CHAPTER - II

REVIEW OF LITERATURE

2.1: Introduction

Regarding related factors in juvenile delinquency and their criminal behavior various studies have been done and supported that family, socio-economic and psychological factors have an important role in worsening the criminal behaviors.

On the quality of life of juvenile delinquency multiple studies have been conducted. However, since the researcher did not get any study on the Quality of life and experiencing Psycho-Somatic illness among juvenile delinquency to date.

In this chapter, at first, will examine theoretical concepts, including different aspects, opinions, theories and approaches presented by various investigators and thinkers and then will review previous studies.

The review was done under the following categories:

Part I: Theoretical Concepts

A) Juvenile Delinquency

B) Psycho-Somatic Disorders

C) Quality of life
PART II: Review of Previous Studies

A) Prevalence of various Psycho-Somatic disorders among delinquents and normal juveniles.

B) Quality of life among delinquents and normal juveniles.

C) Psycho-Somatic disorders among delinquents and normal juveniles.

D) Influence of secondary variables (age, education, father’s occupation) on Psycho-Somatic disorders and quality of life of delinquents and normal juveniles.

2.2: Theoretical Concepts

2.2.1: Juvenile Delinquency

For many young people today, traditional patterns guiding the relationships and transitions between family, school and work are being challenged. Social relations that ensure a smooth process of socialization are collapsing; lifestyle trajectories are becoming more varied and less predictable. The restructuring of the labor market, the extension of the maturity gap (the period of dependence of young adults on the family) and, arguably, the more limited opportunities to become an independent adult are all changes influencing relationships with family and friends, educational opportunities and choices, labor market participation, leisure activities and lifestyles. It is not only developed countries that are facing this situation; in developing countries as well there are new pressures on young people undergoing the transition from childhood to independence. Rapid population growth, the
unavailability of housing and support services, poverty, unemployment and underemployment among youth, the decline in the authority of local communities, overcrowding in poor urban areas, the disintegration of the family and ineffective educational systems are some of the pressures young people must deal with.

Youth nowadays, regardless of gender, social origin or country of residence, are subject to individual risks but are also being presented with new individual opportunities some beneficial and some potentially harmful. Quite often, advantage is being taken of illegal opportunities as young people commit various offences, become addicted to drugs and use violence against their peers.

Statistical data indicate that in virtually all parts of the world, with the exception of the United States, rates of youth crime rose in the 1990s. In Western Europe, one of the few regions for which data is available, arrests of juvenile delinquents and under-age offenders increased by an average of around 50 per cent between the mid-1980s and the late 1990s. The countries in transition have also witnessed a dramatic rise in delinquency rates; since 1995, juvenile crime levels in many countries in Eastern Europe and the Commonwealth of Independent States have increased by more than 30 per cent. Many of the criminal offences are related to drug abuse and excessive alcohol use.

The majority of studies and programs dealing with juvenile delinquency focus on youth as offenders, however, adolescents are also victims of criminal or delinquent acts. The continuous threat of victimization is having serious impact on the socialization of young men and on their internalization of the norms and values of the larger society. According to data on crimes registered by the police, more than 80 percent of all violent incidents are not reported by the victims. Information about the
victims allows conclusions to be drawn about the offenders as well. Results of self-report studies indicate that an overwhelming majority of those who participate in violence against young people are about the same age and gender as their victims; in most cases the offenders are males acting in groups (Germany, Federal Ministry of the Interior and Federal Ministry of Justice, 2001). Those most likely to be on the receiving end of violence are between the ages of 16 and 19, with 91 in every 1,000 in this group becoming victims of some form of crime. Surveys have shown that men are more likely than women to become victims. In the United States, 105 in every 1,000 men become crime victims, compared with 80 per 1,000 women. Men are 2.5 times more likely to be victims of aggravated assault. Older people are less often affected; as mentioned, crimes are usually committed by representatives of the same age groups to which the victims belong.

Young people who are at risk of becoming delinquent often live in difficult circumstances (United Nations, 2000). Children who for various reasons - including parental alcoholism, poverty, breakdown of the family, overcrowding, abusive conditions in the home, the growing HIV/AIDS scourge, or the death of parents during armed conflicts - are orphans or unaccompanied and are without the means of subsistence, housing and other basic necessities are at greatest risk of falling into juvenile delinquency. The number of children in especially difficult circumstances is estimated to have increased from 80 million to 150 million between 1992 and 2000 (Bonnet, 1993).

The problem of juvenile delinquency is becoming more complicated and universal and crime prevention programs are either unequipped to deal with the present realities or do not exist. Many developing countries have done little or nothing to deal with these problems and international programs are obviously insufficient.
Developed countries are engaged in activities aimed at juvenile crime prevention, but overall effect of these programs is rather weak because the mechanisms in place are often inadequate to address the existing situation.

On the whole, current efforts to fight juvenile delinquency are characterized by the lack of systematic action and the absence of task-oriented and effective social work with both offenders and victims, whether real or potential. Analysis is further complicated by a lack of international comparative data.

**Basic Assumption of delinquent behavior**

It is impossible to develop effective prevention programs without understanding the reasons behind juvenile involvement in criminal activity. Different approaches arose in scientific and practical literature on juvenile crime and violence to define and explain delinquent behavior by young people. To criminologists, juvenile delinquency encompasses all public wrongs committed by young people between the ages of 12 and 20. Sociologists view the concept more broadly, believing that it covers a multitude of different violations of legal and social norms, from minor offences to serious crimes, committed by juveniles. Included under the umbrella of juvenile delinquency are status offences, so called because they are closely connected with the age status of an offender; a particular action or behaviorism considered a violation of the law only if it is committed by a juvenile (examples include truancy and running away). In an attempt to explain the theoretical underpinnings of delinquency, sociologists associate the specifics of youth behavior with the home, family, neighborhood, peers and many other variables that together or separately influence the formation of young people’s social environment.
Antisocial behavior may be a normal part of growing up or the beginning of a long-term pattern of criminal activity. The United Nations Guidelines for the Prevention of Juvenile Delinquency assert that “youthful behavior or conduct that does not conform to overall social norms and values is often part of the maturation and growth process and tends to disappear spontaneously in most individuals with the transition to adulthood”; a great majority of young people commit some kind of petty offence at some point during their adolescence without this turning into a criminal career in the long term (United Nations, 1991). While delinquency is a common characteristic of the period and process of becoming an adult, it is very important to note that juveniles often create stable criminal groups with a corresponding subculture and start to engage in the activities of adult criminal groups, in effect choosing delinquent careers.

Statistical data in many countries show that delinquency is largely a group phenomenon; between two-thirds and three-quarters of all juvenile offences are committed by members of various groups. Even those juveniles who commit offences alone are likely to be associated with groups. According to data from the Russian Federation, the rate of criminal activity among juveniles in groups is about three to four times higher than that of adult offenders. Juvenile group crime is most prevalent among 14-years old and least prevalent among 17-year old. The rates are higher for theft, robbery and rape and lower for premeditated murder and grievous bodily harm.

Similarities in the basic characteristics of juvenile group behavior are found in almost every class and cultural context. Juvenile peer groups are noted for their high levels of social cohesiveness, hierarchical organization and a certain code of behavior.
based on the rejection of adult values and experience. The subcultural aspect of juvenile group activities is rarely given the attention it deserves. Different juvenile groups adopt what amounts to a heterogeneous mix, or synthesis, of pre-dominant (class-based) values, which are spread by the entertainment industry and intergenerational (group-based) values, which are native to the family or neighborhood. Subcultures can be defined as particular lifestyle systems that are developed in groups and are in structurally subordinate positions as a result of pressure exerted by the predominant systems.

Subcultures reflect individual and group attempts to solve structural contradictions. One of the most important aspects of subcultures is that they form patterns of behavior that have substantial symbolic value for the individuals involved. At present there are various subcultures in which deviant behavior and violence play an important role. Some groups and subcultures tend to use violence as a means of solving interpersonal conflicts and the atmosphere thus created is an important mediating factor contributing to delinquent or criminal behavior. This might even be referred to as a subculture of violence, in which aggression is considered an acceptable and even preferable and courageous approach to problem-solving.

Those most likely to participate in delinquent activities are members of territorial gangs. According to statistical evidence, they commit three times as many crimes as juveniles and youths who are not gang members. Studies reveal that the most frequent offences committed by gang members are fighting, street extortion and school violence.
The fact that juvenile groups always exist in local communities must be taken into consideration. A community is defined by the similar social characteristics of its residents, such as membership in a social class or ethnic group. Urban neighborhood communities provide their members with a certain everyday social comfort at the local level. Under conditions of social diversity and urban growth these neighborhood units, like rural communities, are able to balance the social interests of the groups they contain.

Membership in juvenile groups is sometimes an essential element of socialization. Several studies have shown the possibility of establishing connections between delinquent groups and other social institutions - a “symbiosis” in which gangs can, for instance, work to satisfy any of a community’s needs (Venkatesh, 1997). As mentioned earlier, in many cases juvenile delinquent groups are also the entry point to adult organized crime.

Available data show that delinquency and crime have strong gender associations. Police records indicate that the crime rates of male juvenile and young male adult offenders are more than double those of young females and conviction rates are six or seven times higher. The number of male juvenile suspects for every 100,000 members of the designated age group is more than six times the corresponding figure for females; for those in the youth category the male-female suspect ratio is even higher, at 12.5 to 1 (German Federal Ministry of Justice, 2001). There are a number of reasons why more young men than young women are involved in violent or criminal behavior. Various restrictive and simulative factors encourage women to conform to social norms that do not apply to men, one example being the
fear of sexual assault. Girls are subject to stronger family control than are boys. Cultural concepts are such that society at large is less tolerant of deviant behavior among young women than among young men. In addition, aggression and violence play an important role in the construction of masculinity and sexuality in patriarchal societies, the primary objective being to reinforce and maintain the status and authoritative position of men. The male perception of violence can be minimized, forgiven, denied or justified. Men often do not consider such acts as verbal or sexual insults to constitute violent behavior.

There are cultures in which the dominant type of masculinity is more or less openly directed towards violent confrontation, domination and control (Gilmore, 1991). In other cultures the socialization of young males towards hegemonic masculinity is not attached to norms of physical prowess, hard work and a readiness to fight. For both boys and girls, the street gang is an ideal context for “doing gender” (establishing gender differences). Consequently, girls who are gang members are not simply passive recipients of “patriarchy” but active participants in the construction of gender relations.

The peer group plays an important part in the construction of gender roles and relations, including delinquent behavior. Youth gangs reflect the gender-based power relations in society and the related discourse and practices by which they are reproduced. Consequently, differences in male and female behavior in this context are partly a product of the social construction of gendered dominance and subordination in gang arrangements.
Causes of and conditions for the formation of delinquent trajectories

The intensity and severity of juvenile offences are generally determined by the social, economic and cultural conditions prevailing in a country. There is evidence of a universal increase in juvenile crime taking place concurrently with economic decline, especially in the poor districts of large cities. In many cases street children later become young offenders, having already encountered violence in their immediate social environment either as witnesses or victims of violent acts. The educational attainments of this group are rather low as a rule, basic social experience acquired in the family is too often insufficient and the socio-economic environment is determined by poverty and under or unemployment (United Nations, 1995).

The causes of and conditions for juvenile crime are usually found at each level of the social structure, including society as a whole, social institutions, social groups and organizations and interpersonal relations. Juveniles’ choice of delinquent careers and the consequent perpetuation of delinquency are fostered by a wide range of factors, the most important of which are described below.

Economic and social factors

Juvenile delinquency is driven by the negative consequences of social and economic development, in particular economic crises, political instability and the weakening of major institutions (including the State, systems of public education and public assistance and the family). Socio-economic instability is often linked to
persistent unemployment and low incomes among the young, which can increase the likelihood of their involvement in criminal activity.

**Cultural factors**

Delinquent behavior often occurs in social settings in which the norms for acceptable behavior have broken down. Under such circumstances many of the common rules that deter people from committing socially unacceptable acts may lose their relevance for some members of society. They respond to the traumatizing and destructive changes in the social reality by engaging in rebellious, deviant or even criminal activities. An example of such a setting would be the modernization of traditional societies and the accompanying changes wrought by the application of new technologies; shifts of this magnitude affect the types and organization of labor activity, social characteristics, lifestyles and living arrangements and these changes, in turn, affect authority structures, forms of obedience and modes of political participation even going so far as to influence perceptions of reality.

In both developed and developing countries, consumer standards created by the media are considerably beyond the capacity of most families to achieve. Nevertheless, these ideals become a virtual reality for many young people, some of whom will go to great lengths to maintain a lifestyle they cannot afford. Because not all population groups have access to the necessary resources, including education, professional training, satisfactory employment and income, health services and adequate housing, there are those who are unable to achieve their goals by legal means.
The contradiction between idealized and socially approved goals and the sometimes limited real-life opportunities to achieve them legally creates a sense of frustration in many young people. A criminal career becomes one form of addressing this contradiction. One of the reasons for delinquent behavior is therefore an excessive focus on proposed goals (achieving success) coupled with insufficient means to achieve them.

The likelihood of deviant acts occurring in this context depends in many respects not only on the unavailability of legal opportunities but also on the level of access to illegal opportunities. Some juveniles, cognizant of the limitations imposed by legal behavior, come under the influence of adult criminals. Many young people retreat into the confines of their own groups and resort to drug use for psychological or emotional escape. The use of alcohol and illegal drugs by juveniles is one cause of delinquency, as they are often compelled to commit crimes (usually theft) to obtain the cash needed to support their substance use.

**Urbanization**

Geographical analysis suggests that countries with more urbanized populations have higher registered crime rates than do those with strong rural lifestyles and communities. This may be attributable to the differences in social control and social cohesion. Rural groupings rely mainly on family and community control as a means of dealing with antisocial behavior and exhibit markedly lower crime rates. Urban industrialized societies tend to resort to formal legal and judicial measures, an
impersonal approach that appears to be linked to higher crime rates. Cultural and institutional differences are such that responses to the same offence may vary widely from one country to another.

The ongoing process of urbanization in developing countries is contributing to juvenile involvement in criminal behavior. The basic features of the urban environment foster the development of new forms of social behavior deriving mainly from the weakening of primary social relations and control, increasing reliance on the media at the expense of informal communication and the tendency towards anonymity. These patterns are generated by the higher population density, degree of heterogeneity and numbers of people found in urban contexts.

**Family**

Studies show that children who receive adequate parental supervision are less likely to engage in criminal activities. Dysfunctional family settings - characterized by conflict, inadequate parental control, weak internal linkages and integration and premature autonomy - are closely associated with juvenile delinquency. Children in disadvantaged families that have few opportunities for legitimate employment and face a higher risk of social exclusion are over represented among offenders. The plight of ethnic minorities and migrants, including displaced persons and refugees in certain parts of the world, are especially distressing. The countries in transition are facing particular challenges in this respect, with the associated insecurity and turmoil.
contributing to an increase in the numbers of children and juveniles neglected by their parents and suffering abuse and violence at home.

The family as a social institution is currently undergoing substantial changes; its form is diversifying with, for example, the increase in one-parent families and non-marital unions. The absence of fathers in many low-income families can lead boys to seek patterns of masculinity in delinquent groups of peers. These groups in many respects substitute for the family, define male roles, and contribute to the acquisition of such attributes as cruelty, strength, excitability and anxiety.

The importance of family well-being is becoming increasingly recognized. Success in school depends greatly on whether parents have the capacity to provide their children with “starting” opportunities (including the resources to buy books and manuals and pay for studies). Adolescents from low-income families often feel excluded. To raise their self-esteem and improve their status they may choose to join a juvenile delinquent group. These groups provide equal opportunities to everyone, favorably distinguishing themselves from school and family, where positions of authority are occupied by adults.

When young people are exposed to the influence of adult offenders they have the opportunity to study delinquent behavior and the possibility of their engaging in adult crime becomes more real. The “criminalization” of the family also has an impact on the choice of delinquent trajectories. A study carried out in prisons in the United States reveals that families involved in criminal activities tend to push their younger members towards violating the law. More than two-thirds of those interviewed had relatives who were incarcerated; for 25 per cent it was a father and for another 25 percent a brother or sister.
Migration

Because immigrants often exist in the margins of society and the economy and have little chance of success in the framework of the existing legal order, they often seek comfort in their own environment and culture. Differences in norms and values and the varying degrees of acceptability of some acts in different ethnic subcultures result in cultural conflicts, which are one of the main sources of criminal behavior. Native urban populations tend to perceive immigrants as obvious deviants.

