CHAPTER-2
REVIEW OF LITERATURE

For conducting any piece of research study, review and survey of literature related to the study being conducted, is of paramount significance. Surveying of researches conducted in the field help the investigator in understanding the problem from different perspectives. Such a review also helps in defining the problem in researchable form. Besides, survey of the studies conducted by the other investigators in the field related to the problem in hand also helps the researcher in framing the objectives and the corresponding hypotheses of the study. However, the most significant contribution of such surveys is that they help the investigator in interpretation of the results of the study that the researcher investigates.

With the above objectives in view, the investigator also surveyed the relevant literature which is presented in this chapter. For the sake of convenience of understanding the subject matter, the reviewed literature is divided into two parts viz., Studies Conducted in India and Studies Conducted Abroad. However, it need be mentioned that relatively fewer studies have been conducted that cover the aspect related to the problem under investigation and rather fewer studies have been conducted by Indian scholars on this aspect.
2.1. STUDIES CONDUCTED IN INDIA

1. Koul (1976) studied differences in extraversion and neuroticism among urban adolescent boys and girls at high and low levels of general intelligence and socio-economic status (SES). 500 boys and 500 girls were selected from 10th-grade students of various schools. Jalota's Group Intelligence Test and Socio-economic Status Scale Questionnaire were administered, along with a Hindi version of the Maudsley Personality Inventory. Subjects in higher socio-economic status groups were more extraverted than their counterparts; girls were more neurotic than boys, and Subjects of high intelligence were less neurotic than those of low intelligence. The Sex by Intelligence by socio-economic status interaction was also found to be significant for neuroticism.

2. Rao and Prabha (1976), as part of a larger survey, administered the U. Pareek and S. Rosenweig's (1959) version—Children's Form—of Rosenweig's Picture-Frustration Test and P. Mehta's (1962) Group Test of Intelligence to 1,700 5th grade children drawn from 50 primary and middle schools in Delhi. Findings indicate that the pre-adolescents tended to blame others and defend their ego when faced with frustrating

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situations; only about 25% of the Ss showed persistence to overcome the frustration and complete a task. More detailed results are reported and are intended to serve as norms for these 2 tests.

3. Rana and Shirali (1977)\(^1\) administered the Mathur Frustration Questionnaire and the Rosenzweig Picture-Frustration Study (Indian version) to 11 nonpsychotic students seeking help at a university mental health center and to 11 normal students matched for age, intelligence, and socioeconomic status. The clinical group was significantly different from the normal group in its frustrations, especially in the areas of personal, home, and health problems, on the Mathur test. The Rosenzweig test revealed significant differences only in intra-aggressive reactions to frustration. Both groups were highly ego-defensive.

4. 50 male students were administered a battery of tests by Verma and Upadhyay (1981)\(^2\) to measure the effects of adjustment, personality, conflict, and frustration on school achievement. Higher degrees of adjustment were associated with better school achievement. Ss with higher degrees of extraversion, conflict, and frustration were poorer achievers.

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5. Lidho (1982) conducted a study on 150 engineers, doctors, and university teachers (aged 30-35 yrs). The sample was administered a group test of general mental ability, the Rosenzweig Picture-Frustration Study, and the Maudsley Personality Inventory to assess and compare intelligence, level of frustration, extraversion-introversion, and neuroticism among these professions. Analysis revealed that university teachers scored significantly higher on measures of extroversion and frustration, and engineers scored higher on measures of intelligence, than the other 2 professional groups. There were no significant differences with regard to neuroticism.

6. Kundu and Bhaumik (1982) administered the TAT to 30 male murderers (mean age 15.93 yrs) and 30 males convicted of property offenses (mean age 15.66 yrs), matched on intelligence (as measured by the Raven Progressive Matrices) and socioeconomic status. Findings reveal that murderers were more depressed, anxious, frustrated, and aggressive than non-murderers. Findings also show a close correlation between aggression, frustration, and anxiety, and between depression and frustration. Results support the conjecture of several investigators (e.g., K. Mani, 1975; D. Schipkowensky, 1968; and O. Somasundaram, 1979) who...

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found that due to their inability to control impulsive emotionality, murderers feel frustrated, depressed, and anxious—a consequence of which is reckless aggression.

