Review of Related Literature & Formulation of Hypotheses
Chapter
Two

With a view to seek some guidelines from the previous researches, which could be helpful in formulating the present investigation, the results of some of the representative studies are discussed below. The present review is by no means complete or exhaustive, it is an attempt to indicate the main trends in research and theory which have a direct or indirect bearing on the present problem.

Disorders in which anxiety or depression is the predominant feature constitute a large part of contemporary psychiatric practice. As such depression is a matter of social and public health concern. Although there is a considerable agreement regarding depression as a common and significant problem for the general population and the client in psychotherapy in particular, the literature regarding possible symptoms and correlates of depression is extensive and sometimes conflicting. There are theories and research in the literature which stress or examine particular symptoms and factors related to depression which has been recognized for thousand of years.

HISTORICAL OVERVIEW

The importance of epidemiological research is well recognized. The information generated by epidemiologists can yield new ideas about
etiology, pathogenesis, treatment, and prevention, while at the same time provide insights, which may improve the delivery of medical care (Boyd & Weissman, 1981). However, in the field of psychiatry, epidemiology research has been hampered by the lack of reliable research instruments (Robins, 1978), and by the failure of researchers to reach a consensus on a reliable, valid diagnostic classification system of psychiatric illness.

Aretaeus, the Cappadocian made reference to a lovesick shepherd's "severe dejection" and felt that it differed fundamentally from true "melancholia", despite acknowledging that "it would appear as such to the average person" (Jackson, 1986). This early observation, that not all depressions are alike, set in motion a great debate that is as yet unresolved. Certainly the last two centuries have produced a bewildering array of classifications of depression. Kendell, somewhat ironically, published a classification of classifications (Kendell, 1976) in a discussion as to why there are so many competing classifications and unresolved controversies, despite extensive research. According to Kendell, part of the reason is that the classification of depression has provided an arena for several disputes about the nature and classification of mental illness as whole, involving unresolved philosophical differences that stretch back to Plato and Hippocrates.

Yet, as Akiskal (1984) notes, "classification has the general purpose of promoting understanding..., and making a diagnosis is a form of classification". Despite the composer Berlioz's rather unkind comment,".... after their studies are complete, the rhetorician writes a tragedy, while a psychiatrist writes a classification" (Zilborg, 1941), the debate regarding diagnostic classification continues to the present day.
A brief historical overview is necessary to place into context the current concept of major depressive disorder. Moebius in the late nineteenth century (Jackson, 1986) introduced the dichotomous distinction between endogenous versus exogenous etiologies as the basis for classifying psychiatric disorders, where "endogenous" came to imply "hypothetical, intangible, elusive predispositions, constitutional or hereditary forces which could be conjectured but not demonstrated", and "exogenous" came to imply identifiable, and often measurable causes (Lewis, 1971). German-speaking psychiatrists, making use of the elegant descriptions of psychiatric signs and symptoms of Esquirol (Jackson, 1986) and the French school of the early nineteenth century, had created numerous syndromic categories. However, it was Kraepelin (Kraepelin, 1921) who, dissatisfied with the considerable symptomatic overlap among the various syndromes, developed his prognostic principle which led to the now familiar division of functional psychoses into dementia praecox and manic depressive illness. All major disorders of mood were subsumed under the rubric of manic depressive illness, though Kraepelin himself believed that this was a heterogeneous category that would eventually be subclassified. Manic depressive illness was believed by Kraepelin to be a severe, episodic, recurrent illness with good prognosis, as opposed to the irreversible deterioration of mental life in dementia praecox. This broad classification was a heuristic solution to the chaos that preceded it, but as Akiskal states, "one cannot make a diagnosis out of prognosis". Prognosis is now known to represent a complex interplay between the organism and the environment. This century has produced numerous efforts to reorder the Kraepelinian schemata.
As Akiskal also noted (Akiskal, 1978), the debate over classification followed different courses on either side of the Atlantic. In the United States, under the influence of the Freudian and Meyerian schools of thought, an "antinosologic bias" (Meehl, 1973) developed. Post-Freudians became divorced from phenomenology, and often metapsychological constructs, largely theoretical and clinically untested, were introduced into diagnostic practice. The Meyerian approach, stressing individual life history and events, also undermined the process of formal diagnosis. The flourishing of antinosological approaches occurred at just the time when effective specific therapies, largely pharmacologic, were being developed (Zubin, 1968). It was out of philosophical wilderness that St. Louis group (Feighner, et al. 1972; Robins, & Guze, 1970) developed their work on diagnostic criteria which, in collaboration with Spitzer and associates (Spitzer et al., 1978), resulted in the Research Diagnostic Criteria, the forerunner of DSM-III. The St. Louis group undertook extensive validation of their diagnoses, looking at clinical description, laboratory studies, delimitation from other disorders, as well as follow-up and family studies.

Meanwhile, in Britain, a debate raged over the fundamental issue of whether or not depression could be classified into "psychotic" and "neurotic" depressions, or alternately, Type A and Type B symptom complexes, where the former denoted 'severe depression with guilt, retardation, severe insomnia, loss of weight and diurnal variation of mood, and the latter a milder illness which is prone to fluctuate from day to day and lacking the characteristics of the severe form of depression (Kendell, 1976). The Newcastle school (Carney, et al., 1965) attempted to demonstrate that "endogenous" and neurotic depressions are distinct illness, while other researchers, notably Kendell & Gourlay (1970), have
sought to validate the observation of Lewis (Lewis, 1938) which states that attempts to classify in terms of symptoms "are nothing more than attempts to distinguish between acute and chronic, mild and severe: and where two categories only are presented, the one manic-depressive - gives the characteristics of acute severe depression, the other of chronic mild depression".

One attempt to subclassify depression which is now widely accepted on both sides of the Atlantic is the unipolar-bipolar distinction. First proposed by Leonhard, and subsequently supported by Perris, Angst and Winokur (Perris, 1982), the distinction is based on genetic and family studies response to treatment and course and prognosis (cf. Spaner, Bland, & Newman, 1994, p.8).

The many threads of this historical survey have been woven together into the DSM-III and DSM-III-R; the DSM-III is a theoretical with regards to etiology. Within each category of the disorder, attempts have been made to define diagnostic criteria in terms of descriptive psychopathology and manifest behaviour, with minimal inferences as to possible motivation or causation.

The DSM-III and DSM-III-R diagnostic criteria, then, make an attempt to deal with the ancient observation that a depressed mood, of greater or lesser intensity, can be a phenomenon of normal everyday existence. The fundamental challenge is to define exactly when depression crosses the line from being a normal experience into a pathological state.

When classifying depression as a "case", one assumes that the symptoms have become intense, pervasive, interfere with normal function,
and persist over an inappropriately prolonged period of time. Of necessity, this period of time must be defined arbitrarily. In the case of DSM-III-R, the presence of diminished-mood or loss of interest or pleasure in all activities for at least two weeks together with a cluster of other symptoms from the somatic and psychological domains, is necessary for a diagnosis of "major depression" to be made (cf. Spaner, Bland, & Newman, 1994, p. 9).

