended Questionnaires by Doctors and Civil Society Organization workers

A questionnaire may bring out information from the respondent or it may start the respondent thinking or even doing some work on their own in order to supply the requested information. In any case, a questionnaire is a device that starts off a process of discovery in the respondent's mind (Phillips & Stephen, 1987).

Kline (1986) emphasized the vitality of open-ended questionnaire in the research in a manner that people who know the most about the content itself have begun to re-examine what it means "to know" a discipline. In doing so, they are discovering common themes and concepts underlying the various content areas of phenomenon. Similar processes might be involved in learning and understanding any subject area. Now a day there is obvious shift of focus from learning as content knowledge per se to learning as the ability to use and interpret knowledge critically and thoughtfully. Keeping in mind this view this technique was used to generate more items regarding patterns of delinquency among laborer adolescents (See Appendix, AII).

Sample

In order to generate further items open ended questionnaires were also administered on 5 M.B.B.S doctors of different hospitals of Rawalpindi including Rawalpindi General Hospital (*n=2*), Fatima Memorial Hospital (*n=1*), and District Hospital Rawalpindi (*n=2*). More over 3 social workers from civil society organization "Sharp" were selected to fill open ended questionnaire. This indigenous organization is working on the legal issues of the adolescents.

Procedure

They were all contacted individually. After explaining the purpose of research open ended questionnaires were given to them with the instructions that they should written maximum in each answer and don't left any single question. They were instructed especially to mention all the important points regarding the issue under consideration.

Results of Open ended Questionnaire

The standard method to analyze the open ended questionnaire is content analysis and is a subject all of its own. One of the greatest advantage of content analysis is it usually lets the researcher to boil down responses into categories, and then one can count the frequency of occurrence of different categories of response (Robert & Devillas, 1991). Similarly in the present research open-ended questionnaires were analyzed according to pre-determined coding categories. Each of the answer was analyzed carefully to fit into the appropriate category. No new category was developed in this process and on the basis of previously generated coding categories 20 items were formulated. these coding categories were: Theft (2 items), watch cinema without paying (2 items), loose talk (2 items), physical aggression (3 items), use of weapons (2 items), sexual abuse (3 items), vandalism (2 items), damaging public property (2 items) and gambling (2 items).

PhaseII: Selection of Final Items for Scale

This phase of the present research aimed at selecting the items from the items pool.Researcher selected the final items in two steps.

Self Selection of Items

In the first step of this phase, Researcher with the help of supervisor closely scrutinized the items again and again to select the best items covering all the possible dimensions of delinquency. So that out of 75 items 40 items were finalized. In this phase it was decided that Informant reported delinquency scale will have the same items with the slight change of phrasing/ wording as self-reported delinquency scale. For further evaluation of selected items judges' opinion was sought.

Judges' Opinion Regarding the Appropriateness of Items

In the second step of this phase on selected final items, judges' opinion was sought to overcome the problems of overlapping of the items and to identify inappropriate and unclear items.

Sample. For this purpose five M.Phil. /Ph.D. students of psychology were contacted. It was carefully considered by the researcher to select those students that they have been involved in scale development.

Procedure. They were all contacted individually and after having their consent for judgment, underlying construct i.e. delinquency was defined to each of them. They were requested to monitor each item carefully for face validity, language appropriateness and construct relevance. To analyze the developed scale on the parameter of construct relevance, they were requested to rate each item on five point rating criteria i.e. (1) "Not appropriate item", (2) "Appropriate item", (3) "Satisfactory item", (4) "Good item", (5) "Best described item" (See Appendix, B).

Results. On the bases of consensus among the judges, no item was dropped. To verify the results of judges, inter judges' reliability was determined. The computed correlation coefficient was 0.76 and it was significant at $p < 0.01$ levels. It was clear from the correlation coefficient value that results of the judges on the items of the scale were quite consistent which provides evidence of consistency of the responses among judges. In the development process of scale it was found that it has adequate content validity.

Description of the Instruments (SRDS and IRDS)

After the judgement opinion 40 items were finalized measuring the following 8 dimensions i.e., theft, drug abuse, lying, non compliance to adults, police encounter and escape, violence related delinquency, cheating and gambling, and sex-related delinquency. These items were arranged on a 5-point Likert type scale. All items of the scale were positively stated The instructions and response categories of the scale were also finalized. Instructions of the scale were as follows: In the given scale, some questions regarding the daily routine activities have been asked.You are requested to think properly how much time you performed the stated acts in the last year. The instructions were same for informant reported delinquency scale except it was stated in

instructions that information is required regarding the concerned person. Similarly the response categories of these scales were "never" =0, "one time" = 1, "2-5 times" =2 "5-10 times" = 3 and "10 or more times" = 4 (as adapted from Wichstrom & Pedersen, 1993).The possible score range on this scale is from 0–200. This score range suggest that higher the score obtained by the subjects, higher will be the delinquency.

Phase IV: Empirical Evaluation of the Scale through Factor Analysis

Sample

A sample of 200 male adolescents with the age ranging from 13- 17 years (*M*= 15.39; *SD*= 1.55) and their 180 informants with the age ranging from 25-55 years (*M*=41.25; *SD*= 1.75) from different areas of Rawalpindi/ Islamabad was selected. Participants were selected by using purposive sampling technique. The sample of the present research was constituted on those adolescents working in workshops (*n*= 65), general stores (*n*= 47), restaurants (*n*= 40), beggars (*n*= 23), and trash collectors (*n*= 25).

Sampling inclusion Criteria

Only those adolescents were selected who have been involved in different labor work for at least last two years and their informants were easily available. The selection criterion for informants was that they must be older than adolescent at least 10 years and spending at least 5-7 hours daily with the adolescents at work place. It was carefully checked by the researcher that these informants should not have any blood relation with the laborer adolescent. So that informant can report about the targeted person freely without any bias. Infact they were those people with whom laborer adolescents were working. The subjects were approached at their work places.

Instruments

Demographic Information Sheet

Two demographic information sheets were used for two scales (Self-reported delinquency scale and Informant-reported delinquency scale).Demographic information was obtained from the participants regarding their age, education, type of labor, duration of labor, per day income, no of siblings, birth order and parents' education, profession, income, whether alive or dead (See Appendix,CI).

Similarly, separate demographic information sheet was used for Informant-reported delinquency scale. Information was obtained from the participants regarding their age, relationship with the laborer adolescent, type of labor and duration of labor (See Appendix, CII).

Self-reported Delinquency Scale

Self-reported delinquency scale used in this study is a 5-point Likert type scale comprised of 40 items. They were all positively stated statements (See Appendix, DI).

Informant-reported Delinquency Scale

The Informant-reported delinquency scale used in this study is also a 5-point likert type scale comprised of 40 items. They were all positive statements (See Appendix, DII).

Procedure

The two scales were administered at independent subjects at the same time. Participants were approached at their work places. After having their consent the scales were handed over to the respondents. They were instructed to read each statement carefully and respond honestly to all items of the scales. As most of the subjects were having difficulty to read, therefore, they were assisted by the researcher to answer on scale. Few subjects have problems in understanding of statements so they were explained by the researcher till a real answer was obtained.

Results

For testing the dimensionality and construct validity of the self-reported delinquency scale (SRDS) and informant-reported delinquency scale (IRDS). The forty items of each scale were factor analyzed through Principal Component Factor analysis technique. Before run factor analysis some of the tests were applied for the verification of data fit for factor analysis i.e. Bartlett test of Sphericity and similarly Kaiser-Meyer-Olkim value was computed. As Principal Component Factor analysis is exploratory analysis and it determined the uni-factor structure of data, so to further check of uni-dimensionality of scale, the Direct Oblimin Method was applied on both scales i.e. Self-reported delinquency and Informant-reported delinquency. On the basis of factor loading >.40 and familiarity of items on the first factor for both scales, items were selected for final versions of scales. In order to determine the further psychometric properties of the scales the reliability analysis was made. Moreover, the inter item correlation was computed.

Table 1

Kaiser-Meyer-Olkin Measure of sampling Adequacy and Bartlett Test of Sphericity of SRDS (N= 200)

Kaiser-Meyer-Olkin Measure	Bartlett test of Sphericity	*df*	*p*
0.86	5256.616	780	.000

Table I shows the KMO value and Bartlett test of Sphericity for SRDS. Kaiser (1974) recommends KMO value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factor results. More over the value of 0.86 suggests that data is very good for factor analysis. Similarly the Bartlett test of Sphericity value 5256.616, significant at p≤.000 also supports this idea.

Item total correlations

Item total correlations reflect the extent to which any one item is correlated with the total. This helps to know how much each item is contributing to measure the underlying construct with total. For this purpose the item total correlation for SRDS is determined.

Table 2

Item total correlation for the SRDS (N= 200)

Item No	Correlation	Item No	Correlation
1	0.66**	21	0.61**
2	0.37**	22	0.78**
3	0.85**	23	0.56**
4	0.52**	24	0.58**
5	0.44**	25	0.63**
6	0.61**	26	038**
7	0.12	27	0.09
8	0.54**	28	0.64**
9	0.43**	29	0.66**
10	0.44**	30	0.64**
11	0.62**	31	0.19**
12	0.47**	32	0.72**
13	0.39**	33	0.55**
14	-0.03	34	0.70**
15	0.13*	35	0.67**
16	0.30**	36	0.82**
17	0.61**	37	0.69**
18	0.63**	38	0.67**
19	0.47**	39	0.76**
20	0.58**	40	0.63**

*$p \leq .05$, **$p \leq .01$

Item no	Factor 1	Factor II	Factor III	Factor IV	Factor V

Table 2 indicates the Item total correlation for 40 items of Self-reported delinquency scale. It is clear from the results that most of the items for self-reported delinquency scale have significant positive correlation with the total score indicating a highly significant internal consistency of the scale. Only 2 items have shown low positive correlation with total score but correlation of these items are in accepted direction. Similarly only one item shows insignificant negative correlation with the total score. As the majority of the items show high item total correlation, which provide the idea that may be SRDS is unifactor scale.

The Principal Component Analysis by using Direct Oblimin Method for SRDS

The Principal Component Analysis is a technique used for identifying the dimensions of the construct a questionnaire is measuring. On the basis of the results presented in the Table 2, it was decided to run Principal Component Analysis using Direct Oblimin method. It is a method of a oblique rotation, provides the degree to which factors are correlated with each other.

Table 3
Factor Matrix of 40 items of SRDS through Principal Component Analysis using Direct Oblimin Method (N = 200) (Items = 40)

Item no	Factor 1	Factor II	Factor III	Factor IV	Factor V
1	**.66**				.42
2	.37	.30			.32
3	**.86**				
4	**.51**			.42	
5	**.43**				
6	**.62**			-.39	
7	.	.35			
8	**.56**	-.33			
9	.43	.56			
10	**.44**	-.33			.33

Continued…

11	**.61**		.38		
12	.42	-.32			
13	.40	-.52			
14					.31
15			.30	.30	
16	.30		.63	.63	
17	**.67**		-.30	-.30	
18	.62				
19	**.47**		.32		
20	**.58**				
21	**.59**				.36
22	**.78**				
23	**.56**				
24	.59				
25	**.64**				
26	.36	.37	.42		.37
27		.55			
28	**.64**				
29	**.69**				
30	**.65**				-.36
31		.42		-.46	
32	**.72**				
33	**.56**				
34	**.69**				
35	**.67**				
36	**.83**				
37	**.70**				-.33
38	**.67**				
39	**.77**				
40	**.62**				

Note: Familiar items in both scales having factor Loadings >0.40 have been bold

Table 3 depicts the results of Principal Component Analysis using to determine the factor Analysis using Direct Oblimin Method to determine the factor structure and construct validity of the self-reported delinquency scale. Table 3 shows the factor loading of items on 5 components. It is clear from the results of component factor analysis, that most of the items fall on first factor. The two main criteria of selection of final items were, factor loading of .40 and above and their loadings exclusively on first factor and the common items on the first factor for both versions i.e. self-reported and Informant-reported. This result suggests the uni- structure or single factor self-reported delinquency scale.

Scree Plot

A Scree Plot is a simple line segment plot that shows the fraction of total variance in the data as explained or represented by each component.
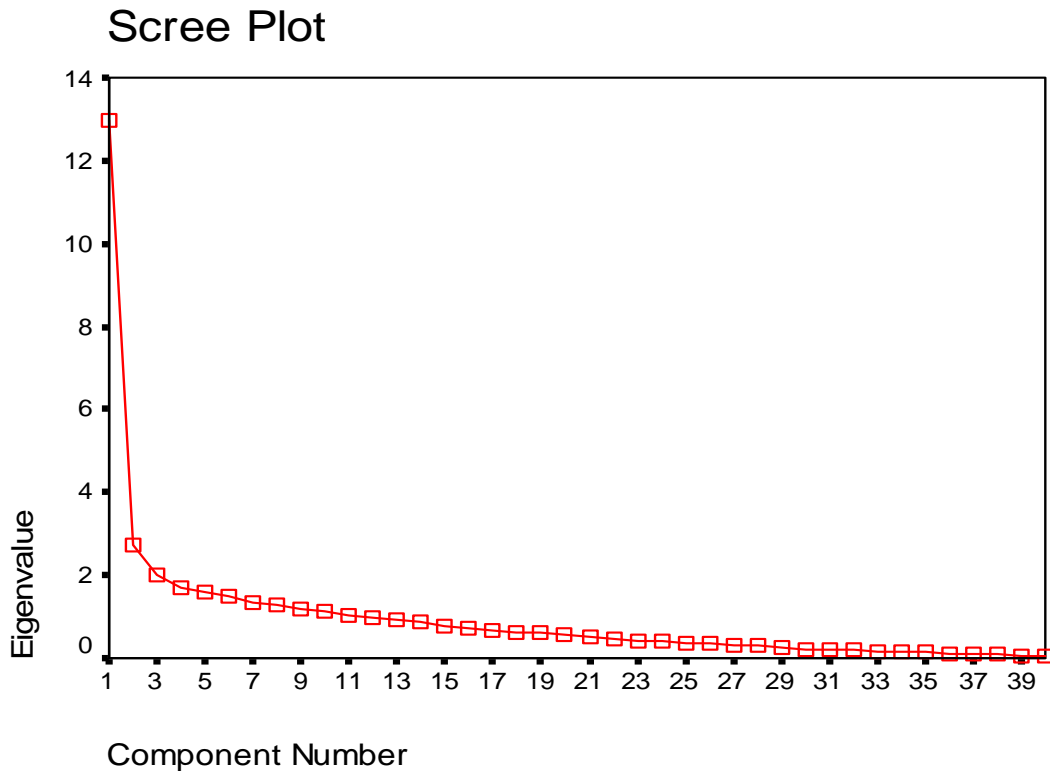
Figure II: Scree Plot for Factor Matrix of 40 items of SRDS through Principal Component Analysis using Direct Oblimin Method (N = 200) (Items = 40).

Figure II represent the Scree Plot for Factor Matrix of 40 items of SRDS through Principal Component Analysis using Direct Oblimin Method. The x-axis contains the Principal Components sorted by decreasing fraction of total variance explained by each component. The y-axis contains the fraction of total variance explained. It is clear from the figure that a large variance is explained by only one factor. It also evidate the uni structure representation of data.

Table 4

Eigen Values and Percentage Variances explained by the Extraction Sum of Squared Loading of SRDS (N= 200)

Factors	Eigen Values	Percentage of variance	Cumm Percentage
1	15.99	44.2	44.2
2	2.71	4.2	48.4
3	1.59	3.9	52.4
4	1.51	3.7	56.2
5	1.35	3.3	59.6

Table 4 shows that the factor 1 has an Eigen value of 15.99 and explain 44.2% of the total variance; Factor 2 has an Eigen value of 2.71 and explains 4.2% variance. Factor 3, Factor 4 and Factor 5 have Eigen values of 1.59, 1.51, 1.35 and explain 3.9%, 3.7% and 3.3% of the total variance respectively. Table 4 shows that total variance explained by the five factors is 59.6.

Table 5

Factor Loadings of the selected 27 items of SRDS on the five factors and their communalities Using Obliminn Factor Analysis (N= 200)

Item No	Item no in 40 item scale	Factor 1	Factor II	Factor III	Factor IV	Factor V	h²
1	1	.66				.42	.71
2	3	.86					.81
3	4	.51			.42		.65
4	5	.43					.76
5	6	.62			-.39		.65
6	8	.56	-.33				.75
7	10	.44	-.33			.33	.59
8	11	.61		.38			.66
9	17	.67		-.30	-.30		.67
10	19	.47		.32			.62
11	20	.58					.64
12	21	.59				.36	.69
13	22	.78					.74
14	23	.56					.59
15	25	.64					.63
16	28	.64					.63
17	29	.69					.65
18	30	.65				-.36	.72
19	32	.72					.77
20	33	.56					.75
21	34	.69					.68
22	35	.67					.69
23	36	.83					.83
24	37	.70				-.33	.84
25	38	.67					.75
26	39	.77					.84
27	40	.62					.71

Table 5 shows the remaining 27 items which are familiar to IRDS after factor analysis and their loadings with their communalities. Communalities represent the proportion of common variance in a variable. Variable that has no specific variance would have a communality of 1; a variable that shares none of its variance with any other variable would have the communality of 0 (Stevens, 1992). Results in table 5 shows the communalities of all items are more than .5 which is the evidence of less specific variance among variables. Finally these items were selected for the scale which was named as Self-reported delinquency Scale (SRDS) (see Appendix EI).

Informant Reported Delinquency Scale

Table 6

Kaiser-Meyer-Olkin Measure of sampling Adequacy and Bartlett Test of Sphericity of IRDS (N= 200)

Kaiser-Meyer-Olkin Measure	Bartlett test of Sphericity	*df*	*p*
0.87	5423.696	780	0.000

Table 6 represents the KMO value and result of Bartlett Test of Sphericity for IRDS. KMO value ranges from 0 to 1and for IRDS is 0.87 which is sufficiently high. The value of 0.87 suggests that data is very good for factor analysis.

Item total correlations

Item total correlations reflect the extent or degree to which any one item is correlated with the total. This helps to know how much each item is contributing to measure the underlying construct with total. For this purpose the item total correlation for IRDS is determined.

Table 7

Item total correlation for the IRDS (N= 200)

Item No	Correlation	Item No	Correlation
1	0.60**	21	0.55**
2	0.25**	22	0.62**
3	0.67**	23	0.52**
4	0.51**	24	0.31**
5	0.46**	25	0.55**
6	0.59**	26	0.36**
7	-0.04	27	0.03
8	0.36**	28	0.65**
9	0.18*	29	0.41**
10	0.41**	30	0.40**
11	0.65**	31	0.22**
12	0.35**	32	0.65**
13	0.40**	33	0.32**
14	0.03	34	0.76**
15	0.15*	35	0.53**
16	0.01	36	0.65**
17	0.58**	37	0.76**
18	0.66**	38	0.70**
19	0.44**	39	0.69**
20	0.53**	40	0.67**

*$p \leq .05$, **$p \leq .01$

Table 7 indicates the Item total correlations for 40 items of Informant-reported delinquency scale. It is clear from the results that most of the items for Informant-reported delinquency scale have significant positive correlation with the total score indicating a highly significant internal consistency of the scale. Only 3 items have shown non significant zero correlation with total score. Similarly only one item has negative

item total correlation. This negative item total correlation may suggest that these items may not be measuring the delinquency.