7. Verma and Upadhyay (1983) examined the relationship between extraversion, adjustment and frustration in 50 high school students. Data yielded a positive coordination between extraversion and adjustment, suggesting that subjects with greater extraversion were better adjusted and subjects less extraversion had more adjustment problems. Further, more extraverted subjects were less frustrated; this occurred with the four modes of frustration (regression, fixation, resignation and aggression) as well. Correlation between adjustment and frustration were significantly negative; better-adjusted subjects were less frustrated, and more frustration subjects were less adjusted.

8. Bhaumik and Kundu (1983) studied 50 male juvenile delinquents (mean age 13.76 yrs) at a training school in West Bengal, India, and 50 non-delinquent controls (mean age 13.8 yrs) were administered measures of intelligence (the Raven Standard Progressive Matrices), SES, language spoken, educational attainment, and personality (the TAT). Results indicate significantly more aggression, frustration, and anxiety among delinquents than among the controls.

9. Shankar and Mohapartra (1985)\(^1\) administered a Hindi adaptation of the Edwards Personal Preference Schedule (EPPS), an intelligence test, an adolescent adjustment inventory, and a socioeconomic status (SES) scale to 200 Indian high school students from large (over 14 members), medium (9-23 members), and small (under 9 members) families. Regression correlations for each of the relationships among family size, adjustment, intelligence, SES, and EPPS needs are reported.

10. Chadha and Ghose (1985)\(^2\) investigated the relationship among creativity, risk-taking behavior, intellectual capacity, and frustration in 66 male and 69 female 11th- and 12th-grade high school students. Subjects were administered the E. P. Torrance Tests of Creative Thinking (1966), N. Kogan and M. A. Wallach's Choice Dilemmas Questionnaire (1964), J. C. Raven's Standard Progressive Matrices (1938), and N. S. Chauhan and G. P. Tiwari's Frustration Test (1972). Data were subjected to factor analysis after the Pearson product moment coefficient of correlation for all 11 variables was computed, and 4 factors were extracted from the 11 variables analyzed. These 4 factors included Reactions to Frustration, Divergent Thinking, Intellectual Productivity and Avoidance of Frustrating Ideas, and Risk Leading to Frustration.

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11. In a factor analytic study conducted by Chadha and Gill (1985), 100 grade 10 students were assessed on socio-economic status, frustration and anxiety. Instruments included the frustration test of N.S. Chauhan and G.P. Tiwari and A.K. Singh and L.N. Sinha’s comprehensive Anxiety Scale. From a 7X7 correlation matrix, one factor was extracted and interpreted as a socio-economic factor for frustration and anxiety. Results also indicate a significant negative relationship between frustration and socio-economic status while a significant positive relationship between frustration and anxiety.

12. Sinha’s Manifest Anxiety Scale (1967) was administered by Pandey et. al. (1986) on 115 undergraduate students of Mithila University out of which 30 students scoring P75 or above and 30 students scoring P25 or below were selected. The magnitude of illusion of the subjects was measured by the method of adjustment. 60 mm arrow-headed horizontal line was used as standard and the feather-headed line as variable. The frustration was induced in the subjects by the method of falsifying scores combined with condemning the subjects for alleged failures. Both the high low anxious subjects were divided into three groups viz. No-frustration group, Single frustration group and repeated frustration group (total six

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groups). Frustration Effect was also induced in the single frustration group by using verbal remarks. Statistical techniques of mean and ANOVA were used.

13. Kundu and Chaudhuri (1989) examined the aggressive reaction patterns in 100 boys and 100 girls (aged 9-13 yrs) as a function of demographic, psychological, and social variables, namely, age, sex, socioeconomic status (SES), aspects of personality, intelligence, and academic achievement. The Rosenzweig Picture-Frustration Study (children's form) was used to assess the type and direction of aggressive reactions. Sex of the subjects affected the reaction patterns marginally. The component of extraggression was more prevalent in boys whereas imaggression was more prevalent in girls. All the other variables significantly determined the reaction types and direction of aggression.