The nine diagnostic criteria of DSM-III-R can be neatly summarized as follows:

"... the mood is dominated by a profound inward dejection, the patient is hopeless; he is indescribably unhappy, skeptical. Everything is disagreeable, he sees only the dark side of life, the world appears to him aimless, and he feels superfluous. Phobias may occur in simple melancholia, and the patient is tormented with guilt feelings. Energy is virtually absent, the patient has depressive concomitants such as decreased sexual interest, anorexia and weight loss, sleep disturbance with early morning awakening and psychomotor retardation".

More recently, Roberts, Lewinsohn, & Seeley (1995) remarked that the results provide strong evidence that DSM criteria for major depression are appropriate for adolescents. That is, DSM-III-R symptom criteria are manifested by both young and adults, although the relative frequency of these criterion symptoms appear to be age-related" (p. 1608).

Thus, the word 'depression' encompasses a huge array of psychological experiences, a heterogeneity found both in the lay and in the
professional literature (Fombonne, 1994). From a practical point of view, three levels of definition may be used (Kazdin, 1990; Angold, 1988). Depressed mood or affect refers to a state of dysphoria that occurs frequently in the course of normal development. Depressed mood is part of a broader set of negative feelings (Watson & Clark, 1984), but a lack of positive affect and a loss of emotional involvement with other people, objects or activities constitute specific features that distinguish depressed mood from normal feelings of sadness or more demoralization and from other negative affects such as anxiety. Depressive syndrome refers to a constellation of observable symptoms (of which depressed mood is only one component) such as tearfulness, irritability, death thoughts, loss of appetite, disturbances of sleep, lack of energy, etc. that tend to cluster together. At the individual level, a depressive syndrome is recognized when the behavioural characteristics reach a given threshold that signals a significant deviation from the norm. Depressive disorders correspond to psychiatric diagnosis of depression as defined in ICD-10 (WHO, 1988) or DSM-III-R (APA, 1987).

It is assumed that developmental pathways exist that sequentially link these constructs in the course of normal and pathological development, although little is actually known on the rates and patterns of these transitions (cf. Fombonne, 1994). However, important methodological differences exist across studies according to the particular operationalization of depressive phenomenon that is used, and this jeopardizes efforts to compare results across studies. The present study, however, is concerned with the presence of depressive symptoms in non-clinical samples of adolescents at two age levels.
CORRELATES OF DEPRESSION

Depressive symptoms are frequent in physically ill adults, occurring in 22-23% of all medical in-patients (Levenson et al., 1987) and in 6-28% of medical out-patients (Broadhead et al., 1989). Between 20 and 58% of depressed in-patients have physical illness (Keitner et al., 1991), and findings from the medical outcomes study (Wells et al., 1991) show that 68% of depressed out-patients have at least one of eight chronic diseases.

It is common to observe depressive symptoms following various types of endocrine dysfunction that include hyperthyroidism, hypothyroidism, autoimmune thyroiditis, hyperparathyroidism, hyperinsulinism and adrenal cortical hyperplasia. Associations have been reported between depression and other physical conditions including stroke, hypertension, upper respiratory infection or chronic lung disease, hypertension, cardiovascular disease, diabetes, and cancer (Lustman et al., 1992; Stern & Bachman, 1991; Wells et al., 1989; Persky et al., 1987).

These associations have not been conclusively established. For example, Murrell and Coleagues (1983) found no difference in the prevalence of depression between those with and without diabetes and Zonderman et al. (1989) could not replicate an association between depression and cancer.

The somatic condition that has been found to co-occur consistently with depression is migraine headache. The results of several systematic studies show a strong association between migraine and depression among patients undergoing treatment for migraine (Jarman et al., 1990), patients
in treatment for depression (Marchesi et al., 1989) and subjects from the general population (Breslau et al., 1991; Merikangas et al., 1988).

Moldin, Scheftner, Rice, Nelson, Knesevich, & Akiskal (1993) examined association between depressive disorder and physical illness. The association between major depressive disorder (MDD) and self-reported histories of specific physical illnesses was investigated in 320 controls and 1968 first-degree relatives and 254 spouses of probands in the NIMH Collaborative Depression Study. The schedule for Affective Disorders and Schizophrenia - Lifetime Version was used to assign Research Diagnostic Criteria (RDC) diagnoses and a structured self-report instrument was used to assess lifetime medical history. Lifetime MDD was diagnosed in 914 subjects, 402 of whom had been hospitalized or received somatic treatment ('treated' MDD). Strong associations were observed between MDD (either treated or untreated) and both frequent/severe headaches and migraine headaches. There was a marked gender effect such that the relative odds for a woman with treated MDD to report migraine were over 5.1. Other associations were found between MDD and skin infections, respiratory illness, ulcer, hypotension and diabetes. The authors remarked that this is the largest non-patient sample using standardized assessment of mental disorders by direct interview in which associations between specific physical illness and MDD have been demonstrated.

Beekman, Kriegsman, Deeg, & Tilburg (1995) examined the association of physical health and depressive symptoms. In this study the relation between four aspects of physical health and depressive symptoms levels were studied in a community-based sample of older inhabitants of a
small town in the Netherlands (n=224). Results indicated that depression as measured with the CES-D is sufficiently different from physical health to be distinguished from it, and that it is sufficiently related to physical health to be relevant for further study. The more subjective measures of physical health used in this study (pain and subjective health) appeared to have a much stronger relation with depression than the more objective health measures (chronic diseases and functional limitations). Physical health and aspects of the social environment such as marital status appeared to have independent effects on mood. In this study these effects were moderated by age and sex. In women and the young-old (55-64) none of the associations between physical health and depression were significant. In men and the old-old (75+) all associations were highly significant.

Adverse experiences in childhood also raise the risk for depression in adult life (Brown & Harris, 1993). Childhood psychiatric disorders and psychiatric symptoms, especially, have been found to be associated with depression in adulthood (Caspi et al., 1996; Harrington et al., 1993; Rodgers, 1990). Many of the earlier studies have focused on the effects of childhood separation. Parental divorce - but perhaps not parental death - has been found to have an association with later depression in adulthood (Parker, 1992; Tennant, 1988). It has been emphasized that the separation itself may not be the significant factor, but rather the consequences of the separation (Rutter, 1994). In the study conducted by Harris et al. (1986), lack of care after the separation was the most important risk factor predisposing for later depression. Overall, individuals with a history of depression report their parents as being less caring and more over-protective than do controls (Mackinnon et al., 1993). Physical and sexual
abuse in childhood has been found to predict strongly depression in adulthood (Mullen et al., 1993; Brown & Anderson, 1991; Bifulco et al., 1991).