The media

Television and movies have popularized the “cult of heroes”, which promotes justice through the physical elimination of enemies. Many researchers have concluded that young people who watch violence tend to behave more aggressively or violently, particularly when provoked. This is mainly characteristic of 8- to 12-year-old boys, who are more vulnerable to such influences. Media bring an individual to violence in three ways. First, movies that demonstrate violent acts excite spectators and the aggressive energy can then be transferred to everyday life, pushing an individual to engage in physical activity on the streets. This type of influence is temporary, lasting from several hours to several days. Second, television can portray ordinary daily violence committed by parents or peers (the imposition of penalties for failing to study or for violations of certain rules or norms of conduct). It is impossible to find television shows that do not portray such patterns of violence, because viewer approval of this type of programming has ensured its perpetuation.
As a result, children are continually exposed to the use of violence in different situations and the number of violent acts on television appears to be increasing. Third, violence depicted in the media is unreal and has a surrealistic quality; wounds bleed less and the real pain and agony resulting from violent actions are very rarely shown, so the consequences of violent behavior often seem negligible. Over time, television causes a shift in the system of human values and indirectly leads children to view violence as a desirable and even courageous way of re-establishing justice. The American Psychological Association has reviewed the evidence and has concluded that television violence accounts for about 10 per cent of aggressive behavior among children (American Psychological Association, 1993).

**Exclusion**

The growing gap between rich and poor has led to the emergence of “unwanted others”. The exclusion of some people is gradually increasing with the accumulation of obstacles, ruptured social ties, unemployment and identity crises. Welfare systems that have provided relief but have not eliminated the humble socio-economic position of certain groups, together with the increased dependence of low-income families on social security services, have contributed to the development of a “new poor” class in many places.

The symbolic exclusion from society of juveniles who have committed even minor offences has important implications for the development of delinquent careers.
Studies show that the act of labeling may lead to the self-adoption of a delinquent image, which later results in delinquent activity.

**Peer influence**

Youth policies seldom reflect an understanding of the role of the peer group as an institution of socialization. Membership in a delinquent gang, like membership in any other natural grouping, can be part of the process of becoming an adult. Through such primary associations, an individual acquires a sense of safety and security, develops knowledge of social interaction and can demonstrate such qualities as loyalty or leadership. In “adult” society, factors such as social status, private welfare, race and ethnicity are of great value; however, all members of adolescent groups are essentially in an equal position and have similar opportunities for advancement in the hierarchical structure. In these groups well-being depends wholly on personal qualities such as strength, will and discipline. Quite often delinquent groups can counterbalance or compensate for the imperfections of family and school. A number of studies have shown that juvenile gang members consider their group a family. For adolescents constantly facing violence, belonging to a gang can provide protection within the neighborhood. In some areas those who are not involved in gangs continually face the threat of assault, oppression, harassment or extortion on the street or at school.
Delinquent identities

In identifying the causes of criminal behavior, it is important to determine which factors contribute to a delinquent identity and why some adolescents who adopt a delinquent image do not discard that image in the process of becoming an adult. Delinquent identity is quite complex and is, in fact, an overlay of several identities linked to delinquency itself and to a person’s ethnicity, race, class and gender. Delinquent identity is always constructed as an alternative to the conventional identity of the larger society. Violence and conflict are necessary elements in the construction of group and delinquent identities. The foundations of group identity and activity are established and strengthened through the maintenance of conflicting relations with other juvenile groups and society as a whole. Violence serves the function of integrating members into a group, reinforcing their sense of identity and thereby hastening the process of group adaptation to the local environment.

Other factors that may provide motivation for joining a gang are the possibilities of economic and social advancement. In many socio-cultural contexts the delinquent way of life has been romanticized to a certain degree and joining a gang is one of the few channels of social mobility available for disadvantaged youth. According to one opinion, urban youth gangs have a stabilizing effect on communities characterized by a lack of economic and social opportunities.
**Offenders and victims**

Criminal activity is strongly associated with a victim’s behavior. A victim’s reaction can sometimes provoke an offender; however, “appropriate” behavior may prevent a criminal act or at least minimize its impact. According to scientific literature, the likelihood of becoming a victim is related to the characteristics or qualities of a person, a social role or a social situation that provoke or facilitate criminal behavior; personal characteristics such as individual or family status, financial prosperity and safety, as well as logistical characteristics such as the time and place in which a confrontation occurs, can also determine the extent of victimization.

People may become accidental victims, as assault is often preceded by heated discussion. According to the classification of psychological types there are three typical adolescent victims of violence: accidental victims; people disposed to become victims; and “inborn” victims (Wolfgang, 1987). Studies have shown that in the majority of cases Delinquent identities result in bodily harm, the offender and his victim are acquainted with one another and may be spouses, relatives or friends; this is true for 80 per cent of murders and 70 per cent of sexual crimes.

**Some regional aspects of delinquency**

While certain aspects of juvenile delinquency are universal, others vary from one region to another. As a rule, cultural contexts are important in understanding the
causes of juvenile delinquency and developing culturally appropriate measures to deal with it.

In Africa, delinquency tends to be attributed primarily to hunger, poverty, malnutrition and unemployment, which are linked to the marginalization of juveniles in the already severely disadvantaged segments of society. As a result of rapid population growth, young people in Africa will soon constitute two-thirds of the region’s population. Every year about 790,000 people enter the labor market, while the economy generates fewer than 60,000 jobs.

One half of all households in Africa are living in poverty. Many of the urban poor live in slums and squatter settlements with over-crowded, unhealthy housing and a lack of basic services. It is here that the majority of urban youth and children live (Ochoa, 2000). One of the most serious problems is the great number of street and orphaned children, whose numbers have been growing as a result of continuous and multiple armed conflicts, the advent of HIV/AIDS and the breakdown of a centuries-old way of living and social structure. Juvenile crime and delinquency are on the rise, a trend also linked to the rapid and dramatic social, political and economic changes that have taken place in Africa in recent decades. The principal offences committed by young people are theft, robbery, smuggling, prostitution, the abuse of narcotic substances and drug trafficking (United Nations, 1993).

In Asian countries, juvenile crime and delinquency are largely urban phenomena. Statistically, as is true elsewhere, young people constitute the most criminally active segment of the population. The most noticeable trends in the region are the rise in the number of violent acts committed by young people, the increase in drug-related offences and the marked growth in female juvenile delinquency. The
financial crisis that hit some countries in East and South-East Asia in the late 1990’s created economic stagnation and contraction leading to large-scale youth unemployment. For millions of young people, this meant a loss of identity and the opportunity for self-actualization.

Some countries are facing great difficulty because they are located near or within the “Golden Crescent” or the “Golden Triangle”, two major narcotics producing areas of Asia.

Traffickers actively involve adolescents and youth in serving this industry and many of them become addicted to drugs because of their low prices and easy availability. Another major problem is human trafficking.

In Latin America, the young have been the hardest hit by the economic problems linked to the debt crisis in the region, evidenced by the extremely high unemployment rates prevailing within this group. Juvenile delinquency is particularly cute and is often associated with the problem of homelessness among children and adolescents.

In the Arab world, the problems associated with juvenile delinquency vary from one country to another. Some countries have experienced socio-economic difficulties, while others have become prosperous. In the latter group, delinquency may occur in connection with migrants seeking employment, or may be linked to factors such as continued urbanization, sudden affluence, rapidly changes in the economy and the increasing heterogeneity of the population.
In the industrialized countries, increased prosperity and the availability of a growing range of consumer goods have led to increased opportunities for juvenile crime, including theft, vandalism and the destruction of property. With the social changes that have occurred over the past few decades, the extended family has been replaced by the nuclear family as the primary kinship group. The informal traditional control exercised by adults (including parents, relatives and teachers) over young people has gradually declined and adequate substitutes have not been provided. Lack or insufficiency of parental supervision is one of the strongest predictors of delinquency.

The contemporary western family structure constitutes one of the most important factors associated with the increase in juvenile delinquency in the past 50 years. The sharpest increase in the rate of juvenile violence in most West European countries occurred in the mid-1980s or early 1990s. In some countries, the official figures rose between 50 and 100 per cent. In England and Wales, for example approximately 360 of every 100,000 youths aged 14-16 years were “convicted or cautioned by the police” for violent crimes in 1986; by 1994, that figure had increased to approximately 580 per 100,000. In West Germany in 1984, the number of 14- to 18-years old suspected of violent crimes was approximately 300 per 100,000; by 1995, that figure had more than doubled to approximately 760 per 100,000. Rates in the former East Germany were 60 to 80 percent higher.

The results of a number of studies indicated that the victims of violent crimes committed by juveniles were mostly other juveniles. For example, in the Netherlands in 1995, young people 15-17 years of age were four times more likely than adults (25
years or older) to be the victims of assault. It must be noted that in most countries the crime rate among adults has either remained stable over the years or increased moderately. In no country has the increase in the adult crime rate paralleled that of juveniles. Thus, the rise in violent crime among juveniles derives only partially from overall crime trends (Pfeiffer, 1998).

Within developed countries there are groups of impoverished and needy people suffering from relative deprivation. In recent years some countries have reduced their social services, placing the weakest strata of the population in an even more vulnerable position.

Poverty has increased and the problems of homelessness and unemployment have reached alarming dimensions. In most EU countries the rise in juvenile crime has corresponded to observed increases in poverty and unemployment rates among vulnerable groups.

The overall crisis in Eastern Europe and the Commonwealth of Independent States deriving from the transition to market-based economies has contributed to an increased tendency towards criminal behavior, owing mainly to the weakening of the primary institutions of socialization (the family, the public education system, recreation services, work collectives and the informal peer environment) and to personal alienation. Juvenile delinquency in the region is most often related to the unemployment of both young people and parents, poverty in the family, or pressures on overworked parents to successfully maintain the traditional guardianship of children. These challenges and other socio-economic pressures have intensified in the past decade, affecting the behavior of children and youth. The impact of pathological behaviors in the family, educational negligence, negative patterns of conduct
conveyed by parents or guardians and the lack of leisure alternatives is also considerable. In Slovakia, only about 8 per cent of young people are members of youth associations. There may be a reluctance to join such groups, in which participation was virtually mandatory under past regimes.

In the major countries of Eastern Europe and the former Soviet Union, the number of mothers and fathers deprived of their parental rights is increasing every year. These individuals are predominantly alcoholics, drug addicts and people who have demonstrated antisocial behavior.

Unemployment, low family income and parental irresponsibility are the main factors contributing to juvenile delinquency in many parts of this region. Children experience suffering and humiliation; they may be involved in theft or other offences and some are forced to earn an income through prostitution. In many countries of the former Soviet Union, the collapse of public educational organizations has undermined efforts to prevent juvenile delinquency. For most adolescents there are no opportunities for involvement in associations or clubs. Many social services in the region have been eliminated during the transition period and those still operating face chronic financial problems. The low wages paid to social service employees give them little incentive to work with adolescents.

**Preventing juvenile delinquency**

Violence against children endangers their fundamental human rights. It is therefore imperative to convince individuals and institutions to commit time, money, expertise and other resources needed to address this global problem.
A number of United Nations instruments reflect a preference for social rather than judicial approaches to controlling juvenile delinquency. The Riyadh Guidelines assert that the prevention of juvenile delinquency is an essential part of overall crime prevention in society and the United Nations Standard Minimum Rules for the Administration of Juvenile Justice (the Beijing Rules) recommend instituting positive measures to strengthen a juvenile’s overall well-being and reduce the need for State intervention.

It is widely believed that early-phase intervention represents the best approach to preventing juvenile delinquency. Prevention requires individual, group and organizational efforts aimed at keeping adolescents from breaking the law. Various countries use different methods to discourage delinquent and criminal behavior. Some focus on punitive prevention intended to frighten potential offenders by making sure they understand the possibility of severe punishment, or action may be taken to prevent current crime, which includes explaining the negative aspects of an offence to a delinquent and attempting to reconcile offenders and their victims.

Early preventive work is being carried out in several areas. Some of the most promising approaches, programs and initiatives are described in some detail below. Within the economic sector, professional development programs are being set up to provide legal alternatives for income generation. Supplying adolescents and young people with increased economic opportunities, professional training and education, new workplaces and assistance in organizing businesses can help prevent youth involvement in delinquent activities.
Educational programs are helping young people learn how to engage in positive self-appraisal, deal with conflict and control aggression. The programs debunk the myth of gang glamour and help young people find alternatives to illegal behavior. Some work with troubled youth to help them develop the social and cognitive skills necessary to avoid conflict and control aggression. Children from strong families, quality schools and healthy communities typically develop these skills as a matter of course. In the United States law-enforcement agencies, schools, local communities and parents of adolescents are involved in these programs.

Recreation and youth development activities are directly encouraged in the Riyadh Guidelines: “A wide range of recreational facilities and services of particular interest to young people should be established and made easily accessible to them”. In a number of towns in the United States the establishment of basketball programs for adolescents led to a 60 per cent decrease in crime rates. Researchers at Columbia University in New York City found that having a Boys’ or Girls’ Club in a public housing project reduced the level of crime by an average of 13 percent. In Stevenage, a town in the United Kingdom where a large youth centre and playground were built and several youth clubs organized, young people have largely avoided delinquent activities.

Often it is possible to reduce the level of juvenile delinquency by changing an urban environment, altering the physical features through architectural and landscape planning and providing opportunities to engage young people’s interest. A research study conducted in a town in the United States revealed that most of the activities of juvenile delinquent groups were concentrated around the town’s only park. The layout
of the park was redesigned to create many more leisure and recreational alternatives for juveniles and their parents. The number of positive afternoon activities held in schools and parks was also increased. All of these measures led to a considerable reduction in juvenile delinquency; in the United States juvenile crime, including violent offences, peaks at around 3 p.m. generally right after school lets out.

Recently, greater attention has been given to the role and responsibility of local communities in dealing with juvenile delinquency. There are programs designed to train groups and individual representatives of local communities in which juvenile delinquency has increased to informally control youth and include young people in constructive activities (California Dept of Justice, 1993).

The idea that young people can and should work in partnership with adults to improve conditions in their communities has gained currency in the past decade. Young people are being asked to sit on boards, submit ideas and support community efforts through structured (sometimes required) volunteering (Tolman, et al. 2001). A promising development in efforts to prevent juvenile delinquency and crime is the involvement of NGOs and volunteers (students and pensioners, along with well-known and authority figures such as sportsmen, politicians and public figures) in social work with adolescents. Generally, programs for preventing gang delinquency should endeavor to integrate children and youth into organized group activities. This can be achieved through social service agencies or organizations such as the YMCA, YWCA, Girl Guides and Boy Scouts, as well as independent boys’ and girls’ clubs and community centers; local government recreational activities also serve this purpose.
Cooperation between various agents of preventive work is becoming increasingly important. Multisectoral prevention initiatives designed and implemented by entire communities are the most effective, in particular those that build on the strengths and interests of youth rather than focusing only on their problems or deficits. In one city in the United States law enforcement officers, human service agency representatives and local citizens forged a partnership to combat crime in 10 high crime neighborhoods. The initiative—which included the establishment of new athletic leagues for young people, a youth forum for teens to speak out on community problems and various other prevention measures—led to a 29 per cent drop in crime in the targeted neighborhoods and a citywide reduction in violent crime.

Institutional programs aimed at providing social and psychological support for individuals and groups include camps, group homes, alternative schools and shelters. Provided within this context are educational, behavioral and psychological valuation and diagnostics; health attention and assignment to medical facilities; individual educational planning; individual, group and parent counseling; and the organization of leisure activities.

The family, as the primary institution of socialization, appears to play the most important role in the prevention of child and juvenile delinquency. The most impressive prevention efforts focus on the families of troubled youth, including those young people with serious behavior problems. In the United States, when parent management training was provided to the parents of problem children aged 3-8 years, the children fared far better than those in a control group assigned to a waiting list for the program. Overall, between two-thirds and three-fourths of the children in the
program achieved clinically significant change and returned to a normal range of behavioral functioning.

In this connection special attention must be given to street children and to children and adolescents who have lost their families (or their ties to them) during armed conflicts and have thus had no appropriate family surveillance. The majority of programs serving street children are remedial in nature, as they operate on an ad-hoc basis, providing food, clothing and occasionally shelter and health services. These initiatives, which provide symptomatic treatment, have to be complemented by programs that also address the causes of “streetism”.

Special programs are needed to tackle the problem of unaccompanied and homeless children, including rehabilitation schemes that take children off the streets. The United Nations Convention on the Rights of the Child provides a framework for improving the living conditions of children, focusing on the following four broad areas:

• Survival rights: Articles 6.1, 6.2 and 24.1 deal with the basic needs that must be met for children to enjoy good health for adequate growth including medical care, nutrition, shelter and clothing. For street children most of these needs are not satisfied.

• Development rights: Articles 6, 26 and 28 relate to the opportunities and means for providing children with access to education, skills, training, recreation and rest, information, parental care and social security.

• Protective rights: Articles 2, 19.1, 19.2, 32.1, 33, 34, 36 and 37 focus on the legal and social provisions that must be made by each country to protect children from
exploitation, drug abuse, sexual abuse, cruelty, separation from family, discrimination and the effects of all types of man-made or natural disasters.