The Principal Component Analysis by using Direct Oblimin Method for IRDS

The Principal Component Analysis is a technique used for identifying the dimensions of the construct a questionnaire is measuring. On the basis of the results presented in the Table 2, it was decided to run Principal Component Analysis using Direct Oblimin method. It is a method of an oblique rotation, provides the degree to which factors are correlated with each other.

Table 8

Factor Matrix of 40 items of IRDS through Principal Component Analysis using Direct Oblimin Method (N = 200) (Items = 40)

Item no	Factor 1	Factor II	Factor III	Factor IV	Factor V
1	**.63**				
2		.69			-.33
3	**.72**				.37
4	**.52**				
5	**.44**				
6	**.56**				
7		.41		.37	.39
8	**.41**			.38	
9		-.35		.51	
10	**.44**			.59	.30
11	**.64**				
12	.38		.51		
13			.61		
14		.44			.37

Continued…

Item no	Factor 1	Factor II	Factor III	Factor IV	Factor V
15			.30	.30	
16		.52		.63	
17	**.60**			-.30	
18	.31	.33			
19	**.51**				-.33
20	**.55**				
21	**.59**		.42		
22	**.62**				
23	**.59**				
24					
25	**.48**		.42		
26		.47			.37
27		.63			-32
28	**.65**				
29	**.43**		.30		
30	**.44**				-.36
31		.55		-.46	
32	**.70**				
33	**.69**				.32
34	**.78**				.32
35	**.59**		-.51		
36	**.70**				
37	**.83**				
38	**.72**				.37
39	**.77**		-.37		
40	**.73**				

Note: Familiar items in both scales having factor Loadings >0.40 have been bold

Table 8 depicts the results of Principal Component Analysis using to determine the factor Analysis using Direct Oblimin Method to determine the factor structure and construct validity of the Informant-reported delinquency scale. Table 10 shows the factor loading of items on 4 components. It is clear from the results of component factor analysis, that most of the items fall on first factor. The two main criteria of selection of final items were factor loading of .40 and above and their loadings exclusively on one factor and the common items on the first factor for both versions i.e. self-reported and Informant-reported. This result suggests the uni- structure or single factor informant-reported delinquency scale.

Scree Plot

A Scree Plot is a simple line segment plot that shows the fraction of total variance in the data as explained or represented by each component.
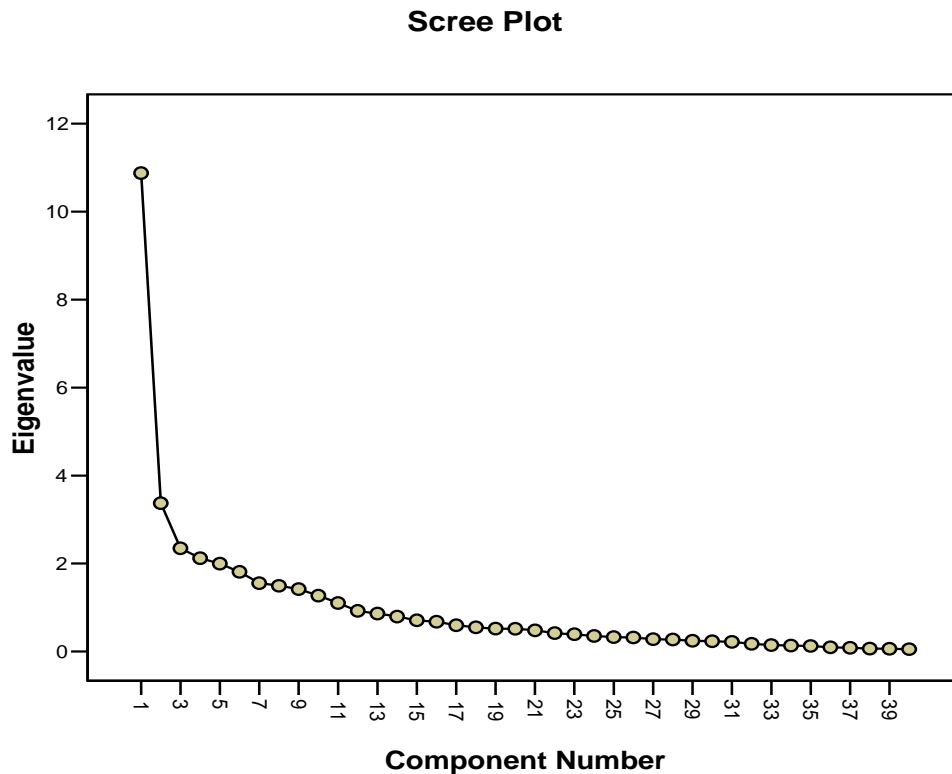
Scree Plot

Figure III: Scree Plot for Factor Matrix of 40 items of IRDS through Principal Component Analysis using Direct Oblimin Method (N = 200) (Items = 40).

Figure III represent the Scree Plot for Factor Matrix of 40 items of IRDS through Principal Component Analysis using Direct Oblimin Method. The x-axis contains the Principal Components sorted by decreasing fraction of total variance explained by each component. The y-axis contains the fraction of total variance explained. It is clear from the figure that a large variance is explained by only one factor. It also evidate the uni structure representation of data.

Table 9

Eigen Values and Percentage Variances explained by the Extraction Sum of Squared Loading of IRDS (N= 200)

Factors	Eigen Values	Percentage of variance	Cumm Percentage
1	12.87	41.48	41.48
2	2.12	4.30	46.79
3	1.79	4.99	51.78
4	1.61	4.52	56.30
5	1.25	3.88	60.19

Table 9 shows that the factor 1 has an Eigen value of 12.87 and explain 41.48% of the total variance; Factor 2 has an Eigen value of 2.12 and explains 4.3% variance. Factor 3, Factor 4 and Factor 5 have Eigen values of 1.79, 1.61, 1.25 and explain 4.9%, 4.5% and 3.8% of the total variance respectively. Table 11 shows that total variance explained by the four factors is 60.1.

Table 10

Factor Loadings of the selected 27 items of IRDS on the five factors and their communalities Using Obliminn Factor Analysis (N= 200)

Item No	Item no in 40 item scale	Factor 1	Factor II	Factor III	Factor IV	Factor V	h²
1	1	.63					.79
2	3	.72				.37	.71
3	4	.52					.69
4	5	.44					.76
5	6	.56					.67
6	8	.41			.38		.81
7	10	.44			.59	.30	.81
8	11	.64					.73
9	17	.60			-.30		.59
10	19	.51				-.33	.79
11	20	.55					.73
12	21	.59		.42			.67
13	22	.62					.76
14	23	.59					.76
15	25	.48		.42			.69
16	28	.65					.79
17	29	.43		.30			.78
18	30	.44				-.36	.82
19	32	.70					.79
20	33	.69				.32	.75
21	34	.78				.32	.82
22	35	.59		-.51			.73
23	36	.70					.72

Continued…

Item No	Item no in 40 item scale	Factor 1	Factor II	Factor III	Factor IV	Factor V	h²
24	37	.83					.81
25	38	.72		-.37		.37	.77
26	39	.77					.78
27	40	.73					.79

Table 10 shows the remaining 27 items which are familiar to SRDS after factor analysis and their factor loadings >.40. Finally these items were selected for the scale which was named as Informant-reported delinquency scale or IRDS consist of 27 items (see Appendix E II).

Final Delinquency Scales (SRDS and IRDS)

The factor analysis reveals unifactor structure of each scale. Both the scales are meant for the measurement of delinquency of individual. Self report helps to measure the delinquent behavior from the individual while informant reported scale helps to measure the delinquent behavior from the observant point of view. Both scales together provide better opportunity to measure the delinquent behavior. So the selection of final items in each scale was on the basis of two criteria's i.e., factor loading on first factor equal to or greater than 4.0 and familiar item in both scales on first factor. On the basis of these results of Factor Analysis, 27 item were finally selected in each scale. The under lying patterns or dimensions of delinquency in the unifactor scales with their items no are as follows:

1. Theft measured by the item no 1, 19, 29 and 32
2. Drug abuse measured by item no. 3, 11, 17,
3. Lying measured by item no 33
4. Non compliance to adults by item no 35

5. Police encounter and escape by item no 23,38
6. Violence related delinquency (extortion, vandalism and aggression) by item no 4, 10, 21, 34, 39, 40.
7. Cheating and gambling by item no 5, 8, 20, 36, and 37.
8. Sex related delinquency by item no 6, 22, 25, 28, 30.

The possible score range on each scale is from 0 – 135. This score range suggest that higher the score obtained by the subjects, higher will be the delinquency.

Reliability of Instruments

For the determination of reliability of SRDS and IRDS, alpha coefficient was calculated for the 40 items in each scale.

Table 11

Alpha reliability of Scales (N= 200)

Scale	No of Items	Alpha Coefficient
SRD Scale	40	0.94
IRD Scale	40	0.92

Table 11 indicates the alpha coefficient for the 27 items of SRDS. Cronbach's α also measures the underlying factor or construct of the scale. The alpha coefficient for SRDS and IRDS and IRDS are 0.94 and 0.92 respectively. These high alpha coefficient values connote both the scales are internally consistent and mainly measures the single underlying factor. More over higher alpha value is the sign that self-reported delinquency scale is a reliable measure.

Discussion

The development of disruptive and delinquent behavior in boys generally takes place in an orderly, progressive fashion, with less serious problem behaviors preceding more serious problems. Lipsey and Derzon (1998) identified three distinct developmental pathways of delinquency: authority conflict (e.g., defiance and running away), covert actions (e.g., lying and stealing), and overt actions (e.g., aggression and violent behavior). Individuals may proceed along single or multiple developmental pathways toward serious antisocial or delinquent behavior.

The issue of the nature and extent of crime committed by young people is of widespread concern to the general public and criminal justice specialist alike. It is long established in criminological research that "official" records do not reveal the true extent of juvenile delinquency, and that not all juvenile offenders come to the attention of the police (Ramachandran as cited in Farrington, 1997).

Self-report measures are more helpful to show a more representative picture of the occurrence and distribution of delinquent behavior (Cornell & Farrington, 1996). More over, to over come the problem of natural reluctance to admit more serious offences, with the self-report measures the Informant-reported measures were used in many studies (See for example Elliot & Ageton, 1980; Hindelang, Hirschi, & Weis as cited in Terman, 1995; Kulik, Stein, & Sarbin as cited in Rowe, 1985).

With regard to delinquent measure Elliott and Ageton (1980) identified three areas that need to be addressed when constructing Self-report delinquency measures. First, item representativeness is important: often-trivial offences are over represented while more serious offences are under-represented. Second, care needs to be taken to avoid item overlap, which can inflate score. Finally, the response sets and coding for the social need to be carefully considered.

Early Self-report scales were often constructed for use with non-delinquent populations were skewed towards the trivial offences typical of such populations. Other researchers attempted to produce cumulative, unidimensional Guttmann scales (See for example, Dentler & Monroe, 1961; Erickson, 1972; Short & Nye, as cited in Rankin, 1983). resulting in measures with very few items. These first measures were also characterized by basic response set, with respondents simply required to indicate which offences he or she had committed (Gibson, 1980). However, frequency categories were soon incorporated into self-reported delinquency scales to allow for greater accuracy. Again, most of these scales were aimed more at non-delinquent populations, and frequencies over a certain level would be grouped together producing ceiling effects (see for example, Clark & Wenninger; Hindelang as cited in Farrington, 1997).\

Keeping in mind all above stated issues regarding delinquency measures this study was intended to develop the instruments i.e., Self-reported delinquency scale and Informant-reported delinquency scale for the measurement of juvenile delinquency. These scales were developed specifically for this study, as there existed no scale which could be used to assess the patterns of delinquency in Pakistani laborer adolescents. Moreover the scales were developed through a standardized procedure.

For this purpose initially a bulk of literature was reviewed including the Pakistan penal code to identify the different dimensions of delinquency. Further with the help of focus groups, qualitative interviews, and open-ended questionnaires the items pool was generated to cover the whole range of delinquent behavior. The focus group discussion allows investigators to gain in depth knowledge of the subject under study. Moreover it is useful for exploring issues for investigation at the outset of a study and/or for interpreting data obtained by other methods (including quantitative surveys) in the final stages of a study. Similarly qualitative interviews may also be used as an exploratory step before designing more quantitative, structured questionnaires to help determine the appropriate questions and categories.

For the final selection of items judges opinion was sought and inter-judges reliability was determined i.e., 0.76 which is sufficiently high indicating the content validity of the scale. After the final selection of 40 items from the items pool with the help of judges, it was administered on the sample of 200 laborer adolescents, involved in different labor work. Furthermore for the empirical evaluation and the construct validity of scales factor analysis was applied.

Item total correlation reflects the extent to which any one item is correlated with the remaining items in a set of items under consideration. The item total correlation analysis of self-reported delinquency scale ranges from 0.13 to 0.82 (See table 2) and Informant-reported delinquency scale ranges from 0.15 to 0.76 (See Table 7) indicate that almost all of the items are positively correlated with total which is the sign of internal consistency of the scales. On the basis of high item total correlation results it was decided by the researcher to use Direct Oblimin method in factor analysis.

Factor analysis is a more ambitious approach that attempts to find underlying factors that can be used to help in interpreting the pattern of covariation shared among the variables. Factor analysis methods are often used to group variables but that is not the purpose for which the methods were developed. SPSS has three methods of orthogonal rotation (varimax, quartimax and equamax) and two methods of oblique rotation (direct Oblimin and promax). These methods differ in how they rotate the factors and, therefore, the resulting output depends on which method you select. In the case of direct Oblimin, the degree to which factors are allowed to correlate is determined by the value of a called delta. The default value in SPSS is zero and this ensures that high correlation between factors is not allowed. In the present study direct Oblimin method of rotation is applied for both scales to verify the unistructure spread of data. I t has been determined that SRDS has 32 items on first factor (See Tables 3) and 27 items in case of IRDS (See Table 8).

In the language of factor analysis, the proportion of variance of a particular item that is due to common factors (shared with other items) is called communality. Therefore, an additional task facing us when applying the Principal Component Analysis is to estimate

the communalities for each variable, that is, the proportion of variance that each item has in common with other items. Although Principal Component Analysis works on the initial assumption that all the variance is common, therefore before extraction all the communalities are 1. It has been observed that communalities for SRDS and IRDS were from 0.50 to 085. High communality values explain less variance among items in each scale.

The factor analysis result revealed that 33 out of 40 items were clustered into first factor in the SRD Scale explaining 15.99% of variance (See Table 4). Similarly 27 items were clustered into first factor in the IRD Scale explaining 12.87% variance (See Table 9). The selection of items for the final scales were based on following selection criteria i.e., the familiar items in both scales having factor loading >0.40. On the basis of these results of Factor Analysis, 27 item were finally selected in each scale. The result showed the uni-dimension delinquency scales. More over the communalities for both scales were determined which are more 0.5 for 27 items. The unifactor solution is consistent with previous studies (See for example, Rowe, 1985).

All the factors are not retained in any analysis, and there is debate over the criterion used to decide whether a factor is statistically important. It means only those factors above that Eigen values associated with a variate indicate the substantive importance of that factor. Therefore according to Field (2005) it seems logical that only those factors should retain with large Eigen values. A technique to represent, whether or not, an Eigen value is large enough to represent a meaningful factor is used by Cattell (as cited in Field, 2005) is to plot graph of each Eigen value (y-axis) against the factor with which it is associated (x-axis). This graph is known as a Scree plot. By graphing the eigenvalues, the relative importance of each factor becomes apparent. Typically there will be a few factors with quite high eigenvalues, and many factors with relatively low eigenvalues, and so this graph has a very characteristics shape. There is sharp descent in the curve followed by a tailing off (See figure II and III). Cattell (as cited in Field, 2005) argued that the cut-off point for selecting factors should be at the point of inflexion of this curve. With a sample of more

than 200 participants, the scree plot provides a fairly reliable criterion for factor selection (Stevens as cited in Field, 2005).

If factor analysis is being used to validate the instrument, it is useful to check the reliability of the scale. Reliability just means that a scale should consistently reflect the construct it is measuring. In the present study, the psychometric properties of the scales were also established. For this purpose, the Cronbach's alpha reliability was computed for each scale. The result showed alpha reliability coefficient for SRDS and IRDS is 0.94 and 0.92 respectively (As indicated in Table 11). These high coefficients are the sign that these delinquent measures are highly reliable. Another common interpretation of α is that it measure 'unidimensional', or the extent to which the scale measures one underlying factor or construct. This interpretation stems from the fact that when there is one factor underlying the data, α is a measure of the strength of that factor (See Cortina as cited in Field, 2005).

It may be concluded that Self-reported delinquency scale and Informant-reported delinquency scale are the uni factor scales easy to administer and scoring procedure is also very simple. Further the psychometric properties of scales provide the sufficient empirical evidence that the scales are reliable and valid to use for the main study.

PART II: TRANSLATION, ADAPTATION AND CROSS LANGUAGE VALIDATION OF EYSENCK PERSONALITY QUESTIONNAIRE (JUNIOR)

Eysenck Personality Questionnaire (junior) was developed by Eysenck (1970). Hans Eysenck was a research psychologist and temperament theorist. He used factor analysis techniques to develop this personality measure. It is widely used and reliable measure for determination of major personality traits. The scale comprised of four subscale measuring extraversion, neuroticism, psychoticism, and lie. This questionnaire has been translated and adapted in many different countries and cultures and performing well (Gest, 1997). To measure these major dimensions of personality there is no personality questionnaire is available so it was decided to translate and adapt this questionnaire for Pakistani population.

First of all the copyright to use this inventory was obtained from the publishers of EdITS/ Educational and Industrial Testing Service San Diego, California by purchasing this inventory. The permission to use the inventory and invoices are attached in appendices. After having the inventory in Pakistan it was important to translate and adapt the inventory according to our culture so utility of the inventory will be increased. For this purpose researcher decided to conduct this study. This study was constituted on two phases. In phase I, translation, adaptation, and cross language validation was done. In phase II, the psychometric properties of the scale were established.

