CHAPTER II
REVIEW OF RELATED LITERATURE
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Review of related literature is a crucial aspect in the planning of a new study. It helps to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for a new significant investigation. Although research for related studies is time consuming yet it proves to be fruitful phase. It acts as a lighthouse to discover what is already known, what are the pitfalls of previous studies and also woens our outlook, knowledge, insight and experience with regard to subject. It helps to know what methods of attack have been used successfully.

Keeping in view the objectives of the present research, studies pertaining directly or indirectly to the mental health of adolescents in relation to moral judgement, intelligence and personality have been presented in this chapter.

2.1 Studies Related to Mental Health and Moral Judgement
2.2 Studies Related to Mental Health and Intelligence
2.3 Studies Related to Mental Health and Personality
2.4 Studies Related to Mental Health and other variables
2.5 Studies Related to Gender Differences in Mental Health

2.1 STUDIES RELATED TO MENTAL HEALTH AND MORAL JUDGEMENT

Narayanan (1978) conducted a study on seventy Irulas of Palamalai hills (a tribe of South India) that were selected through systematic random technique. A comprehensive measure of mental health developed by Koruhauser (1965) was adopted and administered. This measured mental health in six categories-manifest anxiety, self-esteem, hostility, sociability, satisfaction with life and moral judgement. The results were: Irulas were found to have greater freedom from anxiety and emotional tension and also free from
hostility. They had greater sociability, poor self-esteem, lesser life satisfaction and moral judgement.

McColgan et al. (1983) studied the relationship of moral judgement to a naturalist measure of antisocial behaviour - delinquent and pre-delinquent behaviour. The results indicate that delinquents do not have low scores on the Kohlberg moral judgement.

Sigman et al. (1983) found the moral judgement shown by 20 emotionally disturbed, cognitively delayed adolescents and reported that shy and submissive adolescents were less capable of reasoning about moral issues than adolescents who were more assertive and socially engaged.

Veneziano (1988) examine correlates of moral judgements among juvenile delinquents on a sample of 411 adolescent offenders and the result indicate that juvenile delinquents have lower developmental stages of moral reasoning than their non delinquent’s counterparts.

Mistry et al. (1999) studied the relationship between moral judgement and psychopathic traits in a healthy population. The results indicate that in this healthy control population moral judgement scores do not show a significant relationship with psychopathy scores.

Tavecchio et al. (1999) studied the impact of the individual’s life condition on the relation between moral judgement and delinquent behaviour was investigated on a sample of 162 adolescents and young adults. The sample consisted of two groups: homeless youth and institutional youth. Results indicate that institutional youth have conventional level of moral reasoning associated with lower levels of delinquency in four domains of deviant behaviour, including violence and vandalism, no such association was found for homeless youth.

Varicoe et al. (2003) show that moral judgements and decision making in health care are highly relational and contextual.

Jan et al. (2006) conducted a study to investigate whether
juvenile delinquents use lower levels of moral judgement than their non-delinquent age-mates and results show a lower stage of moral judgement for juvenile delinquent. Moral judgement is strongly associated with juvenile delinquency even after controlling for socio-economic status, gender, age and intelligence.

Stein et al. (2006) analysis the moral value scale based on responses of delinquent and non-delinquent boys of high school. The result indicates that the delinquents do not necessarily ignored moral values but rather become committed to or adopt the value of deviant subculture.

Hammond and Emler (2007) studied the attitudes to institutional authority, strength of support for moral values and maturity of socio-moral reasoning have all been identified as potential predictors of adolescent delinquency on a sample of 12–15-year-old boys (N = 789), after checking for effects of age, IQ, social background and ethnicity. The results indicate that lack of an association between moral reasoning level and delinquent conduct.

Jurkovic (2007) studied moral immaturity of juvenile delinquents and the result indicates that no reliable difference between delinquents and non-delinquents youth is moral reasoning.

Desmond et al. (2009) study revealed that only religiosity has a significant effect on delinquent behaviour when individuals also have strong moral beliefs. In other words, without moral beliefs, religiosity may have no effect on delinquency.

### 2.2 STUDIES RELATED TO MENTAL HEALTH AND INTELLIGENCE

Mirchandani (1970) reported an inverse relationship between intelligence and intensity of behaviour problems.

Dutta (1981) conducted a study on "mental health in families." He revealed that the period of transition from adolescence to an adult is more difficult, many may be victims of mental ill health. Development of mind, body and mental health depends on certain
interdependent factors like intelligence, sex gonads, nutrition, fresh and sunlight, injuries, race, culture, position in family etc.

Mangotra (1982) conducted a study on the topic, "Mental health as a correlate of intelligence, education academic achievement and socioeconomic status." He reported that (1) girls scored higher in intelligence test and in the socioeconomic questionnaire than boys; (2) girls appeared to possess better mental health, were capable of facing the realities around them and in a position to tide over the mental health disequilibrium; (3) the mental health of boys and girls appeared to the considerably influenced by the two factors, namely, intelligence and physical health and (4) the mental life of boys was dominated by the feeling of depression and neurotic behaviour. On the other hand, girls were found to be suffering from a sense of insecurity and anxiety.

Kaur (1982) found that intelligence neither correlates positively with mental health total nor with sub areas of mental health. But intelligence in combination with some of the personality factors best determined the mental health of adolescent girls.

Raveendranath (1983) found that the mental health status of science students with English medium was higher than those of Malayalam medium. The sub sample equated on the basis of intelligence, interest and mental health status of English medium was higher than those of Malyalam medium. The sub sample equated on the basis of high socio-economic status and high mental health status did not show significant difference between English and Malyalam medium classes.

Sharma (1984) conducted a study on the topic, "the effects of social disadvantages on mental health and mental health of adolescents" and reported significant differences in the IQs of advantaged and disadvantaged adolescents with regard to psychiatric morbidity.

Abraham (1985) found that 23 out of 25 psycho-social variables showed significant correlations with mental health status. 22 psycho-
social variables discriminated between high and low mental health status groups (unselected groups) and 18 psycho-social variables discriminated between high and low mental health status group equaled for intelligence, age and sex. The high mental health status group and low mental health group differed significantly from one another.

Perlmutter and Nyguist (1990) studied the relationship between self-reported physical and mental health and intelligence performance across adulthood. The result indicates that both self-reported physical and mental health accounted for significant variance in intelligence performance, particularly in older adults.

Howe et al. (1993) studied the association between IQ and mental health in children with chronic illnesses. The result showing that the higher risk of behavioural problems in children with neurological disorders compared to children with other chronic illnesses was partly mediated by decrements in IQ.

Sharp et al. (1995) conducted a study on postpartum depression of mothers has any effect on the intellectual development of their sons. The results show that the standardized intelligence test scores of sons of those mothers who experienced postnatal depression in the first year are lower than the scores of boys whose mothers did not suffer from postpartum depression.

Sehgal (1999) conducted a study on adolescents and reported that psychological well-being showed high significant positive correlation with emotional intelligence quotient (EIQ).

Ciarrochi and Anderson (2000) studied that emotional intelligence moderate the relationship between stress and mental health. The result indicates that emotional intelligence is a distinctive construct as well as being important in understanding the relationship between stress and mental health.

Wolfrad and Felfe (2001) examined the relationship between self-perceived emotional intelligence (EI) measured by the Emotional
Intelligence Scale (EIS) and other personality measures including the five-factor-model. The result indicates that self-reported emotional intelligence is mainly associated with personality traits (extraversion, agreeableness, conscientiousness, self-perceived creativity).