- Participation rights: Articles 12, 13, 14 and 17 focus on the opportunities and means provided to children to enable them to express opinions on matters affecting their lives, including freedom of worship, access to information about oneself and freedom to give evidence (where applicable). Children are knowledgeable about their situations and can devise innovative solutions to their problems if consulted. Street children, in particular, have already learned to make important decisions regarding their daily lives without the assistance of adults.

Community-based improvements in slum and squatter settlements have the potential to prevent children from living on the streets and to help reintegrate them into their neighborhoods (Dzikus, 1996). Another objective of preventive work is to help street children engage in optimistic self-appraisal and form positive attitudes.

Many countries still have “punitive” prevention programs that try to suppress juvenile and youth offences, as well as gang recruitment, expansion and criminal behavior, by means of surveillance (continuous police observation) and prosecution. Suppression is a form of active intervention wholly legitimized by the State. Because this approach is believed to be inherently “right”, it requires no special justification or evaluation of results (Klein, 1997). This type of approach generally precludes efforts to promote proper behavior, focusing instead on preventing unwanted behavior. However, aggression on the part of authorities can in many cases contribute to the further integration of youth into delinquent groups.
Purely preventive (or suppressive) efforts are not very effective for youth already in trouble. The majority of crimes are committed by a relatively handful of repeat offenders who typically display serious behavior problems in early childhood. For them, more intensive, individualized treatment is required likely.

Prevention of recurrent crime is best achieved through “restorative justice”, which is usually carried out by non-governmental remedial organizations and local communities. Restorative justice is regarded as an alternative mode of criminal justice. It involves a process whereby all the parties with a stake in a specific offence come together and collectively determine how best to deal with the aftermath of the offence and its implications for the future (Economic and Social Council, 2001). The offender, through interaction with the victim, must understand the seriousness of the incident and together with the victim and social workers, develop a series of steps towards reconciliation, arranging reparations for damages and providing whatever remedial assistance the victim might require. If successful resolution occurs, the juvenile is not placed in a correctional facility or labeled a delinquent, thereby avoiding the influence of an environment (jail) that can reinforce delinquent behavior.

The reconciliation process must be carried out very carefully so that the offender does not consider it a “deal” with the victim a risk emphasized by various researchers. According to different studies up to 95 per cent of juveniles who have participated in such programs and agreed to provide restitution have fulfilled their obligations and recurrence levels have been reduced by 50 per cent in general. Moreover, restitution is much more cost-effective than confinement; in the United
States the cost of keeping each juvenile in a correctional facility can be as high as $30,000 per year.

One of the key elements of restorative justice is reconciliation between the offender and the victim, a process necessary not only for the correction of the offender, but also for the restoration of justice for the victim. The protection and support of victims and witnesses is recognized as an important basic element of overall crime prevention and crime control strategies. Support measures reduce the impact of crime on those most directly affected and are essential for preserving and protecting the role of victims and witnesses in the criminal justice process. It also aids the investigation and prosecution of crime by facilitating cooperation between victims, witnesses and law enforcement and prosecution agencies.

According to experts, crime victims require restitution to restore their dignity and honor, compensation to acknowledge the trauma inflicted and bring a sense of closure and rehabilitation to enable them to return to their homes and communities with a measure of self-worth. Usually a victim's initial contact after a crime is with police, immigration authorities and welfare volunteers, representatives of NGOs or laypeople, few of whom have the expertise to deal with traumatized victims. Appropriate training is needed for those who are typically the first to come into contact with victims. Additional victim support services and awareness campaigns focusing on victims' rights are needed and witness protection policies must be developed and implemented, particularly with respect to organized crime and specific offences such as trafficking in persons, where intimidation or retaliation may be used against those who cooperate with the police in preventing, investigating or prosecuting offences.
Generally, a crime prevention system will be effective only if

(a) The contents and framework of prevention efforts are clearly defined and the functional opportunities of all agencies included in that system are appropriately utilized;

(b) All of the subjects and targets of prevention work (including adolescents themselves and their relations in different spheres of society) are covered and the specific characteristics of each are taken into consideration; and

(c) The mechanisms of administration, control and coordination for this type of prevention work have been developed.

In practice, many prevention approaches have proved ineffective. Studies show that shock incarceration (boot camp) does not reduce criminality. Short-term, “quick fix” job training has not lowered arrest rates. Neither traditional psychotherapy nor behavior modification has shown great promise as a vehicle for redirecting delinquent and criminal youth. A few methods - especially scare-oriented approaches or programs that place groups of delinquent youth together for extended treatment have actually worsened the behavior of participants.

Experience shows that efforts to fight gang membership are the most ineffective. Several techniques for transforming the gang environment have been suggested, but they tend to deal only with the criminal aspects of the problem, while the socio-economic and other conditions and circumstances that compel juveniles to enter a gang remain forgotten; further, traditional social institutions are rarely engaged in the process. Nonetheless, programs designed to address the problem of gang membership are often implemented and many of them are reported to be successful by
some evaluators and completely inadequate by others. According to some researchers, the implementation and positive appraisal of a number of initiatives can be attractive to politicians who wish to demonstrate that they are taking action against juvenile delinquency. Such political considerations make adequate evaluation of prevention work difficult in many cases, with the result that ineffective programs may continue to operate while the problems of juvenile delinquency remain unsolved.

Consistency is an essential factor in achieving prevention at all levels. Juvenile delinquency is often wrongly perceived as an individual phenomenon; the communal aspect tends to be downplayed or ignored.

In reality, however, delinquent acts are generally committed by juveniles in a group or at least within the framework of a particular group’s standards. To be effective, prevention work must take into account not only individual motivation, but also group cultural dynamics. At an even broader level, income countries (such as the Russian Federation) juvenile delinquent groups may have close ties with adult organized crime and connections with local community members, which must also be considered in the development of prevention programs.

Prevention initiatives are not always easily transferred from one socio-cultural environment to another. Programs that work effectively in one country may be totally inadequate in others; for example, an approach to restorative justice developed and successfully applied in one country may be implemented in another with poor results. There is a need to factor the sub cultural specifics of a particular group of juvenile delinquents into program development and to clearly define the target group at which preventive measures will be directed.
Communities must implement a combination of prevention, intervention and suppression strategies to address the gang problem. Policies and programs must be based on appropriate targeting of both institutions and youth, taking into account their mutual relationship at a particular time and place (focusing, for example, on the point at which a young person is entering or ready to leave a gang and/or at the stage the gang problem is developing in the particular institution or community) (Spergel, 1995).

Gang members are not totally without the desire to live within socially approved boundaries. However, they are often suspicious and afraid of mainstream society and turn to the gang as their only source of security and approval. Efforts to guide juvenile gangs towards socially acceptable avenues of behavior are needed. At present, most rehabilitation initiatives are not working to redirect the energies or potential of gang members into socially desirable activities.

One promising area of prevention work involves strengthening the position of victims by developing relevant programs and training for them and supporting victims’ associations. The problem of youth victimization is still characterized by a certain theoretical vacuum. Recent studies have shown that differentiation between offenders and victims is based not on sex and age, but on differences within each gender; in other words, offenders and victims of the same gender represent different “types” of masculinity and femininity. These and other gender-related considerations must be borne in mind in the development of prevention programs. Expanding efforts in this direction would be particularly useful for dealing with street and orphaned children and the victims of armed conflict, sexual abuse and trafficking. Special
measures are needed for children and adolescents subjected to the latter three types of challenges: the media, as the main source of public information, should play a key role in informing the public about the destructive results of armed conflicts; and round-table discussions should be organized to develop strategies for counter-trafficking and for integrating the victims of armed conflicts (including adolescent former soldiers) and the victims of harassment and sexual abuse into society.

A proactive but carefully considered approach to the development and implementation of prevention and rehabilitation programs is needed, with care taken to apply those lessons learned through direct experience. Significant public investment is warranted to both strengthen and expand the youth-oriented prevention agenda and to intensify efforts to refine and improve upon the promise of prevention. However, it must be acknowledged that the thoughtless expenditure of money, time or effort for spontaneous or poorly developed measures will do little to solve the problem; research and evaluation must therefore be integrated into all prevention efforts.

**Major theoretical perspectives on the root causes of crime**

In the most general of terms, criminologists and other academics interested in crime tend to either start with a theory about a given condition (e.g., poor nutrition, a certain brain chemistry or certain family or social conditions) and then test whether it is a predictor of youth violence, or start with known offenders and seek to identify common characteristics in their backgrounds. Through this work, predictors and correlates can be and have been, found in many domains and have been collected into
at least 14 distinct theoretical approaches or doctrines, many of which have their own sub-doctrines (McMurtry, & Curling, A. 2008).

**Biosocial theory:**

This theory considers that certain biological anomalies or physical disabilities may make some individuals more prone to violence. These can stem from nutritional deficiencies, hormonal influences, allergies or exposure to environmental contaminants, or may arise from neuro-physical conditions, such as fetal alcohol syndrome, brain dysfunction, injury or chemistry, genetics or evolution.

According to many of these sub-theories, the studied condition leads to difficulties in controlling violent impulses when under stress and has its origins in circumstances often associated with poverty or dysfunctional families (McMurtry & Curling, A. 2008).

**Psychological theories:**

These theories look at how mental processes impact on propensities for violence. They look at the connections among learning, intelligence, personality and aggressive behavior. In general, these theories often look to early negative family circumstances as sources of damaged egos or to the way certain negative behaviors are learned in families where aggression is common. They consider the impact of mental illness, although many note that conditions such as parental neglect, child abuse, victimization, racism and poverty are associated with violence as well as being a cause of mental illness.
**Rational choice theory:**

This theory holds that people freely choose their behavior and are motivated by the avoidance of pain and the pursuit of pleasure. This perspective assumes that crime is a personal choice, the result of individual decision-making processes. It posits that offenders weigh the potential benefits and consequences of committing an offence and then make a rational choice on the basis of this evaluation. The central premise of this theory is that people are rational beings, whose behavior can be controlled or modified by a fear of punishment. However, to the extent the research supports the rational nature of crime; it is confined primarily to instrumental crime, such as property and drug offences.

There is some support in relation to violence, where youth use violence to protect themselves in situations when they feel they lack power. The assumption behind this theory, that offenders conduct a cost-benefit analysis before deciding to engage in crime, is not strongly supported by research. While some thought goes into offending, the planning tends to focus on the immediate events (e.g., the choice of which house to enter), not the long-term consequences of their actions (e.g., whether to commit a crime at all). Youth in particular do not routinely consider the long term; they tend to be impulsive and focus on the immediacy of the rewards associated with offending. Even if youth do consider the criminal justice consequences, most find them irrelevant as they believe it is unlikely they will be apprehended (McMurtry & Curling, A. 2008).
Social disorganization theory:

This theory postulates that crime is a function of neighborhood dynamics and not necessarily a function of individuals within high-crime neighborhoods. The core factor seems to be high population turnover, resulting from the undesirable status of certain communities. A number of studies have also supported the idea that economic deprivation may be an important influence on social disorganization. They propose that economic deprivation could lead to social disorganization, which in turn can lead to violence and crime.

More recent analyses have argued that social disorganization can reduce social capital and collective efficacy, thereby increasing crime and violence rates. Social capital fosters trust and solidarity among residents, while collective efficacy relates to the belief that residents can effectively control the likelihood of undesirable behavior within the neighborhood. The overall theory is that in socially disorganized neighborhoods, conventional institutions of social control, such as families, schools, churches and organizations are weak and unable to regulate the behavior of the neighborhood’s residents. In essence, a neighborhood characterized by social disorganization provides fertile soil for crime and delinquency in two ways: a lack of behavioral control mechanisms and the cultural transmission of delinquent values (McMurtry & Curling, A. 2008).
Economic deprivation:

There are several elements to this theory. One is that capitalism encourages the criminality of the poor by the misery and the inequality that it foists on them. Another is that inequality can reduce self-esteem and foster the development of a negative self-image, which in turn can lead to crime. Still another is that involvement in illicit activities not only provides short-term capital gains for those without other capital, but also bolsters self-image and feelings of social competence. Relative economic deprivation is another way to consider motivators of crime. Relative deprivation theories focus on the recognition of an individual’s well-being relative to others. This version brings a subjective assessment into the analysis.

The recognition of relative deprivation can result in feelings of despair, frustration, grievance, injustice, low self-worth and anger and may be a powerful motivator of crime.

Thus, economic deprivation is said to lead to violence as a means to relieve poverty or acquire goods that youth otherwise lack. It may also lead to violence by creating feelings of hopelessness and anger, which may lead to diffuse aggression. The potential for violence may be higher where economic deprivation is believed to be unjust, for example, where it is believed that one is economically deprived because of factors such as race.
Strain theories:

There are several versions of this theory; each arguing that strain creates pressures and incentives to engage in criminal coping as a response to the strain experienced. One version is that the disjunction between culturally ascribed goals, such as economic success and the availability of legitimate means to attain such goals puts pressure on the cultural norms that dictate what means should be used to achieve the culturally prescribed goal. This takes place in societies that place an intense value on economic success. Another version links the pressures to secure monetary rewards with weak controls from non-economic social institutions as a way of promoting criminal activity. This arises where the social institutions are subservient to the economic structure and therefore fail to provide alternative definitions of self-worth and achievement. Yet another approach looks more generally to any strain that is seen as unjust, is high in magnitude, associated with low social control and creates some incentive to engage in criminal coping. In this version, individuals experiencing strain may develop negative emotions, including anger, from the impact of adversity; resentment from unjust treatment by others; and depression or anxiety from blaming themselves for the stressful consequence. A last variant of this theory focuses on relative deprivation, outlined above.

Overall, it is thought that strain can result from the desire for money, thrills or status; parental rejection; harsh, erratic or excessive discipline; child neglect; abuse; negative secondary school experiences; homelessness; abusive peers; criminal victimization; and experiences with prejudice and discrimination relating to characteristics such as race.
Social learning theory:

According to this theory, deviant and criminal conduct is learned and sustained through associations with family and peer networks. The theory revolves around differential association with people who commit criminal behavior and espouse definitions favorable to it. Direct association or interaction with people who engage in certain kinds of behavior can lead to similar behavior as individuals engage in behavior that they have previously witnessed in others. Related to this are the ways in which behaviors are reinforced by peer contacts. The research literature has consistently found that there is a strong relationship between childhood experiences of violence in the family and early childhood aggression and a more moderate relationship between these experiences and adolescent aggression. By contrast, peer influences appear to be more important in adolescence.

The subculture of violence:

This theory involves the role of social control processes in perpetuating subcultural violence. It suggests that criminal behavior can be predicted by group norms that lead to instrumental use of violence for impression management and maintaining reputation. One element of this is the culture of honor, which some studies trace to socio-economic marginalization and the resulting embracing of the code of the streets. This theory is part of a body of research that highlights various social processes ranging from how crime is learned and taught to how it emerges from social inequalities.
Social learning, the media and violence:

Some theories suggest that media violence leads to social learning of violent behavior, while others suggest that entertainment is typically used to manage emotions and that those who are already aggressive actively seek out violent media content. The findings to date do not provide clear and consistent evidence that media violence causes aggressive and violent behavior.

Perceptions of injustice, crime and violence:

This theory explores the possibility that perceptions of injustice may help explain race and class differences in criminal behavior, including violence. It notes the widespread perceptions of bias in the justice system and argues that it leads to mistrust in criminal justice professionals. The perceived existence of unfair sanctions, combined with the absence of sanctions for race-based harms, reduces faith in the justice system, which in turn sets the stage for offending. This can play out through justifications for deviance that are seen as valid by the delinquent, but not by the legal system or society at large. If offenders believe that the system is unjust and that their chances of success are blocked by external forces such as racism or class interests, they may be less likely to trust officials and more likely to lose faith in the system and resort to crime. The perceived injustice essentially becomes a rationalization or justification for criminal behavior. Another manifestation of this is when members of disadvantaged communities feel marginalized by the police and stop cooperating with them. They then rely on informal methods to address conflicts, which may lead to
increases in violence. There is also a theory of defiance to explain the conditions under which punishment increases crime, based on legitimacy, social bond, shame and pride in the emotional response to sanctioning experiences. In short, when offenders experiences sanctioning conduct as illegitimate, future defiance is provoked.

This theory can be extended outside the criminal justice system to include how people feel they are treated by other systems. People who attribute their unemployment and poverty to outside forces can be more likely to engage in criminal activity than those who blame themselves. They do not perceive equal opportunity and can therefore become more involved in crime. These conditions and perceptions of inequality can lead youths to strike out violently in a display of resentment, bitterness and frustration. This is very similar to the strain theory, as perceptions of injustice can be viewed as stressors that can lead to delinquency as a coping mechanism.