Description of Scale

Eysenck Personality Questionnaire (Junior) was developed by Eysenck and Eysenck (1970). EPQ (Junior) is 81 item scale which assesses the three dimensions of personality i.e., Extraversion, Neuroticism and Psychoticism.This scale has one added dimension of Lie which is the indicator of dissimulation among adolescents. It is a

dichotomous scale on which respondent has to express his agreement or disagreement with the statement in the form of "yes" or "no". Item were scored like o standing for "no" and 1 standing for "yes" The EPQ (Junior) has also negative items in each subscale. In the subscale of Psychoticism items no 30, 63, and 72 were negative items. Similarly, for the Extraversion subscale, item no 9, 48, and 76 were negatively stated items. Neuroticism has all positively stated items. The subscale of Lie has following negative items i.e. item no 4, 11, 16, 40, 64, 69, 75, and 78. For the all negative items scoring categories were opposite. The higher the score of respondent on each sub scale means having more that type of personality traits.

Phase I: Translation and Adaptation of Eysenck Personality Questionnaire (Junior)

The aim of this study is to obtain Urdu version of the English instrument that is conceptually equivalent in the targeted language /culture. The major intention of this process is to enable the instrument equally natural and acceptable and should practically perform equally in both languages source language (English) and target language (Urdu). The focus is on cross-cultural and conceptual equivalence rather than on linguistic/literal equivalence. A well-established method to achieve this goal is to use forward-translations and back-translations (Brislin, 1976; Hambleton, 1994). So the translation and cross language validation of EPQ (junior) has been accomplished in four steps. Details are described as below:

1. Forward translation
2. Expert panel or committee approach.
3. Back-translation
4. Cross language validation

Step 1: Forward Translation

Bilingual Experts

According to Hambleton and Patsula (1999) the quality of a test translation and adaptation depends on the quality of the translators. The following criteria must be considered in selecting translators.

(a)   Proficiency in both languages.

(b)   Familiarity with both cultures.

(c)   Proficiency in the subject matter tested, and

(d)   Item writing expertise.

In the selection of translators for the present study it was assured that they should be knowledgeable of the English-speaking culture but their mother tongue should be the primary language of the target culture i.e. Urdu. For the translation and adaptation of Eysenck Personality Questionnaire (junior) the original inventory was given to seven bilingual experts (See Appendix, FI). These experts were selected by considering the above stated criteria. More over the details about the qualification of experts are as follows.

1.   One associate professor of English with the qualification of PhD teaching at National University of Modern Languages (NUML), Islamabad.

2.   Two assistant professors of English with the qualification of M.A English teaching at Gordon College, Rawalpindi.

3.   Two students of University enrolled in M.Phil /PhD programme of Psychology.

4.   One bilingual expert has done his master in Urdu and Diploma in English language.

Procedure

Instructions given come up to translating, emphasizing conceptual rather than literal translations, as well as the need to use natural and acceptable language for the broadest audience. The general guidelines followed by Groves (2007) are considered in this process:

- Translators are instructed to keep in mind the conceptual equivalent of a word or phrase, not a word-for-word translation, i.e. not a literal translation. They should consider the definition of the original term and attempt to translate it in the most relevant way.

- Translators must strive to be simple, clear and concise in formulating a question. Fewer words are better. Long sentences with many clauses should be avoided.

- The target language should aim for the most common audience. Translators are advised to avoid addressing professional audiences such as those in medicine or any other professional group. They must consider the typical respondent for the instrument being translated and what the respondent will understand when s/he hears the question.
- Translators are instructed to avoid the use of any jargon. For example, they should not use:

  - technical terms that can't be understood clearly; and
  - Colloquialism, idioms or vernacular terms that can't be understood by common people in everyday life.
  - Translators are asked to consider the issues of gender and age applicability and avoid any terms that might be considered offensive to the target population.

The experts are instructed to translate and adapt each item according to the Pakistani culture, without eliminating the items. They are also requested to identify those items which they think are not relevant to Pakistani culture and to suggest best alternatives for such items.

Step 2: Expert panel

After the completion of first step the best five translations were selected by researcher and written together for each item of inventory. A committee approach was set. A bilingual (in English and the target language for translation i.e. Urdu) expert panel was convened by the researcher. It was comprised on, one lecturer of psychology, the supervisor of the study, and the researcher herself. The goal in this step was to identify and resolve the inadequate expressions/concepts of the translation, as well as any discrepancies between the forward translation and the existing or comparable previous versions of the questions if any. Each translated item was analyzed and best translated item was selected by the mutual consensus of committee members (See Appendix, FII).

When it is difficult to translate a particular item meaningfully into the target language, a literal translation with explanation in parentheses is preferable. Despite the increase in length and complexity, this can enhance the linguistic equivalence between the original item and the translated one. When an item has no equivalent in the target culture, for example, an idiom that has no equivalent in the target language, then it is acceptable to replace the item with another one that is culturally appropriate. However, field tests (discussed below) need to be conducted specifically for this kind of item to establish the equivalence in psychological meaning.

During the process of adaptation some required changes were made in the original inventory according to Pakistani culture. These changes were necessary because English version was developed according to the culture of British society. For example, the item No.33 of EPQ (junior) "Do you think water skiing would be fun?". As the water skiing is not common in our culture, so it was difficult to comprehend this item by the target population. Usually people are more familiar with rowing or boating as water sport, that is why item was adapted and back translated as "Do you think boating would be fun." The expert panel may question some words or expressions and suggest alternatives. The result of this process produced a complete translated version of the questionnaire. After that committee members also evaluated the translated items with reference to their context, grammar, and wording. At the end of this process the translated version of EPQ (junior) was ready for back translation.

Step 3: Back-translation

Back Translation is the process of translating a document that has already been translated into a foreign language back to the original language - preferably by the help of independent translators. Back translation helps to improve the reliability and validity of research in different languages by requiring that the quality of a translation is verified by an independent translator translating back into the original language. Original and back translated documents can then be compared. Due to its high cost, back translation is not

overly common, but in very high risk - high return situations is well worth the investment (Brislin, 1976).

Using the same approach as that outlined in the first step, the instrument was translated back to English by the independent bilingual experts. Like the initial translation, emphasis in the back-translation was on conceptual and cultural equivalence and not linguistic equivalence. Similarly after the back translation, discrepancies were discussed again in the same committee approach and items were iterated as many times as needed until a satisfactory version is reached.

Bilingual Experts

In step two the Urdu translated version of Eysenck Personality Questionnaire (junior) was given to five independent bilingual translators. The qualification details of each expert are as follows:

1. Two associate professors of Urdu with the qualification of M.A teaching at Government College for Women, Rawalpindi.
2. Two assistant professors of English with the qualification of M.A English teaching at Gordon College, Rawalpindi.
3. One lecturer of psychology with the qualification of M.Phil. and Diploma in English language teaching at Iqra University, Islamabad.

Procedure

The bilingual experts selected for back translation were not exposed to the original English items of EPQ (junior). The translators involved in back translation were supposed to translate the items into English provided with the same instructions that were given to those involved in Urdu translation.

The back translations of the Urdu version and original EPQ (junior) were scrutinized by the same bilingual experts. The most closely related item was selected as the final of back translation (See Appendix, FIII). Finally, the Urdu translated items were arranged in the same order given in the original inventory (See Appendix, FIV).

Step 4: Cross language validation

Not all languages have received equal investment in linguistic resources and tool development. For a select few, resource-rich languages such as English, annotated corpora and text analysis tools are readily available. For further check of translated version in any language the cross language validation technique is applied. So to measure the effectiveness of any inventory in the targeted language cross language validation is done. Cross language validity of the EPQ (junior) is established in two separate studies.

Study 1

In study 1 the cross language validity of the instrument is established on general population adolescents. Although this is not the target sample of research. Ultimate purpose to select this sample was to check the cross language reliability of instrument. It was not possible with the adolescents involved in labor work because they have no comprehension of the English language.

Sample. For the cross language validation the sample of 60 adolescents ranged from 13- 17 years with the mean age of 15 year was selected. These were the adolescents who have the proper comprehension of both languages i.e., Urdu and English. These adolescents were selected from three schools of Rawalpindi. The schools were: Ideal Education System Rawalpindi (*n*=20), SLS Secondary Branch Rawalpindi (*n*= 16), and City Grammar School Rawalpindi (*n*= 24).

Procedure. The whole sample was divided into four groups. In the first trial two groups comprising of 30 adolescents 15 in each group were given the original inventory of Eysenck Personality Questionnaire (junior) and their responses were taken. Similarly the other two groups of 30 adolescents were given the translated version of Eysenck Personality Questionnaire (junior) and their responses were taken. In the second trial after the fifteen days the same sixty students were contacted to made their responses again, but in the second trial the first group of 15 adolescents were given Urdu version of Eysenck Personality Questionnaire (junior) with the same instructions but the second group of fifteen adolescents were given again the original inventory of Eysenck Personality Questionnaire (junior). Regarding the last two groups, they were given original inventory of Eysenck Personality Questionnaire (junior) and second group was given translated version of Eysenck Personality Questionnaire. This exercise was geared to identify the point of equivalence or discrepancy between Urdu and English version of the questionnaire.
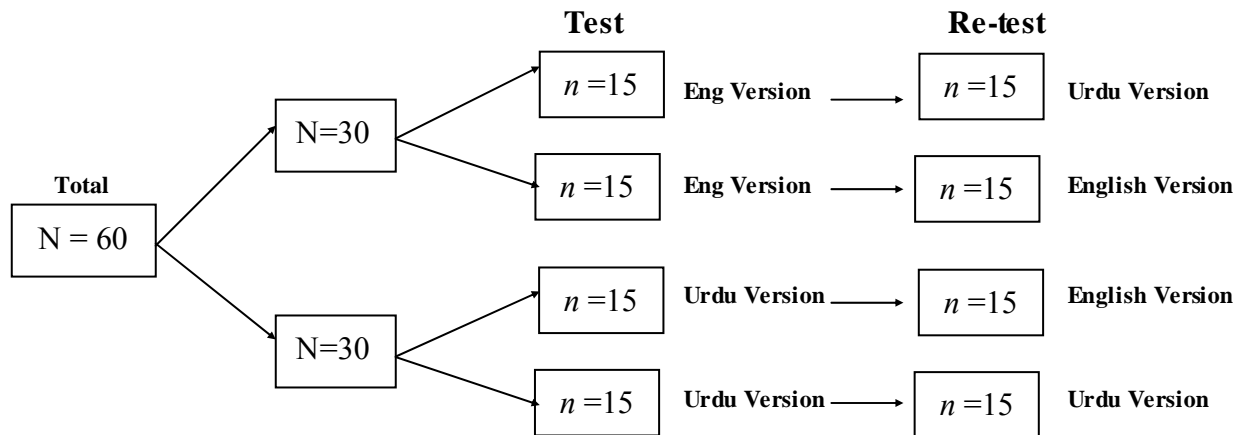

Figure IV: Diagrammatic representation of the distribution of total sample into four groups for test-retest.

Figure IV represent the distribution of sample into four groups. Participants were randomly assigned to the four groups: Urdu-Urdu retest, Urdu-English retest, English-Urdu retest and English-English retest. They were all requested to given their responses with the same instructions. These groups were made to control the experiences of learning effect that may took place due to administration of Urdu and English tests on two weeks apart retesting.

Results

In order to determine cross-language validity and test-retest reliability of the inventory, correlation coefficients of four groups between the scores of two administrations has been carried out. Moreover the following results also represent the comparisons of retest reliability with original Eysenck's retest scores with one month interval.

Table 12

Retest reliabilities of Urdu and English versions of EPQ (junior) (N= 60)

EPQ- (junior)	*n*	r
EPQ - (junior) (Urdu-Urdu)	15	0.91**
EPQ - (junior) (Urdu-English)	15	0.89**
EPQ - (junior) (English-Urdu)	15	0.87**
EPQ -(junior) (English-English)	15	0.86**

*$p \leq .05$, **$p \leq .01$

Table 12 shows test retest of the four groups that four groups (Urdu-Urdu, Urdu-English, English-Urdu, and English-English) correlations for all four subscales of EPQ (junior) are positive and significant. The correlation coefficients for four groups ranged from 0.86 to 0.91 which indicates high stability of four subscales over time, as well as cross language validity of the Urdu and English versions. Among the all four groups' correlation value of Urdu-Urdu retest group is higher as compared to other three groups. The reason for this higher correlation value may because of the practice effect in the twice administration of same language inventory. Over all these results indicate the

strong evidence of cross language validity or empirical equivalence of the original and translated versions of EPQ (junior). Moreover the results also provide the evidence that both tests are hypothetically similar.

Comparison of Original English and Urdu versions of EPQ-(Junior)

In order to determine the correlation between the Urdu and English versions across groups mean and standard deviation comparisons were made. Moreover the test-retest reliability and the cross language validity of the four Sub-scales have also been determined by calculating correlations between two administrations. The results are given in the following tables.

Table 13

Retest reliabilities of Urdu and English version of four subscale of EPQ (junior) (N= 60)

EPQ-(junior) subscale	GP.I (UU)	GP.II (UE)	GP.III (EU)	GP.IV (EE)
	(n=15)	(n=15)	(n=15)	(n=15)
Extraversion	0.90**	0.88**	0.87**	0.84**
Neuroticism	0.89**	0.87**	0.87**	0.85**
Psychoticism	0.88**	0.80**	0.82**	0.81**
Lie	0.88**	0.87**	0.86**	0.83**

*$p \leq .05$, **$p \leq .01$

Table 13 shows that four groups (Urdu-Urdu retest, Urdu-English retest, English-Urdu retest and English-English retest) correlations for the four subscales of EPQ-(junior) are positive and significant. The correlation coefficient of extraversion for four groups ranged from 0.84 to 0.90, for Neuroticism correlation coefficient for four groups ranged from0.86 to 0.94, for Psychoticism correlation coefficient ranged from 0.84 to 0.93 and for Lie correlation coefficient ranged from 0.83 to 0.91 which indicates high stability of responses over the time, as well as cross language validity of the Urdu and English versions. Among the all the four groups' correlation value of each sub scale and

total of Urdu-Urdu retest is higher as compared to other three groups. The reason for the higher correlation value may be the practice effect of the same language inventory administration.

Re -test Reliability

Test-retest reliability, which measures stability over time, is administering the same test to the same subjects at two points in time. Estimation based on the correlation between two (or more) administrations of the same item, scale, or instrument for different times, locations, or populations, when the two administrations do not differ on other relevant variables (typically, the Spearman Brown coefficient) (Field, 2005).

Study 2

In this study the tests re-test reliability of the Urdu version of EPQ (Junior) is determined on the sample of research. Independent sample of 15 adolescents are selected with the similar demographics required for the main study.

Sample. In the present study, the sample constituted on the adolescents boys involved in labor work. These children usually do not attend full time school so their comprehension for English language is very poor or almost zero. For the language validation of EPQ (junior) Urdu Version, the sample of 15 adolescents' boys ranged from 13- 17.11 years with the mean age of 15.7 years were selected.

Procedure. This adolescent group was selected from different workshops, restaurants, beggars and trash collectors of Rawalpindi. In the first trial these adolescents were given the Urdu version of EPQ (junior) and their responses were taken. After the fifteen days same inventory (Urdu version) was administered on the same subjects for their responses.

Result

To check the test-retest reliability of the responses of the total and four sub-scales of Urdu version of EPQ (junior) the correlation coefficient (r) was determined.

Table 14

Retest reliabilities of the subscales of EPQ (junior) Urdu version (N= 15)

Subscales of EPQ (junior)	Retest reliability of present study	Retest reliability of Eysenck's study
Extraversion	0.91**	0.78
Psychoticism	0.90**	0.69
Neuroticism	0.90**	0.75
Lie	0.89**	0.75

*$p \leq .05$, **$p \leq .01$

Table 14 shows that test re-test reliability of four subscales of EPQ (junior) which are positive and significant. The correlation coefficients of four subscales ranged from 0.98 (lie) to 0.91 (extraversion) and 0.92 for total scale. This high correlation is the evidence of consistency of responses in the same language. Further more Table 14 represents the retest reliability scores of Eysenck's study on 190 adolescents of age ranged 12-14 years with one month of interval. It has been observed reliability scores of Eysenck's study for all four subscales are low as compared to the present study findings. One reason may be the time interval. In the present study retest reliability is computed with 15 days of interval.

Phase II: Reliability and Validity of EPQ (Junior) Scale

Sample

In order to determine the further psychometric properties of the scale. The EPQ (Junior) Urdu version was administered on the same sample of 200 adolescents involved in child labor. It was the same sample selected in study I (see details page no. 64)

Procedure

The scale was administered individually. The participants were approached at their work places and were instructed to read each statement carefully and respond honestly. As most of the subjects were having difficulty to read, therefore, they were assisted by the researcher to answer on scale. Few subjects have problems in understanding of statements so they were explained by the researcher till a real answer was obtained.

In order to establish the psychometric properties of EPQ (Junior), following statistical procedures were applied:

1. Item total Correlations
2. Cronbach's Alpha coefficient.
3. Interscales Correlation.

Table 15

Item total correlations of the EPQ (Junior) Scale Urdu version (N=200)

Item No	r	Item No	r
1	0.49**	42	0.12*
2	0.21**	43	0.22**
3	0.25**	44	0.61*
4	0.52**	45	0.72**
5	0.49**	46	0.36**
6	0.20**	47	0.61**
7	0.50**	48	0.32**
8	0.59**	49	0.42**
9	0.43**	50	0.62**
10	0.50**	51	0.64**
11	0.50**	52	0.52**
12	0.41**	53	0.34**
13	0.39**	54	0.87**
14	-0.07	55	0.60*
15	0.56*	56	0.81*
16	0.30**	57	0.40**
17	0.50**	58	0.52**
18	0.51**	69	0.32*
19	0.44**	60	0.42**

Continued…

Item No	r	Item No	r
20	0.69**	61	0.82**
21	0.71**	62	0.32*
22	0.47**	63	0.54**
23	0.52**	64	0.50**
24	0.62**	65	0.32**
25	0.50**	66	0.42**
26	0.72**	67	0.52**
27	0.80**	68	0.71**
28	0.31**	69	0.82**
29	-0.12	70	0.72**
30	0.40**	71	0.64**
31	0.23**	72	0.84**
32	0.02	73	0.72**
33	0.40**	74	0.54**
34	0.70**	75	0.42**
35	0.69**	76	0.81**
36	0.02	77	0.54**
37	0.23**	78	0.72**
38	0.37**	79	0.54**
39	0.26**	80	0.43**
40	0.31**	81	0.43**
41	0.21**		

*$p \leq .05$, **$p \leq .01$

Table 15 indicates the Item total correlation for 81 items of EPQ (Junior). It is clear from the results that most of the items for EPQ (Junior) have significant positive correlation with the total score indicating internal consistency of the scale. Item no 14 and 29 have shown low negative correlation with total score but correlation of item in accepted positive direction. Similarly item no 32 and 36 show non-significant negative

correlation with the total score. These non-significant items belong to sub scales of psychoticism and neuroticism. It nay be because these items have some problems in understanding by the adolescents, may needed to check the translation of these items again in any next study while to use this inventory.