A number of studies have also shown that ongoing depression is associated with social support, negative cognitions and social adversity. Depressed individuals have greater difficulties in interpersonal interaction (Brugha, 1995; Upmanyu, Upmanyu, & Dhingra, 1992; Coyne, 1976; Weissman & Paykel, 1974), less gratifying social contacts (Costello, 1982; Roy, 1978) and a weak social support system (Andrews et al. 1978). They also manifest a variety of negative cognitive patterns (Umanyu & Reen, 1991; Teasdale, 1988; Lewinsohn et al., 1981; Seligman et al., 1979; Beck, 1967). However, only prospective studies can establish whether these characteristics precede a depressive episode and whether they can be used to predict a new onset (Lewinsohn et al., 1988). Although the role of stressors in provoking depressive episodes is well documented (Billings et al., 1983; Tennant et al., 1981; Paykel, 1978), such events cannot usually be used for predictive purposes since they are usually too closely linked in time with the onset itself, usually occurring in the prior few weeks. In brief, it is imperative to note that the role of negative cognition, stressful life events and social support is well documented in the literature.

Recent studies of depressive disorders and symptomatology have identified salient psychosocial risk factors that were included in the current study. Two broad sociodemographic factors, gender, and age, have been widely studied as risks for depression in children and adolescents. Most recent studies have reported that at adolescence females are at
significantly greater risk than males for depression or depressive symptomatology (Garrison et al., 1989; Reinherz et al., 1989; Kashani et al., 1987; Kandel & Davies, 1982). However, there is mixed evidence about the relationship between, age and depression in children and adolescents (Fleming & Offord, 1990; Kaplan et al., 1984). Some of the representative studies concerning gender, age, and locus of control have been discussed in the subsequent pages.

GENDER DIFFERENCES IN DEPRESSIVE SYMPTOMS

Gender is a dauntingly complex variable because it covaries with so many other biological, psychological and social variables. Gilbert (1992) states, "Gender refers, not only to biological sex but also to the psychological, social and cultural features and characteristics that have been strongly associated with the biological categories of female and male". (p. 385)

Historically, researchers have dealt with it largely through neglect. It is only within the last 10 years that investigators have begun to consistently report the gender composition of their samples and to analyse their data for gender differences. Until quite recently, the authors have taken a gender - neutral approach to illnesses that are anything but (cf. American Journal of Psychiatry, 153: 8 August, 1996).

Discussion of gender differences of any kind often begin with the conclusions from Maccoby & Jacklines (1974) landmark review of sex differences in cognition, temperament, and social behaviour, Maccoby and Jacklin used the formerly popular narrative method of review: Studies were grouped by area, the significance or nonsignificance of each sex difference was noted by study, and conclusions were drawn subjectively
from both the number and the consistency of significant gender differences. Maccoby and Jacklin's review of temperament gender differences - which mixed studies that used personality inventories with studies that measured behaviour thought to reflect personality traits - found males to be more assertive (dominant), more aggressive, and less anxious than females. No sex difference was found for self-esteem.

Gender differences in locus of control were concluded to vary by age, with a gender difference (greater male internality) emerging only in the college years. Henderson et al. (1981) found that women in Camberra reported more depression, anxiety and irritability than men. Mavreas and Bebbington (1988) in their comparison of the syndrome profiles obtained in the two independent surveys of Camberwell and Athens showed that in both communities women tend to score higher in all syndromes and that the differences were especially marked in the "depression", "general anxiety", situational anxiety" "tension" and worrying" syndromes. In the context of depression, community surveys are the best source for assessing gender differences in depressive disorder (Meltzer et al., 1995; Wolk & Weissman, 1995; Bebbington, 1994; Kessler et al., 1993). Community psychiatric surveys in adults almost invariably study subjects who have already passed through puberty. Studies of adults from several countries have emphatically documented that women have 1.5 to 3 times more current and life time unipolar depression than men (Pakriev et al., 1998; Loewenthal et al., 1995; Blazer et al., 1994; Weissman et al., 1993, 1996; Wilhelm & Parker, 1993; Kessler et al., 1993, 1994; Wittchen et al., 1992; Wells et al., 1989; Hwu et al., 1989; Cheng, 1989; Bland et al., 1988a,b; Lee et al., 1987; Canino et al., 1987; Bebbington et al., 1981; Weissman & Klerman, 1977). The sex ratio is maintained in all western societies and in
some non-western studies and recent cohort studies do not reveal much change (Wolk & Weissman, 1995). In recent studies the same phenomenon has been found in South America (Andrade et al. 1996; Posada & Torres, 1996) and in Turkey (Dogan et al. 1996). More recently Bebbington et al. (1998) has remarked: "one of the major unsolved problems in psychiatric epidemiology is the extremely consistent finding that women suffer from higher rates of depression than men" (p. 9)

A review of literature reveals that for adults this ratio is constant whether depression is measured by diagnosis, or 'self-reported' symptoms, and whether participants are selected from a clinical setting or from the community. The sex difference emerges in early adolescence and continues until late middle age (Burke, Burke, Regier, & Rae, 1990). Cross-sectional evidence shows that prior to puberty, depressive symptoms and rates of depression generally tend to be higher in boys than girls (Nolen-Hoeksema et al., 1991; Costello et al., 1988; Pearce, 1978), even though exceptions to this have been noted (McGee et al., 1990; Flemming et al., 1989; Kashani et al., 1983). In adolescence, however, a trend emerges showing a preponderance for depression or depressive symptoms in girls (Angold & Rutter, 1992; McGee et al. 1990; Kashani et al., 1987; Offord et al., 1987; Rutter, 1986; Kandel & Davis, 1982; Albert & Beck, 1975). There is no evidence that it is the result of an artifact, such as women's greater willingness to seek treatment (Paykel, 1991; Weissman & Klerman, 1977). More precisely speaking, this difference is one of the most consistent and robust finding in adults's depression (Bebbington et al. 1998, Bebbington, 1988; 1990; 1996).
Madianos & Stefains (1992) examined the regional prevalence of symptoms of depression and clinical (current) and major depressive episodes in Greece in the years 1978 and 1984. The purpose of the study was to answer the following questions:

- Were there any differences in the prevalence rates of symptoms of depression between 1979 and 1984?
- Were there any differences in the regional distribution of the prevalence rates of depressive symptomatology?
- What were the predictors of depressed mood?
- Were there any differences in the prevalence of major depressive episodes during the 6-year period (1978-1984) with respect to sex and regionalization?

The interviews in both surveys were conducted using structured questionnaire, aimed at obtaining data about physical and mental health, suicidal behavior and related psychosocial issues (i.e. help-seeking patterns, drug / alcohol use, and family medical history). Sociodemographic data were also obtained.

The prevalence of depressive symptomatology was assessed by the use of the CES-D scale developed by the Centre for Epidemiological Studies, National Institute of Mental Health (USA). A cut-off score of 16 and over provided the best estimates for sensitivity (81%) and specificity (78%) when the scale was tested against the DSM III - R criteria for current major depressive episodes (APA, 1987).

The consistent finding that prevalence rates of affected disorders are 2 or more times higher in women than in men (Murphy, 1986, Boyd & Weissman, 1981; Craig and Van Natta, 1979; Weissman & Klerman, 1977; Silverman, 1968) was confirmed. In both surveys women exhibited rates...
which were 2.4 times higher than men.