2.2 STUDIES CONDUCTED ABROAD

14. Armer (1970) presents 2 theoretical arguments concerning the effects of formal western education in producing a sense of alienation among individuals in traditional, non-western societies. The value-conflict thesis leads to the hypothesis that education and alienation are positively associated. The goal frustration thesis suggests that education and

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alienation are negatively associated among individuals with modern value orientations and positively associated among those with traditional orientations. Cross-tabular evidence based on structured interviews of 591 17-yr-old males in Kano, Nigeria, and involving controls for acquiescent response set and tests for the effects of ethnicity, economic status, and intelligence, casts doubt on the value-conflict thesis and supports the goal-frustration thesis.

15. Thackray and Jones (1971) obtained heart and respiration rates from 50 male undergraduates during stroop color-word test performance. Although the test is often reported to evoke strong feelings of frustration, no evidence of increased autonomic arousal was found to be associated with the color-word interference effect, and this did not change with the addition of auditory "distraction." Increasing stimulus presentation rate increased arousal, but this was independent of color-word interference.

16. Rauchfleisch (1971) investigated the validity of the Rosenzweig Picture-Frustration (P-F) Test (Study) in an experiment with 3 groups of Ss of comparable age, intelligence, and socioeconomic background characteristics: 45 normals, 61 addicts, and 44 neurotics. Answers were processed by the Hormann-Moog method. The established differences

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between the groups were examined by 2 methods: a detail analysis with regard to 22 variables using the Wilcoxon-White tests and a discrimination analysis, and a structural comparison based on factor analysis of the obtained data. Results show (a) a definitive, quantitative difference between normal and addicted Subjects and between normal and neurotic Ss; and (b) in qualitative respects, a very little differentiation between the 3 groups. It is concluded that the P-F test is useful for clinical psycho-diagnostic work, recommended mainly for differentiating between psycho-pathologically conspicuous persons and health ones. In differential-diagnostic presentation of questions, however, the use of qualitative characteristic syndromes will produce better results.

17. Prenter and Stewart (1972)\(^1\) administered a questionnaire to 156 14-16.5 yr. old female secondary school students to study a wide range of factors bearing on aspirations as well as actual educational and vocational plans. Subjects were classified according to IQ ratings, teacher ratings of school achievement, a 3-point scale of expressed intentions, and category of intended vocation (e.g., professional or unskilled). Analysis indicates that (a) high IQ and superior classroom performance related positively to high vocational aspiration; (b) consistent with previous studies, high socioeconomic status related positively to high vocational aspiration; (c)

family size over 4 children appeared to affect vocational aspiration adversely, and more Subjects intermediate in the family expected to do unskilled work; (d) mother's occupational status particularly affected vocational plans of average or below average IQ Ss; and (e) very upwardly mobile subjects were distinguished by their acknowledgment of teacher influence.

18. Loreto and Tonoli (1973)\(^1\) tested the hypothesis that frustration leads to aggressive TAT fantasies in a group of 30 female college students 18-20 yrs old. Based on teachers' ratings, 3 subgroups equated for initial hostility level were formed. The frustration for Group 1 consisted of a simple interruption of a task (Kohs Cubes) after 5 min; for Group 2 the task was also presented as an intelligence test which most Ss could complete in the allotted time. Controls were not given the Kohs Cubes. 8 TAT cards were then individually administered and stories scored for aggressive content according to Stone's scoring system. Significantly higher aggressive scores were noted in Group 2, but no differences were noted between Group 1 and controls. Other responses to frustration (regression, fixation) are discussed. Factors such as the stimulus situation and the variability of the character of the individuals are considered important in the genesis of aggressive behavior besides frustration.

19. Reports preliminary results of a psychodiagnostic study conducted by Rauchfliesch (1973)\textsuperscript{1} of 130 male and 59 female 13-21 yr old delinquent juveniles observed for a period of 6-8 weeks at a psychiatric clinic for various behavior disturbances. Ss were administered an extensive battery of tests including the Rosenzweig Picture Frustration Test (PF) for adults and the Hamburg-Wechsler Adult Intelligence Scale (H-WAIS). Data collected through the PF and some variables of the H-WAIS were analyzed by way of the Lienert Configuration Frequency Analysis (CFA) to examine the possibility of obtaining more relevant, detailed, and differentiated data by this multidimensional method than by simple correlation. Results indicate (a) certain specific forms of reactions characteristic for Ss and (b) the existence of several types of characteristic forms of reactions which suggest 3 subgroups of different types of personality. It is suggested that the CFA might make it possible to deal empirically with S. Rosenzweig's theory of "levels of behavior" in projective tests.