Table 16

Means and standard deviations of subscales of EPQ (Junior) Urdu version (N= 200)

Scales	No of Items	Score range	*M*	*SD*
Extraversion	24	0-24	19.51	2.29
Neuroticism	20	0-20	12.76	2.19
Psychoticism	17	0-17	14.85	2.03
Lie	20	0-20	9.1	2.07

Table 16 indicates the mean scores and standard deviations of the total sample on EPQ (Junior) - Urdu version. It is observed from the results that mean score of the respondents on the measure of Extraversion is highest, followed by Neuroticism. Third highest mean score was obtained on the measure of Psychoticism and least score on the measure of Lie. It means that laborer adolescents have more extravert type of personality.

Table 17

Alpha reliability coefficient of subscales of EPQ (Junior) Scale Urdu version (N= 200)

Subscales of EPQ (Junior)	No of Items	Alpha Reliability Coefficients
Extraversion	24	0.72
Neuroticism	20	0.69
Psychoticism	17	0.71
Lie	20	0.68

Table 17 indicates the cronbach's alpha coefficient for the total and subscales of EPQ (Junior), which came out to be .72 for the subscale of Extraversion and .68 for the

subscale of Lie. Over all reliability of EPQ (Junior) came out to be 0.81 which is quite high.

Table 18

Interscales correlations Subscales of EPQ (Junior) Urdu version (N=200)

Subscales	Extraversion	Neuroticism	Psychoticism	Lie
Extraversion	-	-0.49**	0.46**	0.14*
Neuroticism	-	-	0.31**	0.09
Psychoticism	-	-	-	0.18*
Lie	-	-	-	-

*p≤ .05 **p≤ .01

It is observed from Table 18 that there are significant positive correlations among different subscales of Eysenck Personality Questionnaire or EPQ (Junior) - Urdu version. . It is clear from the result that in all the four subscales, extraversion is negatively related with neuroticism while all other scales are positively correlated with each other. It is observed neuroticism and lie show low non significant correlation, may suggest that there was little disposition or tendency to dissimulate among adolescents (Eysenck & Eysenck, 1971).

Discussion

Personality assessment constitutes a major function in applied psychology in all around the world. Similarly in Asian countries like Pakistan the field of personality assessment is largely an "imported" discipline, following the Western tradition and paradigm in psychology (Cheung, Leong, & Ben-Porath, 2001). As a result, most of the common personality tests currently used in Pakistan are tests translated from English. For example, the Urdu versions for the Minnesota Multiphase Personality Inventory-2 (MMPI-2) (Saeed, Tahir & Jahangir, 2001), NEO-PI-R (Chisti & Anila, 2002), and

California Psychological Inventory or CPI (Ahmed, Haque, & Anila, 1994) are easily available.

Translating and adapting western measures is a common practice in psychological assessment in Asian countries. Despite the emphasis on the scientific standards of psychological assessment, there has been relatively little guidance on the ethical standards of test use and test adaptation for international psychologists. Many tests are translated or adapted without the original authors' or publishers' permission, and copyright compliance is not always observed. The Association of Test Publishers (ATP; Hambleton & Patsula, 1999) and the International Test Commission (ITC; Bartrum, 2000) have recently published guidelines on test use and test adaptation, which suggest specific steps for test adaptation, development, administration, and documentation when translating tests from another language. In the present study, the instrument is attained from Edits San Diego, California, Publishers as permission to use this inventory.

The strategy of applying foreign instruments and constructs in the local culture, assuming cross-cultural validity and relevance, is called the *imposed etic* strategy (Berry, 1989; Church & Lonner, 1998). The cross-cultural studies of personality have shown cultural similarities and differences in the manifestation of personality traits. In interpreting cultural differences in personality traits, researcher should consider not only the experiences of people in different cultures, but also the measures adopted and the cultural orientations of him/her self. So the translation and adaptation of an instrument from one culture to another is a sensitive issue (Cheung & Cheung, 2003).

Keeping in mind these views in the present study, cultural equivalence of personality instrument i.e., EPQ (Junior) was established with the help of independent back translation and committee approach. Regarding this the cross-language validity of the instrument was also established.

One cannot assume that a translated instrument is equivalent to the original instrument. We need to demonstrate that they are equivalent. Butcher (1996) presented

three levels of equivalence between the original and the translated instruments or scales. Two scales are said to be functionally (or structurally) equivalent if they measure the same constructs in the original and the target cultures, even though the item contents of the two scales may be different. We can evaluate functional equivalence by examining the original and the translated instruments' inter-item or inter-scale correlations, and their patterns of correlation with external variables.

The second level is metric equivalence. In general, metric equivalence refers to the similarities between the original and the translated instruments in psychometric properties, such as item difficulty level, item-scale correlations, and the pattern of loadings in factor analyses.

The third level is (or full score) equivalence--the extent to which the scale scores indicate the same degree, intensity or magnitude of the characteristic being measured in both cultures. Although this level of equivalence is implicitly assumed when we compare the scale mean differences between two cultures, this level of equivalence is the most difficult to establish (Berry, Poortinga, Segall, & Dasen as cited in Brislin, 1976).

To see the empirical equivalence of the both versions of the instrument, they were administered to different groups of subjects of bilinguals and monolinguals. The retest reliability is one of the most important features of an objective personality inventory. The administration of inventory on bilinguals was with different sequence. However, it was found that the correlation of Urdu-Urdu retest is higher as compared to Urdu-English retest, English-Urdu retest and English-English retest.

There can be many reasons for this result but the important one is language barrier. Although the original inventory is meant for the age group range from 7- 17 years. So the language difficulty of items is maintained by considering the comprehension level of these children, but it was seen practically that Pakistani adolescents of the same age, were not familiar with the certain English words used in the item statements of the original inventory or more appropriately these words are not in common use of Pakistani population. In translated (Urdu) version these problems have been tackled appropriately.

Before applying the translated instrument as if it is the original instrument, we need to conduct local research on the translated instrument. An adapted instrument is like a newly developed instrument. We need to establish its reliability in the local culture, including its internal consistency, test-retest reliability, and factor structure. Problems in internal consistency may reflect inadequacies in translation, genuine cross-cultural differences in the manifestation of a characteristic, or the lack of cultural relevance of the imported construct. Other psychometric properties of the translated measure also should be compared to those of the original measure, such as item difficulty and endorsement rate. Likewise, the validity of the translated instrument has to be established through a program of local research.

As with original instruments, four aspects of validity need to be studied. How do the scale scores converge with other related instruments (convergent validity), Do the scale items cover the construct being measured adequately (content validity)? Do the scales predict specified outcomes or discriminate between the normative sample and criterion groups (criterion validity)? What is the nomological net covered in the scale and does the construct measured by the scale cover the same nomological net or meaning cross-culturally (construct validity).

In the present study, the psychometric properties of the scale were established. The item total correlation was computed ranges from 0.02 to 0.87 which is the sign of wide disparity of scores among participants. It is common in personality measures. Similarly the alpha coefficient for four subscales range from 0.68 to .72 which is relatively good and confirm the idea that EPQ (Junior) is a reliable measure.

The inter scale correlation was determined to check the relationship between different subscales of EPQ (Junior) Urdu version. The inter scale correlation between Extraversion and Neuroticism is negative indicating these two traits are at opposite continuum. It is also seen that correlations between Lie and other subscales are positive. The score on Lie scale provide the evidence of faking. Although this correlation is average not very high but indicates that adolescents are more nonconformist as they are

naïve and less able to introspect (Eysenck & Eysenck, 1970). Similarly, another note able finding is the low non significant correlation between neuroticism and lie. This is the sign that there is little disposition to dissimulate among adolescents (Eysenck & Eysenck, 1970)

On the basis of over all results it could be held that EPQ (junior) has been adapted, translated, and the cross language validity of the inventory has been established which is satisfactory. Moreover the psychometric properties have also been established. Now the inventory is ready for main study.

PART III: MAIN STUDY

Relationship between Patterns of Delinquency, Personality Traits, and Demographic Variables

Part III of the present research comprised on main study. The main study was aimed at finding the relationship between patterns of delinquency and personality traits of adolescents involved in child labor. To meet this major goal, certain objectives are needed to be accomplished the study. These objectives are as follows.

1. To find out the relationship between self reported delinquency and Informant-reported delinquency scales.
2. To determine the predictive relationship of personality traits and self-reported delinquency.
3. To find out the differences on demographic variables such as age, labor type, labor duration, education and delinquency.
4. To find out the differences on above stated demographic variables and personality traits.

Sample

A sample of 250 male adolescents with the age ranging from 13- 17.11 years (*M*=16.21; *SD*=2.1) and their 220 Informants with the age ranging from 25-55 years *(M*=48.37; *SD*=1.89) from different areas of Rawalpindi/ Islamabad was selected. Participants (laborer adolescents and informants) were selected by using purposive sampling technique. About 56% of sample of the laborer adolescents had an education level up to primary (*n*=140) and rest of 44% was primary to matric (*n*=110). The sample of laborer adolescents were from following labor type categories: workshops (*n*=80), general stores (*n*=49), restaurants (*n*=60), beggars (*n*= 28) and trash collectors (*n*=29). Similarly about 30% of the laborer adolescents had 2-3 years labor duration (*n*=75), 32% had 4-5 years labor duration (*n*=80), and rest of the 38% of the participants had 6-7 years of labor duration (*n*= 95).

Sampling Inclusion Criteria

Only those adolescents were selected who have been involved in different labor work for at least two years and their informants were easily available. The selection criterion for informants was that they must be older than adolescent at least 10 years and spending at least 5-7 hours daily. It was carefully checked by the researcher that these informants should not have any blood relation with the laborer adolescent. So that informant can report about the targeted person freely without any bias. Infact they were those people with whom laborer adolescents were working. The subjects were approached at their work places.

Instruments

Instruments were used in this study were Self-reported delinquency scale (SRDS), Informant-reported delinquency Scale (IRDS), and Eysenck Personality Questionnaire (EPQ) (junior). Demographics Information Sheet was also used to obtain demographic information. (Details of the scales have been already discussed in detail at part I and part II of the present research).

Procedure

The procedure used in this part of the research was almost the simulation of the procedure used in part 1 of the study. The two scales, SRDS and EPQ-(junior) Urdu version were administered at laborer adolescents. At the same time the IRDS was administered to Informants of laborer adolescent. Participants were approached at their work places. After having their consent the scales were handed over to the respondents. They were instructed to read each statement carefully and respond honestly to all items of the scales. As most of the subjects were having difficulty to read, therefore, they were assisted by the researcher to answer on the items of each scale. Few subjects have problems in understanding of statements so they were explained by the researcher till a real answer was obtained.

Demographic Description of Sample

To find out the demographic distribution of sample on the basis of age, labor type, duration, and education the percentages have been computed.

Table 19

Distribution of sample on the basis of age (N = 250)

Age (in years)	*n*	*percent*
13-14	80	32.0
15-16	83	33.2
17-18	87	34.8

Table 19 represents distribution of total sample on the basis of age. For the total sample age is divided into three categories. The frequency and their percentages show approximately equal distribution of sample according to age.

Table 20

Distribution of sample on the basis of labor type (N = 250)

Type of labor	*n*	*percent*
Workshop	84	33.6
Restaurant	60	24.0
Stores	49	19.6
Trash collectors	29	11.6
Beggary	28	11.2

Table 20 represents distribution of total sample on the basis of Labor type. There are five labor type categories for total sample. The frequency and their percentages show more of the adolescents are from Workshop category and least from beggary. Over all result shows un- equal distribution of sample on the basis of labor type.

Table 21

Distribution of sample on the basis of duration of labor (N= 250)

Duration of labor (in years)	*n*	*percent*
2-3	75	30.0
4-5	80	32.0
6-7	95	38.0

Table 21 represents distribution of total sample on the basis of duration of labor. For the total sample age is divided into three categories. The frequency and their percentages show more of the sample fall in the third category of duration of labor.

Table 22

Distribution of sample on the basis of Education (N= 250)

Education	*n*	*percent*
Up to primary	140	56.0
Primary to secondary	110	44.0

Table 22 represents distribution of total sample on the basis of education of labor. For the total sample age is divided into three categories. The frequency and their percentages show more of the sample fall in the second category of education of labor.

Mean Scores of Total Sample on EPQ- (Junior) Urdu Version

Mean scores of total sample on EPQ-(Junior) have been determined to analyze the total distribution of the sample on different Subscales and total of EPQ- (junior) Urdu version.

Table 23

Mean and Standard Deviations of EPQ (Junior) and its Subscales (N=250)

Subscales of EPQ (Junior)	No of Items	Score Range	*M*	*SD*
Extraversion	24	0-24	19.53	2.21
Neuroticism	20	0-20	15.87	1.14
Psychoticism	17	0-17	16.88	2.01
Lie	20	0-20	12.1	2.04

Mean scores and standard deviations of total sample on EPQ (junior) - Urdu version is represented by Table 23. Result indicates among the four subscales, laborer adolescents reported more on extraversion and relatively less on lie (See Appendix, F V).

RESULTS

The present study intended to investigate the patterns of delinquency and its relation with different personality traits of adolescents in child labor. Different statistical procedures were used to analyze the data. Alpha coefficients were calculated to see the reliability of three instruments used in the present study. Bivariate correlation method was used to determine the relationship between self reported delinquency and various personality traits. One way Anova is used to find out the type and duration of labor, and age wise differences on self and informant-reported delinquency. Similarly t analysis was computed to see the difference of education on self and informant-reported delinquency. Moreover the multiple linear regression model was tested to determine the predictability of self-reported delinquency on the personality traits.

Reliability of the Instruments

For the determination of reliability of EPQ- (Junior) Subscales, alpha coefficient was calculated. Similarly the alpha coefficient for self-reported delinquency Scale (SRDS) and Informant-reported delinquency Scale (IRDS) Scale was also computed

which was same as found in chapter I, so it was decided by the researcher to report the split half reliability of both scales before any other analysis.

Table 24

Alpha reliability coefficient of total and subscales of EPQ (Junior) Scale Urdu version (N= 250)

Subscales of EPQ (Junior)	No of Items	Score Range	Alpha Coefficients
Extraversion	24	0-24	0.71
Neuroticism	20	0-20	0.69
Psychoticism	17	0-17	0.70
Lie	20	0-20	0.59

Table 24 represents the alpha reliability coefficients of the four subscales of EPQ (Junior). This alpha coefficient value for subscale ranges from 0.59 (lie), to 0.71 (extraversion), means that the items of these subscales are internally consistent. More over alpha values are in the acceptable range which is enough to provide evidence that EPQ (Junior) is a reliable measure.

Table 25

Split half Reliability of SRDS, IRDS, and Subscales of EPQ- (Junior) (N= 250)

Scale	No of Items		Alpha Coefficients		Split-half Reliability
	Part I	Part II	Part I	Part II	
SRD Scale	14	13	0.87	0.91	0.89
IRD Scale	14	13	0.84	0.88	0.90
Extraversion	12	12	0.75	0.68	0.69
Psychoticism	10	10	0.74	0.69	0.67
Neuroticism	9	8	0.73	0.67	0.68
Lie	10	10	0.62	0.58	0.45

Table 25 shows split half reliability coefficient of finally selected 27 items of self-reported delinquency scale and Informant-reported delinquency scale on the sample of laborer adolescents. For that purpose each of the scale was divided into two parallel parts. In each part there were 14 and 13 items respectively. Spearman brown prophecy formula was applied to estimate the reliabilities of full scale which yielded a correlation of 0.89 and 0.90 respectively that is reasonably good and indicates the internal consistency of scale. Table 25 also shows split half reliability coefficient of four subscales of EPQ (junior)-Urdu version on the sample of laborer adolescents. For the computation of split half reliability, each scale was divided into two parallel parts. Spearman brown prophecy formula was also applied to estimate the reliabilities of full scale which yielded acceptable correlations for four subscales to indicate the internal consistency of each scale

Table 26

Interscales correlations Subscales of EPQ (Junior) Urdu version (N=250)

Subscales	Extraversion	Neuroticism	Psychoticism	Lie
Extraversion	-	-0.48**	0.45**	0.16*
Neuroticism	-	-	0.37**	0.15
Psychoticism	-	-	-	0.17*
Lie	-	-	-	-

**p≤.05   **p ≤01

It is observed from Table 26 that there are significant correlations among different subscales of Eysenck Personality Questionnaire or EPQ (Junior) - Urdu version. It is clear from the result that in all the four subscales, extraversion is negatively related with neuroticism while all other scales are positively correlated with each other. It is observed neuroticism and lie show low non significant correlation, may suggest that there was little disposition to dissimulate among laborer adolescents (Eysenck & Eysenck, 1971).

Correlation between Self-reported delinquency, Informant-reported delinquency and personality traits

To assess the correlation between self-reported delinquency, informant-reported delinquency, and personality traits, the Pearson correlation coefficient was determined. The correlation matrix was reported between SRDS, IRDS, and four subscales of EPQ-(Junior) i.e., Extraversion, Psychoticism, Neuroticism, and Lie.

Table 27
Mean and Standard Deviations of SRDS, IRDS, and   (N=250)

Scales	No of Items	Score range	*M*	*SD*
SRD Scale	27	0-135	67.41	7.21
IRD Scale	27	0-135	75.20	9.14
Extraversion	24	0-24	18.26	2.03
Psychoticism	20	0-20	11.13	1.48
Neuroticism	17	0-17	10.45	1.27
Lie	20	0-20	15.73	3.94

Table 27 represents the mean scores of total sample on SRD Scale and IRD Scale and EPQ (Junior). Result indicated that the mean score of the subjects on IRD Scale is higher than SRD Scale.

Table 28
Correlation Matrix between SRDS, IRDS and subscales of EPQ-(Junior) (N= 250)

Sub scales	1	2	3	4	5	6
1. SRDS	-	0.93**	0.71**	0.64**	0.42**	-0.39**
2. IRDS	-	-	0.77**	0.52**	0.46**	-0.59**
3. Extraversion	-	-	-	0.45**	-0.48**	0.16*
4. Psychoticism	-	-	-	-	0.37**	0.17*
5. Neuroticism	-	-	-	-	-	0.15
6. Lie	-	-	-	-	-	-

*p≤0.05, **p≤0.01

Table 28 clearly indicates the correlation between SRDS, IRDS, Extraversion, Psychoticism, Neuroticism, and Lie. It is clear from the result that SRDS and IRDS are highly correlated with each other, this correlation is significant at $p \leq .01$, giving idea that may with the help of both scales individual's delinquency can be measured. Self-reported delinquency scale measures the reporting of deviant behavior from the person while informant-reported delinquency scale helps to measure the perception of deviant behavior of targeted individual by the observer. Both the scale together may provide more authentic picture of individual's delinquent behavior. These findings confirm the hypothesis No.1 that 'self-reported delinquency will be positively related with informant-reported delinquency of laborer adolescents'.