**Social control theory:**

This theory assumes a relationship between delinquency and lower levels of social control. The overall idea is that crime occurs when social bonds are weakened or are not well-established. These bonds are based on an attachment to those both within and outside of the family; commitment to activities in which one has invested time and energy, such as educational or career goals; and involvement with activities that serve to further bond the individual to others and leave limited time for deviant activities. A key element of this theory is an attachment to parents, schools and others,
with those who feel a stronger connection to their parents or schools being less likely to commit violent offences.

**Self-control theory:**

Self-control theory holds that people engage in crime because they lack self-control, require immediate gratification, cannot see the long-term consequences of their actions and have little empathy for others. In these ways, it is very similar to psychological theories of impulsivity. What is particular to self-control theory is that it holds that self-control must be established in early childhood. If a person does not have self-control by three or four years of age, this theory argues, they never will. It essentially assumes that offenders cannot change and therefore should be incapacitated to avoid future criminality.

**Integrated life course theories:**

This approach recognizes that crime is a complex multidimensional phenomenon with multiple causes. It integrates a variety of ecological, socialization, psychological, biological and economic factors into a coherent structure to explain the eventual behavior of individuals. A constellation of factors in an individual’s life must be considered in order to understand his or her behavior. One aspect of this theory looks at how children are socialized through their perceived opportunity for involvement in activities with others, their degree of such involvement, the skills they have to participate and the reinforcement they perceive from their involvement and interactions. When this is consistent, a social bond of attachment and commitment
develops between the individual and the socializing unit. This then inhibits behavior inconsistent with the behavior practiced by the socializing unit.

A second theory specifies a causal pathway, in which strain leads to the weakening of social bonds with conventional institutions, leading to greater association with deviant peers and the subsequent learning of anti-social and delinquent values. Adolescents who live in socially disorganized neighborhoods or who are improperly socialized have an increased risk of experiencing strain. The perceptions of strain can lead to the weakening of bonds with conventional groups, activities and norms. This can lead to the rejection of conventional values and encourage youth to seek out deviant peer groups. Such deviant associations then create the environment for anti-social learning and reinforcement of anti-social values and behavior.

**Critical perspectives on violence**

These theories either attempt to construct broader working definitions of violence or to draw linkages between various forms of official or legitimate violence and acts of violence at the interpersonal level. They are united in that they all emphasize the primacy of class relations when discussing the issue of crime and justice. They also tend to share a number of general assumptions, including that crime and the criminal law are shaped by the structure of the political economy, with particular emphasis on the importance of class, ethnicity, race and gender; and that the predominantly repressive approach of the state is generally ineffective as a response to the crime problem and perpetuates various forms of discrimination and inequitable justice. In particular, theorists with this specialty are concerned with the manner, in
which structural forces, cultural ideologies and social processes create, sustain and exacerbate social problems. These forces include militarism, racism, sexism, poverty, state and corporate violence, criminal injustice and war. This is in contrast to most of the theories dominating the social sciences literature, which have tried to explain crime by focusing on the abnormality of individuals, communities or cultures.

Critical scholars have also begun to inject broader definitions of violence into the public discourse in an effort to move us beyond analyses where illegitimate force requires both a visible agent and an unwilling recipient. These formulations of what should be considered a crime or an act of violence have sought to encapsulate all forms of oppression and harm, including violence committed by corporate and government agents/agencies that is typically ignored. They argue that violence should include actions that inflict humiliation, stigmatization, material loss or social isolation, thus providing a space for devastating social forces like racism and social inequality to be viewed as forms of structural violence. Many have further argued that the law symbolizes an official and legitimate form of violence that is often used to create or reproduce racial and other social inequalities (McMurtry & Curling, A. 2008).

2.2.2: Psycho-Somatic Disorders (Psychological Factors Affecting Medical Condition) (PFAMC)

Psycho-Somatic (psycho-physiological) medicine has been a specific area of study within the field of psychiatry for more than 75 years. It is informed by two basic assumptions: There is a unity of mind and body (reflected in the term mind-body
medicine); and psychological factors must be taken into account when considering all disease states.

Concepts derived from the field of Psycho-Somatic medicine influenced both the emergence of complementary and alternative medicine (CAM), which relies heavily on examining psychological factors in the maintenance of health and the field of holistic medicine with its emphasis on examining and treating the whole patient, not just his or her disease or disorder. The concepts of Psycho-Somatic medicine also influenced the field of behavioral medicine, which integrates the behavioral sciences and the biomedical approach to the prevention, diagnosis and treatment of disease. Psycho-Somatic concepts have contributed greatly to those approaches to medical care.

The concepts of Psycho-Somatic medicine are subsumed in the diagnostic entity called Psychological Factors Affecting Medical Conditions. This category covers physical disorders caused by emotional or psychological factors. It also applies to mental or emotional disorders caused or aggravated by physical illness.

In 2005, the American Board of Medical Specialties and the American Board of Psychiatry and Neurology approved a separate board to be called the American Board of Psycho-Somatic Medicine. That decision recognizes the importance of the field and also brings the term Psycho-Somatic back into common use.

Mind–body interactions have long been a focus of interest, both in health and in disease. Psychiatric illness and medical disease frequently coexist. A more modern approach has been to recognize that all medical illnesses are potentially affected by many different factors in the biological, psychological and social realms.
Background of PSYCHE-SOMA Interaction

Diagnostic category in Diagnostic and Statistical Manual of Mental Disorders, fourth edition (PFAMC) recognizes the variety of ways in which specific psychological or behavioral factors can adversely affect medical illnesses. Such factors may contribute to the initiation or the exacerbation of the illness, interfere with treatment and rehabilitation, or contribute to morbidity and mortality. Psychological factors may themselves constitute risks for medical diseases, or they may magnify the effects of non-psychological risk factors.

The effects may be mediated directly at a path physiological level (e. g., psychological stress inducing myocardial ischemia) or through the patient’s behavior (e. g., noncompliance).

Why the PSYCHE-SOMA Interaction is Important?

The subject of psychological factors affecting medical condition has become the focus of intense research because of the illumination it may provide of basic disease mechanisms (e. g., psycho-neuro-immunology) and because of the intense interest in improving both the outcomes and the efficiency of health care delivery. The diagnosis of PFAMC focuses attention on one causal direction in the interactions between psyche and soma, that is, the effects of psychological factors on the medical condition in most patients, there are effects in the other direction as well (i. e., the effects of general medical illness on psychological function). Furthermore, both mind and body interact with social and environmental factors both dramatic (e. g., poverty,
racism, war) and more subtle (e. g., employment status, neighborhood) (Roux et al. 2001), that affect the incidence and outcome of medical illness.

‘PFAMC Diagnosis’ and complexities

The diagnosis of PFAMC differs from most other psychiatric diagnoses in its focus on the interaction between the mental and medical realms. As noted, the criteria require more than that the patient have both a medical illness and contemporaneous psychological factors, because their coexistence does not always include significant interactions between them.

To make the diagnosis of PFAMC, either the factors must have influenced the course of the medical condition, interfered with its treatment, contributed to health risks, or physiologically aggravated the medical condition. The psychological factor can be an Axis I or Axis II mental disorder (e. g., major depressive disorder aggravating coronary artery disease (CAD)), a psychological symptom (e. g., anxiety exacerbating asthma), a personality trait or coping style (e. g., type A behavior contributing to the development of CAD), maladaptive health behaviors (e. g., unsafe sex in a person with human immunodeficiency virus (HIV) infection), a stress-related physiological response (e. g., tension headache), or other or unspecified psychological factors.

When a patient’s medical illness is faring worse than expected and not responding well to standard treatment, physicians should consider whether a psychological factor may be responsible for the poorer than expected outcome. To ignore the possibility of PFAMC may miss the crucial barrier to the patient’s recovery. On the other hand,
premature or facile attribution to psychological factors may lead the physician to overlook medical or social explanations for “treatment-resistant disease” and unfairly blame the patient, with resultant further deterioration in health outcomes and the physician-patient relationship.

To illustrate, a common clinical problem is the brittle diabetic adolescent with labile blood glucose levels and frequent episodes of Kato acidosis and hypoglycemia, despite vigorous attempts by the physician to improve diabetic management and glucose control.

The considerable difficulty in controlling such patients’ diabetes is often attributed to adolescents’ dislike of lifestyle restrictions, their tendency to act out and rebel against authority figures, their denial of vulnerability, their ambivalence about their need for nurturance and their wish to be “normal”. There are many adolescent (and some adult) diabetic patients for whom these psychological issues do play an important role in undermining diabetes management through noncompliance regarding medication, diet, visits to the physician, substance use and activity limitations. However, psychological factors do not always account for brittleness and are sometimes incorrectly suspected. It has been demonstrated that much of the difficulty in achieving stable glucose control in adolescent diabetics is the result of the dramatically labile patterns of hormone secretion (cortisol, growth hormone) typical of adolescence, independent of psychological status.
Body-mind Connections

Human beings have developed a unique degree of awareness about how life, in different aspects, can be at risk, whether a challenging event is immediately present or is simply imagined. The body hardly recognizes the difference between reality and imagination, thus responding as it knows best to uncertainty, novelty and threat with the sympathec- excitatory preparation for action commonly known as the fight or flight response (Thayer and Brosschot 2005).

There is increasing evidence that stress has a direct biological effect on disease risk, involving the sympathetic nervous system, the Hypothalamo-Pituitary-Adrenomedullary (HPA) axis and the inflammatory response system (Gröer, Meagher & Kendall-Tackett 2010) - a major chain reaction released by the immune complex. The interaction established among these systems and a central autonomic network (CAN) which includes both prefrontal and limbic cerebral structures, are integrated to form an internal regulation system through which the brain controls viscera motor, neuroendocrine and behavioral responses that are critical for goal-directed behavior, adaptability and health (Thayer and Brosschot 2005).

When the sympathetic nervous system (SNS) is activated, hormones such as catecholamines (i.e., epinephrine and norepinephrine) are released and the hypothalamus simultaneously secretes corticotrophin-releasing factor. The release of corticotrophin-releasing factor produces adrenocorticotropic hormone from the anterior lobe of the pituitary gland. This hormone in turn stimulates the adrenal cortices to release cortisol, a stress hormone that helps the immune system to operate efficiently. The release of catecholamine’s and cortisol allows the body to break down
sugar as a source of available energy (Kibler, Joshi & Hughes 2010). This represents the sympathetic adrenomedullary (SAM) system; an essential component of the normal acute alarm response to threat that produces the fight-flight reaction.

When stressors are perceived in the limbic system the brain sends signals through the sympathetic and parasympathetic systems, which generally act to oppose each other. Although the SAM system predominates in the acute stress response, it can be tonically active in some individuals, that is, highly reactive to minor perturbations (Gröer, Meagher & Kendall-Tackett 2010). The sympathetic system, associated with energy mobilization and the parasympathetic system, associated with vegetative and restorative functions are the two major branches of the autonomous nervous system (ANS). Normally, the activity of these branches is in dynamic balance (Thayer and Brosschot 2005).

The release of catecholamines creates flight responses, such as increases in blood pressure (BP), mental agility, heart rate, breathing rate and sweating. Activation of the SNS in the presence of a stressor results in suppression of the immune system, thereby increasing the body's susceptibility to disease when stressors are ongoing (Kibler, Joshi & Hughes 2010). Communication between the brain and immune system is bidirectional, meaning that stress can cause the brain to trigger the immune response and the immune response can induce changes in the central nervous system (CNS), resulting in a constellation of behaviors described previously in this article as sickness syndrome. Chronic stress and immune response become mutually maintaining conditions, increasing the risk of inflammatory, neurodegenerative and autoimmune diseases (Gröer, Meagher & Kendall-Tackett 2010). Another common consequence of immune imbalance is frequently noticed in cases when, because early immune responses shape the specific immune response to infection, dysregulation of
this response may contribute to the failure to eliminate the pathogen (disease causing factor) and exacerbation of acute infection (Meagher MW, Welsh CJR, 2010).

The inflammatory response, if inappropriate, excessive, or long-lasting, becomes the underpinning of many human diseases, such as coronary heart disease (CHD) (Gröer, Meagher & Kendall-Tackett 2010). Other examples of inadequate inflammatory processes also seem to be involved in certain stages of neurodegenerative diseases such as Alzheimer's and Parkinson's. Ordinarily, inflammation is an active defense mechanism against many types of insults.

It acts to remove or inactivate pathogens and to inhibit and reverse their detrimental effects. Inflammation to the brain can be triggered by invading microbes such as viruses or bacteria, by injurious chemicals, or by physical insult. It can be initiated from within the organism as well, as happens with diseases affecting the nervous or immune systems. It can be triggered by the accumulation of modified proteins, by the chemical signals from injured neurons (nervous cells), or by an imbalance between pro-inflammatory and anti-inflammatory processes (Nivison, Guillozet-Bongaarts & Montine, 2010). Inflammatory mediators are capable of causing tissue damage if not controlled. To prevent such damage, anti-inflammatory processes normally suppress inflammation. These anti-inflammatory molecules include cortisol and cytokines such as interleukin-10 (IL-10) and transforming growth factor-B (Gröer, Meagher & Kendall-Tackett 2010).

The neuro-immunological axis is of particular importance in understanding how stress might activate inflammatory pathways. Virtually every immune organ is innervated by sympathetic fibers; however, the density and distribution of innervations vary between organs. Likewise, immune cells have receptors for one or
more of these stress hormones or neurotransmitters, thereby allowing stress response to exert regulatory control over immune function (Gröer, Meagher & Kendall-Tackett 2010). If stressors, including emotional overload, surpass an individual's capacity for adjustment, the sympathetic activation will be maintained with incomplete, sometimes even absent, restorative function from the parasympathetic branch. Autonomic imbalance and decreased parasympathetic tone in particular may be the final common pathway linking negative affective states and dispositions, including indirect effects due to poor lifestyle, to numerous diseases and conditions as well as increased morbidity and mortality and it may also be implicated in psychopathological conditions (Thayer and Brosschot 2005).

Stress inducing stimuli are not always objective external threats like predators or potential physical disasters, but also include the internal perception that something we consider essential to our well-being is lacking (Maté 2003). For an organism to launch a stress response there must be appraisal of the stressor as innocuous, a danger, or a challenge. This appraisal results in a perception that is often highly individualistic and influenced by gender (Gröer et al. 2010). Variables other than gender, especially socioeconomic status or ethnicity, may influence the way in which people experience relationships, formulate their moral principles and construct a sense of self (Frank, Weilhs, Minerva and Lieberman 1998). Attentional regulation and the ability to inhibit prepotent but inappropriate responses are also important for health in a complex environment. Many tasks important for survival in today's world involve cognitive functions such as working memory, sustained attention, behavioral inhibition and general mental flexibility (Thayer and Brosschot 2005).

The capacity of a living organism to strive for survival and preservation at all costs relies on many different mechanisms that can, however, be brutally disrupted by
many human living patterns. Homeostasis is a state of self-regulation that the body is constantly taken to achieve despite external demands and pressures including those generated by self-expectations, social interaction and lifestyles. In homeostasis, the concept of maintenance of physiological states within set points is an essential element (Gröer et al. 2010).

**Epidemiology and Co morbidity**

Because “PFAMC” describes a variety of possible interactions between the full range of psychiatric disorders (as well as symptoms and behaviors) on the one hand and the full range of medical diseases on the other, it is impossible to estimate overall rates of prevalence or incidence. We can start, however, by noting how frequently medical and psychiatric disorders coexist. Psychiatric problems are common in medical patients, although the measured frequency varies, depending on the criteria and method of measurement used. A reasonable estimate is that 25–30% of medical outpatients and 40–50% of general medical inpatients have diagnosable psychiatric disorders.

**How do psychological factors affect medical illnesses?**

It may promote other known risks for medical illness. e. g., Individuals with schizophrenia or depression are much more likely to smoke than the general population. A wide variety of psychiatric illnesses are associated with an increased likelihood of substance abuse. Depression and schizophrenia are also associated with a sedentary lifestyle. It has an impact on the course of illness by influencing how
patients respond to their symptoms, including whether and how they seek care. E. g., the defense mechanism of denial may lead an individual to ignore anginal chest pain, attribute it to indigestion, delay seeking medical attention, or minimize the pain when describing it to a physician affect the course of illness through their effects on the physician–patient relationship, since they influence both patients’ health behaviors and physicians’ diagnostic and treatment decisions.

It can reduce a patient’s compliance with diagnostic recommendations, treatment and lifestyle change and can interfere with rehabilitation through impairment of motivation, understanding, optimism, or tolerance. Have direct effects on pathophysiologic processes. E. g., stress has been experimentally shown to cause myocardial ischemia in patients with coronary disease.