Kawano et al. (2001) examined the correlation between IQ and Mini Mental State Examination and regional cerebral metabolic rate of glucose in 26 patients with clinically diagnosed Alzheimer disease (AD). The result suggested Mini mental examination to be an index of dementia severity reflected by general intelligence as shown IQ in AD, and a reduction in the verbal IQ can be used as an index of the left parietal dysfunction.

Gunnell (2002) found that the risk of suicide was two to three times higher in those with lowest intelligence compared with the highest intelligence test scores. This may be due to the importance of cognitive ability in either the etiology of serious mental disorder or an individual’s capacity to solve problems while going through an acute life crisis or suffering from mental illness.

Buelow et al. (2003) studied the behavioural problems, self-concept, and symptoms of depression experienced by children with both low IQ and epilepsy. Results indicated that children in the low IQ group had the most behavioural and mental health problems. Additionally, there were IQ group-by-sex interactions, with females in the low IQ group being at the highest risk for poor self-concept. Findings suggest that children with both epilepsy and low IQ should be carefully assessed for mental health problems.

Dulewicz and Slashi (2003) examined the role emotional self-management such as stress, distress, morale and poor quality of working life in everyday life. They demonstrated that emotional intelligence was strongly correlated with both, physical and psychological health.

Liau et al. (2003) studied the influence of emotional intelligence on problem behaviours in Malaysian secondary school students. The
result found that high school students who show lower levels of emotional intelligence have higher scores on stress, depression and somatic complaints.

Austin (2004) examined intelligence, personality and social support and health in Canadian (N=500) and Scottish (N=204) groups. The result indicates that intelligence is negatively associated with health and positively associated with social network size and quality. Intelligence is strongly associated with personality.

Gottfredson and Deary (2004) studied that intelligence (as measured by an IQ-type test) in childhood predicts substantial differences in adult morbidity and mortality, including deaths from cancers and cardiovascular diseases. The results indicate that intelligence enhances individuals' care of their own health because it represents learning, reasoning, and problem-solving skills useful in preventing chronic disease and accidental injury and in adhering to complex treatment regimens.

Mathews et al. (2004) showed that there exist relationship between emotional intelligence and mental health.

Roger et al. (2004) studied the algebraic structure of the blame schema of moral judgement in a group of 18 patients with Alzheimer's disease (AD) and a control group. Results show no significant differences between the Alzheimer's disease and control groups in their algebraic structure but the Alzheimer's disease group is less capable of taking seriousness into account when apportioning blame.

Singh and Ferric (2004) studied the association among cognitive ability, socioeconomic position, and health and found that cognitive ability was significantly related to coronary health diseases, physical functioning and self-rated health in both sexes and additionally to mental functioning in men. These results suggest that cognitive ability is related to health.

Stanley and Peter's (2004) studied the association between premorbid IQ score and risk of developing schizophrenia, other non
affective psychoses, bipolar disorder, and severe depression. The results indicate lower IQ score was associated with increased risk for schizophrenia, severe depression, and other non affective psychoses, but not bipolar disorder.

Batty and Mortensen (2005) studied the relationship between early-life IQ and the risk of subsequent psychiatric disorder in adulthood. The result indicates that IQ scores were inversely related to risk of psychiatric illness.

Fergusson et al. (2005) examine the extent to which IQ in middle childhood (8-9 years) was prognostic of future outcomes when due allowance was made for confounding personal and social factors. The results indicate that intelligence was largely unrelated to many of these outcomes: crime, mental health, sexual behaviours, and illicit substance dependence after statistical adjustment for early behaviour problems and family background. Strong relationships remained between childhood intelligence and later educational and occupational outcomes.

Mortensen et al. (2005) studied the relationship between IQ test scores in early adulthood and various mental disorders. The result shows that schizophrenia and related disorders, other psychotic disorders, adjustment, personality, alcohol and substance-use-related disorders were significantly associated with low IQ scores.

Geoff and David’s (2006) looks at the association between intelligence and a broad looks at range of health outcomes measured in adolescence. The result indicates that higher intelligence scores were associated with lower depression scores, better general health.

Kanazawa (2006) examined the economic inequality reduces the health and life expectancy of the whole population. The results indicate that more intelligent individuals are better able to recognize and deal with such dangers and live longer. The results also show that income inequality and economic development have no effect on life expectancy at birth, infant mortality and age-specific mortality net of
average intelligence quotient (IQ) in 126 countries. They also show that an average IQ has a very large and significant effect on population health.

Schembri et al. (2006) results revealed that high intelligence to be associated with positive well being; and deficits in intelligence with poor mental health.

Schutte et al. (2006) investigated the relationship between emotional intelligence and health. The result of meta-analysis on the responses of 7898 participants found that higher emotional intelligence was associated with better health.

Kumar et al. (2007) studied that high intelligence is associated with better mental health and less fatigue.

Montes-Berges and Augusto (2007) studies conducted with nurses or nursing students has shown that emotional intelligence is a skill that minimizes the negative stress consequences. Hierarchy regression analysis pointed out that clarity and emotional repair are predictors of social support, and emotional repair is the main predictor of mental health.

Wessel et al. (2008) studied the relationship between emotional-social intelligence (ESI) and each of leadership, caring and moral judgement. The result indicates that positive relationship between ESI and leadership and ESI may be an important construct in caring but ESI was not related to moral judgement.

Gale and Batty (2009) studied the association between intelligence and psychomotor coordination in childhood and health in adulthood. The result indicates that higher intelligent quotient was associated with a reduced risk of psychological distress, fair self rated health, and obesity in adulthood.

Gladys and Frank (2009) examined the 599 Taiwan college students to study the relationships of physical activity, emotional intelligence and health. The results indicate that the physical activity is an effective way to improve the physical, psychological as well as
emotional health of college students.

Glaser et al. (2009) examined the relationship between total intelligence quotient (IQ) score at age 8 years, and depressive symptoms at 11, 13, 14 and 17 years. The result showed that IQ at age 8 years was inversely associated with depressive symptoms at age 11 years, but the association changed direction by age 13 and 14 years when a higher IQ score was associated with a higher risk of depressive symptoms. This change in IQ effect was also found in relation to pubertal stage. At age 17 years, however, sex-specific differences emerged. Whilst the risk effect of higher childhood IQ scores for depressive symptoms declined in females, and some analyses even supported an inverse association by age 17 years, it persisted in males.

Karestan and Terrie (2009) studied the association between childhood IQ and adult mental disorders. The result indicates that lower childhood IQ was associated with increased risk of developing schizophrenia spectrum disorder, adult depression, and adult anxiety. Thus, many patients who seek mental health treatment may have lower cognitive ability.

Knutson et al. (2009) studied the association between childhood IQ and adult mental disorders. The result indicates that lower childhood IQ was associated with increased risk of schizophrenia, adult depression and anxiety.

Simonton and Song (2009) studied the relationships among achieved eminence, IQ, early physical and mental health, and achievement domain. The correlation and regression analyses showed, for these 282 individuals, that eminence is a positive function of IQ and that IQ is a positive function of mental health and a negative function of physical health, implying an indirect effect of physical and mental health on eminence.

Catharine et al. (2010) studied intelligence in early adulthood and subsequent hospitalization for mental disorders. The results
indicate that lower intelligence is a risk factor for the whole range of mental disorders and for illness severity.

Gupta and Kumar (2010) studied the relationship of mental health with emotional and self-efficacy among 200 (100 male and 100 female) college students from Kurukshetra University. The result indicates that emotional intelligence and self-efficacy are positively related with mental health. It also revealed that male students were better than female students in term of mental health, emotional intelligence and self-efficacy.