Moreover Table 28 indicates the results of correlation between SRDS and EPQ (Junior) Subscales. It is clear from the result that all the four subscales of EPQ (Junior) are positively correlated with SRDS except lie. Lie is negatively related with SRD Scale. These findings confirm the hypothesis No.2 with 99% confidence that 'Self-reported delinquency will be positively related with the extraversion, psychoticism and neuroticism of adolescents in child labor'. While negative correlation of SRDS with lie indicates that adolescents are reporting delinquency with relatively minimum lie. These findings are further cross checked with the help of correlation between IRDS and Subscales of EPQ-(Junior).

Demographic Variables and Differences on Self-reported delinquency, Informant-reported delinquency, and Personality traits

The demographic collected included age, education, type and duration of labor. In order to find out the effect of age, type and duration of labor on Self-reported delinquency and informant reported delinquency, and Personality traits one way Anova was computed. Similarly to see the effect of education on self-reported delinquency and informant-reported delinquency, and Personality traits t-analysis were carried out.

Age

In order to determine the age wise differences and also to test the hypothesis No 3. That 'there will be increase in self-reported delinquency with age', one way Anova was applied. To find out the difference of age on self-reported delinquency, informant-reported delinquency and personality traits, the whole sample was divided into 3 groups i.e., one from 13-14 years (*n*=80), other from 15-16 years (*n*=83) and third group from 17-18 years (*n*=87). How ever for the verification of the result same analysis was done with Informant-reported delinquency scale.

Table 29
Mean Standard deviation and one way Anova of scores on the Age, SRDS and IRDS (N= 250)

Scales	Age(in years)						*F*	*p*
	13-14 n = 80		15-16 n = 83		17-18 n = 87			
	M	*SD*	*M*	*SD*	*M*	*SD*		
SRDS	40.01	7.01	68.26	8.72	84.70	9.28	147.10	.000
IRDS	62.37	17.65	77.30	12.62	93.62	10.05	108.627	.000

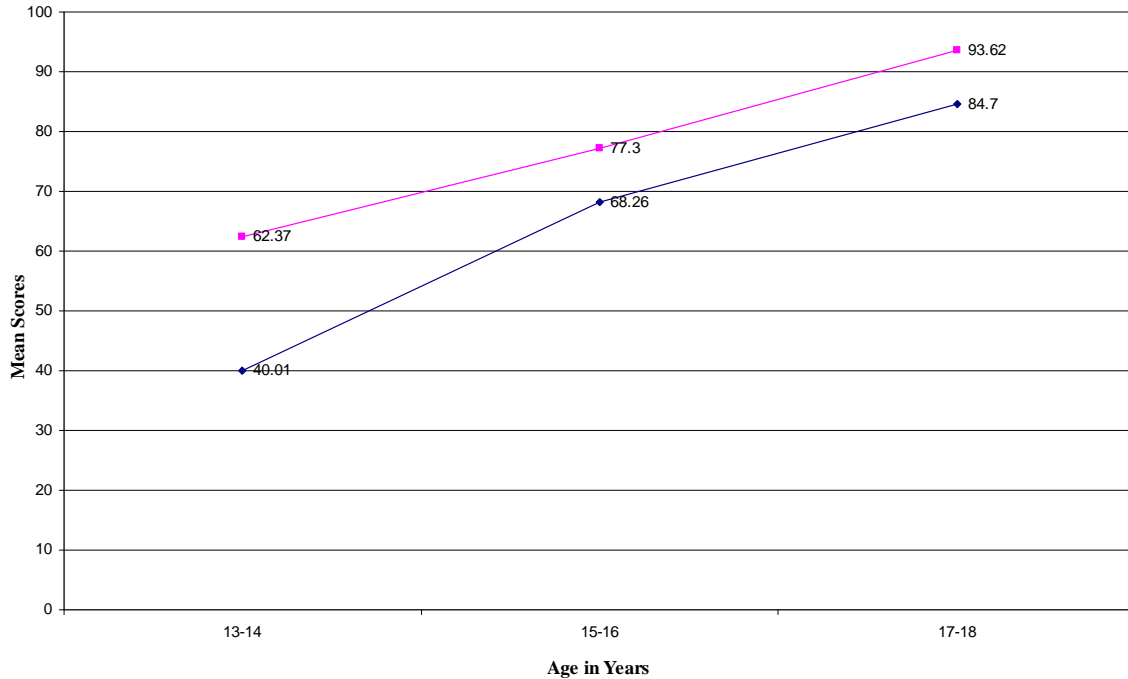between groups *df*= 2; within groups *df*=247; groups total *df*= 249

Figure V: Graphical representation of differences on the basis of age on Self-reported delinquency scale and Informant-reported delinquency scale.

Table 29 and figure VII indicates the results of One Way Analysis of Variance for self-reported delinquency, informant-reported delinquency, and for age scores of laborer adolescents with three different levels of age. The mean score for age group 17-18 is highest among all for both delinquent measures. The data show a highly significant effect of the self-reported delinquency and informant-reported delinquency for age of laborer adolescents ($p<.05$). These findings confirm the hypothesis No.3 that' there will be increase in self-reported delinquency with age of adolescents in child labor. In Table 29 the findings on IRDS and age provide further check on the confirmation of this hypothesis.

Table 30

Mean Standard deviation and one way Anova of scores on the Age and EPQ-(Junior) and its Subscale

	Age(in years)							
	13-14 n = 80		15-16 n = 83		17-18 n = 87		*F*	*p*
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*		
Extraversion	17.30	2.47	19.46	2.07	20.07	1.41	1.22	.012
Psychoticism	9.03	2.45	10.80	1.56	10.56	1.77	0.763	.256
Neuroticism	12.05	2.74	11.73	1.70	11.75	1.35	0.471	.239
Lie	17.03	2.29	16.73	1.70	13.00	1.51	2.783	.001

between groups *df*= 2; within groups *df*=247; groups total *df*= 249
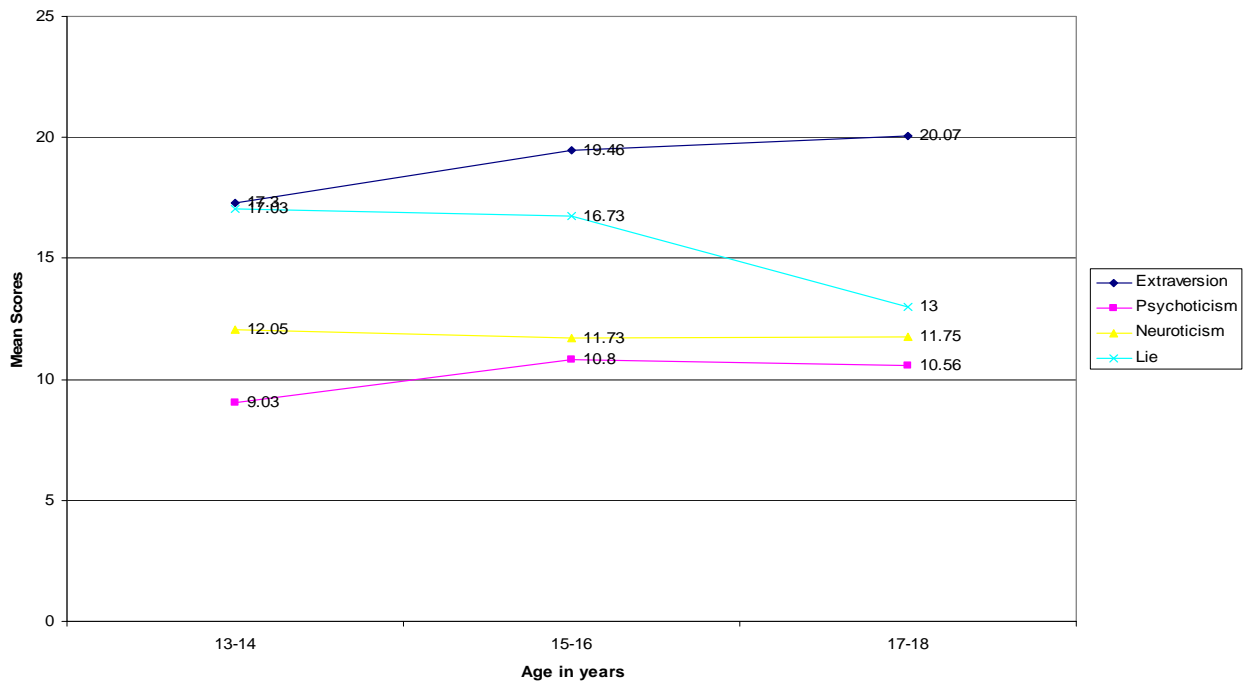

Figure VI: Graphical representation of differences on the basis of age and subscales of EPQ-(Junior).

Table 30 and figure VI reveals the results of One Way Analysis of variance for the scores of laborer adolescents on age and subscales of EPQ-(Junior). It is clear from the

results that trait extraversion increases with the age ($p < .05$) among laborer adolescents. The data shows non significant effect of age on psychoticism and neuroticism. It is also clear from Table 30 that Scores on lie decreases with the age increases ($p<.05$). These findings are clearly observable from the figure.

Type of Labor

For the determination of the effect of type of labor on self-reported delinquency, informant-reported delinquency and personality traits, the whole sample was divided into five categories of labor type i.e., Workshop ($n=84$), Restaurant ($n=60$), Stores ($n=49$), Trash Collectors ($n= 29$), and Beggary ($n= 28$). To determine the difference of sample on labor type one way Anova was carried out.

Table 31

Mean Standard deviation and one way Anova of scores on the Type of labor and SRD Scale.

Scale	Type of Labor	n	*M*	*SD*	*F*	*p*
SRD Scale	Work shop	84	78.67	18.94	.30	0.830
	Restaurant	60	77.06	19.1		
	Stores	49	78.20	18.55		
	Trash collectors	29	81.34	16.61		
	Beggary	28	75.96	20.21		

between groups *df*= 4; within groups *df*=245; groups total *df*= 249

Table 31 indicates the results of One Way Analysis of Variance for Self-reported delinquency and type of labor scores of laborer adolescents with five different categories of type of labor. The mean score for category of trash collectors is highest among all. The data show a non significant effect of the self-reported delinquency for labor type of adolescents ($p< .05$).

Table 32

Mean Standard deviation and one way Anova of scores on the Type of labor and IRDS

Scale	Type of Labor	n	M	SD	F	p
IRD Scale	Work shop	84	85.29	19.65	.21	0.985
	Restaurant	60	81.68	22.1		
	Stores	49	86.34	19.35		
	Trash collectors	29	91.52	18.71		
	Beggary	28	78.47	21.92		

between groups *df*= 4; within groups *df*=245; groups total *df*= 249

Table 32 indicates the results of One Way Analysis of Variance for Informant-reported delinquency and type of labor scores of laborer adolescents with five different categories of type of labor. The mean score for category of trash collectors is highest among all. The data show a non significant effect of the Informant-reported delinquency for labor type of adolescents (*p*< .05).

Table 33

Mean Standard deviation and one way Anova of scores on the Type of labor and EPQ (Junior) and its Subscale

Scale	Type of Labor											
	Workshop		Restaurant		Stores		Trash collectors		Beggary			
	n= 84		n=60		n= 49		n= 29		n=28			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	F	*p*
Ext	19.67	1.9	9.6	2.41	18.6	1.81	18.1	2.88	19.2	2.66	.496	.739
Psy	12.9	2.0	12.9	1.86	12.6	2.18	13.0	1.99	12.7	1.97	.294	.882
Neu	15.9	1.5	11.7	2.4	15.9	2.25	12.72	1.75	15.8	2.85	.163	.957
Lie	16.1	1.9	16.3	2.19	16.1	1.84	15.82	2.12	15.8	2.22	.429	.788

between groups *df*= 4; within groups *df*=245; groups total *df*= 249

Table 33 indicates the results of One Way Analysis of Variance for EPQ-(Junior) and type of labor scores of laborer adolescents with five different categories of type of labor. The data shows a non significant effect of the personality traits for labor type of adolescents (*p*< .05).

Education

To determine the effect of education on self-reported delinquency, informant-reported delinquency and personality traits, the sample was divided into two groups i.e., one, from Less than primary *(n*= 140) and the primary to metric (*n*= 110).To see the difference on these two groups t-analysis was computed.

Table 34

Difference between Less Educated and High Educated Group on SRDS and IRDS
(N = 250)

	Education					
	Less than primary n= 140		Primary to secondary n= 110			
Scale	*M*	*SD*	*M*	*SD*	t	p
SRDS	92.71	8.85	65.24	6.32	4.18	.001
IRDS	96.24	10.52	73.61	8.74	8.26	.000

df= 248

Table 34 indicates that there is a significant difference of education on the self-reported delinquency scores of laborer adolescents. The mean score for the group of less than primary education is higher than more primary to metric education group. This result indicated that adolescents less on education have more self-reported delinquency score as compared to more educated laborer adolescents and this difference is significant at *p< .01*. These findings confirm the hypothesis No.4 that 'More educated adolescents will have less delinquency as compared to less educated adolescents in child labor'. Table 35 also indicates that there is a significant difference of education on the Informant-reported delinquency scores of laborer adolescents. These findings provide further check on the confirmation of hypothesis No.4 that 'More educated adolescents will have less delinquency as compared to less educated adolescents in child labor.'

Table 35

Difference between Less Educated and High Educated Group on EPQ and its Subscale
(N = 250)

	Education					
	Less than primary n= 140		Primary to secondary n= 110			
Scale	*M*	*SD*	*M*	*SD*	t	p
Extraversion	17.44	2.16	18.58	2.30	3.93	.021
Psychoticism	12.51	2.38	12.10	1.74	2.82	.142
Neuroticism	15.60	2.36	15.02	1.94	1.23	.452
Lie	16.35	1.88	14.98	2.12	4.52	.001

df= 248

Table 35 indicates the scores of laborer adolescents on education and personality traits. The results reveal that there is a significant difference of education only on Extraversion and Lie scales of EPQ-(Junior). The mean scores of Lie for the group of less than primary education are higher than primary to secondary education group. Similarly the mean scores of Extraversion for the group primary to secondary is higher than less than primary. The data shows a significant effect of the extraversion and lie for education of laborer adolescents ($p<.05$). While Psychoticism and Neuroticism shows non significant effect of education and personality traits.

Duration of Labor

For the determination of the effect of Duration of labor on self-reported delinquency, informant-reported delinquency and personality traits, the whole sample was divided into three groups of duration of labor i.e., one from 2-3 years (*n= 75*), other from 4-5 years (*n= 80*) and third from 6-7 years (*n= 95*). To determine the difference of sample on duration of labor one way Anova was carried out.

Table 36

Mean Standard deviation and one way Anova of scores on the duration of labor and SRD Scale (N=250)

	Duration (in years)							
	2-3		4-5		6-7			
	n = 75		n = 80		n = 95			
Scales	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*
SRD-Scale	61.2	17.4	77.5	12.6	92.2	11.1	106.50	.000
IRD-Scale	63.34	19.52	78.42	16.76	96.91	10.51	126.01	.000

Between groups *df*= 2; Within groups *df*=247; groups total *df*= 249
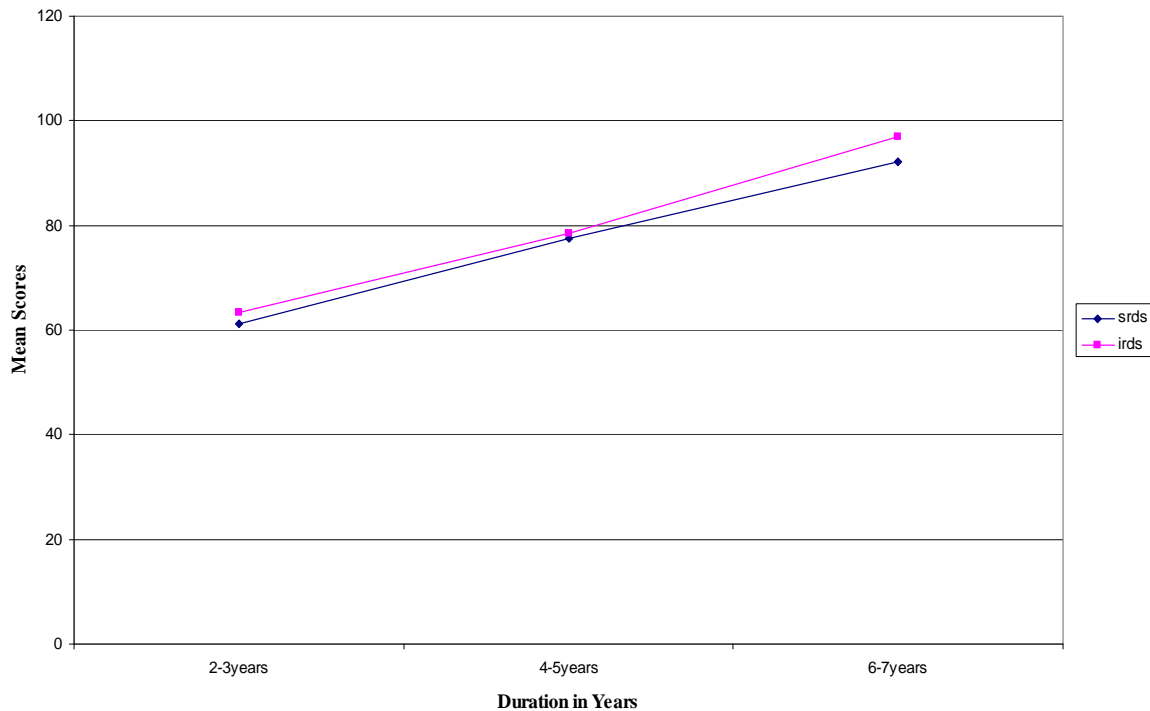
Figure VII: Graphical representation of differences on the basis of duration of labor on Self-reported delinquency scale and Informant-reported delinquency scale.

Table 36 indicates the results of One Way Analysis of Variance for Self-reported delinquency for the duration of labor scores of laborer adolescents with three different levels of labor duration (in years). The mean score for the group of 6-7 year labor duration

is highest among all. The data show a significant effect of the self-reported delinquency score for duration of laborer of adolescents ($p < .05$). Further, Table 37 indicates the results of One Way Analysis of Variance for Informant-reported delinquency for the duration of labor scores of laborer adolescents with three different levels of labor duration (in years). The mean score for the group of 6-7 year labor duration is highest among all. The data show a significant effect of the Informant-reported delinquency score for duration of laborer of adolescents ($p < .05$).

Table 37

Mean Standard deviation and one way Anova of scores on the duration of labor and EPQ and its Subscale (N=250)

Scales	Duration (in years)						F	p
	2-3 n = 75		4-5 n = 80		6-7 n = 95			
	M	SD	M	SD	M	SD		
Extraversion	18.25	2.53	19.47	2.11	20.60	1.46	27.755	.321
Psychoticism	12.16	2.51	12.80	1.59	13.53	1.66	10.666	.859
Neuroticism	14.94	2.79	15.75	1.73	16.70	1.33	15.513	.961
Lie	14.96	2.29	16.22	1.79	16.93	1.56	23.329	.212
EPQ-Total	60.32	6.75	64.25	4.83	67.77	3.79	43.879	.150

Between groups *df*= 2; Within groups *df*=247; groups total *df*= 249

Table 37 indicates the results of One Way Analysis of Variance for EPQ-(Junior) and duration of labor scores of adolescents in child labor on five different categories of type of labor. The data shows a non significant effect of the personality traits for duration of labor adolescents in child labor ($p < .05$).