Upmanyu & Upmanyu (1993) examined depression in relation to sex role identity and hopelessness among male and female Indian adolescents. The subjects were 100 males, who ranged from 17 to 20 years of age, and 100 females, who ranged from 16 to 20 years of age. The subjects completed the Bern Sex-Role Inventory (Bern, 1974), the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974). The Psychometric characteristics of these measures are well documented in India (Upmanyu & Reen, 1991).

The 2 X 2 X 2 (Gender X Hopelessness X Sex Role Orientation) factorial design satisfied the conditions for applying an analysis of variance (ANOVA). Main effects of gender, $F(1,184) = 10.34, p<.001$, and hopelessness, $F(1,184) = 18.07, p<.001$, were found. The analysis also yielded a Gender X Hopelessness interaction, $F(1,184) = 3.81, p <.05$ and a Gender X Hopelessness X Sex Role Orientation interaction, $F(1.84) = 3.58, p<0.5$. The results corroborate previous findings indicating that females exhibit more depressive symptoms than males do.

The findings regarding the male Indian adolescents are very similar to the findings of previous studies of North American Students, but the findings of markedly severe depression in female adolescents with masculine identity and high hopelessness has not been previously reported.

Wilhelm, Parker, & Asghari (1998) conducted a study to examine sex differences in frequency, duration and severity of experience of
depressed mood state in a non-clinical group and to consider how such findings contribute to the understanding of sex differences in depressive cohort of 156 subjects, assessed initially in 1978 in their last year of teacher training, was reassessed at 5-yearly intervals over 15 years. On each occasion, the subjects completed self-report ratings of experience of "normal depression" and measures of neuroticism, trait depression, self-esteem and sex role. The study found no sex differences in the number or duration of episodes. Women reported more symptoms per episode and some specific symptoms (including fearfulness, appetite and weight gain) more often. The number of symptoms was correlated with neuroticism, self-esteem and trait depression scores, and with gender but not sex role. The number of episodes was related to trait depression and self-esteem but not neuroticism. The results showed that there are links between female gender, neuroticism and number of symptoms experienced during depressed mood state episodes. These links are related more to female gender than to feminine sex role or premenstrual problems, and are reflected in the severity of affective change (and some specific symptoms) but not in the number of episodes.

However, a quantitative synthesis of published research (Jorm, 1987) established that the 'sex difference' is 'age specific' and that it varies as a function of the social situation. Thus, a female preponderance is rare in college and university students (Parker, 1979; Hammen & Padesky, 1977), while Jenkins (1985) failed to find sex differences in depressive symptoms when she controlled for age, education, occupation and marital status is selecting a sample of public servants in the British Home Office.
Theories attempting to explain it span several academic disciplines. Theories of gender differences are in the early stages of development and empirical research is still insufficient (Chubb et al., 1997). It is not clear whether the determinants of this sex difference among adults are predominantly biological or social. Women clearly differ from men in both these respects, but it is only possible to construct refutable theories on the basis of variables that not only distinguish between men and women but also between certain categories within the sexes. It is particularly important not to ascribe explanatory value to variables that are merely proxies for sex. However, variables that change with age, even if in only one of the sexes, may be capable of explaining sex differences.

Although attractive, explanations in biological terms face a number of problems and difficulties (Bebbington et al., 1998; Bebbington, 1996). If higher rates of depression in women were solely due to a biological vulnerability, the sex ratio ought to be unaffected by the sociodemographic status of the studied group. However, groups in which the social differences between men and women are minimized often show a reduced sex difference (e.g. Wilhelm & Parker, 1989; Jenkins, 1985). Marital status also affects the difference. Sex ratios typically differ in the single, the married and post-married. Thus, in one community psychiatric survey, single and divorced women had a lower prevalence of minor affective disorder than their male counterparts, while wives had over five times the prevalence of husbands (Bebbington et al., 1981). However, this effect of marital status varies according to where the study is carried out. It seems to be much more pronounced in the industrial cities of Northern Europe than in Mediterranean cultures (Vazaquez - Barquero et al., 1987; Mavreas et al., 1986).
Similar findings and anomalies have been reported for the involvement of women in child-care, which in some but not all locations is associated with a high prevalence of disorder (e.g. Roman - Clarkson et al., 1988; Bebbington et al., 1981; Brown et al., 1977). This suggests not only that social variables are important in determining the sex ratio for depression, but that the association with relatively simple sociodemographic factors may itself be affected by more subtle sociocultural influences.

Further, it is claimed that clinical depressive disorders are rare in childhood and show no female excess, perhaps even the reverse (Angold & Rutter, 1992; Petersen et al., 1991), although not all authors agree (Ruble et al., 1993). However, prevalence appear to rise sharply in late adolescence and early adulthood, particularly in females (Lewinsohn et al., 1994). Puberty may thus be linked to the emergence of the sex difference (Patton et al., 1996; Cohen et al., 1993; Choquet & Menke, 1987), but puberty is both a biological and a social transition, and is in any case a prolonged process that is difficult to date (Fombonne, 1995).

A number of other explanations have also been offered in the literature. Women may be subject to more, or more upsetting, life events than men. Some researchers have found this (Bebbington et al., 1981b, 1991, Brown & Birley, 1968), others have not (Perugi, et al., 1990; Thoits, 1982; Uhlenhuth et al., 1974; Uhlenhuth & Paykel, 1973a,b). Women may be exposed to more chronic problems than men (Pearlin & Johnson, 1977; Pearlin & Lieberman, 1977; Radloff, 1975). Bebbington and his colleagues (1991) found that, although recent adversity was indeed commoner in women, it could not account adequately for their excessive frequency of
Early hardships and misfortunes may be more serious candidates for explaining high female rates of depression. The direct effects of physical abuse are quite clear in childhood, and suggest a link with adult depressive disorder, since they lead to depression, low self-esteem, hopelessness, and an external locus of control (Allen & Tarnowski, 1989). Roesler & McKenzie (1994) state that abuse in childhood leads to adult depression, that sexual abuse is worse in this respect than physical abuse and that forced sexual abuse is the worst of the lot. Sexual abuse is commoner in females (Nuttall & Jackson, 1994) and might go a considerable way to explaining adult sex difference in depressive disorders. Bifulco and her colleagues (1991) found major effects of sexual abuse on rates of depression in their working class London women. Kuyken & Brewin (1994) reported that, of 35 depressed women who had been abused in childhood, 30 had experienced 'flashbacks' of the abuse in the previous week. Abuse induces the sorts of cognitive changes that would be expected to mediate the link with adult depression (Brewin, 1996; Rose et al., 1994). This is an under-researched area as an explanation of sex differences in the experience of depression. It may be very important. It is also possible that women have a special susceptibility to life events (Cooke & Hole, 1983; Bebbington et al., 1981b), itself requiring explanation. Certain subgroups of women, for instance those caring for young children may be especially prone to depressive responses to life events (Bebbington et al., 1984; Brown & Harris, 1978).