Jafar and Siti (2010) study examined whether, spiritual intelligence (SI) and emotional intelligence (EI) can be considered as predictor for mental health. The participants in the study were 247 High school students (124 male and 123 female) in the age range of 14-17 years old, at the Gorgan City, north of Iran. The result indicates that mental health can be influenced by spiritual intelligence and emotional intelligence. In addition, the moderated effect of age on the relationship of spiritual intelligence and emotional intelligence with mental health was not found.

Junger and Kampes (2010) studied the cognitive ability and self-control in relation to dietary habits, physical activity and body weight in adolescents. The result indicates that adolescents scoring high on the cognitive ability test have healthier dietary habits and engage more often in physical activity.

Martins et al. (2010) studied a comprehensive meta-analysis of the relation between emotional intelligence and health and showed that emotional intelligence is associated with better health. The weighted average association with mental ($\tilde{r} = 0.36$) and psychosomatic health ($\tilde{r} = 0.33$) was higher, than the association with physical health ($\tilde{r} = 0.27$).

Shabani and Hassan (2010) investigated the link of intelligence with mental health in 247 Iranian of high school students of 8 schools (124 Boy and 123 Girl). The results indicate that there is significant
relationship of intelligence with mental health.

Kwako et al. (2011) determined emotional intelligence (EI) and social support differ in traumatized depressed patients when compared with controls. The result indicates that traumatized depressed participants exhibited lower total emotional intelligence, because of reduction in strategic EI ability, as well as lower levels of social support compared with the control group.

2.3 STUDIES RELATED TO MENTAL HEALTH AND PERSONALITY

Jegde (1980) conducted a study on 145 female and 725 male Freshmen University of Ibadan students to find the relationship between personality and mental health characteristic of Nigerian university students. The result indicates that there was no significant relationship between self-assessed mental healths with neuroticism.

Hirschfeld et al. (1983) examined the influence of the clinically depressed state on personality assessment and result indicates that the clinically depressed state strongly influenced assessment of emotional strength, interpersonal dependency and extraversion.

Srivastava (1983) studied the personality and mental health of primary and secondary teachers. The result indicates that personality types/traits influence the mental health of primary and secondary teachers and extrovert teachers enjoy better mental health as compared to introvert teachers.

Furnham and Barratt (1988) studied three groups of adolescents – delinquent, problem children, control group and the results indicate that there were no difference between the three groups on moral reasoning, but the delinquents had significantly higher neuroticism and psychoticism scores and significantly lower lie score.

Bolger and Eckenrode (1991) studied the social relationship (social contracts and perceived support), personality (extroversion and neuroticism and anxiety). The results indicate that controlling for personality and prior anxiety, social contacts buffered against increase
Joseph et al. (1994) studied the personality correlates of scores on the depression-happiness scale. The result shows that high scores on the Depression-Happiness Scale show that personality is associated with happiness. Happier people were generally shown to have positive self-esteem and internal control. Unhappy people scored higher in neurotic traits.

Savastano et al. (1996) evaluated illness behaviour, personality traits, anxiety and depression in patients with Menière's disease. The results indicate that Meniere’s patients with normal scores and another with severe psychological distress associated with high levels of neuroticism, psychoticism and an abnormal illness behaviour.

Heaven et al. (1996) result shows that a longitudinal analysis of the self-reported delinquency reveals that psychoticism predicts antisocial behaviour more accurately than extroversion or low self-esteem.

Heaven et al. (1996) studied the interrelationship between perceived family functioning; personality dimensions, life satisfaction, and self-concept on 183 Australian adolescents. Moderate inverse relationship was obtained between Eysenck’s psychoticism dimension and perceived family functioning. Eysenck’s Neuroticism dimension demonstrated a significant, yet modest, relationship to perceived family functioning. In comparison to Eysenck personality dimensions, life satisfaction, and self-concept strongly associated with perceived family functioning.

Fyrand et al. (1997) studied the relationship between personality traits, social support and mental health problems was studied in 138 female patients with rheumatoid arthritis (RA). The results revealed that instrumental support was uncorrelated with mental health problems. The effect of emotional support on mental health was spurious and due to personality traits. Companionship had a direct effect on mental health in addition to partially mediating
the effects of both extraversion and neuroticism.

Furnham and Cheng (1999) studied the personality and demographic correlates of happiness and mental health in Britain, China (Hong Kong) and Japan among comparable groups. The result indicates that extroversion is a positive correlate of happiness in all three countries – China, British and Japan. Neuroticism is strongly correlate of mental illness in China and British, but not in Japan. Neuroticism is a negative predictor of happiness, in Japan and British, psychotics' scores were positively associated with mental illness.

Johnson et al. (1999) investigate whether personality disorders (PDs) during adolescence increase the risk psychiatric disorders and suicidality during early adulthood. The results indicate that adolescents in the community with personality disorders are at elevated risk for major mental disorders and suicidal ideation or behaviour during early adulthood.

Uehara et al. (1999) studied the relationship between stress coping and personality in patients with major depressive disorder. The results indicate that task-oriented coping showed a positive correlation with extraversion and frustration tolerance. Emotion-oriented coping was closely associated with neuroticism, esoteric tendencies and isolation tendency. Avoidance-oriented coping was related to extraversion.

Goodwin et al. (2002) conducted a study to determine the relationship between personality factors and mental health services among adults. The result indicates that neuroticism was associated significantly with increase likelihood of mental health services. Conscientiousness and extraversion were associated with decreased likelihood of use of mental health services.

Duggon (2003) studied the relationship between the neuroticism, extraversion and other—five-factor inventory (NEO—FFI) and DSM personality disorders in a consecutive series of mentally
disordered offenders and result indicates that neuroticism have the symptoms of depressed disorder personality.

Matby et al. (2004) results revealed that neuroticism coping-forgiveness factor was associated with poorer mental health and extraversion coping-forgiveness factor was positively related with mental health.

Suurmeijer et al. (2005) studied the relationships between two personality characteristics (neuroticism, extraversion), three types of supportive transaction (emotional support, social companionship, instrumental support) and satisfaction with these transaction, and two aspects of mental health (feeling of anxiety and depressed mood) among 280 patients. The result indicates that people with neurotic personality showed more anxiety and depressed feeling. Extraversion had no direct effect on depression or anxiety. Companionship both transaction and satisfaction, had an independent positive effect on depression but not on anxiety.

Benjamin (2006) examined the associations between five factor model of personality traits and mental health and analyses that higher neuroticism score was associated with worse perceived health and a lower extraversion score was associated with worse perceived health.

De Moor et al. (2006) examine whether regular exercise is associated with anxiety, depression and personality in a large population – based sample as a function of gender and age. The findings suggest that regular exercise is cross-sectionally associated with lower neuroticism, anxiety and depression and higher extroversion and sensation seeking in the population than non-exercises. These differences were modest in size, but very consistent across gender and age.

For-Wey Lung (2006) conducted a study to examine the personality traits and mental health among Taiwanese military students with adjustment disorder. Among 641 students from two military high schools, 43 had a diagnosis of adjustment disorder.
Differences between students with adjustment disorder and those without adjustment disorder were statistically significant in terms of their premorbid personality and mental health. Different kinds of school discipline appear to be a precipitating factor for adjustment disorder; however, neurotic, introvert, and psychotic traits appear to be predisposing factors for adjustment disorder.

Goodwin et al. (2006) studied the association between major depression, neuroticism, and self-reported allergy among adults in the community. The result indicates that among adults in the community, major depression was associated with a significantly increased likelihood of allergy. Higher level of neuroticism was also significantly associated with increased likelihood of allergy.

Hooker (2006) examined the influence of personality on mental and physical health of spouse caregivers and to determine whether there were differences in such influences depending on disease context. The disease contexts compared were Alzheimer's disease (AD) and Parkinson's disease (PD; with no coexisting dementia)--both chronic, degenerative diseases of later life. The result indicates that personality had significant direct and indirect effects on mental health and significant indirect effects on physical health. As predicted, Alzheimer's disease (AD) caregivers had significantly worse mental health than PD caregivers; however, AD caregivers had better physical health than PD caregivers.