Multiple Linear Regression Coefficients predicting self-reported delinquency with personality traits.

As the present study explored the relationship between different personality traits and Juvenile delinquency of adolescents in child labor. Moreover this study aimed to explore different personality traits (extraversion, neuroticism and psychoticism) to see their association with Self-reported delinquency. It was also desired to look at their predictive powers. The forward method of variable entry was selected with the entry criterion of probability of F as less than or equal to 0.05.

For the verification of the model following assumptions were satisfied; To check the heteroscedasticity of sample the Durbin Watson test was applied which revealed the F value 1.87 significant at $p \leq 0.05$. The value closer to 2 is the evidence that no auto correlation exists among predictors and is good for regression model (Durbin & Watson as cited in Field, 2005). Similarly for the identification of Multicollinearity, White Heteroskedasticity Test was applied which provide F value of 2.549, significant at $p \leq 0.05$ provides evidence that predictor variable have no perfect linear relationship and do not correlate highly.

Table 38

Model Summary for the total Sample (N = 250)

	Number of predictors = 3			
Model	R	R²	Adjusted R²	Error of estimate
1	.502	.252	.257	16.218
2	.542	.294	.299	15.785
3	.567	.322	.389	15.504

The over all sample data could generate 3 models where 1) Extraversion, 2) Psychoticism, and 3) Neuroticism could qualify the entry criterion. It is the evident from

table 38 that these regressors strengthen the juvenile delinquency in the laborer adolescents. The maximum prediction reached with three regressors. More over the result specified the adjusted value of squared R to be 0.313.This means that about 31.3 % of Self-reported delinquency is explained by these personality types.

Table 39

ANOVA for the total sample (N = 250)

Model		SS	Df	MS	F	p
1	Regression	21927.506	1	21927.506	83.358	.000
	Residual	65237.090	248	263.053		
	Total	87164.596	249			
2	Regression	25613.169	2	12806.585	51.392	.000
	Residual	61551.42	247	249.196		
	Total	87164.596	249			
3	Regression	28028.102	3	9342.701	38.864	.000
	Residual	59136.494	246	240.392		
	Total	87164.596	249			

It is clear from the Table 39 that all these variables are significantly contributing in the prediction of self-reported delinquency. All the variables have significant value with ANOVA in the different model of regression.

Table 40

Coefficients for the total sample (N = 250)

Model		Unstandardized Coefficients			Standardized Coeff	
		β	Std. Err	Beta	t	p
1	Constant	-3.28	8.984		-.366	.715
	Extraversion	4.171	.457	.502	9.130	.000
2	Constant	-13.728	9.156		-1.499	.135
	Extraversion	3.288	.501	.395	6.569	.000
	Psychoticism	2.149	.559	.231	3.846	.000
3	Constant	-24.134	9.574		-2.521	.012
	Extraversion	2.655	.531	.319	5.004	.000
	Psychoticism	1.810	.559	.195	3.236	.001
	Neuroticism	1.711	.540	.193	3.170	.002

Table 40 indicates coefficients of the sample. It is observed from the results that all the variables included in the regression model have beta values with relatively less difference. b values indicate the direction of regression, as the beta coefficient is positive so these variables are positively related with self-reported delinquency. It is seen from the result that t-test with the b-values is significant for all three predictors at $\alpha \leq 0.05$, is the sign that all predictors are significantly contributing in the model. More over it could be interpreted from the results that smaller the value of p (and larger the value of t) the grater the contribution of predictor, so extraversion is significantly contributing in the prediction as compared to other two predictors.

Table 41

Residual statistics for the total sample (N = 250)

	Minimum	Maximum	*M*	*SD*
Predicted value	36.182	98.3826	78.2040	10.60956
Std. Predicted Value	-3.961	1.904	.0000	1.000
Residual	-50.139	34.981	.000	15.41090
Std.Residual	-3.234	2.256	.000	.994

Histogram

Dependent Variable: totalsrd

Mean = 6.11E-16
Std. Dev. = 0.994
N = 250
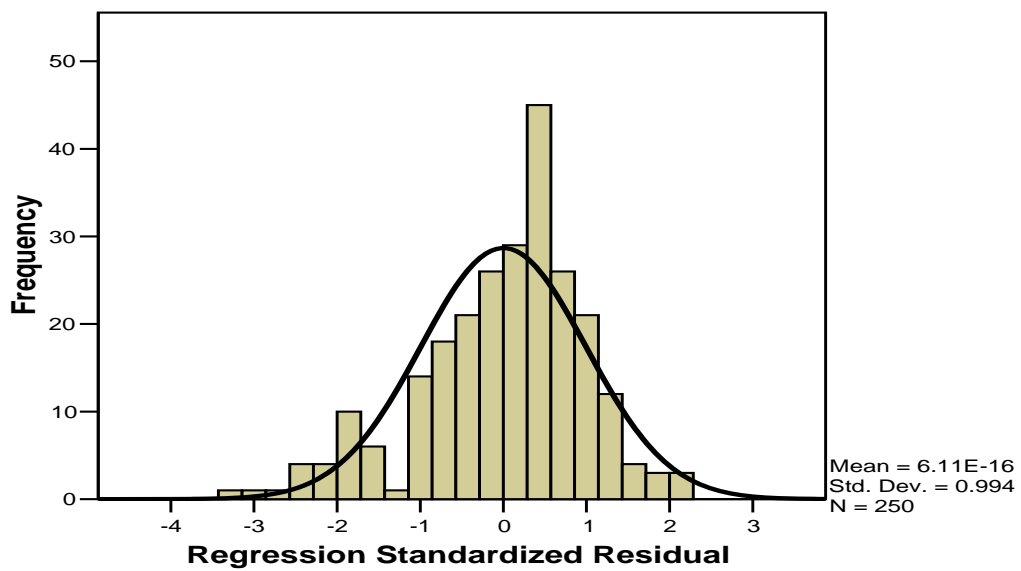
Figure VIII: Graphical representation of standardized residuals on the scores of self-reported delinquency.

The table 41 indicates the residual analysis of the sample. The result satisfies the rules of regression. The different values are balanced out to give zero for the mean values. The predicted value of SRD ranges from 36.18 to 98.38 with the standard deviation of 10.60. The result shows that residual values are perfectly balanced out to give mean values of zero, thus representing a symmetrical or normal distribution of data. To clearly seen this, graph of histogram is taken. The figure VIII also clearly represents the normal distribution of score and balanced distribution of residual values.

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: totalsrd
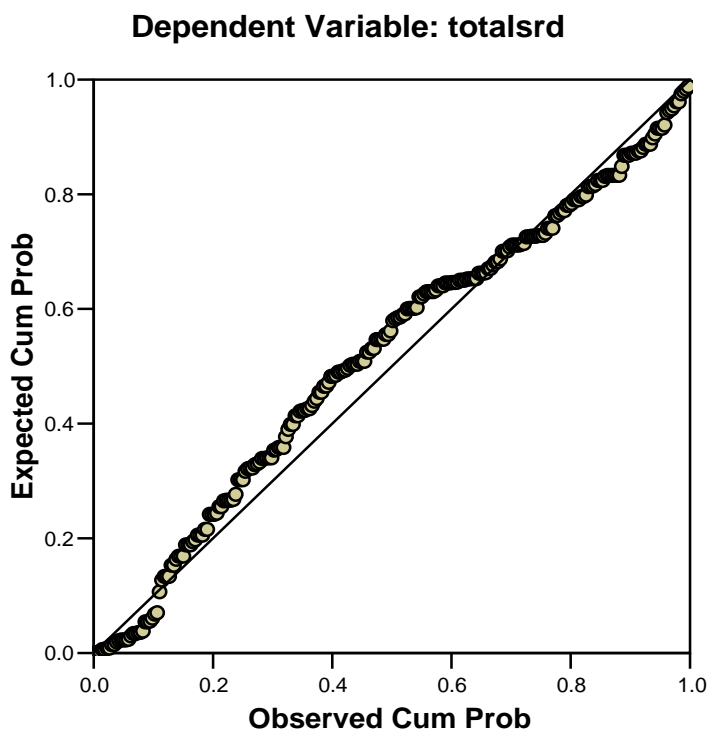
Figure IX: Graphical representation of normal probability plot of regression standardized residuals on the scores of self-reported delinquency.

Figure IX represents normal probability plot of regression standardized residuals on the score of self-reported delinquency. Normal probability is a graph that plots the residuals against the expected value of those residuals against the expected value of those residuals. When the residuals are normally distributed or approximately 0, the plot would appear as a straight line, sloping upward. The normality assumption usually appears in tails of the distribution because this is where the normal distribution differs from other types of distributions. Hence the curvature in either on both of the two ends of the normal probability plot is indicative of normality of data. Moreover model explains a lot of variation. So observed cumulative probability curve is greater than expected.
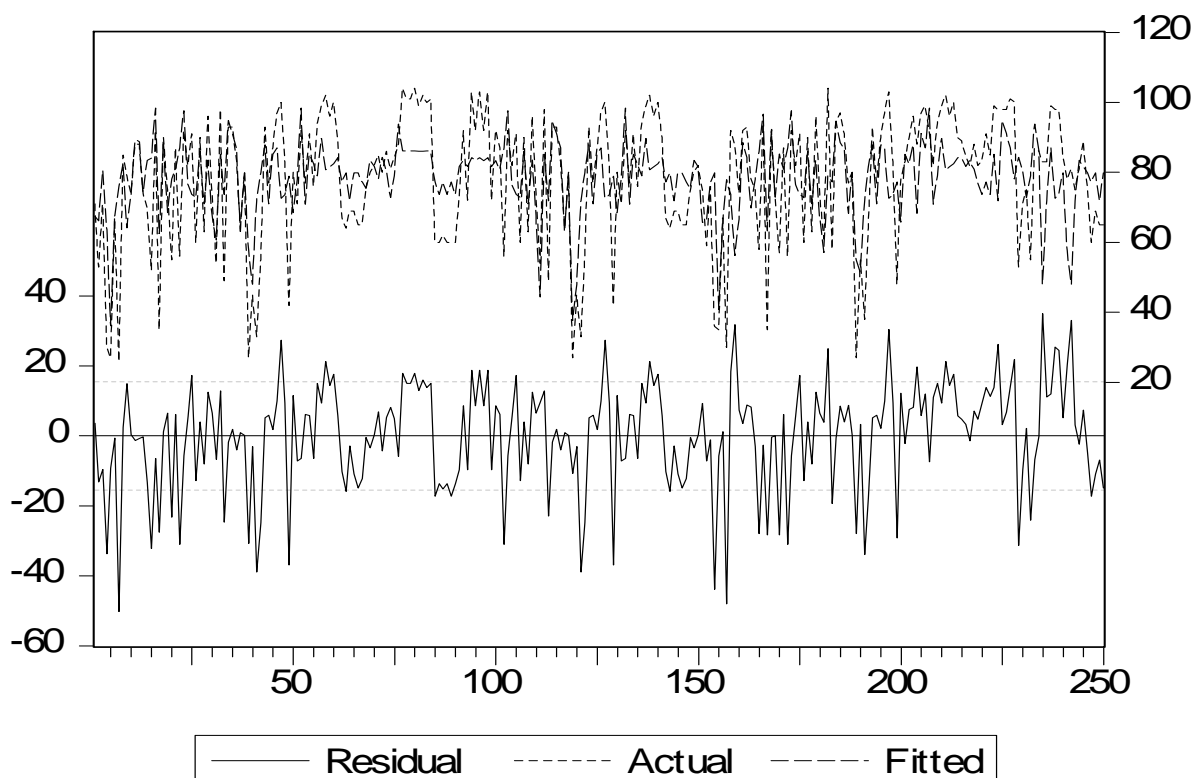
Figure X: Graphical representation of standardized residuals with actual and fitted on the scores of self-reported delinquency.

Residuals are basically showed error terms. For the best fitted model it should not be greater than actual. In multiple linear regression, the plot of residuals versus fit is used to check for a constant variance as well as to make sure that the linear model is infact adequate. It should appear as a random scatter of points about 0 on the vertical axis with

approximately the same vertical spread for all values of dependent variables i.e., self-reported delinquency. As it is clear from the figure X residuals values are not greater than the actuals and random scatter points is about 0 on the vertical axis. It evidate that model is adequate for this data.

Comparison of the Age trends with increasing age of present research sample with the Standardization data of EPQ- (Junior) established by Eysenck (1970)

To compare the each personality trait with increase in age, the mean and standard deviations were computed for the collective sample of 450 laborer adolescents contributed in part I and part III of the present research with the age ranging from 13-17.11 years from various parts of Rawalpindi and Islamabad. The comparison was made with original Eysenck's (1970) norms, established by taking over 3,000 children age ranging from 7-15 years from various parts of England, and representing different kinds of schools. Graphical demonstration for each personality traits are presented here taken from the Manual of EPQ-(Junior and Adult) (Eysenck & Eysenck, 1970).

Extraversion

For the comparison of mean scores of Extraversion on age for present study sample a line graph is drawn, indicating the mean scores for each age group. The comparison was made with the graph representing the age trends of Extraversion for original Eysenck data, taken from manual of EPQ-(Junior and Adult) (Eysenck & Eysenck, 1970).
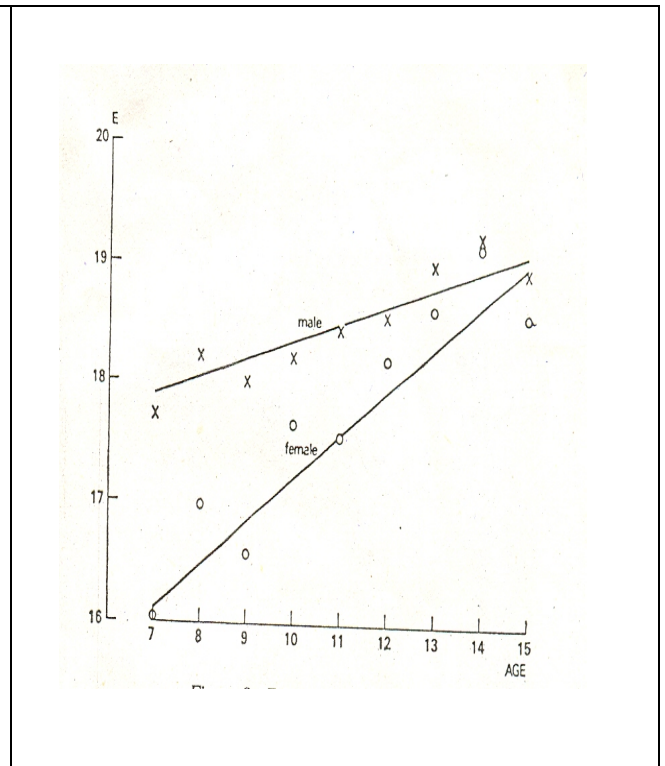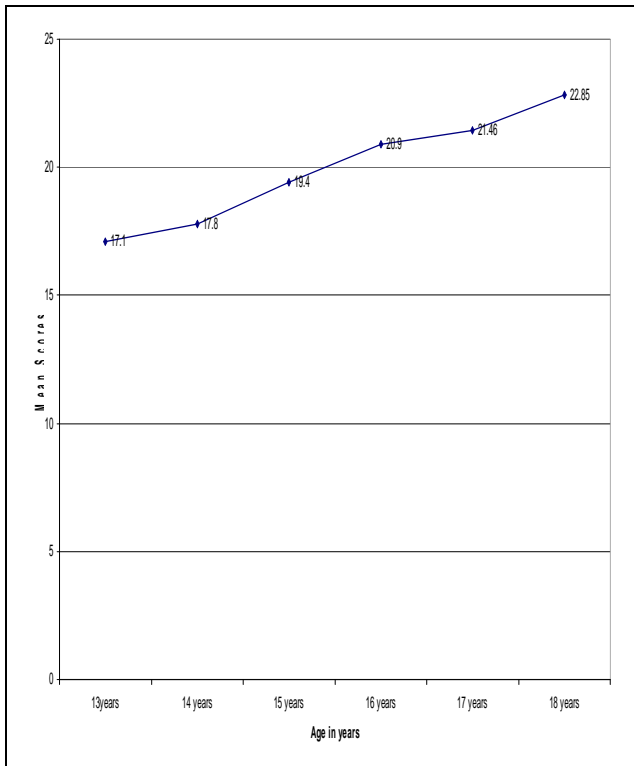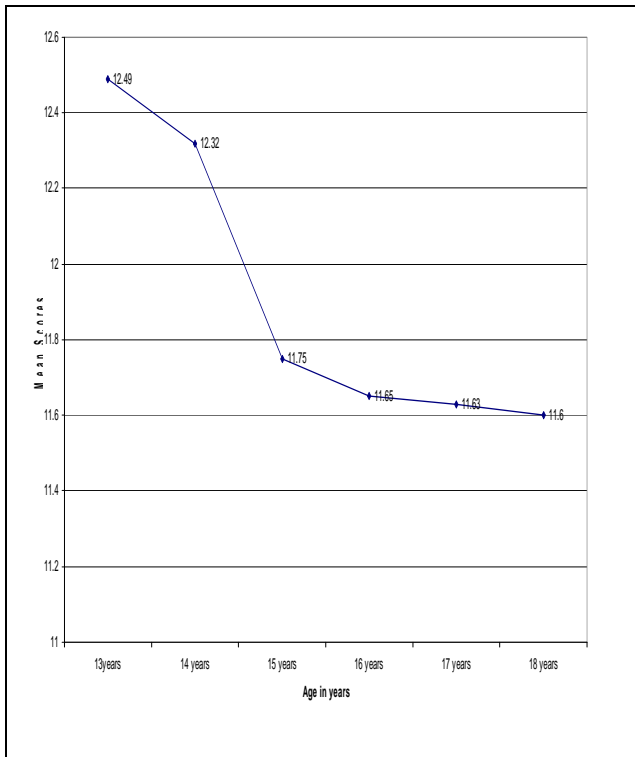
Age trends for present study sample   Age trends for Eysenck's sample

Figure XI: Graphical representation of mean scores of Extraversion for EPQ-(Junior) for present study sample and for Eysenck's study (Eysenck, J & Eysenck, G, 1970, p.17).

Figure XI, clearly represents that there is increase in extraversion scores with increasing age for both data i.e., present study sample and original Eysenck data. These findings suggest that with increasing age extraversion trait is more acquired by the adolescents.