**Stress Theory**

Stress can be described as a circumstance that disturbs, or is likely to disturb, the normal physiological or psychological functioning of a person. In the 1920s, Walter Cannon (1875, 1945) conducted the first systematic study of the relation of stress to disease. He demonstrated that stimulation of the autonomic nervous system, particularly the sympathetic system, readied the organism for the “fight or flight” response characterized by hypertension, tachycardia and increased cardiac output. This was useful in the animal who could fight or flee; but in the person who could do neither by virtue of being civilized, the ensuing stress resulted in disease (e. g., produced a cardiovascular disorder).
Life Events

A life event or situation, favorable or unfavorable (Selye's distress), often occurring by chance, generates challenges to which the person must adequately respond. Thomas Holmes and Richard Rahe constructed a social readjustment rating scale after asking hundreds of persons from varying backgrounds to rank the relative degree of adjustment required by changing life events. Holmes and Rahe listed 43 life events associated with varying amounts of disruption and stress in average persons' lives and assigned each of them a certain number of units: for example, the death of a spouse, 100 life-change units; divorce, 73 units; marital separations, 65 units; and the death of a close family member, 63 units. Accumulation of 200 or more life-change units in a single year increases the risk of developing a Psycho-Somatic disorder in that year. Of interest, persons who face general stresses optimistically, rather than pessimistically, are less apt to experience Psycho-Somatic disorders; if they do, they are more apt to recover easily. Table 2.1 lists the top 15 stressors and their units in the social readjustment scale (Holmes and Rahe cited by Sadock, B. J, 2000).

Specific versus Nonspecific Stress Factors

In addition to life stresses such as a divorce or the death of a spouse, some investigators have suggested that specific personalities and conflicts are associated with certain Psycho-Somatic diseases. A specific personality or a specific unconscious conflict may contribute to the development of a specific Psycho-Somatic disorder. Researchers first identified specific personality types in connection with
coronary disease. An individual with a coronary personality is a hard-driving, competitive, aggressive person who is predisposed to coronary artery disease. Meyer Friedman and Ray Rosenman (1974) first defined two types:

(1) Type A “similar to the coronary personality” and

(2) Type B personalities calm, relaxed and not susceptible to coronary disease (See discussion below).

<table>
<thead>
<tr>
<th>Life Event</th>
<th>Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Death of spouse</td>
<td>100</td>
</tr>
<tr>
<td>2. Divorce</td>
<td>73</td>
</tr>
<tr>
<td>3. Marital separation from mate</td>
<td>65</td>
</tr>
<tr>
<td>4. Detention in jail or other institution</td>
<td>63</td>
</tr>
<tr>
<td>5. Death of a close family member</td>
<td>63</td>
</tr>
<tr>
<td>6. Major personal injury or illness</td>
<td>53</td>
</tr>
<tr>
<td>7. Marriage</td>
<td>50</td>
</tr>
<tr>
<td>8. Being fired at work</td>
<td>47</td>
</tr>
<tr>
<td>9. Marital reconciliation with mate</td>
<td>45</td>
</tr>
<tr>
<td>10. Retirement from work</td>
<td>45</td>
</tr>
<tr>
<td>11. Major change in the health or behavior of a family member</td>
<td>44</td>
</tr>
<tr>
<td>12. Pregnancy</td>
<td>40</td>
</tr>
<tr>
<td>13. Sexual difficulties</td>
<td>39</td>
</tr>
<tr>
<td>14. Gaining a new family member (through birth, adoption, oldster moving in, etc.)</td>
<td>39</td>
</tr>
<tr>
<td>15. Major business readjustment (merger, reorganization, bankruptcy, etc.)</td>
<td>39</td>
</tr>
</tbody>
</table>

(From Holmes T. Life situations, emotions and disease. Psychosom Med. 1978; 9:747, with permission.)
Franz (1939), was a major proponent of the theory that specific unconscious conflicts are associated with specific Psycho-Somatic disorders. For example, persons susceptible to having a peptic ulcer were believed to have strong ungratified dependency needs. Persons with essential hypertension were considered to have hostile impulses about which they felt guilty. Patients with bronchial asthma had issues with separation anxiety. The specific psychic stress theory is no longer considered a reliable indicator of who will develop which disorder; the nonspecific stress theory is more acceptable to most workers in the field today. Nevertheless, chronic stress, usually with the intervening variable of anxiety, predisposes certain persons to Psycho-Somatic disorders. The vulnerable organ may be anywhere in the body. Some persons are stomach reactors, others are cardiovascular reactors, skin reactors and so on. The diathesis or susceptibility of an organ system to react to stress is probably of genetic origin; but it may also result from acquired vulnerability (e.g., lungs weakened by smoking). According to psychoanalytic theory, the choice of the afflicted region is determined by unconscious factors, a concept known as somatic compliance. For example, Freud reported on a male patient with fears of homosexual impulses who developed pruritisani and a woman with guilt over masturbation that developed vulvodynia.

**Treatment of Psycho-Somatic Disorders**

A major role of psychiatrists and other physicians working with patients with Psycho-Somatic disorders is mobilizing the patient to change behavior in ways that optimize the process of healing. This may require a general change in lifestyle (e.g., taking vacations) or a more specific behavioral change (e.g., giving up smoking).
Whether or not this occurs depends in large measure on the quality of the relationship between doctor and patient.

Failure of the physician to establish good rapport accounts for much of the ineffectiveness in getting patients to change. Ideally, both physician and patient collaborate and decide on a course of action. At times this may resemble a negotiation in which doctor and patient discuss various options and reach a compromise about an agreed-on goal.

Aaron Lazare described specific negotiating strategies to achieve behavioral changes:

- **Direct education**: Explain the problem, goals and methods to achieve goals. Education must be geared to the patient's socioeconomic level and cultural traditions. If the patient has questions, they should be answered frankly. Explanations in keeping with the patient's capacity to understand should be given. Such factors as intelligence, sophistication in regard to personality reactions and degree and type of illness should influence the vocabulary and content of the physician's response. Every effort should be made to convey to belligerent patients both understanding and tolerance for their feelings.

- **Third-party intervention**: Family members, friends and other clinicians can provide support and encourage the patient to follow a course of action. This may occur in a group setting, which is especially effective in motivating patients who have substance abuse problems to obtain treatment (called an intervention).
• **Exploration of options**: There may be alternative methods for achieving a desired goal. For example, quitting smoking can be done with support groups, nicotine patches or gum, psychotropic drugs, or cold turkey, among others.

• **Provision of sample treatment**: If a patient fears a particular course of action or considers change impossible, a treatment trial can be implemented. The patient always may opt out of the prescribed program.

• **Control sharing**: Some patients resent any approach that appears to be authoritarian. They may wish to set the pace of a withdrawal program or titrate their medication depending on adverse effects.

• **Concession making**: The clinician may grant the patient something that he or she wants (e.g., medication) as a bargaining chip to get the patient to comply with advice.

• **Empathic confrontation**: Patients who resist change may do so because of fear or other uncomfortable emotions of which they are unaware. The doctor can try to step into the patients' shoes in an effort to raise their level of awareness. Doctors should be prepared to answer the patient's question: What would you do if you were in my place?

• **Standard setting**: Guidelines or standards (sometimes called milestones) should be set to evaluate the progress of an agreed-upon program (e.g., the loss of 1 pound of weight every 2 weeks to achieve a weight loss of 10 pounds in 20 weeks).
In rare cases in which negotiations break down and an impasse is reached it may be necessary to threaten to terminate the relationship (Sadock, 2007).

**Stress Management and Relaxation Therapy**

Cognitive behavioral therapy methods are increasingly used to help individuals better manage their responses to stressful life events. These treatment methods are based on the notion that cognitive appraisals about stressful events and the coping efforts related to these appraisals play a major role in determining stress responding.

Cognitive-behavioral therapy approaches to stress management have three major aims:

1. To help individuals become more aware of their own cognitive appraisals of stressful events,

2. To educate individuals about how their appraisals of stressful events can influence negative emotional and behavioral responses and to help them reconceptualize their abilities to alter these appraisals and

3. To teach individuals how to develop and maintain the use of a variety of effective cognitive and behavioral stress management skills (Sadock, 2007).
Stress-Management Training

Five skills form the core of almost all stress-management programs: self-observation, cognitive restructuring, relaxation training, time management and problem-solving.

Self-Observation

A daily diary format is used, with patients being asked to keep a record of how they responded to challenging or stressful events that occurred each day. A particular stress (e.g., argument with spouse) may precipitate a sign or symptom (e.g., pain in the neck).

Cognitive Restructuring

Helping participants become aware of and change their maladaptive thoughts, beliefs and expectations. Patients are taught to substitute negative assumptions with positive assumptions.

Relaxation Exercises

Edmund Jacobson in 1938 developed a method called progressive muscle relaxation to teach relaxation without using instrumentation as is used in biofeedback. Patients were taught to relax muscle groups, such as those involved in tension
headaches. When they encountered and were aware of, situations that caused tension in their muscles, the patients were trained to relax. This method is a type of systematic desensitization a type of behavior therapy.

Herbert Benson in 1975 used concepts developed from transcendental meditation in which a patient maintained a more passive attitude, allowing relaxation to occur on its own. Benson derived his techniques from various Eastern religions and practices, such as yoga. All of these techniques have in common a position of comfort, a peaceful environment, a passive approach and a pleasant mental image on which to concentrate.

**Hypnosis**

Hypnosis is effective in smoking cessation and dietary change augmentation. It is used in combination with aversive imagery (e.g., cigarettes taste obnoxious). Some patients exhibit a moderately high relapse rate and may require repeated programs of hypnotic therapy (usually three to four sessions).

**Biofeedback**

Neal Miller in 1969 published his pioneering paper Learning of Visceral and Glandular Responses, in which he reported that, in animals, various visceral responses regulated by the involuntary autonomic nervous system could be modified by learning accomplished through operant conditioning carried out in the laboratory. This led to humans being able to learn to control certain involuntary physiological responses.
(called biofeedback) such as blood vessel vasoconstriction, cardiac rhythm and heart rate.

These physiological changes seem to play a significant role in the development and treatment or cure of certain Psycho-Somatic disorders. Such studies, in fact, confirmed that conscious learning could control heart rate and systolic pressure in humans.

Biofeedback and related techniques have been useful in tension headaches, migraine headaches and Reynaud’s disease. Although biofeedback techniques initially produced encouraging results in treating essential hypertension, relaxation therapy has produced more significant long-term effects than biofeedback (Sadock, 2007).

**Time Management**

Time-management methods are designed to help individuals restore a sense of balance to their lives. The first step in training in time-management skills is designed to enhance awareness of current patterns of time use. To accomplish this goal, individuals might be asked to keep a record of how they spend their time each day, noting the amount of time spent in important categories, such as work, family, exercise, or leisure activities. Alternatively, they may be asked to list the important areas in their lives and, then, asked to provide two time estimates: (1) the amount of time they currently spend engaging in these activities and (2) the amount of time they would like to spend engaging in these activities. Frequently, a substantial difference is seen in the time individuals would like to spend on important activities and the
amount of time they actually spend on such activities. With awareness of this difference comes increased motivation to make changes (Sadock, 2007).

**Problem-Solving**

The final step is problem-solving in which patients basically try to apply the best solution to the problem situation and then review their progress with the therapist (Sadock, 2007).

**Psychological Factors in Cardiology Coronary Disease**

One of the most studied examples is the type A behavior pattern and its relationship to CAD. Type A is a complex set of traits including impatience, hostility, intense achievement drive and time urgency, among others. Depression directly and indirectly e.g., (by increasing the incidence of smoking and sedentary life style), generalized anxiety disorders, Psychological Stress, Psychological factors like denial, Maladaptive health behaviors etc.

Arrhythmias psychological stressors can also play an important role in precipitating serious cardiac arrhythmias. Congestive Heart Failure Depression is independently associated with increased mortality and readmission rate. Hypertension Psychological stress, Depression, Anxiety, Type A personality are all independent risks for Hypertension.
Relationships between emotional stress, myocardial ischemia or infarction and ventricular fibrillation

Mental Disorder Affecting a General Medical Condition If the patient has a mental disorder meeting criteria for an Axis I or Axis II diagnosis, the diagnostic name is mental disorder affecting medical condition, with the particular medical condition specified. Examples include Major depressive disorder that reduces energy and compliance in a hemodialysis patient. Schizophrenia in a patient with recurrent ventricular tachycardia who refuses placement of an automatic implantable defibrillator because he fears it will control his mind.

Patients who have psychological symptoms that do not meet the threshold for an Axis I diagnosis may still experience important effects on their medical illness and the diagnosis would be psychological symptoms affecting a medical condition. Examples include Anxiety that aggravates irritable bowel syndrome (IBS).

Maladaptive personality traits or coping styles are particularly likely to interfere with the physician patient relationship as well as the patient’s relationships with other caregivers.

Personality Traits or Coping Style Affecting a General Medical condition

Many maladaptive health behaviors have significant effects on the course and treatment of many medical conditions. Examples include sedentary lifestyle, smoking, abuse of alcohol or other substances and unsafe sexual practices. If the maladaptive behaviors can be better accounted for by an Axis I or Axis II disorder, the first
subcategory (mental disorder affecting a medical condition) should be used instead. Examples include precipitation by psychological stress of angina, cardiac arrhythmia, migraine, or attack of colitis in medically vulnerable individuals. In such cases, stress is not the cause of the illness or symptoms; the patient has an underlying medical condition (CAD, migraine, or ulcerative colitis) and the stressor instead represents a precipitating or aggravating factor.

**Stress-Related Physiological Response Affecting a General Medical Condition**

There are other psychological phenomena that may not fit within one of these subcategories. An interpersonal example is marital dysfunction. A cultural example is the extreme discomfort a woman from some cultures may experience being alone with a male physician, even while she is fully dressed. A religious example is a Jehovah’s Witness who ambivalently refuses blood transfusion. These fall under the residual category of other or unspecified psychological factors affecting a medical condition.

**Differential Diagnosis**

Substance use disorders may adversely affect many medical conditions and this came described through PFAMC. However, in some patients, all of the psychiatric and medical symptoms are direct consequences of substance abuse and it is usually parsimonious to use just the substance use disorder diagnosis. For example, a patient with delirium tremens after alcohol withdrawal would receive a diagnosis of alcohol withdrawal delirium, not PFAMC, but a patient with alcohol dependence who repeatedly missed hemodialysis treatments because of intoxication would receive
diagnoses of alcohol dependence and PFAMC (mental disorder affecting end stage renal disease).

**Psychological Factors in Endocrinology Diabetes Mellitus**

Psychological stress can adversely affect glucose control in diabetics seems expectable because the hormones of the stress response are part of the counter regulatory response to insulin. Deterioration in glucose control in schizophrenic diabetics can be due to atypical antipsychotic drugs, but diabetes was also a major problem for schizophrenics before their advent, presumably because of obesity (a side effect of almost every antipsychotic), unhealthy diet and poorer health care. A meta-analysis of 24 studies concluded that depression consistently is associated with a small-to-moderate increase in hyperglycemia in both type 1 and type 2 diabetes (Lustman et al. 2000).

**Thyroid Disease**

Studies have supported stressful life events as a risk factor for Graves’ disease (Santos et al. 2004) Alterations in thyroid function or its hypothalamic-pituitary control have been demonstrated in relation to affective disorders, schizophrenia and posttraumatic stress disorder (Wang et al. 1997).
Psychological Factors in Rheumatoid Arthritis

Psychological morbidity in RA results in more pain, poorer quality of life, more joint surgery, lower compliance and increased use of health care resources. Depression appears to adversely affect outcome in rheumatoid arthritis, aggravating chronic pain, increasing health care use and increasing social isolation. Passive, avoidant, emotion-laden coping strategies (e. g., wish-fulfilling fantasy, self-blame) are associated with poorer adjustment to illness in RA compared with active, problem-focused coping (e. g., information seeking, cognitive restructuring). Cognitive behavioral therapy as an adjunct to standard treatment in recently diagnosed patients with RA showed it efficacious in reducing both psychological and physical morbidity.

Psychological Factors in Neurology

Depression is frequent after stroke, associated with poorer outcome; including higher later mortality (House et al. 2001) and functional status is improved with treatment of depression after stroke. Stroke patients with extensive social support have better functional outcomes than those who do not have such support. Depression is common in Parkinson’s disease, may antedate the development of motor symptoms and is associated with cognitive dysfunction. Depression is also common and erodes quality of life in multiple sclerosis and in epilepsy. Patients with chronic migraine headaches have often been described as having a “typical” personality characterized as conscientious, perfectionistic, ambitious, rigid, tense and resentful.
Migraine patients with anxiety and depression reported poorer treatment efficacy and satisfaction with treatment.

2.2.3: Quality of life

Defining quality of life

Happiness; life-satisfaction; well-being; self-actualization; freedom from want; objective functioning; ‘a state of complete physical, mental and social well-being not merely the absence of disease’ balance, equilibrium or’ true bliss’ prosperity; fulfillment; low unemployment; psychological well-being; high GDP; the good life; enjoyment; democratic liberalism; the examined life; a full and meaningful existence (cf. Sheldon, 2000).