Particular events may have more impact on women, specifically those affecting close emotional ties. Turner & Avison (1989) and Kessler &
McLeod (1984) developed the 'cost of caring hypothesis': women care more for others and are more affected by events affecting others rather than themselves. Turner & Avison (1989) found that women were equally vulnerable to self-focused events, but more so than to events affecting others.

The importance for women of events affecting intimate relationships brings us to a final vulnerable group, people with low social support (Alloway & Bebbington, 1987). These appear to be at particular risk of developing depression, at least partly because they are more vulnerable to the experience of psychosocial adversity. Women might be at high risk of depression because they have less access to social support, or because they are more vulnerable to its absence. In fact, there is no evidence whatever that women have reduced social support, as is only to be expected in view of their affiliative style. Turner & Marino (1994) claim that the epidemiology of poor social support is very similar to that of depression, with the exception of sex. In other words, the high rates of depression in women cannot be blamed on poor social support.

Thus, women when depressed are likely to use more prosocial coping strategies than men (Hobfall et al., 1994) but at the same time low social support is associated with greater tendency toward (maladaptive) rumination (Nolen-Hoeksema et al., 1994).

AGE DIFFERENCES

Developmental psychopathology is concerned with processes and mechanism - pathways through childhood and into adult life, with an interest in discontinuities as well as continuities, different chain reactions.
explaining continuities, and transitions explaining discontinuities (Rutter, 1986). Special attention is given to the possibility that experiences or processes in one phase of development may modify an individual's set of responses at a later point - through either "sensitizing" or "steeling" effects. Stress may make an individual vulnerable to further stresses, thus having a "sensitizing" effect. It is also possible, as shown for instance in Elder's works on the Impact of Economic Hardships on child rearing and child development (Elder, 1979) that under certain circumstances, stresses may also make a person resilient to later stresses, for instance by increasing competences or by helping the person to learn more effective coping strategies, i.e. a "steeling effect".

An increase in both depressive feelings and depressive disorders and a change in sex ratio for such disorders take place in adolescence (Brooks-Gunn & Petersen, 1991; Rutter, 1986); while most research has reported no clear sex difference in depression in childhood, and some studies a male excess, it is clear that there is a change in the sex ratio around puberty: from adolescence on, the rates for females in depression exceed those for males. The mechanism underlying these changes are of great interest in developmental research into depression.

The child and adolescent epidemiological literature generally agrees that rates of depression are similar in prepubertal boys and girls, and that rates of depressive disorders begin to rise in girls at some time between childhood and age 15 (Lewinsohn et al., 1994, 1995; Reinherz et al., 1993; Angold & Rutter, 1992; Nolen-Hoeksema et al., 1991; McGee et al., 1990; Fleming & Offord, 1990; Velez et al., 1989; Guyer et al., 1989; McGee & Williams, 1988; Bird et al., 1988; Kashani et al. 1987; Cohen &
Brooks, 1987; Anderson et al., 1987; Rutter et al., 1976). But this age range covers a lot of developmental ground. Two longitudinal community studies suggested that female excess did not emerge until after age 13; the Dunedin Longitudinal study (McGee et al., 1992; Anderson et al., 1987), and the New York Study (Cohen et al., 1993; Velez et al., 1989; Cohen & Brooks, 1987). On the other hand, Angold & Rutter (1992) study of a large clinical population found that the preponderance of referred girls with depressive disorders began to emerge at around the age of 10.

Thus, there is a good evidence that depressive symptoms and disorders are more common in adolescence than in childhood, and it also seems to be the case that the preponderance of females, so typical of adult depressed groups, only emerges at this time (Angold, 1988; Weissman et al., 1987a; Rutter, 1986).

Previous findings have also indicated that there were some (albeit small) differences in symptom profiles between early (before age 15) and later onset depressions (Weissman et al., 1987a), with the later group more often reporting weight loss and insomnia and less often reporting weight gain. Other workers have also reported age-dependent changes in depressive symptomatology in clinical samples. For instance, McConville et al. (1973) have described three forms of depression characterized by "affectual symptoms", guilt, and low self-esteem, respectively. The first of these appeared to be more common in 6 to 8 years-olds, whereas the low self-esteem type became more frequent at later ages. The guilt type, which seemed to resemble adult psychotic depression in a number of ways, emerged principally after the age of 11. Inamdar et al. (1979) noted the absence of motor agitation or retardation, delusions of guilt, and
hopelessness in their sample of 30 depressed adolescents. However, these symptoms have been reported by others who work with depressed adolescents (Friedman et al., 1983; Chambers et al., 1982; Kazdin & Petti, 1982; Strober et al., 1981).

Ryan et al. (1987) compared the symptomatology of 95 prepubertal children and 92 adolescents with major depressive disorder (MDD), as assessed by the Kiddie-Schedule for Affective Disorders and Schizophrenia for School-aged Children (K-SADS) interview (Chambers et al., 1985). The prepubertal children had more somatic complaints, psychomotor agitation, separation anxiety, phobias, hallucinations, and a more depressed appearance, whereas the adolescents had greater anhedonia, hopelessness, hypersomnia, weight change, use of illicit drugs, and lethality of suicide attempts (though not more severe suicidal ideation or intent). There was no difference between the two groups in their overall levels of depression or the frequency of the endogenous subtype of depression (around 50% in both cases).

Angold, Costello, & Worthman (1998) addressed the following questions: (1) At what age does the female preponderance of depressions?; (2) Is pubertal status more strongly associated with the emergence of the female preponderance than age; (3) Does pubertal timing have a greater effect than pubertal stage?; (4) Does the amount of pubertal change over time have more effect on depression rates than the level of puberty reached by a certain age?

The data came from the Great Smoky Mountains Study (GSMS) of children and adolescents. A representative sample of 4500, 9, 11 and 13 year olds, recruited through the Student Information Management
System (SIMS) of the public school systems of 11 countries in western north Carolina was selected using a household equal probability design. The age-specific rate curves were quite different for boys and girls. At or above age 13 girls had consistently higher rates of depression than boys, but this was not the case at earlier ages. A second notable point is that the boys showed a fall in depression rates after the age of 9, while the girls showed an increase after the age of 12. Depression was about twice as common in boys before puberty (Tanner Stage I) than in boys who were experiencing the physical changes of puberty (around 6% vs. around 3%). This difference was significant (P = 0.03), but this comparison was only made post hoc because the data indicated that this was where any significant comparison would lie.

Pubertal status better predicted the emergence of the expected sex ratio than did age. Only after a transition to mid-puberty (Tanner stage III and above) were girls more likely than boys to be depressed. The timing of this transition had no effect on depression rates. Before Tanner Stage III, boys had higher rates of depression than girls and the prevalence of depression appeared to fall in boys at an earlier pubertal stage than that at which it began to rise in girls. In addition, recent transition to Tanner Stage III or higher had a transit effect in reducing the prevalence of depression in boys.