20. Picou and Curry (1973)\textsuperscript{2} explored the relationship of selected structural, interpersonal, and behavioral factors to the occupational choices of 1,341 female high school student respondents to an

\textsuperscript{1} Rauchfliesch, U (1973), Frustration reactions of delinquent juveniles in the Rosenzweig Picture Frustration Test: A methodological-clinical contribution using the configural frequency analysis, Germany, Verlag Ferdinand Schöningh.

occupational choice questionnaire. Of 5 hypotheses postulated, 1 was rejected and the others at least partially supported. 2 structural factors—residence and socioeconomic status—were related to occupational choice. Most of the indicators of socioeconomic status were positively and significantly related to occupational choice, indicating the importance of class origins for the formation of both black and white females' occupational orientations, regardless of one's community of orientation. Performance as well as interpersonal encouragement by significant others was also related significantly to occupational choice.

21. Tierney and Herman (1973) determined whether age, grade level, school program, sex, intelligence, and social class influence the accuracy of self-knowledge of vocationally relevant attributes of high school students. 149 10th, 11th, and 12th graders completed the Kuder Preference Record, Work Values Inventory, Otis Gamma Quick Scoring Mental Ability Test, and Self-Estimate Questionnaire. While there was considerable variability in self-estimate ability, results indicate that none of the variables had any significant influence upon self-estimate ability.

22. Rauchfleisch (1974) studied the relationship between intelligence and frustration reaction in 189 juvenile delinquents who took the HAWIE-HAWIK Intelligence tests and the Rosenzweig Picture-Frustration Study.

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It was possible to differentiate between 3 types of reaction groups: (a) delinquents characterized by intolerance of frustration, inhibition of aggression, conflict, insecurity, low intellectual ability, attempts to escape conflicts, lack of social adjustment and lack of initiative in problem solving; (b) delinquents characterized by low intellectual ability, psychasthenia, insecurity, lack of determination, passivity, escapism, and superficial tendency to psychoadjustment; and (c) delinquents characterized by asthenia, high intellectual ability, defiant aggressiveness, inability to be critical of self, and unwillingness to adjust socially.

23. Andreanska (1974) conducted an experiment with 30 male and 22 female 1-13 yr old mentally normal students in a school for the visually handicapped and a matched group of children without sight impairment, to study the effects of weak sight on aspiration levels and reaction to frustrating situations. Subjects were given the verbal part of the WISC to assure the intelligence equality of the 2 groups, tapping tests, number squares tests, and dexterity tests to test their aspiration levels in terms of the variables of rigidity, index unreality, and goal discrepancy. The tests were then repeated under conditions of experimentally induced frustration. Data indicate that (a) the aspiration levels of the 2 groups differed very little, (b) weak-sighted subjects adjusted better to frustrating situations, and (c) the differences in aspiration levels were significant. Andreanska, Viera (1974), Level of aspiration in weaksighted children under conditions of an experimentally induced frustrating situation, Psychologia a Patopsychologia Dietata, Vol. 9(4), pp. 345-357.
situations in sensorimotor activities, and (c) both groups found it difficult to adapt to frustrating situations while doing tasks chiefly requiring motor skills.

24. Kiphard (1974)\(^1\) reports that 4 kinds of children fail in physical education classes and thus lose their need for physical achievement: the immature, the restless, the inhibited, and the clumsy. A program of physical education is suggested, designed to increase the need for physical achievement.

25. Pearse and Chabassol (1976)\(^2\) attempted to identify factors related to problems reported by adolescents. 250 secondary school subjects rank ordered 15 potential problems and also completed a self-disclosure inventory of adolescent concerns. Data were obtained on the Subjects' sex, socioeconomic status, school achievement, intelligence quotient (IQ), and grade. However, none of the variables considered were, to any significant degree, related to the problems reported.