Not only are all of these terms used in the literature in discussions of what constitutes (a) ‘Quality of Life’ but it is difficult if not impossible to reconcile them.

When talking about QOL, the literatures invoke matters ranging from objective estimations of the life circumstances of individuals, to those individuals ‘subjective’ estimations of their appreciation of those circumstances; from macroeconomic indicators, the ‘amounts’ of other abstract quanta such as ‘human’ and ‘social capital’ (OECD, 2001; Putnam, 1995, 2002) such economies ‘possess’, to individual happiness with material circumstances. QOL is linked to specific political systems, with some effectively defined as quality of life or as an index of it (neoliberal economic policies and democracy being the usual’ variables’ related to ‘high’ QOL, possibly because most QOL research emanates from countries which can
afford the luxury of contemplating it. (Frey & Al-Roumi, 1999, Mattes & Christie, 1997).

Some studies evaluate quality of life retrospectively and at the remove of centuries (although the White Queen would be unimpressed by such a feat). While acknowledging that ‘attempts to evaluate the quality of life in historical perspective have been hindered by the absence of data on the perceptions that people held about their well-being’, Ostroot and Snyder (1996: 109) nevertheless report a study of the QOL of the people of Aix-en-Provence since 1695. Similarly, Jordan (2001) reports on the QOL of Ireland in the nineteenth century through an analysis of the writings of William Bence Jones, a resident and lord of the time. This project represents a follow-up of his earlier work on quality of life in the context of Irish emigration in the nineteenth century via Irish boot maker John O’Neill’s autobiography, Fifty Years Experience of an Irish Shoemaker in London (Jordan, 1999).

There are, further, legion ‘indicators’, ‘components’ or ‘domains’ of both societies’ and individuals’ quality of life. Before mentioned this, primarily quantitative, approach in more detail, but for now, the state of the field may be judged by the title of another of Cummins’s (1996) papers:

‘The domains of life satisfaction: An attempt to order chaos’. The multiplicity of domains identified range from the common sensical and widely applicable – the availability of decent accommodation and social relationships (Cummins, 1997) to the highly idiosyncratic – the presence of car parking near the oncology department. In addition to ‘indicators’, the literature contains a multiplicity of investigations of the ‘effects’ of a bewildering variety of activities and states of being-in-the-world upon QOL, variously defined.
Thus we read reports on ‘the effect of swimming with dolphins on human well-being and anxiety’ with ‘human well-being’ described as ‘how “positive” participants felt at that moment’ (Webb and Drummond, 2001). A more unusual study of ‘human well-being’ investigated the ‘association between religion, religiosity and well-being’ using death as the index of ‘well-being’ – or rather of its absence. Turning this logic on its head, there also exists a myriad of studies examining the effects of QOL itself (again variously defined) on other states of the world: for instance Hagerty et al., (2001) study of the relationship between QOL and the outcomes of elections.

Hagerty et al. (2001) claim their work shows that QOL, as measured by ‘GDP per capita, food availability, inflation, crime rates, divorce rate and percent of females in the labor force) is the best predictor of voters ‘behavior’ and that ‘changes in QOL) significantly affect election outcomes’. How QOL is defined (or ‘fixed’) is highly heterogeneous across the social scientific literatures. QOL is frequently used as a synonym for the absence of post-operative complications and/or physical robustness in medical settings, as an index of the quantity and quality of staff attention in psychiatric settings and as a shorthand term for community connectedness in intellectual disability settings. In intellectual disability research the definition of QOL has been said to be ‘researcher specific’ or, as the Queen of Hearts would have it, the term ‘means what I want it to mean’. This section addresses two major ongoing theoretical debates. Firstly, what is the relative merit and status of ‘objective’ and ‘subjective’ measures of QOL? Secondly, can there be a universal definition of QOL or do definitions of QOL and the measures derived the reform require calibration against the specific life circumstances of populations under study?
Other Definitions of QOL

In citing definitional diversity as one of the key problems of QOL research, I am recapitulating the commonest observation in reviews of the various QOL literatures. Across the social sciences literature reviews be they focused on issues of methodology, surveys of the QOL measures available in a particular sub-field (Cagney et al., 2000; Hagerty et al., 2001) or providing brief educational updates for particular professions (Higginson and Carr, 2001) – all concur in their identification of huge variability in the definition of QOL. It is routinely observed that not only do particular studies frequently lack a formal definition of QOL, but also that widely used measures of QOL fail to relate to an explicit theory of QOL and fail to show how QOL ‘outputs’ are related to ‘inputs’ in the shape of either public policy (Hagerty et al., 2001), or more local circumstances (Rapley, 2003). Cagney et al.’s (2000) account of a review of measures used in the area of end-stage renal disease is typical of the issues:

From 436 citations, 78 articles were eligible for final review and of those, 47 articles contained evidence of reliability or validity testing. Within this set, there were 113 uses of 53 different instruments: 82% were generic and 18% were disease specific. Only 32% defined quality of life... testing was completed for test-retest reliability (20%), inter-rater reliability (13%), internal consistency (22%), content validity (24%), construct validity (41%), criterion validity (55%) and responsiveness (59%). Few articles measuring quality of life in ESRD defined quality-of-life domains or adequately described instrument development and testing... standardized reporting
and more rigorous testing could help researchers make informed choices about instruments that would best serve their own and their patents’ needs.

In an era in which medicine is increasingly said to be ‘evidence-based’, the quality of research on QOL (at least in the area of renal disease) is at best mixed and at worst unacceptably poor. It is not only in empirical work that problems are apparent: Some researchers argue that ‘theoretical work on health-related quality of life (HRQL) is not well developed and is often derived from a “shopping list” of concepts that lack clear identification of the theory or assumptions underlying their selection’.

The corollary of a theoretical index development and definitional heterogeneity is that the various phenomena which are taken to be contributory to QOL are equally diverse, be QOL conceptualized as either an individual-level or a population-level construct. Hence, while perhaps a majority of formal definitions in the social science literatures would agree that QOL is a multidimensional construct, neither the number nor the variety of dimensions is yet agreed despite the fact that in some areas – such as intellectual disability – a ‘consensus’ has been announced and the difficulties flowing from it, is one of the problems clearly identified by writers who are cautious about the use of QOL as an individual-level outcome variable.

**Quality of life Defined as a Population-level Construct**

That what QOL might ‘be’ at population level is as heterogenous as it is at an individual level is shown in the diversity of indicators in the literature. Again, there is broad agreement both that quality of life is a multi-dimensional construct and that
QOL can be related to normative expectations about the qualities which citizens’ lives may reasonably be anticipated to show (levels of access to income, for example). Precisely which dimensions of the lives of individuals or collectivities are selected as indicators of quality of life varies according to different authorities. Such variability occurs for theoretical and practical reasons and often for a mixture of both.

**Objective and subjective indicators of QOL**

Cummins (1999) suggests that the separate measurement of objective and subjective components, or ‘axes’, of quality of life is essential. He states that ‘the contemporary literature is quite consistent in its determination that, while both of these axes form a part of the QOL construct, they generally have a very poor relationship to one another. For example, physical health and perceived health are poorly correlated.’

Noll (2002) suggests that the possible combinations of circumstances and personal appraisals of them can be conceptualized as a 2×2 matrix.

<table>
<thead>
<tr>
<th>Objective Living Conditions</th>
<th>Subjective Well-Being</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Bad</td>
</tr>
<tr>
<td>Good</td>
<td>Well-Being</td>
</tr>
<tr>
<td>Bad</td>
<td>ADAPTATION</td>
</tr>
</tbody>
</table>

Diminutions of objective and subjective a subjective well-being (Source: Zap 1984)
He terms good living conditions and positive well-being ‘Well-Being’ and bad living conditions with a negative evaluation of them ‘Deprivation’. ‘Dissonance’, he suggests, refers to the ‘inconsistent combination of good living conditions and dissatisfaction and is sometimes also called the ‘dissatisfaction dilemma’ (clearly implying the value judgment that those who are fortunate should be happy with their lot).

‘Adaptation’ refers to what many researchers see as the problematic combination of bad living conditions and high levels of satisfaction, sometimes known as the ‘satisfaction paradox’ or ‘disability paradox’. The existence of persons in this quadrant is simultaneously the driving force behind the contention that objective and subjective evaluations of QOL must be separately measured, the reason why ‘Scandinavian’ researchers ignore subjectivity altogether and instead measure only ‘objective’ circumstances (see Hatton, 2002) and the cause of considerable anger among disability researchers who note that only the able-bodied would necessarily expect people with disabilities to have an inferior quality of life.

The case is still open. Cogent and internally coherent arguments can be made for both ‘Scandinavian’ and ‘American’ positions on the objective versus the subjective in defining ‘quality of life’ and the indicators which are, inconsequence, seen as appropriate as indices of the good life. Fundamentally, ‘American’ inspired researchers and government agencies accord an important role to individuals’ assessments of their happiness in the assessment of population well-being, whereas ‘Scandinavian’ researchers rule out individual happiness when measuring the quality of national life. Again as we saw earlier, researchers such as Veenhoven (1997) argue
for the importance of measuring both objective and subjective quality of life and in practice, most national governmental agencies which collect data on national well-being include both objective and subjective indicators in their systems of social statistics.

**Quality of life as an Individual-Level Construct**

Before mentioned the development of the idea that QOL is not merely a matter of the ‘quality of the lives which...people lead’ a tan aggregate population level. Recently the idea has developed that it also makes sense to conceive of QOL as an aspect of individual subjectivity, a psychological quantum expressing the satisfaction of particular people with their individual lives. A major effort has been expended on trying to arrive at a formally specified, operational definition of the construct.

There are two broad approaches to this: firstly, attempts to specify generic definitions of QOL that apply to humanity as a whole and, secondly, attempts to specify locally relevant QOL constructs such as ‘health-related QOL’ or ‘disease-specific QOL’. Such definitions vary in their specificity and levels of theoretical sophistication.

**Universal quality of life Definitions**

Many population-level systems of social indicators can be read as specifying a definition of QOL, as it were, by default. Collections of statistics are held together not by an explicitly stated theory of the good life, but by a set of commonsense understandings that these various indicators makeup as set of diagnostic social facts.
against which the goodness, or quality, of life is judged. Thus, at least in Western
countries, while high levels of unemployment do not need to be explicitly defended as
indicators of a (poor) quality of living in a particular society, other statistics, for
example income inequality, as the work of Salvaris (2000) suggests, increasingly do.

At the individual level efforts centre on a formal operational definition of what
QOL is as such. The question—while it sounds quite straight forward—can be asked
and answered in a multiplicity of ways and the particular ways that the social sciences
go about answering such questions, by attempting to specify formal definitions of the
phenomenon and operational criteria for inferring the construct, are only one and not
necessarily the best way to go about such enquiries. To ask ‘what is quality of life?’
is not to ask the same sort of a question as asking ‘what is a planet?’ or ‘what is
electricity?’ It is, in principle, not possible to say ‘definition’ of QOL, as ‘to feel good
and to have what is needed to cope with your life in the best way possible’ is wrong,
or that it is misguided or erroneous. This subtle but crucial point is overlooked by
many writers in the social sciences who routinely claim that it is other researchers
who have got it wrong, that what quality of life really is, is the way they themselves
happen to define it.

There are now a small number of candidate definitions available in the
literature which appear to receive wide—but not unanimous—endorsement. A range of
these definitions is presented below, with brief observations about some of the
difficulties each entails. All specify that QOL is an individual psychological
perception of the material reality of aspects of the world. The WHOQOL Group
(1993) defines QOL as:
An individual perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations values and concerns... incorporating in a complex way the person’s physical health, psychological state, level of independence, social relationship, beliefs and their relationship to salient features of the environment... quality of life refers to a subjective evaluation which is embedded in a cultural, social and environmental context... quality of life cannot simply be equated whit the terms ‘health status’ ‘life satisfaction’ ‘mental state’ or ‘well-being’. Rather it is a multidimensional concept.

This definition of QOL benefits from comprehensiveness and efforts to relate the idea to cultural, social and environmental contexts and to local value systems. It is, however, unclear how QOL – as an ‘individual’s perception of their position in life’ or ‘a subjective evaluation’ – cannot be ‘simply equated with a mental state’. A similar definition appealing to cultural relativity is provided by Goode (1997):

QOL is experienced when a person’s basic needs are met and when he or she has the opportunity to pursue and achieve goals in major life settings... the QOL of an individual is intrinsically to the QOL of other persons in his or her environment... the QOL of a person reflects the cultural heritage of the person and those who surround him or her.

Efforts at universality and comprehensiveness cause problems in and of themselves. If one were to ask a Yolgnu (cited by Rapley, 2003) lawman from Arnhem Land, Australia and a Los Angeles movie star for their ‘subjective evaluations’ of the QOL, what confidence might we have that these estimations had any thing in common? Could we be confident that the ‘thing’ being ‘subjectively
evaluated’ was the same thing in both cases? The very multidimensionality’ built into the WHO QOL’s definition and the cultural relativism central to Goode’s almost certainly guarantees that whatever ‘QOL’ is for a Yolgnu lawman, it is not tall the something as it is for Harrison Ford.

A similar set of concerns arises, but for the opposite reasons, with another candidate definition. Define QOL as: The degree to which a person enjoys the important possibilities of his or her life . . . this definition can be simplified to ‘How good is your life for you?’

In avoiding specificity about the component domains of QOL Woodill et al. (1994) dodge the difficulties caused by the WHO’s specificity. The fact that the relationship between an Inuit hunter and ‘salient features of the environment’ is utterly different from that obtaining between a New York lawyer and her environment is accommodated, but at the price of a definition of QOL that is far from universal. As each individual has different ‘important possibilities’ in their life and the extent to which they ‘enjoy’ them is likely to be variable, the concept becomes so individually-specific as to be of little use for comparing the QOL of different population groups. Such definitions then result in a formal operationalization of the construct that remains not only completely culturally relative but also individually specific.

Similarly problematic is the definitional preamble advanced by (Schalock & Parmenter 2000) in the consensus document on QOL produced for the International Association for the Scientific Study of Intellectual Disability. They write that:

It is necessary to understand the semantic meaning of the quality of life concept and its use throughout the world to appreciate fully its importance and relevance to persons. In reference to its meaning, ‘quality’ makes us think of the
excellence or exquisite standard associated with human characteristics and positive values such as happiness, success, wealth, health and satisfaction; whereas, ‘of life’ indicates that the concept concerns the very essence or essential aspects of human existence.

This account again fails the test of universality at the same time as endeavoring to address it. Quite what the ‘essence’ of human existence is has been devilled philosophy since Plato (as Schalock & Parmenteracknowledge) and there is, as yet, no sign of a ‘consensus’ on the question. Similarly, to claim that values such as happiness, success, wealth, health and satisfaction are universally ‘positive’ is simply to be blinded by ethnocentrism. Health, wealth and the pursuit of happiness may be the essence of the American dream, but to assert that this is true of humanity as a whole is intellectual and cultural imperialism. Later it is observed that:

Quality of life encompassed the basic conditions of life such as adequate food, shelter and safety plus life enrichers such as inclusive social, leisure and community activities. These enrichers are based on the individual’s values, beliefs, needs and interests.

Again attempts at universality become immediately enmeshed in Western middle-class values. That is ‘life enrichers’ have every possibility of being one thing in Ulan Bator and quite another in San Diego. The taken-for-grantedness of the specification of ‘life enriches’ such as ‘leisure’ neglects the fact that the very idea of ‘leisure’ is, in and of itself, an almost entirely modern Western concept which has little, if any, meaning – in the Western Anglophone sense of sufficient spare time and disposable income to engage in non-productive activities – if one is a rag picker living
in Calcutta or an Indonesian piece worker manufacturing ‘leisure’ goods like Nike trainers for Western consumers.

2.3: REVIEW OF PREVIOUS STUDIES

Review of previous studies done for this study, is arranged under following headings:

- Psycho-Somatic disorders among delinquents and normal juveniles.

- Quality of life among delinquents and normal juveniles.

- Relationship between Psycho-Somatic disorders and quality of life.

- Influence of secondary variables (age, education, father’s occupation) on Psycho-Somatic disorders and quality of life of delinquents and normal juveniles.

2.3.1: Psycho-Somatic disorders among delinquents and normal juveniles

This part presents a variety of statistics about Psycho-Somatic illness as well as notes to various aspects of psychosomatic disorders. The term ‘prevalence’ of Psycho-Somatic illness usually refers to the estimated population of people who are managing Psycho-Somatic illness at any given time. The term ‘incidence’ of Psycho-Somatic illness refers to the annual diagnosis rate, or the number of new cases of Psycho-Somatic illness diagnosed each year.