Bebbington, Dunn, Jenkins, Lewis, Brugha, Farrell, & Meltzer, (1998) studied the influence of age and sex on the prevalence of depressive conditions. Data from the National Survey of Psychiatric Morbidity were used to test the hypothesis that the excess disappeared in the Post-menopausal years and obvious social explanations for this were inadequate. Subjects (N = 9792) from a random sample of the British
population provided data for the analysis. Psychiatric assessment was carried out by lay interviewers using CIS-R. Subjects with ICD-10 depressive episode or mixed anxiety/depression were compared with remainder. Social variables that were likely to contribute to a Post-menopausal decline in depressive disorders were controlled in logistic regression analyses. There was a clear reversal of sex difference in prevalence of depression in those over age 55. This large and representative survey adds considerably to the increasingly held view that the sex difference in prevalence of depression is less apparent in later middle age.

Angold, Psych, Weissman, John, Wickramaratne, & Prusoff (1991) examined the effects of age and sex on depression ratings in children and adolescents. The self reports of depressive symptomatology of the 89 children and the parental reports of 62 parents whose children had such symptoms from a sample of 220 children, aged 6 to 23 years, in a family-genetic study of children at high and low risk of depression were examined for the effects of the age and sex of the child. The age of the child at interview proved to have a significant effect upon the dating of the onset of dysphoric episodes and the dating of the worst ever episode of dysphoria. The older girls reported about two more depressive symptoms on average than the younger girls. This finding was obscured unless account was taken of the age at which the subjects were interviewed. However, these effects did not apply to a group of melancholia-related symptoms. These were no consistent effects of age at interview or age at episode on the symptom reports of the boys or in the reports from the parents about both their male and female children. Jolly, Wiesner, Wherry, Jolly, & Dkyman (1994) studied the influence of gender on the
comparability of self and observer ratings of anxiety and depression in adolescents. Subjects were 75 inpatient adolescents who were administered structure interviews of the revised Hamilton Rating Scales for Depression (HRSD-R) and Anxiety (HARS-R) and read the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). All measures demonstrated adequate internal consistency and validity. The correlation between the BDI and HRSD-R was significantly higher for females than males; of 11 symptoms that overlap on the BDI and HRSD-R, observers significantly agreed with males and females in their perceptions of 5 and 11 depressive symptoms, respectively. The correlation between the BAI and HARS-R did not differ significantly for males and females. Results suggest that self-reports of anxiety symptoms are a valid, cost-effective alternative to anxiety observer ratings for boys and girls, while only girls self-reports of depression are comparable to depression ratings by observers. There is the need to collect self-report information from adolescent boys because they may not communicate subjective symptoms of depression, e.g., guilt, to observers.

DEPRESSION AND LOCUS OF CONTROL

Control is important to psychological functioning. Decades of research in sociology, psychology have demonstrated that a sense of control is a robust predictor of physical and mental well-being (Lachman & Burack, 1993; Fiske & Taylor, 1991; Thompson & Spacapan, 1991; Bandura, 1989; Strickland, 1989; Rodin, 1986; Baltes & Baltes, 1986; Gurin & Brim, 1984; Lefcourt, 1981, 1982, 1983) and perhaps even longevity (Langer & Rodin, 1976; Seligman, 1975). Both experimental and correlational studies have shown that across the life span, from earliest
infancy to oldest age, individual differences in perceived control are related to variety of positive outcomes, including health, achievement, optimism, persistence, motivation, coping, self-esteem, personal adjustment, and success and failure in a variety of life domains.

Being of primary concern for human functioning the construct of control has a pervasive influence on psychological theorization and practice and has proved to be one of the most productive areas of research and application. Control has been used as key concept to predict diverse aspects of behaviour in normal populations, to explain deviant behaviours in marginal and abnormal people, and to formulate techniques to promote well being. It would not be exaggeration to say that psychologists have developed an obsession for this construct. It may be discerned that the notion of personal control involving freedom, choice, autonomy, influencibility as subjectively felt or perceived by a person is thoroughly individual centered and has been developed in western cultural milieu. It is firmly rooted in a world view which recognizes primacy of individual over the social consequences and enjoy a sense of personal competence. At a generic level control takes the form of perception, attitude or belief regarding some object or aspect of environment over which an individual has authority and power in terms of dictating terms and conditions of its operation. Thus, the use of the concept of control dichotomizes our existence and maintains a relationship of power and authority between self and other.

In research literature, the perception of control has generally been documented to yield immense positive effects on performance, interest and motivation across many spheres of life such as education, health,
organizational performance, and sport. In contrast, any threat or loss to the feeling or experience of control proves to be harmful. However, the most remarkable contribution to this field was the notion of internal-external (I-E) control of reinforcement, popularly known as locus of control, by Rotter (1966). Within the framework of social learning theory Rotter explicated the significant role of generalized expectancies of reinforcement outcomes in relation to factors within the person and external to him. The studies generally show that internal control is healthy and positive while external control is handicapping, dysfunctional and often limits one's success in life. In this process locus of control was converted into more or less a (stable) personality disposition and the original measure has been adapted, adopted and many new measures have been developed to assess control beliefs in a variety of specific life domains.

The study of control has also received attention in the field of stress and health (cf. Syme, 1990; Peterson & Stunkard, 1989; Rodin, Timko, & Harris, 1986). Originating in animal studies and subsequently extended to human beings the notion of learned helplessness (Abramson, Seligman, & Teasdale, 1978; Seligman, 1975) emphasized that the experience of a non-contingent relationship between behaviour and outcome makes the organism helpless. In essence helplessness reflects an uncontrollable or inescapable condition in which reinforcement and responding are independent. In the case of human beings attribution for negative events to stable, global and internal causes has been found critical for the feeling of helplessness. In contrast, mindful mastery has positive consequences for human functioning (Langer, 1983, 1992). More recently, attention has been paid to the role of explanatory style in determining health and illness
(Peterson, Seligman, & Vaillant, 1988). The explanations may range from optimistic to pessimistic. The pessimistic explanatory style is positively related to well being. Interestingly the explanations are found quite consistent across time periods for a given person. There are some studies on self control in which patients have been helped to develop control over their behaviour and cognition (Shapiro, 1984) and on the effects of impulse control (Srivastava, 1984).

During the last 25 years, one of the most widely researched personality variables has been locus of control, the generalized expectancy of reinforcement as either internal or external to the self (Strickland, 1989).

Locus of control is defined as a generalized expectancy of internal or external control reinforcement (Rotter, 1966). The internally controlled individual believes that reinforcement is attributable to his/her own ability or efforts. The externally controlled individual believes that reinforcement is attributed to fate, chance, or some powerful external force. In other words, internal locus of control is the expectation that reinforcement is the result of one's own effort, ability, characteristics, or behaviour, external locus of control is the expectation that reinforcement is the result of chance, fate, luck or powerful others. An individual does not have a clearly defined internal or external locus of control, since locus of control is a continuous variable, not a dichotomous one, and can vary situationally.

Most of the research on this construct has been correlational and much of it that was done prior to the 1980, has been summarized in three volumes edited by Lefcourt (Lefcourt, 1981, 1983, 1984). It is clear from
the literature that numerous researchers have investigated the relationship between the perception of locus of control reinforcement and different aspects of personality, including perceived stress, motivation to attain goals, personal adjustment, hostility, and problem-solving strategies.