26. Davis and Ekwall (1976)\(^3\) hypothesized that observed modes of perception, as measured by psychological tests (including the Rorschach, the House-Tree-Person Test, the Bender Gestalt Test, and the WISC), could

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be used to predict frustration reading levels for 22 3rd, 20 4th, and 20 5th graders. The frustration level was the degree of failure sufficient to cause physiological indications of emotional stress. Results show most children with a less "restricted," more expansive mode of perception began to show signs of frustration upon reaching 6-9% oral reading errors. For more restricted pupils (dogmatic and perseverative in their responses), the degree of oral reading failure needed to cause physiological indications of frustration was twice as great. This relative resistance to frustration was not associated with intelligence scores, except for IQs of more than 1 standard deviation above the mean. Data show that for most children, reading passages for instructional purposes must allow for no more than about 5% oral reading errors; children who have special protective devices and can withstand greater degrees of failure are rare.

27. 257 male and 266 female 11-15 yr olds in a selective high school were tested by Friedrich (1978) with the Culture Fair Intelligence Test 2 (CFT2) and with parts of the Mannheim Biographical Inventory. The results were correlated with grades in German, mathematics, English, and physical education. The family situation, social activities, stress, and frustration had low (0.00-0.12), yet partly significant, correlations with grades. The CFT2 correlated 0.07 with physical education, 0.10 with

The prognosis of school achievement from these tests obviously cannot be recommended, even in an optimal combination.

28. The methodological aspects of the diagnostics of volitional effort were studied by Rychtecky (1978)\(^1\) in 49 Subjects (15 judists, 15 skiers, 19 water slalomers). Through a laboratory experiment and an experiment in natural conditions, activities were observed that most bring out volitional qualities. The load in the laboratory experiment was represented by an isometric contraction. The Subjects sustained it as long as possible. In the experiment conducted in natural conditions, the load was simulated by a track run at a given speed. Apart from this, Subjects were investigated using the 16PF, the Eysenck Personality Inventory, performance motivation, value orientation, and intelligence questionnaires. The experiment was conducted in 4 situations (neutral, frustration, encouragement, financial reward). Results were based on the time data acquired from the subjective statements made by the S on EMG activity in nonengaged muscles (laboratory experiment), and on indicators of the pulse rate pattern (natural experiment). Volitional effort is closely related to personality traits: schizothymia, paranoia, higher ergic tension, anxiety,

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responsibility, introversion, social independence, and value orientation to systematicness. (French, German, Italian & Spanish summaries).

29. Morrow (1979) evaluated the academic success of 157 8-yr-old children born to young Black adolescents of low socioeconomic status. The children were identified through birth records, their academic records were analyzed, and new data related to school behavior (Stanford Achievement Tests and Devereux Elementary Behavior Rating Scale) were collected. Comparisons to a control group of peers of similar background but born to mothers aged 20-24 yrs yielded no significant differences in achievement test scores, behavior and social adjustment ratings, or school cumulative record data.

30. Success-avoidance (SA) imagery in the projective test stories of high school senior and freshman girls was studied by Banks (1979).

Among students in a Roman Catholic girls' high school in a predominantly working-class community, SA appeared in 49% of the stories, a somewhat lower percentage than in previous studies of high school girls in higher socioeconomic-status communities. Seniors did not show significantly more SA than freshmen. Ss with plans to attend college and those who aspired to professional careers, whether in traditionally

female or traditionally male occupations, did not show more SA than girls with less ambitious plans, contrary to M. S. Horner's hypothesis in the original SA studies.

31. Witt and Cunningham (1980)\(^1\) examined family configuration correlates of fluid intelligence (G-sub (f) - active problem-solving ability) and crystallized intelligence (G-sub (c) - achievement-related performance) constructs of J. L. Horn and R. B. Cattell (1966). Preliminary factor analyses isolated optimal markers of these constructs. Four linear structural equation models relating G-sub(c) to various predictors were evaluated in 3 experiments with 111 university students and 65 12th-graders. Subjects were administered a battery of tests, including the Primary Mental Abilities Letter Series and Spatial Relations, Horn's Vocabulary subtest, and the Army Alpha Number Series. Models emphasized economic, "confluence", physiological, or socio-psychological influences. Unexpected relationships in the college sample rendered straightforward model interpretation difficult. All models were better predictors of G-sub (c) in the heterogeneous high school sample. Results indicate that the socio-psychological model was optimal both in terms of overall variance accounted for (54%) and significance of each

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hypothesized component. Economic factors also appeared to importantly influence intellectual performance.