Neuroticism

For the comparison of mean scores of Neuroticism on age for present study sample a line graph is drawn, indicating the mean scores for each age group. The comparison was made with the graph representing the age trends of Neuroticism for original Eysenck data, taken from manual of EPQ-(Junior and Adult) (Eysenck & Eysenck, 1970).
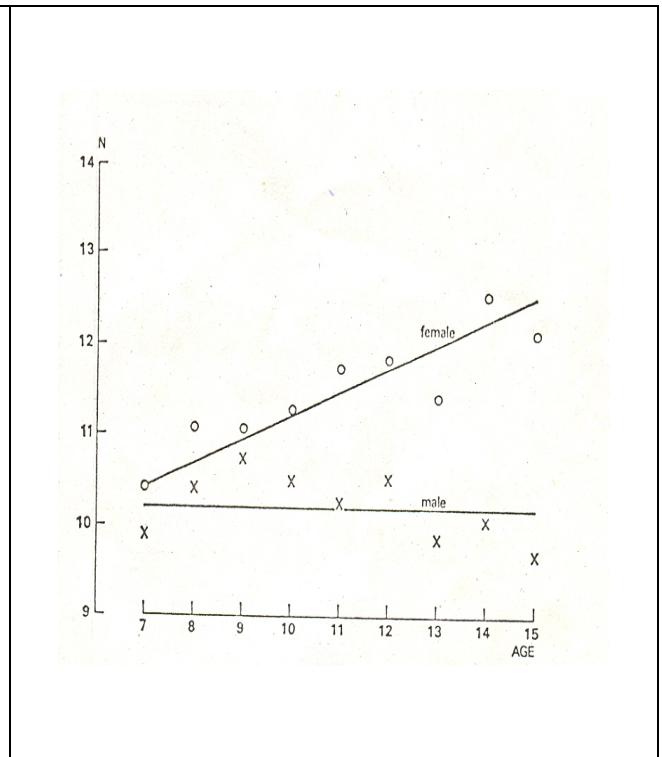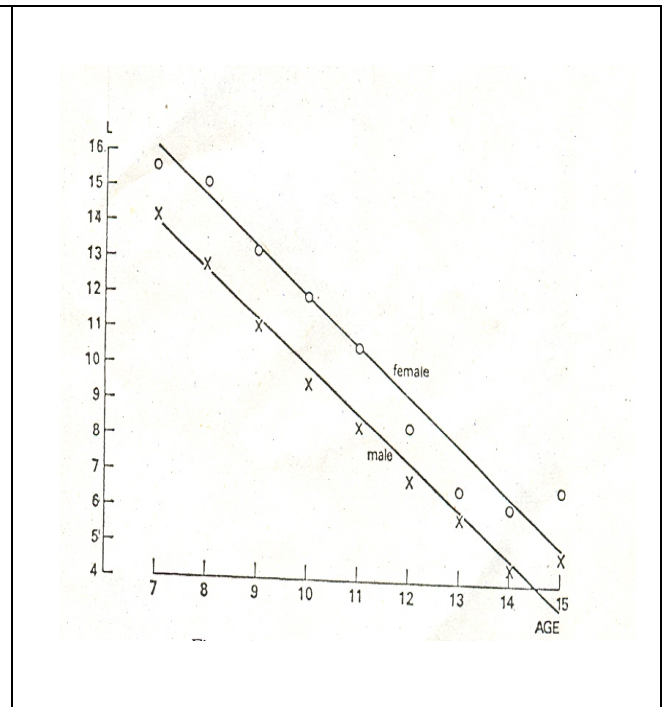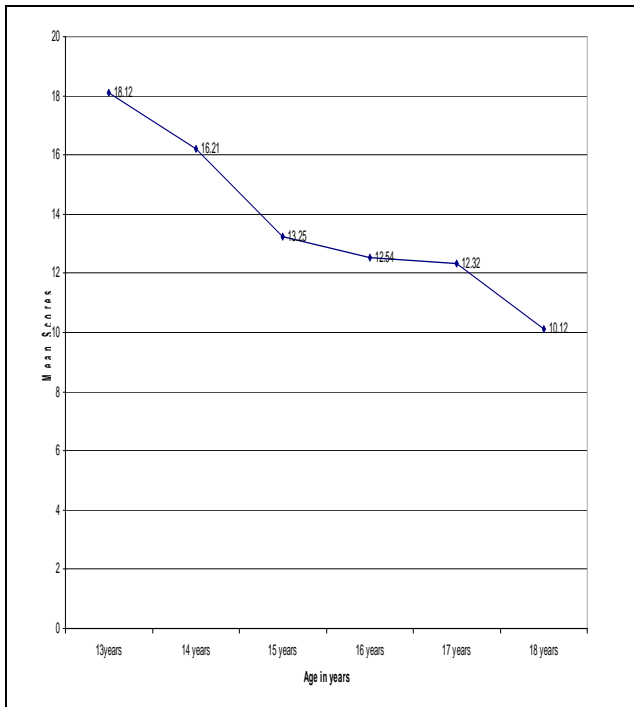
Age trends for present study sample   Age trends for Eysenck's sample

Figure XII: Graphical representation of mean scores of Neuroticism for EPQ-(Junior) for present study sample and for Eysenck's study (Eysenck, J & Eysenck, G, 1970, p.17)

Figure XII represent that there is slight decrease in neuroticism score for 13 and 14 years of age but from 15 to onward there is no change in score may suggest with increase in age tendency toward neurotic traits decrease among laborer adolescents. For the Eysenck data there is no change in mean scores for male adolescents while there is increase in neuroticism for female adolescents only.

Lie

For the comparison of mean scores of Lie on age for present study sample a line graph is drawn, indicating the mean scores for each age group. The comparison was made with the graph representing the age trends of Lie for original Eysenck data, taken from manual of EPQ-(Junior and Adult) (Eysenck & Eysenck, 1970).

Age trends for present study sample   Age trends for Eysenck's sample
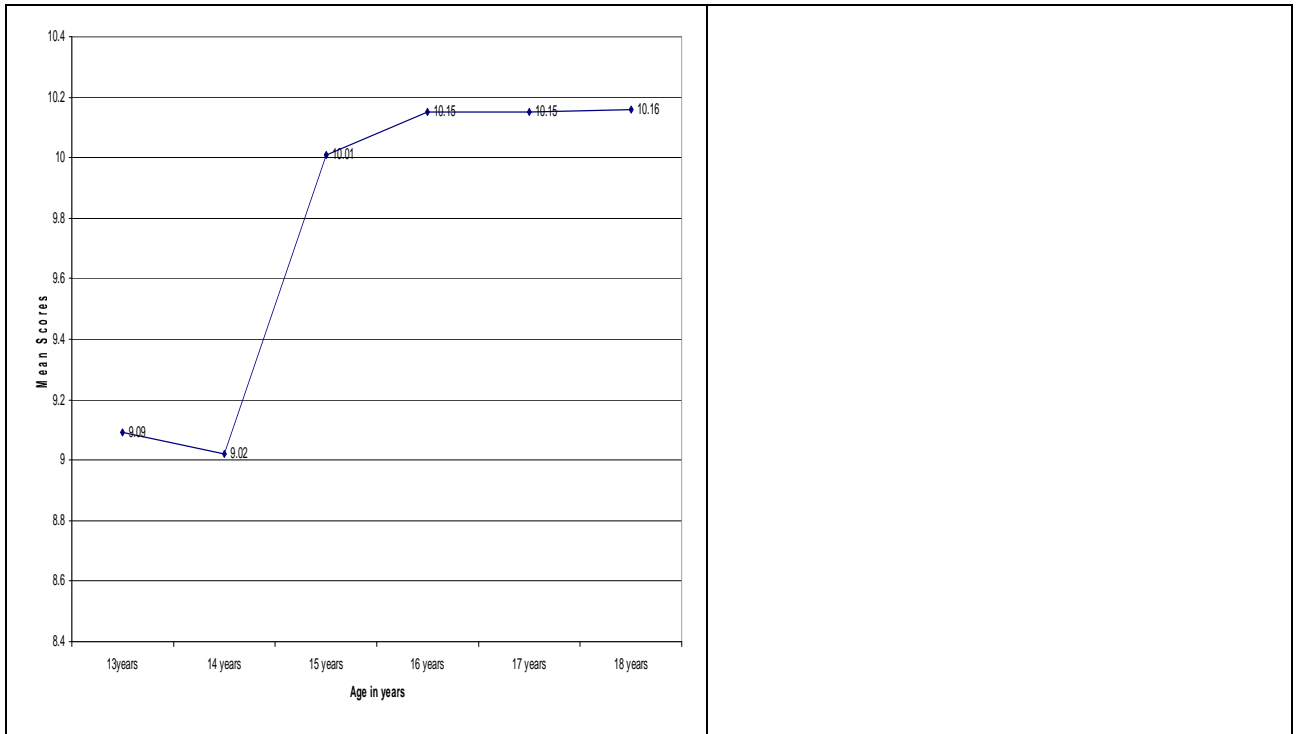
Figure XIII: Graphical representation of mean scores of Lie for EPQ-(Junior) for present study sample and for Eysenck's study (Eysenck, J & Eysenck, G, 1970, p.17).

Figure XIII clearly represents that there is decrease in Lie scores with increasing age for both data i.e., present study sample and original Eysenck data. These findings suggest that tendency to dissimulate decreases with age. This may be the effect of maturation and conscious acceptance of their conduct (Eysenck & Eysenck, 1970). However large score for young children may make one doubtful about the meaningfulness of their questionnaire returns. Some other explanation may suggest that young children dissimulate more than older ones, or that they are simply more naïve, and less able to introspect.

Psychoticism

Eysenck (1970) found no obvious age trends for psychoticism. Although he observed that "there appears somewhat u-shaped quadratic trend for both boys and girls, with the 10 and 11 years olds having the lowest scores; this trend is significant

statistically. The differences are probably not large enough to justify any concern" (p.12). But didn't represent any diagrammatic presentation. So, the line graph is presented here is only for present study sample.

Age trends for present study sample

Figure XIV: Graphical representation of mean scores of Psychoticism on age for present study sample.

The figure XIV represents that there is slight increase in psychoticism score for 14 a 15 years of age but from 15 to onward there is no change in score. For the Eysenck data he found no obvious age trends for psychoticism scores.

The all above mentioned graphs represent the comparison of the age trends with increasing age of present research sample with the Standardization data of EPQ- (Junior) established by Eysenck (1970). The results revealed the same age trends on extraversion and lie for present study sample with original EPQ-(Junior) data. These results are accord with the results presented in Table 30. In case of neuroticism it has been observed that there is no effect of age for original EPQ-(Junior) data but for present study sample it has been found out that up to 15 years of age there is decreasing trends

but after this age there is no age effect for scores. Moreover the results presented in Table 30 also showed non significant ($p<.05$) effect of age for neuroticism and similarly for psychoticism.

DISCUSSION

The present study was carried out to explore the Patterns of Juvenile delinquency among laborer adolescents in Pakistani Culture and their predictive relationship with different personality traits. This study is first of its kind in Pakistan that has covered a diverse sample of adolescents involved in child labor in an effort to investigate the juvenile delinquency more inclusive. This study used quantitative measures to address the issue of delinquent behavior in Pakistani laborer adolescents. Child labour is, generally speaking, work for children that harms them or exploits them in some way (physically, mentally, morally, or by blocking access to education and normal healthy growth).

This sample was selected on the basis of findings of International Labor Organization that all around the world; approximately 246 million children are child laborers (Shujaat, 2003). About 71% of these employed children are engaged in occupations relating to agriculture, sales and services, mining, workshop, trash collectors, construction, manufacturing, beggary and transport sectors, craft and related trade activities (Mughal, 1996). On the basis of these statistics five types of labor i.e., work shop, restaurant, stores, trash collectors, and beggary which are more prevalent in our society. No steps are currently being taken to modify existing legislation or to introduce new legislation to address the elimination of any of the worst form of child labor. Compulsory primary education law is being introduced in the Punjab and North-West Frontier Provinces (Perveen, 1997).

It was kept in mind that the phenomenon under investigation is not to openly discuss and therefore self-report method was adopted. Moreover the element of social desirability leave the room opens for lying in reporting this construct so informant reported method was also applied to collect information. In the light of this situation, the major purpose of the present research was to develop the two scales measuring delinquency i.e., Self-reported delinquency Scale and Informant-reported delinquency Scale. The study took help from a collection of demographic information along with the

selected variables, while maintaining the anonymity of the individuals, for better understanding of the situation of reported juvenile delinquency. So another objective of the present research was to find out whether laborer adolescents with different age, education, type of labor, and duration of labor differ on delinquency.

Development of Self-Reported and Informant-Reported Delinquency Scales

To assess the Juvenile delinquency of laborer adolescents, the part I of the present research was to establish the delinquent measures. Two scales, Self-reported delinquency scale (SRDS) and Informant-reported delinquency scale (IRDS) were developed with the help of standardized procedure of scale development. Each scale is unifactor having 27 items to measure the different patterns of delinquency in laborer adolescents. The SRDS and IRDS revealed a definite factorial validity and a satisfactory alpha reliability for their 27 items in each scale (See Tables 1-11 in Chapter I).

Translation, Adaptation, and Cross Language Validation of EPQ- (Junior)

Part II of the study was constituted on the translation and adaptation of the Eysenck Personality Questionnaire (EPQ) - Junior (Eysenck & Eysenck, 1970). This study was accomplished in two phases. In phase one translation and adaptation of the questionnaire into Urdu was done to overcome the language barrier and cross cultural differences. The one item was adapted as well according to Pakistani culture. More over the cross language validation of the scale was done in this phase of the study. In the phase two of this part psychometric of the Urdu EPQ-(Junior) scale were established on the sample of 200 laborer adolescents with the help of item total correlation, Cronbach's alpha reliability and Interscales correlation. The results revealed sufficient alpha reliability of the scale (See Tables 12-18 in Chapter II).

Main Study: Relationship between Patterns of Delinquency, Personality Traits, and Demographic Variables.

Part III of the study was comprised of main study. Basic purpose of this study was to determine the relationship between patterns of delinquency, personality traits and different demographic variables. This part basically dealt with the hypothesis testing. This study was carried out with a relatively larger sample and with the help of scales developed in part I of the research and translated and adapted in the part two of the present study. The final analysis was done on the sample of 250 laborer adolescents from Rawalpindi and Islamabad.

In Pakistan the convention, Employment of children Act (1999) was adopted from International labor organization (ILO) in 1973. It states that minimum age for employment may not be set lower than the age of completion of compulsory schooling and, in any event not less that 15 years (initially 14 years in the case of developing countries). With this it is emphasized that all type of labor work is strongly prohibited under the age of 18 years. Although spirit of this Convention is reflected in several Pakistani laws, it has yet to be formally ratified by the Government of Pakistan (Shujaat, 2003). On the basis of this act's description, in the present study sample range between 13 to 17.11 years was selected to cover the full range of adolescents' age category in the light of child labor law.

Since unfortunately to date no literature has been found on the patterns of delinquency among laborer adolescents. Similarly role of personality traits to predict the delinquency in laborer adolescents is not yet being explored. Same is the case with some of the demographic variables such as education; type and duration of labor with reference to self and informant-reported delinquency have no evident data before. The direction of the findings of the present research was justified with the help of existing literature on the normal adolescents and common sense explanations that are prevailing in the society.

Self-reported Delinquency and Informant-reported Delinquency

Giordano (1992) emphasized different sources of considering the same information of delinquency, for example teacher ratings, information from peers and parents and significant others. This study replicated the single factoredness of delinquent measure. As in other studies (Donovan, Jessor, & Costa as cited in Rowe & Flannery, 1994) it has been found that delinquent behaviors shared substantial variation that was adequately captured by one factor dimension. In the present study to find out the relationship between self-reported delinquency and informant-reported delinquency of the laborer adolescents, it was assumed that self-reported delinquency will be positively related with Informant-reported delinquency. The findings of the present research confirm this hypothesis. The result presented in Table 28, indicated that both the scales have significant positive relationship with each other. This finding is according to previous results that informant reported delinquency provides valid and reliable check over self-reported delinquency (Connell & Farrington, 1997; Giordano, 1992; Hart & Peterson, 1977; Huizinga & Elliott, 1986).

Self-reported Delinquency and Personality traits

A multitude of factors exist that contribute to the understanding of what leads someone to engage in delinquent behavior. While biological and psychological factors hold their own merit when explaining crime and delinquency, perhaps social factors can best explain juvenile delinquency. Juvenile delinquency is a massive and growing problem in all over the world (Stephens, 1997). The early temperamental qualities should be related to later emerging personality traits is not a novel proposition, what is novel in its empirical demonstration with data from a large sample of adolescents involved in labor work. The empirical connections reported in this study represent small effect sizes. But the connections are impressive in the age span 13-17.11 years successively and distinct data sources from observer or informant rating to self-reports measures for delinquency.

Similarly, in order to discover the relationship between self-reported delinquency and personality traits, it was hypothesized that extraversion, psychoticism, and neuroticism is positively related with self-reported delinquency and findings reveal positive relationship between personality traits and self-reported delinquency. Eysenck (1964, 1976) and Eysenck and Eysenck (1985) suggested that, compared to non delinquents, delinquents are more extroverted, neurotic, and tough-minded (psychoticism). These findings (See Table 28) are also in accord with the earlier researches (Eysenck & Gudjonsson, 1989; Farrington, 1992; Fergusson, Horwood, & Lawton, 1990; Furnham & Thompson, 1991; Heaven, 1993, 1994, 1996; Rutter & Giller, 1983). Moreover, to analyze the predictive power of these personality traits, multiple linear regression model was applied, outcomes evidate the assumption that Eysenck's model is strongly implicated to predict the antisocial and criminal behavior (Heaven, 1996).

Extraversion and Self-reported Delinquency

Subjects with high scores on extraversion are more difficult to condition and consequently have more difficulties in inhibiting their antisocial tendencies. The data regarding the personality traits possessed by the laborer adolescents in Table 23 indicated that high score on extraversion subscale revealed that most of the individuals possessed the extraversion type of personality traits. Gan and Leslau (1990) examines delinquent behavior and provide evidence that Eysenck's theory linking delinquency to extraversion and neuroticism. Findings of this study indicate that criminals are higher than control subjects on neuroticism and immoral judgment but not on extraversion. Similar relationships were found between criminals and the comparative group. The implications of these results are for the differential development of anti-social behavior.

Neuroticism and Self-reported Delinquency

Eysenck's theory predicts that those engaging in illegal behaviors are more extroverted and neurotic than non offenders. Subjects with high scores on neuroticism tend to repeat antisocial behavior because anxiety is believed to act as a drive which multiplies habit or increases whichever drive is dominant.

Neuroticism encompasses characteristics such as panicky, uncertain, unstable, nervous, vulnerable, emotionally sensitive, and dependent. The opposite feature--emotional stability--includes such terms as assured, steady, stable, imperturbable, decisive, down-to-earth, resolute, and calm. With respect to delinquency, a neurotic person will not often take the initiative but be more of a follower. Eysenck (1964) expected delinquents to be more neurotic compared with non delinquents. Furnham and Thompson (1991) reported inconsistent results on neuroticism with the general measure of delinquency.