The past reviews (Carliste-Frant, 1992; Dyal, 1984; Hui, 1982) indicate that people in western and industrialized countries on average are more internal than those in the far east and developing countries. Also, men are found to be more internal than women. Blacks have been shown to be more external than whites. This difference remains even after controlling the socio-economic differences. The differences across European countries and between them and U.S.A. are negligible. In contrast, Japanese are more external than their U.S.A. counterparts (cf. Misra, 1994, p.20).

Internal locus of control has also been correlated with many socially desirable variables, such as staying in high school (Ekstrom, Goertz, Pollack, & Rock, 1986), taking responsibility for one's own actions, being more independent, and exhibiting greater self-control (Lefcourt, 1976), reduced anxiety (Nunn, 1988), the ability to defer lesser short-term rewards for long-term goals (Miller, 1978; Strickland, 1973), positive adjustment at home, school, and with peer relationships (Nunn, 1987; Nowicki & Duke, 1983), and being raised in a home environment that is warm, protective, and nurturing (Crandall & Crandall, 1983; Nowicki, & Schneewind, 1982; Chandler, Wolf, Cook, & Dugovics, 1980; Lefcourt, 1976).
Some studies did not find a relationship between locus of control and the variables of interest. Locus of control was not found to be related to problem behaviour during adolescence (Jessor & Jessor, 1977) or social desirability (Nowicki & Strickland, 1973).

Greater externality has been related to higher levels of psychopathology in reviews by Lefcourt (1976) and Strickland (1978), the specific nature of the relationship between locus of control and depression, however, has remained obscure.

Significant relationships between greater externality and higher depression levels has been found in investigation of college students (Abramowitz, 1969), psychiatric outpatients (Becher & Lesiak, 1977), alcoholics (Donovan, Radford, Chaney, & O'Leary, 1977), army recruits (Naditch, Gargan & Michael, 1975), and the aged (Hanes & Wild, 1977). There have, however, been several reports of negative findings between these variables (Evans & Dinning, 1978; Rosenbaum & Raz, 1977).

Research by Evans & Dinning (1978) among male and female psychiatric inpatients showed I-E Scale scores were unrelated to Beck Depression Inventory responses. Further, Rotter (1975) has contended that both extreme external and internal scores on the I-E scale may be related to greater psychopathology on measures such as depression. Finally, among studies showing significant relationships between externality and greater depression, several researchers have reported stronger associations for male respondents (Fogg, Kohaut, & Gayton, 1977; Hanes & Wild, 1977).

Leggett & Archer (1979) examined the relationship between locus of control and two depression measures in a sample of 45 male and 38 female psychiatric inpatients. Correlational analysis showed significant
relationship between greater externality and higher depression scores for both depression measures. Also significant sex differences were identified such that higher magnitude correlation coefficients were found for male patients. No significant relationships were found between locus of control orientation at admission and changes in depression as a function of treatment.

Benassi, Sweeney, & Dufour (1988) applied meta-analytic techniques to review studies of the relation between locus of control and depression. Contrary to what some authors have claimed, these authors found that locus of control orientation and degree of depression were significantly related, that the relation was moderately strong, and that it was consistent across studies. Greater externality was associated with greater depression. Studies that included separate subscales for locus of control for positive and negative outcomes produced similar results. Seven potential mediators of the locus of control-depression relation were investigated, with only two producing significant results. Effect sizes varied as a function of the particular locus of control and depression scales used in studies.

More recently, Upmanyu & Reen (1991) found that the relationship between locus of control orientation and depression is influenced by the nature of self-report instruments of depression as well as sample characteristics. The authors found that the depressive measures derived from Beck Depression Inventory and MMPI-D Scale failed to correlate with locus of control, whereas the depressive measures derived from Zung's self-rating depressive scale correlated positively and significantly
with locus of control in case of employed married women and negatively with locus of control in case of non-employed women.

Literature suggest that the relation between depression and external control is not a simple one to one relation. It might help to adopt the view that the multiple causes and types of depression may exist and to assess varying definitions and populations. It may well be that both general interpretations of depression, i.e., lack of internal locus of control and presence of internal locus of control with high standards of self-approval, are correct but for different groups of depressed people. Until additional research is carried out the relation between locus of control and depression will remain unclear, just as will the status of the differing theoretical interpretations of depression.

OVERVIEW

(1) Depression is a common mental disorder in America, England, Australia and Finland.

(2) Depressive symptoms are much commoner than clinical depressive disorders.

(3) Depression is a common disorder with a lifetime prevalence ranging from 3% to 35% according to different community surveys (Pakriev, Vasar, Aluoja, Saarma, & Shlik, 1998). This variability in prevalence, however, may be explained by the differences in the methodology of assessment (diagnostic criteria, different instruments) and also by specific features of the studied population.
The variation in diagnostics of depression makes it difficult to compare the findings of different studies. This variation and ambiguity of the definition of depression is the main reason why the picture of its epidemiology is still far from clear and consistent.

Further, despite its high prevalence in the general population as well as adolescence, the majority of depressed patients remain unrecognized and inadequately treated (Horwath, Johnson, Klerman, & Weissman, 1994). Epidemiological data on prevalence of depressive symptoms, comorbidity and risk factors for depression are important for providing information for social and health care policy, planning services and developing preventive activities.

Most studies, however, agree that in the middle age women tend to suffer from depression more frequently than men (Bebbington, 1996). Bebbington et al. (1998) remarked that the excess of depression in women disappears in the post-menopausal years. Further, using retrospective data, some of these studies have pointed to adolescence as the time when this gender difference first appears. The child and adolescent epidemiological literature generally agrees that the rates of depression are similar in prepubertal boys and girls, and that rates of depressive disorders begin to rise in girls at some time between childhood and age 15.

Thus, the sex difference emerges in early adolescence and continues until late middle age (Burke et al., 1990). Adolescence is assumed to be the developmental period in which these differences emerge and intensify, creating a pattern which continues with gender differences in depressive symptoms and disorder in
adulthood (Leadbeater, Blatt, & Quinlan, 1995). This gender difference has been shown to be unrelated to the women's greater willingness to seek help or more help seeking behavior (Paykel, 1991; Weissman & Klerman, 1977). This difference is one of the most robust findings in adult's depression research and theories attempting to explain it span several academic disciplines. Findings about other correlates of depression, however, are not so consistent.

Most non-clinical studies (i.e. non-diagnostic self report studies) identifying females as more depressed have typically relied on a comparison of mean depressive scores. Specifically, in a recent study by Moein (1996), it was noted that the boy's distribution of depression scores appeared more skewed, with proportionately more subjects in the very low or very high category, relative to girl's distribution of depression scores. That is, although most males were not at all depressed, a number of males were considerably more depressed. Specifically, if a variable of interest in one or both groups being compared is not distributed normally (e.g., if one group distribution is bimodal or has greater skewness) drawing conclusion on the basis of difference in mean depression scores alone could be misleading or cause one to miss important features. Increased information about distribution of depressive severity will certainly help address conceptual questions of this nature because mild depression and severe depression may have different implication for prevention and treatment as well as exploring specific gender pattern in depressive symptoms and severity.
It has been reported in few studies that the risk of depression increases with age. However, recent findings have shown a considerably higher prevalence of depression in younger than in older people (Wittchen, Knauper, & Kessler, 1994). Prevalence appears to rise sharply in adolescence (Lewinsohn et al. 1994).