32. To probe a psychological theory of educational productivity, social studies achievement and attitude test scores of 2,426 13-yr-olds were statistically related to each other and to indicators of constructs that prior research has shown are associated with learning outcomes by Walberg and Tsai (1981). In 8 linear and log-linear, ordinary least-square regressions with 5-9 independent variables several production factors were significant—socioeconomic status, home environment, student-centered instruction, and time or amount of study—and item-learning correlations yielded clues for improving learning productivity. Systems regressions, however, revealed ambiguity in the causal relations in that measurement error and exogenous and reverse causes may account for the significant findings.

33. Claes (1981) administered a translated version of the Intellectual Achievement Responsibility Scale to 719 French-speaking elementary and secondary students. The evolution of internal attribution for success and failure increased progressively during the school years, but decreased once adolescence was reached. A single sex difference was found; female adolescent subjects more frequently ascribed to themselves the

responsibility for their failures. Subjects from lower-class environments showed a decreased belief in their ability to control the events that arose during their school life. The attribution of the causes of successes and failures showed significant correlations with academic achievement, particularly with the achievement scores of the year prior to testing, as well as with achievement motivation. However, these correlations were significant for the male sample only.

34. In Haertel et. al. (1981) data from the 1976 Science Assessment of the National Assessment of Educational Progress were used to explore sex differences in science learning and its determinants with controls for ethnicity and parental socioeconomic status. Subjects were 2,349 13-yr-olds. Scales measuring science learning and 5 related factors were related to sex, race, and socioeconomic status (SES) in 3-way analyses of variance and covariance. While no sex difference in science learning was found, a sex-specific trend in science motivation as detected. For males, increased motivation was found with higher levels of SES (parental education).

35. Goebel (1981) investigated the relationships between mobility patterns and sex, socioeconomic status (SES), and intelligence using 278 male and 308 female high school students. Analysis showed that higher

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rates of mobility during preschool and lower rates during adolescence were associated with higher SES at adolescence and that, regardless of social status, highly intelligent adolescents reported this mobility pattern; the trend seems more pronounced for males than females.

36. Ammer (1982)\textsuperscript{1} states that development of problem-solving skills and an ability to prevent frustration must be part of the post-elementary school learning disabled student's coping mechanisms. A systematic set of covert behavior modification strategies is presented that can increase academic achievement and the prospects for successful mainstreaming. The procedure consists of 6 interrelated skills that can be taught through modeling and distributed practice: (1) avoidance of impulsive responses to mistakes, (2) relaxation exercises, (3) examination of the specific requirements of a given task, (4) active listening, (5) self-instruction through verbal rehearsal, and (6) self-reinforcement.

37. 32 adolescents in a residential chemical dependency program were administered by Svobodny (1982)\textsuperscript{2} the Psycho-Educational Battery and the Piers-Harris Children's Self-Concept Test; 60 high school seniors served as controls. Informational interviews of students and teachers from the treatment program also provided data on reasons for chemical abuse,


precipitating factors, and possible suggestions for chemical dependency prevention and intervention programs. Results show that there was a significant difference between the control and treatment groups in terms of the person with whom the adolescent lived, birth order, socioeconomic status, school grades, and school attendance. Self-concept scores were lower for the treatment group in comparison to the norms for the general school population. The treatment adolescents cited poor family interaction, peer pressure to use drugs, low self-concept, inadequacy of relating to others, and inability to cope with problems as precipitating factors for chemical abuse. Both teachers and adolescents in treatment stressed the need for better support systems in families, schools, and communities if society is to successfully prevent chemical abuse and assist chemical abusers in reaching and maintaining a drug-free existence. It is suggested that along with teaching children about the consequences of chemical use, they should be taught to value themselves and others, and to relate to others in a positive, responsible manner.

38. Mare (1986)\(^1\) studied the responses to frustrating situations of high achievers in science who had participated in a science Olympics. Human subjects: 132 normal male and female Romanian children and adolescents.