Jylha and Isometsa (2006) investigated the relationship of the personality dimensions of neuroticism and extraversion to the symptoms of depression and anxiety in the general population. The result indicates that neuroticism correlated strongly with symptoms of depression and anxiety and somewhat with self-reported lifetime mental disorder. Extroversion correlated negatively with symptoms of depression, anxiety, and self-reported lifetime mental disorder.

Kendler (2006) examined the nature of association between neuroticism and extroversion and the risk for major depression.
result indicates that neuroticism strongly associated with major depression and extroversion were weakly and inversely related to major depression.

McWilliams et al. (2006) investigated the relationship between several personality constructs and the use of outpatient mental health services. The results revealed that personality traits play a role in treatment seeking behaviours for mental health problems over and above the presence of psychiatric disorders alone.

Sangeeta (2006) studied the relationship between introversion–extroversion and mental health on 600 boys studying in tenth standard in high and higher secondary school of Jammu city. The results indicate that extroversion tendencies enhance the mental health where as introversion tendencies deteriorate mental health.

Tyrer and Mulder (2006) studied the management of severe and complex personality disorders in community mental health services. The result indicates that severe personality disorders have a negative impact on the outcome of most psychiatric disorders.

Osterberg et al. (2007) studied to assess early determinants of idiopathic environmental intolerance (IEI), contributing to an integrated model for the development of idiopathic environmental intolerance (IEI). The findings suggest that trait anxiety is prominent already at prodromal stages of idiopathic environmental intolerance (IEI); possibly indicating that trait anxiety facilitates the acquisition of attribution of health complaints to environmental factors.

Shipley et al. (2007) examined the influence of neuroticism and extraversion on all-cause and cause-specific mortality over 21 years after controlling for risk factors. The result showed that after controlling for several risk factors, high neuroticism was significantly related to risk of death from cardiovascular disease. The effect of neuroticism on death from cardiovascular disease may be mediated by sociodemographic, health behaviour, and physiological factors. Extraversion was protective of death from respiratory disease.
Unterrainer et al. (2007) investigated the relationship between religious/spiritual well-being and indicators of psychological well-being (global religiosity, hierarchy of needs, sense of coherence) and the big five personality dimensions. The results indicate that religious/spiritual well-being is substantially correlated with different aspects of psychological well-being and personality (e.g. extraversion, neuroticism, openness).

Abbott et al. (2008) studied individual differences in personality influence the occurrence, reporting and outcome of mental health problems across the life course. Women who were more socially outgoing (extrovert) reported higher well-being on all dimensions. Neuroticism was associated with lower well-being on all dimensions. The effect of early neuroticism on midlife well-being was almost entirely mediated through emotional adjustment defined in terms of continuities in psychological/psychiatric distress. The effect of extraversion was not mediated by emotional adjustment, nor attenuated after adjustment for neuroticism.

Korotkov (2008) studied a sample of 706 adults to measure if personality moderates the relationship between stress and health behaviour. The result indicates the openness to experience; extroversion and neuroticism were found to moderate the stress to health behaviour relationship. The result also revealed that conscientiousness was found to buffer the stress to distress connection.

Lincoln (2008) studied that an individual's personality traits may mediate the relationship between social support and mental health. Results suggest that, beyond the influence of personality, social support is negatively associated with psychological distress, and negative interactions are positively associated with such distress. The findings also suggest that personality has direct and indirect effects, through social support and negative interactions, on psychological distress.
Löckenhoff et al. (2009) examined the association between five-factor personality domains and facets and spirituality/religiousness as well as their joint association with mental health in a diverse sample of 112 people living with HIV. Spirituality/religiousness showed stronger associations with conscientiousness, openness, and agreeableness than with neuroticism and extraversion. Both personality traits and spirituality/religiousness were significantly linked to mental health, even after controlling for individual differences in demographic measures and disease status. Personality traits explained unique variance in mental health above spirituality and religiousness.

Nordin (2009) examined the relationship between personality and loneliness on mental health among 1468 undergraduates at Malaysian Universities. The result revealed that an increase in neuroticism could lead to unhealthy mental health and negative correlation between extraversion and mental health means the higher scores in extraversion will lead to a decrease in mental health of respondents.

Ahadi and Basharpoor (2010) studied the relationship between sensory processing sensitivity, personality dimensions and mental health in a sample of University of Mohaghegh Ardabili students. The results revealed that ease of excitation was positively correlated to neuroticism and mental health (physical problems, anxiety, disorder in social functioning and depression) and negatively related to extraversion. Aesthetic sensitivity was positively related to neuroticism, openness to experience, conscientiousness and anxiety. Low sensory threshold was also positively related to neuroticism, physical problems, anxiety and mental health. The results also revealed that sensory processing sensitivity can explain considerable variances of personality traits and mental health.

Cloninger and Zohar (2010) studied the personality and the perception of health and happiness on the sample of 1102 volunteer
representatives of the Sharon area of Israel. The finding suggests that self-directedness was strongly associated with all aspects of well-being regardless of interactions with other dimensions. Cooperativeness was strongly associated with perceived social support, and weakly with other aspects of well-being, particularly when Self-directedness was low. Self-transcendence was strongly associated with positive emotions when the influence of the other character dimensions was taken into account. Personality explained nearly half the variance in happiness and more than one-third of the variance in wellness.

Whitfield et al. (2010) results indicated that those who are more neurotic report more cardiovascular health problems, and that openness and conscientiousness were significant predictors of active coping. The results also suggest that coping style did not mediate the relationship between personality and reports of cardiovascular health problems. These findings highlight the importance of personality in accounting for cardiovascular health in African Americans.

2.4 STUDIES RELATED TO MENTAL HEALTH AND OTHER VARIABLES

Safer (1974) examined the teacher-rated outcome on 70 consecutive school mental health referrals treated with brief psychiatric therapy. The major clinical and outcome findings were (1) 40% of the children showed a hyperactive-learning impaired pattern: (2) the use of stimulant medication for the majority of this group resulted in dramatic classroom improvement; (3) time-limited therapy for academically retarded, chronically misbehaving children produced limited classroom benefits; (4) parental antagonism toward school authorities was frequently related to student suspensions; (5) the child’s IQ was a significantly (positive) outcome factor; (6) persistence in treatment was significantly greater when medication was prescribed.

Wiener and Vardi (1981) studied that individual and situational variables, as a whole, show stronger relationship with work-related
attitudes than with mental health indices. The result indicates that career and work satisfaction emerged as the strongest contributors to mental health. Situational variables such as job characteristics, supervisory style, and pay related more strongly to the attitudinal variables than to mental health. This pattern also suggests that career and work satisfaction may serve as intervening variables in the relationship between situational variables and mental health.

Dhoundiyal (1984) studied the home environment and emotional disturbance among 276 adolescents. The results revealed that the quality of home environment is a significant factor in determining emotional disturbance among adolescents. Also the result revealed that over-protection of parent’s facilitated emotional disturbance among adolescents.

Delongie (1985) studied the relationship of everyday stress with mental health and wellbeing. The results indicate that those who received low emotional supports from family, friends and co-workers were about twice as likely to develop mental health problems as compared to those who received high emotional support.

Weaver (1986) studied the impact of race, sex and religious environment on the perception of mental health. He found that no significant relationship was found between the perception of mental health and race, sex and the degree of religious involvement.

Sharma (1988) found that children of working mothers have a greater feeling of rejection, more adjustment problems, health problems, social adjustment problems than children of non working mothers.