Kim, (2007) in a study has examined the differences of coping strategies, sexual abuse, physical abuse and Psycho-Somatic symptoms between student adolescents and delinquent adolescents and explored the extent of influence of
Psycho-Somatic symptoms and coping strategies to delinquent behavior among Korean adolescents. The research design of this study was cross-sectional nation-wide survey using Mental Health Questionnaire for Korean Adolescents (MHQKA).

Subjects serving for this study were consisted of 2086 including 1230 student adolescents and 856 delinquents’ adolescents, using the proportional stratified random sampling method. Their age range was from 12 to 18. Data were analyzed by IBM computer using SAS program. Statistical methods employed for this study were Cranach’s Alpha for reliability, chi2, t-test and path analysis etc.

The results of this study were as follows:

- Delinquent adolescents showed the more sexual abuse, physical abuse, Psycho-Somatic symptom I, II, III and IV than student adolescents.
- Delinquent adolescents showed the more negative coping strategies such as cognitive avoidance, behavioral avoidance and consequently higher delinquent behavior than student adolescents.
- The most powerful contributing variables on delinquent behavior among Korean adolescents were sexual abuse, Psycho-Somatic symptom I, physical abuse, behavioral avoidance coping strategies, cognitive avoidance coping strategies in this order named.

The results of his study confirmed the relationship between Psycho-Somatic symptoms and coping strategies and delinquent behavior. However, in view of the cross-sectional study character of the present study one needs to be cautious in interpretation on the relationship between Psycho-Somatic symptoms and coping strategies and delinquent behavior. Several potential processes may underlie the relationship among these variables.
Another study conducted by Kivivuori, (2000) on Delinquent behavior, Psycho-Somatic symptoms and the idea of 'Healthy Delinquency'. He examined the association between self-reported delinquent behavior and Psycho-Somatic symptoms in a nationally representative sample of 15-16 year old Finnish adolescents. Some theorists have suggested that Psycho-Somatic symptoms are related to inability to break culturally given norms. If this is so, delinquents should have fewer symptoms than non-delinquents. To assess this idea, two hypotheses are formulated: delinquency is associated with decreased symptoms (the 'hydraulic' hypothesis), or delinquency is associated with increased symptoms (the 'stress' hypothesis). In support of the second hypothesis, the results indicate that delinquency and Psycho-Somatic symptoms are positively associated. The effect of delinquency on symptoms is robust in the presence of a number of control variables. The findings are discussed i. a. from the point of view of increasing research interest in the positive effects of delinquency. While positive effects are likely to exist in specific contexts, delinquency as such does not lead to a reduction of Psycho-Somatic symptoms.

Shatri, (2004) in a study on ‘Surveillance of Psycho-Somatic disorders in internal medicine in Cipto-Mangunkusumo Hospital, Jakarta, Indonesia’ examined the certain characteristics of patients who suffer from Psycho-Somatic disorders.

His results showed that patients consisted of those with vegetative imbalance (multiple Psycho-Somatic syndrome) (30.2%), dyspepsia (20.8%), functional heart disease (11.3%) and others 1%-6%. All of SPD consisted of chronic disease, such as hypertension (38.3%), diabetes mellitus (29.8%), bronchial asthma (10.6%), coronary artery disease (6.4%) and others 2%-5%.
According to Diagnostic and Statistical Manual of Mental Disorders, fourth edition, among the Psycho-Somatic patients, 52.7% met the criteria for anxiety, 29.3% for depression, 14.2% for mixed anxiety and depression and 3.8% unclear. The psychosocial stressor groups were family problems (38%), physical conditions (16%), work-related problems (13.4%), marriage problems (8.4%) and others (1%-4%).

The most common physical symptoms of Psycho-Somatic disorders were functional. Common functional Psycho-Somatic disorders were multiple Psycho-Somatic syndrome, dyspepsia and functional heart disease. Structural disorders found were chronic diseases. There was no difference in prevalence between males and females. The most frequent functional disorders were more commonly found among those less than 40 years of age, while those with structural disorders were more common among patients 40 years of age or more. The psychological diagnoses were anxiety and depression. The most frequent psychological stressors were family problems, medical conditions, work-related problems and marriage problems.

Brill (2001), Psycho-Somatic symptoms are by definition clinical symptoms with no underlying organic pathology. Common symptoms seen in pediatric age group include abdominal pain, headaches, chest pain, fatigue, limb pain, back pain, worry about health and difficulty in breathing. These, more frequently seen symptoms should be differentiated from somatoform or neurotic disorders seen mainly in adults. The prevalence of Psycho-Somatic complaints in children and adolescents has been reported to be between 10 and 25%. These symptoms are theorized to be a response to stress.
Potential sources of stress in children and adolescents include schoolwork, family problems, peer pressure, chronic disease or disability in parents, family moves, psychiatric disorder in parents and poor coping abilities. Characteristics that favor Psycho-Somatic basis for symptoms include vagueness of symptoms, varying intensity, inconsistent nature and pattern of symptoms, presence of multiple symptoms at the same time, chronic course with apparent good health, delay in seeking medical care and lack of concern on the part of the patient. A thorough medical and psychosocial history and physical examination are the most valuable aspects of diagnostic evaluation. Organic etiology for the symptoms must be ruled out. Appropriate mental health consultation should be considered for further evaluation and treatment.

**Iran**

Regarding prevalence of various Psycho-Somatic disorders among delinquents and normal juveniles no studies have been done to date in Iran. Not only on this topic, but there are few studies on other groups as well. For example Riahi (2010) in his study on prevalence of symptoms of Psycho-Somatic disorders among spouses of soldiers killed in the war, found that 54.4% of Psycho-Somatic disorders "medium and above" were affected. The most common Psycho-Somatic disorder, respectively, nervous headaches, shoulder and back pain, knee and elbow joint pain, loss of appetite or anorexia, arthritis and ulcers of the stomach or duodenum. Also significant direct relationship between stress and Psycho-Somatic disorders were found in them.
India

Chaturvedi (1988) in a study was conducted on Psycho-Somatic disorders in psychiatric patients, reports the prevalence of Psycho-Somatic disorders in psychiatric patients in India. The Psycho-Somatic disorders studied were hypertension, peptic ulcer, bronchial asthma, rheumatoid arthritis, ischemic heart disease and chronic pain. 21.5% of psychiatric patients had Psycho-Somatic illnesses. Ten of the fifteen cases had two Psycho-Somatic illnesses. Chronic pain (14.4%) and (9.9%) hypertension were the commonest. Patients with Psycho-Somatic disorders were significantly more often older in age as compared to other psychiatric patients.

Other countries:

Korea

A study was conducted in Korea on “Psycho-Somatic disorders in secondary school students” reports Psycho-Somatic disorders occur quite commonly in adolescence. The aim of the study was to define the prevalence of Psycho-Somatic disorders in the population of secondary school students in Osijek and to compare the groups of students with Psycho-Somatic disorders and Psycho-Somatic reactions with the group of healthy students according to their socioeconomic, family, relational and hereditary contextual factors. A total of 508 secondary school students from Osijek (170 male and 338 female) aged 15-19 years were included in the study.

Study subjects were divided into three groups:
(a) Healthy students \( (n=272 \times 53.54\%) \);

(b) Students with Psycho-Somatic reactions \( (n=190 \times 37.40\%) \);

(c) Students with Psycho-Somatic disorders \( (n=46 \times 9.06\%) \).

Accordingly, 37.40% and 9.06% of student sample suffered from psycho-somatic reactions and psycho-Somatic disorders, respectively. The most common Psycho-Somatic reactions were allergies (22.04%), dysmenorrhea (21.01%) and acne (16.00%). The most common Psycho-Somatic disorders were asthma (4.33%) and hypertension (1.96%). Psycho-Somatic reactions occurred more often in female than in male students. The number of divorced parents was significantly higher in the group of students with Psycho-Somatic disorders (52.20%) as compared with the group of healthy students (15.10%). The rate of Psycho-Somatic disorders was significantly lower among parents of healthy students (28.70%) as compared with parents of students with Psycho-Somatic reactions (47.90%) and those with Psycho-Somatic disorders (67.40%). Study results pointed to a conclusion that hereditary factors (predisposition) and factors representing the source of representing fear in childhood and adolescence (e. g., parents’ divorce) played a significant role in the onset of Psycho-Somatic disorders (Koć, et al. 2004).

Another study conducted in Korea on “Influence of Psycho-Somatic Symptoms, Physical and Sexual Abuse and Coping Strategies on Delinquent Behavior among Korean Adolescents” (Kim, 2003). The aim of the study was to examine the contributing factors related to juvenile delinquency, as well as to identify
the effect of Psycho-Somatic symptoms, physical abuse, sexual abuse and coping strategies on delinquent behavior among Korean adolescents.

The participants in this study consisted of 2,146 adolescents (1,427 male and 719 female adolescents), including 1,350 student adolescents (713 male and 637 female student adolescents) and 796 delinquent adolescents (723 male and 73 female delinquent adolescents). The participants were recruited from two groups (students and delinquents) to identify the differences between these two groups of adolescents in the rate of delinquent behavior or other relevant variables. In this article, the term “student adolescents” refer to adolescents enrolled in school. Among the student adolescents, 629 (46.6%) were in middle school and 721 (53.4%) were in high school. The student adolescents were recruited from the Korean student population (middle and high schools), using a proportional stratified random sampling method. Delinquent adolescents were recruited from 11 juvenile corrective institutions located in South Korea, using a proportional stratified random sampling method. Stratification was based on two variables: the participant's place of residence (urban or rural area) and the type of the institution (middle school, high school, or juvenile corrective institution). The reasons for the delinquents' confinement in the juvenile corrective institutions included violent offenses such as fighting or threatening behavior (44.2%), property offenses such as theft or burglary (23.3%) and alcohol- or drug-related offenses (10.2%) and others (22.3%).

The mean term of stay in the juvenile corrective institutions, from the time of incarceration (as found in official records) to the time of data collection, was 6.2 months. The age of the adolescents in both groups ranged from 12 to 19 years (M = 16.1 years). All study participants were Korean. Approximately 62.6% of the study participants indicated their socioeconomic status as middle class; 21.6%, as lower
class; and 15.8%, as lower–middle class. Among the student and delinquent adolescents, 88.6% and 74.2%, respectively, reported living with both biological parents.

Data were collected over a 3-month period from June 2006 to September 2006 using a cross-sectional design via anonymous, self-report questionnaires administered by a principal investigator and three trained research assistants. The purpose of this study was disclosed to the participants and their parents. The participants were informed that the survey would require 1 to 2 hours of their time. They were asked to read a standard research assent form prior to participation and they were assured that all information provided would be kept confidential. Signed informed consent was obtained by mail from the parents of each participant 1 month prior to data collection. In addition, informed assent was obtained from both the students and the incarcerated adolescents prior to the distribution of the questionnaire.

Only cases in which both the adolescent and his or her parents gave informed consent and assent were included in this study. Of 2,146 participants initially enrolled, 2,009 (1,274 student adolescents and 735 delinquent adolescents) consented to participate. The rate of assent was therefore 93.6% and there was no significant difference between participants and nonparticipants in terms of their demographics. Ethical approval was received from the directors of the juvenile corrective institutions and from the principals of the middle and high schools whose students participated in the study. Data gathering sessions were scheduled at times that were convenient for the participants. Group-administered questionnaires were distributed on a specified day.
To increase the reliability of the responses, the principal investigator and the research assistants walked around the room to monitor the participants and to answer any questions. After removal of cases with incomplete data, the total sample size was 1957 adolescents (91.2% of the total sample), consisting of 1166 student adolescents and 791 delinquent adolescents. The results revealed that delinquent adolescents showed a greater incidence of Psycho-Somatic symptoms, higher levels of physical and sexual abuse and a higher level of less effective coping strategies compared with student adolescents. The path analysis revealed that the likelihood of delinquent behavior among adolescents appeared to be influenced mainly by sexual abuse, Psycho-Somatic Symptoms I and physical abuse, with these three variables having the highest total effect.

United States

Saluja (2004), in his study intended to determine the prevalence, risk factors and risk behaviors associated with depressive symptoms in a nationally representative, cross-sectional sample of young adolescents. A school-based survey collected through self-administered questionnaires in grades 6, 8 and 10 in 1996.

Participants were 9863 students in grades 6, 8 and 10 (average ages, 11, 13 and 15).

Results: Eighteen percent of youths reported symptoms of depression. A higher proportion of females (25%) reported depressive symptoms than males (10%). Prevalence of depressive symptoms increased by age for both males and females. Among American Indian youths, 29% reported depressive symptoms, as compared with 22% of Hispanic, 18% of white, 17% of Asian American and 15% of African
American youths. Youths who were frequently involved in bullying, either as perpetrators or as victims, were more than twice as likely to report depressive symptoms as those who were not involved in bullying. A significantly higher percentage of youths who reported using substances reported depressive symptoms as compared with other youths. Similarly, youths who reported experiencing somatic symptoms also reported significantly higher proportions of depressive symptoms than other youths.

Depression is a substantial and largely unrecognized problem among young adolescents that warrants an increased need and opportunity for identification and intervention at the middle school level. Understanding differences in prevalence between males and females and among racial/ethnic groups may be important to the recognition and treatment of depression among youths.

As under recognized and under treated as depression is among adults, it is even more so among children and adolescents. Studies have estimated that depression affects up to 8.3% of older adolescents in the United States, Saluja (2004).

**International Comparison**

An epidemiological survey was carried out in Montreal (Canada), Plattsburgh (USA) and Lodz (Poland) to test the hypothesis that certain Psycho-Somatic disorders show a low lifetime prevalence in schizophrenic patients (total n = 665). The same method for collection and evaluation of demographic and clinical data was used in order to establish the lifetime prevalence of peptic ulcer (PU), bronchial asthma (BA), neurodermatitis (ND) and rheumatoid arthritis (RA) in the patients as well as in their
nuclear families. Low values of lifetime prevalence were found in schizophrenic patients in chronic hospitals as compared with those in general-university hospitals. Similarities were found in age and sex related patterns of these Psycho-Somatic disorders in both samples. However, PU showed higher prevalence and BA, ND and RA showed lower prevalence in the Polish sample (Ramsay, 1982).

2.3.2: Quality of life among delinquents and normal juveniles

Sawyer (2010) in his study on ‘The mental health and wellbeing of adolescents on remand in Australia’ compared the nature and prevalence of mental health problems, prevalence of suicidal ideation and behavior and health-related quality of life of 13-17 year olds on remand with that of 13-17 year olds in the general community. Self reported questionnaires completed by 13-17 year olds who were remanded in South Australia in 2008/9 (N =159), 13-17 year olds who participated in the Child and Adolescent Component of the National Survey of Mental Health and Well-being in Australia (N = 1283) and 13-17 year olds who participated in the Western Australian Aboriginal Child Health Survey (N = 1100). Mental health problems were identified using the Youth Self-Report and the Strength and Difficulties Questionnaire. Health-related quality of life was assessed using the Child Health Questionnaire.

His study results showed a total of 50.0% (95% CI, 42.3-58.3) of adolescents on remand versus 18.9% of adolescents in the community scored above the recommended cut-off score on the Youth Self-Report. Among Indigenous adolescents, 55.8% (95% CI, 41.3-69.5) on remand versus 32.1% in the community scored above the recommended cut-off score on the Strength and Difficulties Questionnaire.
Among those on remand, 19.1% (95% CI, 13.2-26.2) reported making a suicide attempt during the previous 12 months compared to 4.3% in the community. Health-related quality of life was significantly worse among adolescents on remand than adolescents in the community. These differences remained after adjusting for differences in the demographic characteristics of the two groups of adolescents. Compared with adolescents in the community, both Indigenous and non-Indigenous adolescents on remand experience a wide range of problems, including poorer mental and physical health, a higher prevalence of suicidal ideation and behavior, greater family adversity and poorer school attendance. This broad range of problems needs to be effectively addressed to enable adolescents on remand to become active and productive members of their communities.

Topolski, (2001) in a study assessed the association between health-risk behaviors and self-perceived quality of life among adolescents. A sample of 2801 students (957 seventh and eighth graders and 1844 ninth through twelfth graders) completed the Teen Assessment Survey (TAP) and the surveillance module of the Youth quality of life Instrument (YQOL -S). TAP responses were used to determine health-risks related to tobacco use, alcohol use, illicit drug use and high risk sexual behavior. Separate multivariate analyses of variance showed mean differences in contextual and perceptual items of the YQOL -S for each health-risk behavior. Differences among engagers (adolescents who often engage), experimenters (occasionally engage) and abstainers (never engage) in the health-risk behavior were evaluated by gender and junior/senior high school groups.
In the end, he found that: in general, adolescent abstainers reported higher quality of life (QOL) than engagers and experimenters on YQOL -S items. Adolescents who engaged in multiple risk behaviors scored even lower than those who engaged in only one health-risk behavior. Experimenters tended to rate their QOL more similar to that of abstainers than to that of engagers.