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\(^1\) Mare, Elena (1986), Different aspects in the behavior of pupils and students with superior performance, *Revista de Psihologie*, Vol. 32(2), pp. 111-118.

39. Questionnaires concerning attitudes toward use of microcomputers at home, in school, and at video arcades were administered to 520 female and 377 male high school students by Barun et. al. (1986). Direct observations of adolescent proxemics and sex differences in 18 video arcades were made. A content analysis of sex bias of microcomputer software advertising brochures was carried out. Results support previous findings of overrepresentation of masculine culture in the adolescent world of microcomputers, particularly regarding video games. Types of computer-related activity were not related to socioeconomic class of the parents or to academic grades except for use of home microcomputers, which was mildly positively related to socioeconomic status (SES). Nearly half the activity in the arcades was solitary.

40. Noble (1987) investigated the success of a remedial education program for 11 females and 9 males (aged 10.2-16.1 yrs) of differing socioeconomic status (SES) who exhibited academic failure in community schools. Subjects were assessed on the Metropolitan Achievement Test and on tests in 5 skill areas, including reading comprehension.

mathematics, and language, before and after the program. All Subjects made significant gains in each skill area tested. Results indicate that SES and gender were not influential in these Subjects’ academic performance.

41. Meyer (1987) tested a model for predicting adolescent work commitment that included 6 variables (i.e., year in school or age, grade point average, college plans, socioeconomic status [SES] of family, sex, hourly wage). Data from a survey of 4,317 high school students were analyzed. Results show that older Ss committed more hours to employment. Ss with higher grades worked fewer hours, as did those with college plans and families of higher SES. It is suggested that limitations may need to be placed on the work commitments of certain students.

42. The validity for a domain-specific model of self-perceived peer and school competence was examined by Cauce (1987) in a sample of young Black adolescents of lower socioeconomic status. Three methods were used to gauge peer and school competence: self-ratings, via the Perceived Social Competence Scale for Children; peer-ratings, based on nominations; and objective criteria, such as grade point average, achievement test scores, and number of reciprocated friendship choices. More generally

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defined measures of social competence (i.e., perceived general competence and the Social Competence Nomination Form) were included in some analyses for purposes of comparison. Correlations within and between competence domains were examined via both a multi trait-multi method matrix and factor analysis. Findings supported the distinctness of perceived peer and school competence domains, providing support for a domain-specific model of self-concept.

43. Mayer and Christopher (1989) discuss research on how much the life chances of children are affected by the socioeconomic and racial mix of their schools and neighborhoods. The social mix of a high school has little effect on students' chances of attending college or on White students' academic achievement. Evidence about the effect of the socioeconomic mix of schools or neighborhoods on achievement of elementary school students, on graduation rates of high school students, on teenage crime, and on early labor market experience is weak. Growing up in poor neighborhoods seems to increase Black teenage pregnancy rates.

44. Dornbusch et. al. (1990) reports the relation between family decision-making behaviors and academic performance as measured by student effort and grades among 7,836 adolescents from diverse family

structures and socioeconomic and ethnic backgrounds. Granting adolescents too-early autonomy in decision making was associated with lower levels of effort and lower grades, while joint decision making was associated with more effort and higher grades for Ss of both sexes, regardless of ethnicity and socioeconomic status (SES). Parents and Ss had quite different perceptions of their roles in family decision making; greater disagreement was associated with lower school grades.

45. Zupancic (1990) studied determinants of moral judgment in 2 periods of childhood, with reference to Piagetian theories. Human subjects: 44 normal male and female Slovenian preschool children (aged 5 yrs). 46 normal male and female Slovenian school-age children (aged 8 yrs) (primary school students). Each S's chronological age, sex, and socioeconomic status (SES) were independent variables. The degree of moral judgment, general intelligence level, cognitive level, social self-construct, and frustration response were dependent variables. Tests used: The Moral Judgment Test (Zupancic and M. Winter, 1982), the Lorge-Thorndike Intelligence Test, a conservation test, the Test of Social Self-Construct, and the Rosenzweig Picture-Frustration Study.