The results of the present study reveal the significant positive correlation between neuroticism and self-reported delinquency (See Table 28). The results are found to be consistent with previous studies (Hindelang, 1971; Michaelis & Eysenck, 1971). EPQ-(Junior) was tested on a male high school sample which responded to questionnaires measuring extroversion, neuroticism, and self- reported illegal behaviors. It was found that Eysenck's predictions regarding a direct, linear relationship between extroversion and involvement in illegal behavior was generally supported; however, there was little support for a similar relationship between neuroticism and involvement in illegal behavior which his theory also predicts.

Psychoticism and Self-reported Delinquency
Subjects scoring high on psychoticism are more prone to delinquency because of their reduced sensitivity toward people's feelings and because of their lack of guilt. It is assumed that many prisoners will have their psychopathic trends in their personality which will push them in the direction of criminality. Several studies have been carried out on large criminal control groups, of which hitherto only four have been published (1970b; 1971b; 1971a; 1973b as cited in Eysenck & Eysenck, 1970).

These studies deal both with male and female samples, and there is no doubt that criminals of either sex have very elevated psychoticism scores as compared to control groups. Allosopp and Feldman (1976) has also found that school children's antisocial

behavior (both as rated by teachers and as self-admitted on a questionnaire) was significantly correlated with high psychoticism scores. Similarly in the main study it has also been found out that with the psychoticism shown the positive correlation with the psychoticism (See Table 28). This finding is accord with the previous researches (Farrington, 1988; Fonseca & Yule, 1995).

Lie and Self-reported Delinquency

The Lie scale of EPQ-(junior) attempts to measure the tendency on the part of subjects to "fake good" and this tendency is particularly marked whenever the questionnaire is administered. This scale provides a good estimate of dissimulation. The main difficulty seems to be that in addition to measuring dissimulation, the lie scale also measures some stable personality factor which may be possibly denote some degree of social naiveté. Michaelis and Eysenck (1971) have shown that it is possible to manipulate L scale scores by varying the experimental conditions from high to low motivation to dissimulate.

However, if dissimulate were the only factor affecting the variance of this score, then the reliability of the score should be a function of the size of score. when scores are low, thus indicating that subjects are not dissimulating, then the scale should have low reliability. Hence the scale measures some stable personality function; unfortunately little is known about the precise nature of this function The findings of the present study regarding lie and self-reported delinquency (See Table 28) reveal that there is negative relationship is found between self-reported delinquency and lie. The results evidate the idea that individual with high score on self-reported delinquency is minimum lying in reporting his actions. This finding is same with the previous literature (Furnham & Thompson, 1991; Hindelang, 1971; Huizinga & Elliott, 1986).

Construct validity seeks agreement between a theoretical concept and a specific measuring device or procedure. Construct validity can be broken down into two sub-categories: Convergent validity and discriminate validity. Convergent validity is the actual general agreement among ratings, gathered independently of one another, where

measures should be theoretically related. Evaluation of construct validity requires examining the correlation of the measure being evaluated with variables that are known to be related to the construct purportedly measured by the instrument being evaluated or for which there are theoretical grounds for expecting it to be related (Campbell & Fiske, as cited in Leober, 1991).

Correlations that fit the expected pattern contribute evidence of convergent validity. As in the present study findings revealed that EPQ-(Junior) and Self reported delinquency scale together help to present a clear picture of anti social and deviant behavior of individual. One represents those personality features contributing in the determination of delinquent behavior while other directly addresses those acts that determine the different patterns of delinquency in our culture.On the basis of this it could be said that self-reported delinquency scale has convergent validity with EPQ- (Junior).

Predictive Strength of Extraversion, Psychoticism, and Neuroticism on Self -reported Delinquency

Results shown in Table 38 to 41 indicated the among these three regressors the extraversion is significantly contributing in predicting the self-reported delinquency. Farrington (1992) although there is considerable evidence to support the role of the personality traits or individual difference factors in self-reported delinquency. It has been found in previous researches that those score high on neuroticism (but not extraversion) tended to be official offenders, whilst those high on extraversion (but not neuroticism) tended to score high on self-reported delinquency measure (Furnham & Thompson, 1991). The finding of the present research is consistent with this as laborer adolescents reported more on extraversion personality traits with reference to self-reported delinquency. High psychoticism scores were found to be related to both forms of delinquency. The present research findings revealed the predicibility of delinquency among laborer adolescents.

In the present study it was made an attempt to testify the Eysenck's assumption that criminality and antisocial behavior are both positively and causally related to high levels of psychoticism, extroversion, and neuroticism (Holman & Quinn, 1992; Hollin, 1992; Vaughan & Hogg, 2002). The theory provide the biological reason that in extroverts, and possibly also in people high on the psychoticism scale, biologically determined low degrees of arousal and arousability lead to impulsive, risk-taking, and sensation-seeking behavior that increase the level of cortical (brain) arousal to a more acceptable and enjoyable amount (Holman & Quinn, 1992). Eysenck tried to explain that extroverts experience cortical under-arousal, prefer higher levels of stimulation, and are less responsive to punishment - they therefore do not learn behavioral alternatives with the use of disciplinary action (Darley et al., 1991).

Demographic Variables and Self-reported/ Informant-reported delinquency and Personality Traits

Age

To study the age differences on delinquency, it was assumed that there will be increase in delinquency with age of adolescents in child labor. Present research findings confirm this hypothesis that adolescents with the age range of 13-17.11 years dividing in three groups obtained high score on self-reported and Informant-reported delinquency scale as compared to younger groups and shown significant difference on the different age groups (See Table 31). High score on delinquent measures reveal that criminal behavior depends as much or more on age than on any other demographic characteristics (Wilson & Herrnstein, 1985) Considerable researches on the age is linked to delinquency remains a source of ongoing debate (Elliott, Huizinga, & Ageton, 1985; Gottfredson & Hirschi, 1990; Jang , 1994; Jang, 1999; Lauritsen, 1998; Sampson & Laub, 1993; Thornberry, Lizotte, Krohn, Farnworth, LaGrang, & White, 1985; Warr, as cited in wichstrom & Pedersen, 1995).

Crime rapidly increases in the early teens, reaches a peak, and then declines throughout life. Hirschi and Gottfredson (1983) published a provocative paper

maintaining that the age effect is invariant across social and cultural conditions. Literature review supports this findings as Farrington and Wikstrom (as cited in Wegs, 1994) compared male cohorts in London and Stockholm concluded that the aggregate offending rates are very similar in the two cities, reaching a peak at age 17.

Despite long-standing attention to the impacts of age and delinquency, relatively little attention has been given to whether and how these factors interact with one another and in turn are linked to delinquency (Jang as cited in Mears & Field, 2002). With some other factors personality traits are important contributing factor in to this. As in the adolescents age the physical and mental development is rapid and determining distinct behavioral patterns among individuals with increasing age (Furnham & Thompson, 1991). It is by now common wisdom that delinquency escalates rapidly as individuals enter their teen years (Warr as cited in Mears & Field, 2002). Similarly in the present study it has been found out that the delinquency of the adolescents at the age of 17-18 is the highest as compared to the adolescents belonging to below age group, and the present research findings confirm this hypothesis that delinquency increases with age and it reaches its peak at 17-18 years. But as the adolescents' increases in age, they learn to deal with, to influence and escape strategies from authorities as teachers and parents.

Jang (1999) has described that in transition from childhood to adolescence are likely to still remain under the control of conventional authorities (e.g., teachers) and to lack network of pro-delinquent friends, whose influence and social support are strong enough to override conventional authorities. Tests of interactional theory suggest some support for the notion of age-varying effects of delinquent peer association (e.g., Elliott & Menard: Jang as cited in Wegs, 1994). However, there remains a tendency to focus on general rather than specific measures of offending (LaGrange & White, 1985; Thornberry, Lizotte, Krohn, Farnworth, LaGrang, & White, 1985), or categories of offending (Elliott & Menard as cited in Fonseca, 1990). However, the reasons for the present findings may be that children aged between 13 and 15 are often physically mature but psychologically underdeveloped. They tend to face a lot of contradictions between

themselves (cognition and thought pattern) and the adult world, between their ideals and reality and between their specific needs and moral and legal restrictions.

Moreover in order to discover the difference of age on Extraversion, Neuroticism, Psychoticism and Lie, One Way Anova is computed. The findings revealed that there is non significant difference in the scores of psychoticism and neuroticism with age. Similarly it has been found out that there is increase in extraversion score with age and decrease in Lie score with increase in age. These findings suggest that with increasing age extraversion trait is more acquired by the laborer adolescents and tendency to dissimulate decreases with age. This may be the effect of maturation and conscious acceptance of their conduct (Eysenck & Eysenck, 1970).

To compare the each personality trait with increase in age, the mean and standard deviations were computed for the collective sample of 450 laborer adolescents contributed in part I and part III of the present research with the age ranging from 13-17.11 years from various parts of Rawalpindi and Islamabad. The comparison was made with original Eysenck's (1970) norms, established by taking over 3,000 children age ranging from 7-15 years from various parts of England, and representing different kinds of schools. Graphical demonstration for each personality traits are presented here taken from the Manual of EPQ-(Junior and Adult) (Eysenck, J & Eysenck, G, 1970).

The results (See figure XI to XIV) revealed the same age trends on extraversion and lie for present study sample with original EPQ-(Junior) data. These results are accord with the results presented in Table 30. In case of neuroticism it has been observed that there is no effect of age for original EPQ-(Junior) data but for present study sample it has been found out that up to 15 years of age there is decreasing trends but after this age there is no age effect for scores. Moreover the results presented in Table 30 also showed non significant ($p<.05$) effect of age for neuroticism and similarly for psychoticism.

Type of Labor

One very interesting finding of the present research was difference regarding the type of labor on delinquency. In the present research to judge and analyze the effect of labor on delinquency five labor categories were included i.e., workshop, restaurant, stores, trash collectors, and beggary. The result indicated that there is non significant difference on the delinquency scores for different type of labor work i.e. Workshop, Restaurant, Stores, Trash Collectors, and Beggary (See Tables 31 and 32).The reason may be that nature of these different labor work and the environmental conditions are more or less same and did not effect delinquency of laborer adolescents.

In the present research, it is tried to determine the difference between type of labor and different personality traits. The result (See Table 33) indicated non significant difference on Extraversion, Psychoticism, Neuroticism, and Lie scores of adolescents and labor type.

Education

A great deal of scientific research examines the relationship between poor school performance, no education and delinquency. The direction of the causal link between education and juvenile delinquency is fundamentally complex. Early aggressive behavior may lead to difficulties in the classroom. Such difficulties, in turn, may result in a child's receiving unfavorable evaluations from teachers or peers. These, in turn, might result in delinquency. Equally, delinquency could be another manifestation of whatever characteristics got the child into trouble with school authorities in the first place. So in the light of this, in the present study it was attempted to see how laborer adolescents' dropout from school and their low performance on education effects the juvenile delinquency.

In order to see the difference between education and delinquency among laborer adolescents, the findings revealed that participants showed a significant difference on education. It is obvious from the results that people with the education up to primary and primary and above are different on delinquency scores (See Table 34). Despite the ongoing discussion of the direction of causality, the evidence is clear that poor school

performance, truancy, and leaving school at a young age are connected to juvenile delinquency (Bachman et al., 1971; Elliott, 1994; Elliott & Ageton, 1980; Farrington, 1996; Hagan & McCarthy, 1997; Hawkins et al., 1998; Huisinga & Jakob-Chien as cited in Hambelton, 1994; Kelly & Balch as cited in Hare, 1996; Maguin & Loeber, 1997; Polk, 1991; Simons as cited in Stephens, 1997; Thornberry et al., 1994).

Some studies have shown reductions in delinquent behavior when a teenager drops out of school decreases (Campell, Shaw, & Gillrom, 2000). Others have shown increasing rates of delinquency following school dropout rate (Hagan & McCarthy, 1997: Magium & Leober, 1997). Research on poor school performance--with emphasis on the school, the school process, and consequences of poor school performance. Individual factors related to poor achievement are noted to include membership in a disadvantaged minority groups. The present research findings may be explained on the basis of these children's adherence to a minority group like involvement in child labor. So the present research findings are accord with the already existing literature(See for example, Campell, Shaw, & Gillrom, 2000).

Loeber and Leober (1986) studied tendency of lying in 4th-, 7th-, and 10th-grade boys. This tendency was measured through self-report, parents, and teacher reports. There was a tendency for the prevalence of lying to be lower for older boys. In all three grades lying was significantly related to several problem behaviors, such as delinquency, theft, and fighting.

Moreover the analysis of the present study reveals non significant effect of education on Psychoticism and Neuroticism and significant effect of education on Extraversion and Lie. It has been found out that there is increase in extraversion score with grade and decrease in Lie score with increase in grade. These findings are consistent with findings on age and suggest that with increasing grade extraversion trait is more acquired by the laborer adolescents and tendency to dissimulate decreases with increasing in grade. This may be the effect of maturation and conscious acceptance of their conduct and learning of moral behavior with grades (Eysenck & Eysenck, 1970).

Duration of Labor

The more one stay in a particular environment more it left its impact on one's behavior. It is natural desire of the individual to be approved by the people in which one is operating. For this purpose, individual usually acquire those characteristics and behavioral patterns that make his survival possible. Keeping in mind this assumption it was decided to judge the effect of labor duration on delinquency. The present research findings for the determination of effect of duration of labor on delinquency indicated in Table 36 that delinquency increases with the duration of labor work. Over all sample showed significant difference from 2 to 7 years of labor work. The more duration of labor lead to high score on self-reported and informant-reported delinquency. The reason may be of the present research finding is, that psycho social environment in which the adolescents are spending most of their time. The early exposure to the adult's environment badly effect their personality and learning.

In the present research, it is tried to determine the difference between duration of labor and different personality traits. The result (See Table 37) indicated non significant difference on Extraversion, Psychoticism, Neuroticism, and Lie scores of adolescents and Labor duration. It may suggest that personality is inconsistent feature with regard to duration of labor.

Implication of the Present Research

As an initial effort to examine the patterns of delinquency and personality traits of adolescents in child labor, there are certain limitations in the present study. The findings of this study have important implications for future research and for policy development. The data utilized in this project has a number of strengths. First, the study is one of the first to ensure that the juvenile delinquency measure with the help of self-reported method and informant-reported method to ensure the reliability of construct measured. Further, the study achieved good response rates for participation in the research, includes approximately equal numbers of laborer adolescents and their informants and has achieved a good size sample across the both cities of Rawalpindi and Islamabad,

spanning 13-17.11 years of age. In doing so, the study can add to the growing literature on antisocial and delinquent behavior in adolescents involved in child labor.

In summary, the results of this study have important implications for practice and policy making. As the child labor work force and Juvenile delinquency arrests are increasing in every year statistics. So the present research findings are important to provide an estimate that how the issue of child labor is linked with delinquency. Although the findings require replication, it seems that early exposure to punitive consequences such as involvement in labor work increases the risk of delinquent behavior. Individual characteristics of the laborer adolescents were important predictors of subsequent delinquent behavior.

Modifying adolescent favorable attitudes towards delinquent and illegal behavior, and fostering the development of positive attitudes (i.e., belief in the importance of being honest), as well as assisting adolescents to control their emotions in challenging situations are possible targets for intervention. The findings here also support the need for assisting families to monitor their children and set clear family rules. Further, fostering attachment to parents, particularly mothers, may reduce the likelihood to attach those peers in their environment may foster to engage in delinquent behavior.

Limitations of the present research

Every psychological study is a new step toward understanding and solution of problems. As nothing is perfect in this world and for a scientific research at least it is impossible. But these limitations don't make any difference because limitations motivate the researcher for further exploration and work on other possible alternatives. In the same manners there are some limitations of this study, which are as follows.

1. The foremost limitation of the present research is the objectivity of the data. As the delinquency is more sensitive construct to measure with the help of self-

reported delinquency scale, because there is strong social desirability element on the responses and it may suggest there can be faking in data.

2. The sample size used in the present research is not large enough. The representativeness of the finding for further research a national sample may be included in the study. Such a sample is important before the results can be confidently generalized.

3. There is large number of children involved in domestic labor such as home servants and they have not been the part of present research. The present research sample did not constitute on all kinds of labor.

4. The direction of the present research findings are more concentrated on individual factor like personality traits and ignoring some other important sociological factors like peer pressure, parenting style, and etc.

5. Another important factor that is being controlled is the gender. The scale developed in the present research and hypotheses were verified only on boys and did not provide any comparison with adolescents girls. . This is particularly important in studies of males and females because there may be differences in the sorts of antisocial behavior in which each gender engage.

6. Further research is warranted to investigate the long-term impact of early experiences with societal responses such as school suspensions and arrests on the development of delinquent behavior.

7. Another important limitation of the present research is the sample is only taken from urban areas and rural areas are totally avoided, where the large part of this sample works and present research is unable to provide any comparison of regarding urban and rural areas

8. Punitive approaches to antisocial behavior with youth may be counter-productive emphasizing the importance of developing societal responses that can keep antisocial students connected to school and minimizing early contact with law enforcement authorities.

Suggestions

On the basis of above mentioned limitations of present research, some suggestions have been anticipated for further researchers who are interested to do research in similar areas.

1. With boys, adolescents' girls can be included in sample to present the gender differences on juvenile delinquency and personality traits.
2. Adolescents involved in domestic labor can be taken to present difference
3. Sample can be taken from rural areas to see the noticeable differences in juvenile delinquency from urban areas.
4. Another important future research question is to explore more social factors as risk for the negative impact of societal responses to make this group more vulnerable.

In summary, this project has achieved all of the objectives outlined in the planning phase and will make an important contribution to the research literature through the innovative approach taken in the analyses around the influence of societal responses to antisocial behavior.

Conclusion

Over all, findings of the present research recommend that developing country like Pakistan, where the child labor has prevailed over the years. It is concluded that to ameliorate many social and psychological problems, attention must be directed toward helping children perform more adequately in all spheres of life. "Rampant" child labour is one of the stigmas bestowed upon Pakistan. Well, present study was not to wish to impress or depress anyone with low positions registered by our country on a variety of development indicators in various situation analyses.

However, it was just to wish in this study to bring on record that in our country, we are focusing our attention to the behavioral problems of these children as well. To

analyze the juvenile delinquency of these children, delinquent measures were developed. With the help of self-reported delinquency scale and informant-reported delinquency scale a more accurate picture of delinquency was taken. As the present research findings clearly indicates high delinquent tendencies among laborer adolescents to make them a vulnerable group for serious crimes. To more analyze the personality features of these adolescents EPQ-(Junior) was translated and adapted. This instrument revealed that adolescents with high delinquent tendencies have high extraversion, neuroticism, and psychoticism and low on lie personality traits.

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