Mazur, (2004) in his study defined the risk behavior syndrome and its influence on subjective health and life satisfaction in adolescents. His study was based on the HBSC study (HBSC - Health Behavior in School Aged Children. A WHO Cross-National Collaborative Study) carried out in Poland in 2002. The sample (N=2152) was selected as representative of pupils from III grade of secondary schools (mean age 15.7). Multivariate logistic regression models were estimated to assess the risk of poor health, frequent psychological or somatic complaints and low life satisfaction in relation to number of escalated risk behaviors, gender and place of residence, family affluence and school achievements.

He concluded that the number of risk behaviors is increasing dramatically in adolescents from lower social classes and in students with poor school achievement. Boys are less likely to report poor health and low life satisfaction, but more likely than girls to be involved in multiple health compromising behaviors. Adolescents engaged in 4 or more risk behaviors, comparing to not engaged, were at higher risk of poor health (OR=2.39; CI (OR)= (1.51-3.78)) and low life satisfaction (OR=1. 65; CI (OR)= (1.06-2.58)). In girls even single risk behavior resulted in negative health outcome.
Fradkin, (2012) in his study examine whether Asian American youth experience disparities in quality of life (QL) compared with Hispanic, African American and white youth in the general population and to what extent socioeconomic status (SES) mediates any disparities among these racial/ethnic groups. Data were obtained from the Healthy Passages study, in which 4,972 Asian American (148; 3%), Hispanic (1,813; 36%), African American (1,755; 35%) and white (1,256; 25%) fifth-graders were enrolled in a population-based, cross-sectional survey conducted in three U.S. metropolitan areas. Youth reported their own QL using the Peds QL and supplemental scales. Parents reported youth's overall health status as well as parent's education and household income level. Asian American youth experienced worse status than white youth for three of 10 QL and well-being measures, better status than Hispanic youth on six measures and better status than African American youth on three measures. However, the observed advantages for Asian American youth over Hispanic and African American youth disappeared when the marked SES differences that are also present among these racial/ethnic groups were taken into account.

In contrast, the differences between Asian American and white youth remained after adjusting for SES. These findings suggest that the disparities in QL that favor white youth over Asian American youth exist independent of SES and warrant further examination. In contrast, the QL differences that favor Asian American over Hispanic and African American youth may be partly explained by SES. Interpretations are limited by the heterogeneity existing among Asian Americans.
Swallen, (2005) conducted a study on Overweight, Obesity and Health-Related quality of life among Adolescents.

His Objectives were Childhood and adolescent overweight and obesity have increased substantially in the past 2 decades, raising concerns about the physical and psychosocial consequences of childhood obesity. We investigated the association between obesity and health-related quality of life in a nationally representative sample of adolescents. A cross-sectional analysis was conducted using the 1996 National Longitudinal Study of Adolescent Health, a nationally representative sample of adolescents in grades 7 to 12 during the 1994–1995 school year and 4743 adolescents with direct measures of height and weight.

Using Centers for Disease Control and Prevention growth charts to determine percentiles, we used 5 body mass categories. Underweight was at or below the 5th percentile, normal BMI was between the 5th and 85th percentiles, at risk for overweight was between the 85th and 95th percentiles, overweight was between the 95th and 97th percentiles + 2 BMI units and obese was at or above the 97th percentile + 2 BMI units. Four dimensions of health-related quality of life were measured: general health (self-reported general health), physical health (absence or presence of functional limitations and illness symptoms), emotional health (the Center for Epidemiologic Studies Depression Scale and Rosenberg’s self-esteem scale) and a school and social functioning scale.

Finally, he found a statistically significant relationship between BMI and general and physical health but not psychosocial outcomes. Adolescents who were overweight had significantly worse self-reported health (odds ratio [OR]: 2.17; 95% confidence interval [CI]: 1.34–3.51), as did obese adolescents (OR: 4.49; 95% CI: 2.1--
87–7. 03). Overweight (OR: 1. 81; 95% CI: 1. 22–2. 68) and obese (OR: 1. 91; 95% CI: 1. 24–1. 95) adolescents were also more likely to have a functional limitation. Only among the youngest adolescents (ages 12–14) did we find a significant deleterious impact of overweight and obesity on depression, self-esteem and school/social functioning.

2.3.3: Relationship between Psycho-Somatic disorders and quality of life

Isshiki (2004) in his study examined the relationship between lifestyles and psychosomatic symptoms in children; he conducted a self-administered questionnaire survey of elementary school students and junior high school students in Japan. His results showed that for both boys and girls, each cross-sectional analysis revealed a strong relationship between lifestyle behaviors and psychosomatic symptoms. Psychosomatic, symptoms scores varied according to daily hours of sleep, eating of breakfast, having strong likes and dislikes of food, bowel habits and daily hours of television watching. Both boys and girls with “good” lifestyle, behaviors evaluated by the HPI (Health Practice Index) showed lower scores for psychosomatic symptoms.

These findings show that the lifestyle behaviors of children are significantly associated with psychosomatic symptoms and suggest that poor lifestyle behaviors are likely to increase physical and psychological health risks.

Novikova, et. al. (2002) in a study on “Quality of life in psychosomatic diseases” were examined 104 patients (58 females and 46 males) with these diseases. Among them there were 35 patients with ‘Coronary Heart Disease’, 28 with ‘Arterial Hypertension’, 21 with type 2 ‘Diabetes Mellitus’ and 20 with duodenal ‘Peptic
Ulcer’. A matched group comprised 26 patients with ‘Acute Pneumonia’. Low ‘Life Quality’ was determined according to all 3 components: somatic, mental and social. The lowest ‘Life Quality’ was noted in patients with ‘Coronary Heart Disease’, ‘Arterial Hypertension’ and ‘Diabetes Mellitus’, indicating severity of these diseases accompanying marked changes in all spheres of life. ‘Peptic ulcer’ was characterized by higher values that showed a fair ‘Life Quality’ and that were due to a more favorable course of the disease. Patients with ‘Acute Pneumonia’ had a high ‘Life Quality’, which suggests that this acute disease does not lower ‘Life Quality’ or accompany pronounced changes in human life. By and large, psycho-somatic patients’ ‘Life Quality’ depended on age, severity, stage and duration of a disease, disability.

Another study was conducted by Mladen (2011) et. al, on “Self-assessment of well-being as an indicator of quality of life of former war prisoners”. Mladen in his work examined the impact of war on the population is vast, especially when it comes to those who were directly affected by war, among other things as concentration camp detainees. Because of the specific war experience of this population it is important to better understand the possible contribution of key socio-demographic variables, war traumatization and acute disturbances in mental health to their subjective assessment of their own well-being, which represents a psychological category and is based on a subjective assessment. The starting point is a theoretical precept according to which individual characteristics, together with war experience, can have repercussions on mental health and eventually on the general well-being of an individual and their quality of life. The study comprised of 184 participants who had given their informed consent for participation and filled out complete questionnaires.
The participants were a convenient sample of male persons who had survived war captivity in the Homeland War in the period from 1991 to 1995. The study was conducted as part of the physical examinations at the University Hospital "Fran Mihaljević" in Zagreb. The data was collected using several self-evaluation measuring instruments one of which served to collect socio-demographic data, two to collect data on the participants' mental health, one for the data on the participants' combat and war experiences and one to assess the participants' well-being. The data obtained suggest that only avoidance and arousal symptoms and psychosomatic difficulties are predictors of the well-being of persons who have experienced war captivity.

Ong, et. al, (2006) in a study on “Gender differences and quality of life in Atrial fibrillation: The mediating role of depression” investigated gender differences, depression and health-related quality of life (QOL) in a cross-sectional sample of patients with a trial fibrillation. His cross-sectional study involved a convenience sample of Atrial fibrillation (AF) patients from two tertiary-care clinics in Toronto, Canada. Ninety-three AF patients completed psychometrically validated measures of generic QOL and depression. Mediation analyses evaluated the relationship between gender and QOL using depression as mediating variable.

Results showed relative to male patients, female patients reported lower physical, but not mental, QOL. Gender was associated with both depression and physical QOL, while depression was correlated with poorer physical QOL. Path analyses demonstrated that depression significantly mediated the relationship between gender and physical QOL.
Among AF patients, female patients report lower physical QOL relative to male patients and this relationship may be mediated by self-reported symptoms of depression. Albeit correlational, the findings underscore the need to develop a better understanding of the role of depression in physical QOL, especially when considering the burden of AF in women.

Emery, et. al. (2004), conducted a study on “Gender Differences in Quality of Life among Cardiac Patients”. Prior studies of quality of life among cardiac patients have examined mostly men, but their study evaluated gender differences in quality of life and examined the degree to which social support was associated with quality of life. A sample of 536 patients (35% women) was recruited during a 14-month period from the inpatient cardiology service of a University-based hospital. Participants completed assessments at baseline and at 3-month intervals over the subsequent 12 months, for a total of 5 assessments. Measures at each assessment included quality of life [Mental Component Score (MCS) and Physical Component Score (PCS) from the Medical Outcomes Study-Short Form 36] and social support [Interpersonal Support Evaluation List-Short Form].

Results showed a total of 410 patients completed the baseline assessment and at least one follow-up and were included in the data analyses. Linear mixed effects modeling of the MCS score revealed a significant effect of gender (p = .028) and time (p < .001), as well as a significant interaction of gender by social support (p = .009). Modeling of the PCS revealed a significant effect of gender (p = .010) and time (p < .001). Women with cardiac disease indicated significantly lower quality of life than men with cardiac disease over the course of a 12-month longitudinal follow-up. Social support, especially a sense of belonging or companionship, was significantly associated with emotional quality of life (MCS) among women. Strategies to increase
social support may be important for health and well-being of women with cardiac disease.

Carlson, et. al. (2003) conducted a study on “Mindfulness-Based Stress Reduction in Relation to Quality of Life, Mood, Symptoms of Stress and Immune Parameters in Breast and Prostate Cancer Outpatients”. Their study investigated the relationships between a mindfulness-based stress reduction meditation program for early stage breast and prostate cancer patients and quality of life, mood states, stress symptoms, lymphocyte counts and cytokine production.

Methods: Forty-nine patients with breast cancer and 10 with prostate cancer participated in an 8-week MBSR program that incorporated relaxation, meditation, gentle yoga and daily home practice. Demographic and health behavior variables, quality of life (EORTC QLQ C-30), mood (POMS), stress (SOSI) and counts of NK, NKT, B, T total, T helper and T cytotoxic cells, as well as NK and T cell production of TNF, IFN-γ, IL-4 and IL-10 were assessed pre- and post intervention.

Results: Fifty-nine and 42 patients were assessed pre- and post intervention, respectively. Significant improvements were seen in overall quality of life, symptoms of stress and sleep quality. Although there were no significant changes in the overall number of lymphocytes or cell subsets, T cell production of IL-4 increased and IFN-γ decreased, whereas NK cell production of IL-10 decreased. These results are consistent with a shift in immune profile from one associated with depressive symptoms to a more normal profile. MBSR participation was associated with enhanced quality of life and decreased stress symptoms in breast and prostate cancer patients. This study is also the first to show changes in cancer-related cytokine production associated with program participation.
2.3.4: Influence of secondary variables (age, education, father’s occupation) on Psycho-Somatic disorders and quality of life of delinquents and normal juveniles.

Levine, et. al. (1985) conducted a study on “Risk Factor Complexes in Early Adolescent Delinquency”. The study was undertaken to document the existence of multiple forms of risk among a sample of 53 delinquents between the ages of 11 and 16 years. When compared with an age-matched comparison group from the same region, the delinquent youngsters were far more likely to show clusters of vulnerability in the areas studied (medical, neurodevelopmental, educational, behavioral, socioeconomic status, family disruption and cognitive). When cluster analysis was applied to the delinquent group, three subgroups emerged sharing certain traits and accounting for 70% of the cohort. The early identification of so-called risk factor complexes may be helpful in the prevention of delinquency.

A study was conducted by Chaturvedi, (1988) on Psycho-Somatic disorders in psychiatric patients, reports the prevalence of Psycho-Somatic disorders in psychiatric patients in India. The Psycho-Somatic disorders studied were hypertension, peptic ulcer, bronchial asthma, rheumatoid arthritis, ischemic heart disease and chronic pain. Ten of the fifteen cases had Patients with Psycho-Somatic disorders were significantly more often older in age as compared to other psychiatric patients.

A study was done on socio-economic status as a cause and consequence of Psycho-Somatic symptoms from adolescents to adulthood. All 16 year old 9th grade school pupils completed questionnaire at school. Subjects were followed up using postal questionnaires when aged 22 and 32 years. Females reported higher scores of Psycho-Somatic symptoms than males at 16, 22 and 32 years of age. Higher rates of
Psycho-Somatic symptoms were found among females of manual class origin at 16 years. The results highlight the need of greater consideration of Psycho-Somatic symptoms particularly in adolescence, in later socio-economic outcomes (Huurre, 2005).

Shatri, (2004) in a study on ‘Surveillance of Psycho-Somatic disorders in internal medicine in Cipto-Mangunkusumo Hospital, Jakarta, Indonesia’ found that most frequent functional disorders were more commonly found among those less than 40 years of age, while those with structural disorders were more common among patients 40 years of age or more.

A study established by Kane, (2009) on the existence and extent of work stress in nurses in a hospital setting, identifying the major sources of stress and finding the incidence of Psycho-Somatic illness related to stress. Result of the study has shown increase in age or seniority did not significantly decrease stress.

A psychiatric epidemiologic study conducted by Arnon, (1979) and covering a 13-year period found that well over one third of the adult population had at least one Psycho-Somatic disorder recorded during that time. The rates were consistently higher for women and increased with age. Education exerted a different influence on men and women.

A study conducted by Tret’iakov, (2011) on “Psycho-Somatic disorders in combined occupational and cardiovascular diseases”. A group of individuals with occupational diseases caused by chemical factors demonstrate higher incidence and severity of depression, frustration, rigidity, cognitive and sleep disorders, if compared to the group of individuals with occupational diseases caused by physical factors. In the occupational diseases group, encephalopathy is seen more frequently, individuals
subjected to physical factors have prevailing encephalopathy of I and II grades, those subjected to chemical factors–of II-III and III grades, more severe encephalopathy in the group of chemical factors is seen among the individuals subjected to uranium compounds.

Jörngården, (2006) in his study on “Measuring health-related quality of life in adolescents and young adults: Swedish normative data for the SF-36 and the HADS and the influence of age, gender and method of administration” found that: males reported better health-related quality of life than females and the young adolescents (13–15 years old) reported better Health-Related Quality Of Life than the two older age groups. The older participants (16–23 years old) reported higher scores when interviewed over the telephone than when they answered a postal questionnaire, a difference which was more marked among females. Interestingly, the 13–15-year-olds did not react to the mode of administration to the same extent.

Many individual and household characteristics are related to the level of people’s income. Employment status, education level, health status, age, gender, family size and composition are all relevant factors. The survey data show that unemployed people have equalized household income amounting to only about half of that of employed and self-employed persons (Anderson, 2009).

Less education is also associated with a lower level of equalized income and this is found for all countries in the survey. The European Quality of Life Survey data also show that health status might have an impact on the level of income.
Respondents reporting very poor or poor health have household income that is about 35% lower than the income of people reporting very good or good health. Next to unemployment and poor health, losing a partner due to divorce or death is also associated with lower income. According to European Quality of Life Survey data, people who are widowed or divorced have on average about 20% less income than those who are married or live with a partner.

Living in a rural area is associated with lower household income, particularly in low-income countries. Respondents from rural areas report an average income that is about 20% lower than that of people from urban areas. There is no significant difference in the average income between those living in urban and rural areas (Anderson, 2009).

Women have lower incomes than men. Women report income amounting to on average 15%–20% less than that for men; the difference is smaller, with women having an income that is on average 8% lower than that of men. European Quality of Life Survey data show that age also matters: in the majority States, the lowest income is found among people aged 18–24 years.

**Household income and deprivation**

Focusing on disposable income is crucial for assessing the level of current financial resources of individual’s and households. However, information on the level of household income alone is not sufficient for understanding the economic situation of households and levels of poverty or well-being.
For this purpose, a number of additional indicators are informative, revealing more about the circumstances in which people live, how they use their resources, how they manage to meet different needs, whether they experience material deprivation and how economic strain confronts them. The European Quality of Life Survey offers a large number of monetary and non-monetary indicators on the economic situation of individuals and households, as well as a good selection of subjective indicators of well-being and quality of life (Anderson, 2009).

**Household debts and financial vulnerability**

Some additional non-monetary indicators for the financial situation of households offer the possibility of further examining problems that people face and the disadvantages they experience. Households in the lowest quartile of the income distribution report problems with paying utility bills three times more often than households in the highest quartile; this applies in all three country clusters and many of the individual countries (Anderson, 2009).