Ray and Yadav (1993) studied the mental health of higher secondary students in relation to socio-economic status on 251 boys and 250 girls from grades 9 to 12th of two urban and two rural higher secondary schools. The result revealed that mental health and socio-economic status were positively and significantly correlated.

Kannappan and Bai (1994) assessed and compared the effect of
different psychological training and tested the trend of different trainings over successive periods on 240 adolescent deviant boys (age range – 14 – 16 years). The boys were assigned to seven experimental groups such as social skills training (SST), human relationship training (HRT), social skills with human relationship training (SS-HRT), yoga-cognitive training (YCT), cognitive skills training (CST), yoga with cognitive skills training (YCST), multiple training (MT) and control group randomly. Training was given for two months. The groups SST, HRT, YCT, CST and YCST had changes in few areas of mental health but group SS-HRT and MT had significant change in self-concept, perception of self among others, concept of life and perception of adjustment.

Björkman et al. (1996) studies the physical and mental health related to dental amalgam fillings in Swedish twins. The result indicates that no negative effects on physical or mental health were found from amount of dental amalgam, even after controlling for age, gender, education and number of remaining teeth.

Raskin and Horwitz (1996) showed that married people are less depressed and have fewer alcohol related problems, as compared to unmarried people. The quality of marriage may be responsible for the relationship between mental health and marriage.

Anand (1999) studied student’s mental health attitude and motivation on a sample of 370 students and found that students with parents of better educational and occupational backgrounds had mental health in their favour. Maternal education is significantly associated with psychopathological disorders in children and also prevalence being highest in off springs of illiterate mothers (Rahi et al., 2005).

Roeser et al. (1999) examined patterns of academic functioning and mental health in 184, middle school children and relation of such patterns to their prior and subsequent functioning. Data were collected from children during their 2nd, 3rd, 4th, 8th and 9th grade
school years. The results indicate that there was no significant change in mental health among the full sample, in emotional functioning, the multiple problems youth mental health improved significantly across the transition.

Srivastava et al. (1999) studied the mental health of 80 students studying 11th and 12th standard from English medium and Hindi medium schools located at Haridwar. The results showed that Hindi medium students had better mental health in comparison to English medium students. The result also indicated that symptoms of egocentrism and emotional instability in English medium students were high in comparison to Hindi medium students.

Mudgal (2000) conducted a study on the mother’s attitude and emotional and mental well being of children. The sample consist 877 adolescents and their parents in Los Angles. It was found that mother’s attitude and children’s well being score are positively related.

Nanda (2001) studied the mental health of high school students also revealed that the general category students had better mental health than scheduled caste, scheduled tribes and first generation learners. On the basis of locale, urban students had better mental health. Scheduled caste had better mental health than scheduled tribe students.

Neria et al. (2001) examined the associations among attachment styles, hardiness, and mental health in intensive real-life stress. The result indicates that secure attachment style was positively associated with overall hardiness, commitment, and control, whereas avoidant and ambivalent attachment styles were negatively associated with these variables. In addition, a secure attachment style, and overall hardiness, commitment, and control were positively associated with mental health and well-being, and negatively associated with distress and general psychiatric symptomatology, whereas avoidant and ambivalent styles were inversely related to mental health and well-being and positively related to distress and general psychiatric
symptomatology.

Sonnak and Towell (2001) studied the role of perceived parental rearing style, parental background, self-esteem, mental health and demographic variables upon impostor phenomenon with 78 females, 29 males. The finding suggests that parental care score, parental educational and occupational level and subject's mental health and demographic information did not show a significant relationship to impostor scores.

Reddy et al. (2002) studied mental health status of students of coeducational and non-co-educational schools. The results revealed that there was a significant impact of the type of school on mental health status of both boys and girls. The students of co-educational schools were mentally healthier when compared to the students of non-co-educational schools.

Shek (2002) examined the association between family functioning and adolescent adjustment in 1,519 Chinese adolescents. The results showed that family functioning was significantly related to measures of adolescent psychological well-being (existential well-being, life satisfaction, self-esteem, sense of mastery, general psychiatric morbidity), school adjustment (perceived academic performance, satisfaction with academic performance, and school conduct), and problem behaviour (delinquent and substance abuse behaviour). Family functioning was generally more strongly related to measures of adjustment for adolescents with economic disadvantage than for adolescents without economic disadvantage.

Sirohi (2002) conducted a study on the effect of religion on mental health. The sample consisted of 250 XI standard boys covering three religions - Hindu (N= 105), Christian (N = 80) and Muslim (N = 80). Sirohi Mental Health Questionnaire developed by the author was used for assessing the mental health of adolescents. He reported that Christian had significantly poor mental health when compared with Hindu and Muslim boys.
Weinreb et al. (2002) examined the independent contribution of child hunger on children's physical and mental health and academic functioning, when controlling for a range of environmental and maternal factor. After controlling for housing status, mother's distress, and stressful life events, severe child hunger was also associated with higher reported anxiety/depression among school-aged children.

Ensminger et al. (2003) examined the relationship of mothers' symptoms of depression and anxiety reported during their offspring's childhood and adolescents on depressive disorder and educational achievement of their adult children. The data was collected from a longitudinal cohort study of first graders from Woodlawn, Chicago, followed from age 6 to 32 years (N = 879). The results reported that daughters of mothers with persistent maternal psychological distress had two and a half times the risk of lifetime depressive disorder, but no increased risk of high school dropout. For sons, mothers' psychological distress was not related to depression but was related to poorer educational attainment. They concluded mothers' depressed feelings during the child rearing years relate to their children's depression and educational attainment as measured in adulthood. The patterns differ for sons and daughters.

Miller (2003) studied the relation between senses of humor with a person's overall mental health. The data were analyzed and a significant correlation was found between sense of humor and mental health. As scores on the Multidimensional Sense of Humor Scale increased (showing a high sense of humor), scores on the mental health decreased.

Ostberg (2003) focused on social relation in school classes and their importance for mental well-being in middle childhood in a Scottish city. Peer status and both the individual's own status position and the status distribution of the school class as a whole were considered as the respect of social relations. The number of children
analyzed was 13,932 and the number of school classes was 524. The results show a clear association at individual level: the higher the status position the more uncommon is malaise, which was supported by the teacher and by a parent report on malaise for both boys and girls. The association was generally present within school and existed regardless of grade, type of school and class size. Furthermore, a minority of the classes had a more compressed status distribution and here malaise was less common in all status positions. This was especially the case when the school class did not contain marginalized children. Consequently, that some children are marginalized in the group indicates problematic conditions for the persons in question but also for the other group members.

Woodcock et al. (2003) reported that long periods of isolation with little mental stimulus contributed to poor mental health and led to intense feelings of anger, frustration, and anxiety.

Dwairy (2004) examined the parental styles and psychosocial adjustment of adolescents and the relationship between them in gifted as compared to non-gifted Arab adolescents. The results indicated that parents of gifted adolescents tend to be more authoritative and less authoritarian than parents of non-gifted adolescents. The attitudes of the gifted adolescents toward their parents were more positive than those of the non-gifted adolescents. The gifted adolescents displayed higher self-esteem and fewer identity disorders, phobias, and conduct disorders than the non-gifted adolescents. The authoritative parental style correlates positively with the mental health of both gifted and non-gifted adolescents, while the authoritarian parenting style impacts negatively on the mental health of the gifted, but not of the non-gifted adolescents. The results indicated that the authoritarian parenting style is a crucial factor that influences the well-being of gifted children and may affect their psychological adjustment.