With respect to second and third observation, it can be emphasised that studies of differences in depression between men and women have generally addressed one of two issues (Nolen-Hoeksema, 1987; Hammen, 1982; Weissman & Klerman, 1977, 1985). The first issue is the prevalence of a diagnosable depressive disorder. These epidemiological studies generally have found the prevalence of depressive disorders to be higher in women. The second issue is the overall severity of symptomatology based on community surveys or other general samples, e.g., college students. In these studies women also have tended to report greater symptomatology. Thus, a global interpretation of previous findings suggests that women show more depressive disorder in adulthood. Most observed gender differences, however, refer to the statistical significant differences between men and women in global severity of depression.

What is less clear is the magnitude and pervasiveness of these differences during different stages of adolescence, that is how large are the effects of gender on depressive severity and symptoms in adolescence? Are gender differences similar throughout adolescence*, or they limited to a substage of

* Previous studies suffer from an important flaw in the sense that most have examined adolescent stage in general. It is not desirable to pool the information of participants belonging to different stages of adolescence.
adolescence, for example, mid-adolescence vs. late adolescence? It is noteworthy that comparison of the pattern and magnitude of gender difference in depressive symptoms in mid versus late adolescence have not been made.

The answer to these questions is meaningful for several reasons. First, it is important to document the extensiveness of gender differences in depressive symptoms to determine their role in overall models of adolescent development. If boys and girls at different stages of adolescence differ in symptoms of depression, then this difference may represent a pervasive feature of adolescent development. Alternatively, if gender differences in these symptoms are limited to a particular stage of adolescence they may reflect processes that characterize only a subgroup of high risk adolescents. Second, patterns of gender differences in mid versus late adolescence would suggest that intervention and treatment programs need to be tailored differently for different stages of adolescence, depending on the nature and scope of gender differences in mid adolescence as opposed to late adolescence.

(6) Estimates of the prevalence and magnitude of gender differences in depressive symptoms may be influenced by several methodological factors, foremost of which are the source of information, the types of symptoms that are measured, and sample characteristics. Informant differences in reports of internalizing problems in adolescence are well documented, especially the relatively low correspondence between parents and children or adolescents in their reports of depressive symptoms (Kazdin, 1994). Because many symptoms of depression are covert, it is generally assumed that parents are less accurate informants of internalizing problems than
adolescents themselves. To the extent that many symptoms of depression are not readily observed by parents, they may also be less sensitive to gender differences in these symptoms in their children. Thus, gender differences would be expected to be smaller in parents' reports than in adolescents' self-reports (Compas et al., 1997).

Keeping in view the above observation, the present study made use of self-report measures of depressive symptoms.

(7) Another methodological issue involves the types of symptoms that are measured, as gender differences may be more pronounced in some types of internalizing symptoms than others. It is difficult to draw clear conclusions from prior studies, however, as they have included measures of depressed mood (Ge et al., 1994), a syndrome of mixed anxiety and depression symptoms (Hinden et al. 1997), and mood disorders as defined by criteria of the Diagnostic and Statistical Manual of Mental Disorders [DSM-IV; American Psychiatric Association, 1994] (Lewinsohn et al., 1993). All of these manifestations of depressive problems are clinically meaningful (Compas, Ey. & Grant, 1993), but there may be considerable variance in the magnitude of gender differences across these different types of symptoms and disorders. For example, Silverstein, Caceres, Perdue, & Cimarolli (1995) found that female adolescents reported more symptoms of mixed anxiety and depression than did male adolescents, but not gender differences in more "pure" symptoms of depression.
Keeping in view this observation, the present study made use of Zung Self-rating Depression Scale, a self-report instrument of depressive symptoms*. These aspects provided the guidelines for conducting present study.

HYPOTHESES

The following hypotheses were formulated:-

1. It is hypothesised that depression is prevalent in Iranian and Indian adolescents.

   This hypothesis derives its rationale from earlier studies which indicate that depression is a common mental disorder in different geographical areas of the world. There is a scant reason to presume that the depressive symptoms are not present in the Indian and the Iranian adolescents, keeping in view the tremendous changes in different spheres. The increase in the rate of suicide and drug abuse is a reflection of the fact that the depression is also increasing at an alarming rate.

2. It is hypothesised that the prevalence rate of depressive tendencies and severity in Iranian adolescents would be more in comparison to Indian adolescents.

   This hypothesis is based on cultural differences in the correlates of psychopathology. Culture plays a deeper and basic role in constructing, framing, and defining the forms and meanings of human behaviour and experience.

* It is well documented that there can be substantial differences in the information gathered from clinical ratings and direct self-report (Frusoff et al., 1972).
The past reviews (Carliste - Frant, 1992; Dyal, 1984; Hui, 1982) indicate that people in western and industrialized countries on average are more internal than those in the far east and developing countries. Moreover, studies indicate greater effect of family members on decision making in Indians (Poole, Sundberg, & Tyler, 1982), and significant role played by the familial - cultural factors in psychiatric illness in Turkish people (Karani, 1986).

Further, it is significant to emphasise that in the present study, Iranian population of adolescents were born during Iran-Iraq war, leading to war exposure during childhood. There is ample evidence in the literature for post-traumatic stress disorder.

3. It is hypothesised that females would be higher on global measure of depressive severity than males.

4. It is hypothesised that prevalence of depressive severity would be more in females than males.

5. It is hypothesised that depressive symptoms would be experienced differently by males and females with more depressive symptoms being experienced by females than by males.

These hypotheses are based on the following observations:

One explanation reported in the research is that the adults in adolescent lives send different messages to males as compared with females about their adequacy. Further, studies continue to show that girls receive different amount and types of reinforcement from teachers. It is also possible that girls are aware of the lower status society places on relationship tending and the higher status on autonomy and independence. Moreover, normal physical changes of
puberty are associated with decreased body satisfaction for female adolescents while body image in girls had also been linked to lower self-esteem (Gilligan, Lyons, & Hammer, 1989).

6. It is expected that there would be differences in global measure of depressive severity in mid-adolescence and late-adolescence.

7. It is expected that there would be differences in depressive symptoms in mid-adolescence and late-adolescence.

These hypotheses are based on the following observations:

The effects of changes of puberty and academic pressure would be more pronounced in mid-adolescence than late-adolescence. The males and females feel more empowered in late-adolescence than when they were in mid-adolescence. In addition, the adolescents with increasing age gradually become able to delay gratification of his or her needs more easily.

8. It is hypothesized that males and females with external locus of control would be higher on depressive severity than males and females with internal locus of control.

This hypothesis derives its rationale from the association between internal locus of control and action oriented approach, and the association between external locus of control and uncontrollability parameter underlying behaviour.