Gonzales et al. (2004) studied the efficacy of the bridges
program, an intervention designed to prevent school disengagement and negative mental health trajectories during transition to junior high school. The intervention included an adolescent coping skills intervention, a parenting skills intervention and a family strengthening intervention. The program was evaluated by examining pretest to posttest changes on targeted mediators and outcomes with a sample of 22 predominantly Mexican American families. Adolescents reported increased use of active and distraction coping strategies and decreased depressive symptoms for themselves from pretest to posttest. They also reported significant changes in their mothers’ parenting skills, including increased monitoring and a decrease in inconsistent discipline. Maternal caregivers reported an increase in supportive parenting and a decrease in inconsistent discipline for themselves and fewer adolescent problem behaviour.

Gulati and Dutta (2004) studied the mental health profile of 245 rural adolescents (12 to 16 years) drawn from persistent poor but intact families of Ludhiana district. The results indicated that despite economic diversity and the presence of other risk conditions, majority of the adolescents were found to be performing within normal status of mental health without any manifest conduct disorders and also the effect of gender was found to be non-significant. The results revealed that the dominant problem in males was delinquency and females were anxiety and depression.

Vasuki and Charumathy (2004) compared the sibling rivalry with achievement motivation, frustration, mental health and self-conflict of adolescents on a sample of 60 girls and 60 boys of age 15-18 years. Rivalry resulted in inferior level of achievement motivation and poor mental health. Greater extent of sibling rivalry also leads the adolescents to become more frustrated. Aseltine and Gore (2005) examined how living situation, work school roles and experiences in those roles affect psychological functioning in high school. The sample consisted of 1325 students of seven communities and school districts
in the Boston. The results showed that enrollment in college programs and full-time are associated with lower levels of depressed moods and more positive quality of life. Disruptions in work were linked to higher levels of depressed mood, heavy episodic drinking and poorer quality of life; the negative effects of disruptions in postsecondary schooling are confined to high episodic drinking.

Abu-Rayya (2006) explored the relationship between ethnic identity, ego identity and psychological well-being among mixed-ethnic adolescents with European mothers and Arab fathers in Israel. It was found that Arab and European ethnic identities, composed of ethnic behaviours, affirmation and belonging and achievement of a sense of oneself as part of an ethnic group, were significantly positively correlated with participants’ psychological well-being. Findings revealed positive and significant relationship between Arab and European ethnic identity and psychological well-being for the mixed-ethnic adolescents. The results also suggested that ego identity status was significantly associated with the psychological well-being of mixed-ethnic adolescents.

Baldwin (2006) studied the extent to which self-reports of job-related discrimination by persons with serious mental illness are associated with econometric measures of discrimination. The results indicate no significant difference in mean wages was found between workers with serious mental illness who did not report experiencing stigma and those with no mental illness.

Rahi et al. (2005) studied the association of psychopathology with demographic, developmental and social factors on 620 children from an urban slum of Miraj (Maharashtra). They reported that males were significantly affected more than the females and the prevalence increased significantly as the socio-economic status lowered. The results revealed that socio-economic status has greater impact on mental health of adolescents; lower socio-economic status lowers the mental health of the adolescents.
Curlin et al. (2007) compared the religious characteristics of psychiatrists with those of other physicians and explored whether non-psychiatrist physicians who are religious are less willing than their colleagues to refer patients to psychiatrists and psychologists. The result shows that Psychiatrists are less religious than other physicians, and religious physicians are less willing than nonreligious physicians to refer patients to psychiatrists.

Hillemeier et al. (2007) studied the mental health among rural women of reproductive age, with particular attention given to rural area type and farm residence. The result indicates that farm residence was associated with higher mental health score, and the most isolated rural residence was associated with less diagnosed depression or anxiety.

Kopp et al. (2007) analyzed the association between work-related factors and self-reported mental and physical health after controlling for negative affect and hostility as personality traits. The results indicate that in both genders negative affect was the most important correlate of depression, well-being and self-rated health, whereas hostility was closely associated only with depression. Job insecurity, low control and low social support at work, weekend work hours, job-related life events and dissatisfaction with work and with boss were independent mental health risk factors, but there were important gender differences. Job related factors seem to be equally important predictors of mental health as social support from family.

Mistry et al. (2007) studied the associations between maternal mental health and individual and co-occurring parenting stressors related to social and financial factors and child health care. The result indicates that stressors increased the risk of poor maternal mental health: lack of emotional or functional social support for parenting and difficulty paying for child care.

Yeung and Chan (2007) studied the relationship between religiousness and mental health in physically vulnerable populations,
including the medically ill, the elderly and the disabled. The results show that religion had played a significant role in shaping the form of mental health care known as ‘moral’.

Downey et al. (2008) studied the relationship between emotional intelligence and depression in a clinical sample. The results indicate that significant associations were observed between severity of depression and the emotional intelligence dimensions of emotional management and emotional control.

Masters (2008) studied the relation between religiosity and health. The result indicates that religiosity and spirituality influence health followed by possible role of cardiovascular reactivity to stress as a link between religiosity and cardiovascular functioning.

Wang et al. (2008) studied the gender-specific associations between work stress, major depression, anxiety disorders and any mental disorder, adjusting for the effects of demographic, socioeconomic, psychological and clinical variables. The results indicate that male workers who reported high demand and low control in the workplace were more likely to have had major depression and any depressive or anxiety disorders. In women, high demand and low control was only associated with having any depressive or anxiety disorder. Job insecurity was positively associated with major depression in men but not in women. Imbalance between work and family life was the strongest factor associated with having mental disorders, regardless of gender.

Lien et al. (2009) studied the relationship between smoking and depressive symptoms, controlling for other lifestyle factors. The results show that significant association was found between smoking and mental distress for both genders.

Backhans and Hemmingsson (2010) investigated the association between periods of unemployment and mental distress. The results show an independent effect of unemployment on mental distress.

Ho Cheung William Li et al. (2010) explored the relationship
among mental health, self-esteem and physical health in Hong Kong Chinese adolescents. Chinese students \((N = 1945)\) between the ages of 12 and 19 from four secondary schools of different regions. This result revealed that a significant number of adolescents in Hong Kong are experiencing depressive symptoms. The results also indicated that self-esteem of adolescents was correlated to and a predictor of their physical and mental health.

McFarland (2010) studied the relationship between religious involvement and mental health varies by gender among the aging population. Results suggest that (a) men obtain more mental health benefits from religious involvement than women, (b) women with higher levels of organizational religious involvement have similar levels of mental health as those with moderate and lower levels of organizational religious involvement, (c) men with very high levels of organizational religious involvement tend to have much higher levels of mental health than all other men.

Oddy et al. (2010) studied the effect of breastfeeding on child and adolescent mental health. The results indicate that a shorter duration of breastfeeding may be a predictor of adverse mental health outcomes throughout the developmental trajectory of childhood and early adolescence.

Johannessen et al. (2011) studied whether mental disorders have an impact on suicide mortality. The results indicate that none of mental health services were significantly associated with female or male suicide mortality. Alcohol was significantly associated with male suicide mortality; education and unemployment were significantly associated with female suicide mortality.

Mari Kan (2011) studied the effects of employment status on health and health-related behaviour in Japan. The result indicates that changes in employment status have a significant influence on mental health, frequency of physical exercise, and sleep duration but not on subjective health.
2.5 STUDIES RELATED TO GENDER DIFFERENCES IN MENTAL HEALTH

Hammen and Padesky (1977) measured the depression in 972 male and 1,300 female unmarried college students by the Beck Depression Inventory. No sex differences were found in the degree of depression, and yet, discriminate function analysis of the responses of the most depressed scorers yielded a significant and interpretable sex difference in the patterns of symptom expression. Depressed males were more likely to report an inability to cry, loss of social interest, a sense of failure, and somatic complaints. Females were characterized by indecisiveness and self-dislike.

Gove (1978) results revealed that women have higher rates of mental illness than men and this difference is due primarily to their sex and marital roles.

Sharma (1979) studied the self-concept, level of aspiration and mental health as factors in academic achievement. A sample of 1060 students selected randomly from X, XI and XII grades of schools of Uttar Pradesh. The results reported that boys and girls had better mental health during early adolescence (13 years), while boys in late adolescence showed better mental health than girls.

Srivastava et al. (1987) studied the mental health of post graduate students. The results indicated that there was no significant difference between male and female students on mental health.

Mortimer et al. (1992) examined the relationship between early work experience and adolescent mental health and behavioural adjustment. The data was obtained from 1,001 ninth graders. The results indicate that boys and girls appear to experience psychological benefits when they perceive their jobs as providing skills that will be useful to them in the future. Boys who report more stress at work also manifest more depressive affect, more self-derogation, less internality, and a more external control orientation. For girls, the level of integration of school and work had pervasive associations with the
Manjuvani (1995) conducted a study on, "Sex, type of school, standard and mental health status of high school students." Her findings were that girls had better mental health status as compared to boys and mental health status of 10th standard students was low as compared to the 9th standard students.

Hagquist and Starrin (1996) studied the 81 unemployed people under 25 years of age and 143 youth trainees in a small municipality in central Sweden. The results show that unemployed men and unemployed women feel that the mental well-being grew worse when they became unemployed. The results also show that young people with poor finances on the whole have more mental troubles and anxiety about the future than young people with good finances have.

Goins (1997) investigated health quality of life. It was found that the older ages and low socio-economic status scores are positively related to poor health related quality of life. Also, men are significantly more likely women to rate their mental health as poor.

Taak (1999) conducted a study on factors influencing mental health on a sample of 300 students of Ludhiana district. The results revealed that there is no significant difference between mental health of boys and girls of same age groups.

Garg (2000) conducted a study on mental health in relation to neuroticism of B.Ed trainees and reported that there is no significant difference between B.Ed. trainee boys and girls on variables of mental health and neuroticism.

Nanda (2001) studied the mental health of high school students. The sample consisted of 1579 students from 86 schools covering Cuttack district, Orissa. The results revealed that female students were found to have better mental health than male students. While comparing male and female students in urban, rural and ashram schools separately it was found that male and female students in urban and ashram schools had similar mental health, Whereas female
students had better mental health than male students in rural schools.

Gupta (2002) conducted a study on mental health of adolescents in relation to self-concept. She concluded that there is a significant difference between mental health of male and female adolescents and between mental health of Government and Private School adolescents.

Ojha (2002) compared the social anxiety and mental health of normal and physically challenged adolescents. The sample constituted of 60 subjects (15 orthopedically challenged males, 15 orthopedically challenged females and matched control group of normal adolescents) randomly selected from different colleges located in Varanasi. Social anxiety was observed significantly high in orthopedically challenged group, where females were found to be more anxious. With regard to mental health, normal group and orthopedically challenged group showed no significant difference.

Rask et al. (2002) conducted a study on adolescent subjective well-being and realized values, and examined the relationship between socio-demographic variables, realized values and subjective well-being from the adolescent perspective. Adolescent subjective well-being was conceptualized by means of four different dimensions: satisfaction, ill-being, knowledge and activities related to well-being. The values were operationalized by eight core ideas from which principal components analysis identified 10 factors representing the realized values. The results revealed that most of the respondents were satisfied with life. There was no statistically significant difference in global satisfaction between girls and boys. Girls and pupils from the 9th class experienced more ill-being than boys and pupils from the 7th class. The findings suggest that certain values such as personal equilibrium, safe family relations, and family type are predictors of adolescent global subjective well-being.

Stevens et al. (2003) in his study included 274 male and 104
female adolescents enrolled in four drug treatment programs in Arizona. Comparisons between males and females and those with low versus acute levels of traumatic stress TS symptoms were examined with regard to substance use, mental health, physical health, and HIV risk-taking behaviour. Results indicate significant differences between males and females and between those reporting low versus acute TS. In general, females and those with acute levels of TS symptoms had higher levels of substance use, mental health, and physical health problems as well as greater HIV risk behaviours when compared to males and those with low levels of TS symptoms.

Harpham et al. (2005) analyses that woman, having limited education and experiencing high levels of violence were the main risk factors for common mental disorders.

Jha (2005) examined the impact of the social residential areas with gender on mental health problem on 110 secondary school children of age (11 – 17 years). The result revealed that rural children faced more problems than urban children, especially girls. This is in congruency with Nanda (2001) who reported that urban students had better mental health than the rural students.

Cauffman et al. (2007) studied the mental health symptoms on directly comparable groups of delinquent and community youths. The result indicates that the relative magnitude of gender differences was greater in detained youths than in community youths, with detained girls exhibiting greater levels of symptomatology than would be predicted on the basis of gender.

Chatterjee et al. (2009) found that younger women veterans were significantly less likely and older women were more likely to use any mental health services in comparison with their male counterparts. Similar findings were observed for younger women diagnosed with substance abuse (SA) or mood and anxiety disorders, but not among veterans with posttraumatic stress disorder (PTSD) or bipolar and psychotic disorders, among which no there were no
gender or age differences.

Schwinn et al. (2009) studied the gender and mental health influences on alcohol, tobacco, and illicit drug use among late adolescent urban youths. The indices of mental health differed by gender, with girls reporting greater symptoms of depression and anxiety. The ratings of hostility were similar for boys and girls. The study findings provide evidence that among late adolescent youths living in urban areas, poorer mental health status is associated with increased substance use.

Seedat et al. (2009) result suggested that women had more anxiety and mood disorders than men, and men had more externalizing and substance disorders than women. Although gender differences were generally consistent across cohorts, significant narrowing was found in recent cohorts for major depressive disorder and substance disorders.

Bakker et al. (2010) results revealed that peer stress is unlikely to be associated with different mental health problems in boys and girls. Instead, boys and girls are more likely to be susceptible to different types of peer stressors.

Maguen et al. (2010) examined gender differences in sociodemographic, military service, and mental health characteristics among Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans. Female veterans were younger and more likely to be Black and to receive depression diagnoses than were male veterans, who were more frequently diagnosed with posttraumatic stress disorder (PTSD) and alcohol use disorders. Older age was associated with a higher prevalence of PTSD and depression diagnoses among women but not among men.

Stinton et al. (2010) examined mental health problems in 92 adults with Williams syndrome using the Psychiatric Assessment Schedule for adults with developmental disabilities—PAS-ADD. The result indicates that no association was found between the presence
of mental health problems and either individual (e.g., age, IQ, language level) and external (life events) variables.

Hollander et al. (2011) studied to assess that there is a difference in mental ill health problems between male and female refugee and non-refugee immigrants from six low-income countries. The female refugees from low-income countries seem to be a risk group among immigrant women from low-income countries, whereas male refugees had the same risk patterns as non-refugee immigrants from low-income countries.

2.6 OVERVIEW

From the perusal of literature pertaining to relationship between mental health, moral judgement, intelligence and personality of adolescents along with other population groups, certain conclusions may be drawn:

(I). Delinquents has lower developmental stages of moral reasoning than their non delinquent’s counterparts (Sigman et al., 1983; Veneziano, 1988; Tavecchio et al., 1999; Jan et al., 2006).

On the other hand some studies found that delinquents do not necessarily ignored moral values but rather become committed to or adopt the value of deviant subculture (McColgan et al., 1983; Stein et al., 2006; Jurkovic, 2007). In some studies it has been found that there is no reliable difference between delinquents and nondelinquents youth in moral reasoning (Narayanan, 1978; Hammond and Emler, 2007). Religiosity has a significant effect on delinquent behaviour when individuals also have strong moral beliefs (Desmond et al., 2009) but moral judgement scores do not show a significant relationship with psychopathy scores (Mistry et al., 1999).

(II). IQ is regarded as a kind of cognitive reserve which appears to provide additional resilience and protection from mental health problems. People with higher IQs seem, in general, to be less vulnerable to a range of mental health problems. Mental health depends on certain interdependent factors like intelligence, sex
gonads, nutrition, culture, position in family (Dutta, 1981) mental health status of science students with English medium was higher than those of Malayalam medium (Raveendranath, 1983) children with low IQ group being at the highest risk for poor self-concept (Buelow et al., 2003) intelligence was largely unrelated to crime, mental health, sexual behaviours (Fergusson et al., 2005).

IQ was inversely related to psychiatric illness, mental health and increased risk of schizophrenia, adult depression and anxiety (Mirchandani, 1970; Kawano et al., 2001; Stanley and Peter's, 2004; Austin, 2004; Glaser et al., 2009; Batty and Mortensen, 2005; Mortensen et al., 2005; Knutson et al., 2008; Karestan and Terrie, 2009; Catharine et al., 2010).

In some studies it has been found that higher intelligence scores were associated with lower depression scores, better mental health (Dulewicz and Slashi, 2003; Geoff and David's, 2006; Montes-Berges and Augusto, 2007; Kumar et al., 2007; Gale and Batty, 2009; Gupta and Kumar, 2010).

Mental health is significant related to intelligence (Perlmutter and Nyguist, 1990; Simonton and Song, 2009; Shabani and Hassan, 2010).

The high mental health status group and low mental health status group differed significantly from one another (Abraham, 1985).

(III). Extrovert teachers enjoy better mental health as compare to introvert teachers (Srivastava, 1983) extraversion were associated with decreased likelihood of use of mental health services (Goodwin et al., 2002; Kendler, 2006)) extraversion had no direct effect on depression or anxiety (Suurmeijer et al., 2005) extroversion is a positive correlate of happiness and better mental health (Furnham and Cheng, 1999) extroversion tendencies enhance the mental health where as introversion tendencies deteriorate mental health (Sangeeta, 2006) a lower extraversion score was associated with worse perceived health (Benjamin, 2006) extroversion found to moderate the stress to health
behaviour relationship (Korotkov, 2008).

In some studies it has been found that regular exercise is cross-sectionally associated with lower neuroticism, anxiety and depression (De Moor et al., 2006) Unhappy people scored higher in neurotic traits (Joseph et al. (1994) spirituality/religiousness were significantly linked to mental health (Löckenhoff et al., 2009; Unterrainer et al., 2007) neuroticism were significantly associated with increased likelihood of allergy (Goodwin et al., 2006) symptoms of depression and anxiety, an abnormal illness behaviour and unhealthy mental health (Jylhä and Isometsa, 2006; Savastano et al., 1996; Abbott et al., 2008; Nordin, 2009) low sensory threshold was positively related to neuroticism, physical problems, anxiety and mental health (Ahadi and Basharpoor, 2010) neuroticism have the symptoms of depressed disorder personality (Duggon, 2003) but there was no significant relationship between self-assessed mental health’s with neuroticism (Jegde, 1980).

In some studies it has been found that delinquents had significantly higher neuroticism and psychoticism scores and significantly lower lie score (Furnham and Barratt, 1988) psychotics scores were positively associated with mental illness, (Furnham and Cheng, 1999) psychoticism predicts antisocial behaviour more accurately than extroversion or low self-esteem (Heaven et al., 1996).

(IV). Christian had significantly poor mental health as compared to Hindu and Muslim (Sirohi, 2002).

Lower socio-economic status lowers the mental health of the adolescents (Ray and Yadav, 1993; Rahi et al., 2005).

Over-protection of parents facilitated emotional disturbance among adolescents (Dhoundiyal, 1984) the authoritarian parenting style is a crucial factor that influences the well-being of gifted children and may affect their psychological adjustment (Dwairy, 2004) type of school management, medium of instruction influences the mental health of adolescents (Srivastava et al., 1999; Reddy et al., 2002).
Mental health is positively and significantly related with sense of humor (Miller, 2003) self-esteem (Ho Cheung William Li et al., 2010) career and work satisfaction (Wiener and Vardi, 1981) Imbalance between work and family life (Wang et al., 2008) farm residence (Hillemeier et al., 2007) religion (Yeung and Chan, 2007; Masters, 2008) parental behaviour (Kaur, 1991); changes in employment status (Mari Kan, 2011).

The results also show that none of mental health services were significantly associated with female or male suicide mortality (Johannessen et al., 2011) shorter duration of breastfeeding may be a predictor of adverse mental health outcomes (Oddy et al., 2010) stressors increased the risk of poor maternal mental health (Mistry et al., 2007). (V)

Gender is conceptualized as a structural determinant of mental health and mental illness that runs like a fault line, interconnecting with and deepening the disparities associated with other important socioeconomic determinants such as income, employment and social position. It is found that girls are better mental health than boys (Nanda, 2001).

On the other hand some studies found that girls are more ill-being than boys (Ojha, 2002; Schwinn et al., 2009; Maguen et al., 2010) limited education and experiencing high levels of violence (Harpham et al., 2005) marital roles (Gove, 1978). In contrast to study by (Goins, 1997) show that boys are more mental health disorders than girls.

Urban areas have poorer mental health status with increased substance use (Schwinn et al., 2009). Rural children faced more problems than urban children (Jha, 2005). This is in congruency with (Nanda, 2001) who reported that urban students had better mental health than the rural students.

In some studies it has been found that there is no significant gender difference in mental health of unemployed men and
unemployed women (Hagquist and Starrin, 1996).

In some studies it has been also found that there is no significant gender difference in mental health (Hammen and Padesky, 1977; Taak, 1999; Garg, 2000; Chatterjee et al., 2009; Stinton et al., 2010).

Thus it may be stated in nutshell that mental health vis-à-vis other cognitive and non-cognitive variables across different population groups including adolescents has been extensively studied, though the empirical evidence does not provide a satisfactory answer to its occurrence and antecedents or consequences.

2.7 HYPOTHESES

Hence in the light of these observations following hypotheses were formulated:

1. There will be significant relationship of mental health of adolescents with moral judgement, intelligence and different dimensions of personality.

2. There will be significant relationship of mental health of adolescents with moral judgement, intelligence and different dimensions of personality for group of adolescents having high and low mental health.

3. There will be significant difference in correlation of mental health with moral judgement, intelligence and different dimensions of personality for group of adolescents having high and low mental health.

4. There will be significant relationship of mental health with moral judgement, intelligence and different dimensions of personality in case of mental health of adolescent boys and girls.

5. There will be significant difference in correlation of mental health of adolescents with moral judgement, intelligence and different dimensions of personality across the gender group.

6. The adolescents with high moral judgement will differ
significantly in the mean mental health scores than the adolescents with low moral judgement.

7. The adolescents with high intelligence will differ significantly in mean mental health scores than the adolescents with low intelligence.

8. The adolescents with psychotic tendencies will differ significantly in mean mental health scores than their normal tendencies adolescents.

9. The adolescents with emotional unstable tendencies will differ significantly in mean mental health scores than their emotional stable tendencies adolescents.

10. The adolescents with extrovert tendencies will differ significantly in mean mental health scores than their introvert tendencies adolescents.

11. They will be significant interactive effect of moral judgement and intelligence in the combination of three dimensions of personality (psychoticism, neuroticism and extroversion) on mental health of adolescents.