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1 Zupancic, Maja (1990). The transition from the heteronomic to the autonomic level of moral judgment in the period of middle childhood, Anthropos, Vol. 22(3-4), pp. 266-275.
46. Gamoran and Nystrand (1991) examined the effects of instruction on achievement in 10 public and 6 private school 8th-grade English and social studies classes and explored the extent to which instructional variation helps account for achievement inequality among racial, ethnic, and SES groups. The approach to measuring instruction draws on direct-instruction research, which suggests that teacher-led activities and a strong academic focus raise achievement, and on other work suggesting that achievement is encouraged by building on students' ideas within the context of direct-instruction activities. There were modest but significant effects, in both subjects, of lecture, question-answer, and discussion activities; instructional coherence; and student participation. These effects account for an important part of the impact of background variables on achievement.

47. Steinberg et al. (1991) examined whether the positive relation between authoritative parenting and adolescent adjustment is moderated by the ecological context in which adolescents live. A socio-economically and ethnically diverse sample of approximately 10,000 high school students completed measures concerning their family background; their parents' behavior; and 4 indicators of adjustment: school performance, 

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self-reliance, psychological distress, and delinquency. The Ss were grouped into 16 ecological niches defined by ethnicity, socioeconomic status (SES), and family structure, and analyses were conducted within each niche to contrast the adjustment scores of adolescents from authoritative vs non-authoritative homes. Analyses indicate that the positive correlates of authoritative parenting transcend ethnicity, SES, and family structure.

48. Korosteleva and Posokhov (1991)\textsuperscript{1} compared characteristics of the structure of the achievement motive and the mode of response to frustration in 16 neurotic patients, 18 patients with ulcers, and 18 controls. Ss were 18-33 yrs old. Three methods of examination were used: (1) a critical examination to determine the range of neurotic disorders, the degree of awareness of the illness, and the patient's attitude toward it and treatment, to pinpoint the inner conflict and to evaluate the system of the patient's relations with his/her social surroundings; (2) the Thematic Apperception Test (TAT); and (3) the Rosenzweig Picture-Frustration Study. Results showed that the state of search activity plays an important role in the development of both forms of pathology. One factor that plays a role in the differentiation of these pathological processes is the formation

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of a substitute search activity aimed at improving the somatic state (i.e., psychosomatic) of ulcer patients.

49. Dornbusch et. al. (1991) examined the interrelation between 3 potential predictors of high school grades (family status, family processes, and community-level variables) for African Americans and non-Hispanic Whites. Data came from 2 sources: questionnaires completed by 7,664 high school students and characteristics of each census tract that contained the residence of 1 or more of these students. Family statuses (e.g., level of parental education and living in a 2-natural-parent household) showed consistent, positive relations to high school grades only within White families. These family statuses did not have as great a benefit for African-American adolescents. Community tended to attenuate the relation between social addresses and student achievement. Parental education and family structure were both related to educational performance, although the magnitude of the family structure effects was much smaller than the effect of socioeconomic status (SES).

50. Klaczynski (1991) Provided an initial examination of the legitimation hypothesis. This hypothesis implies that members of society

will attribute to persons holding high-status occupations more ability and skill (M. J. Webster and J. E. Driskell, see record 1979-10932-001) and subsequently will view the existence of social inequalities as legitimate. 95 high school students were given a questionnaire to find out their perceptions of the determinants of occupational attainment and their control beliefs about their intended occupations. Results provide some initial support for the propositions of the legitimation hypothesis. Across both educational and economic backgrounds, Ss rated education, intelligence, and the type of occupation an individual applied for as the most important determinants of occupational attainment. The higher the prestige level of the occupation, the more evident this effect was.

51. Sommer and Nagel (1991) assessed personal, family, and setting characteristics associated with truancy for 25 junior high school truants in 8th grade and 25 nontruants matched for age, grade, gender, and socioeconomic status (SES). Truants were less likely to live with both parents, had more siblings, and scored lower in academic ability and achievement. They did not differ from nontruants in attitudes toward school, interest and friendship patterns, or self-esteem. With regard to personality characteristics, the only indicator of maladjustment other than truancy was that more truants than nontruants had been referred for

disciplinary action. Truants who graduated 4 yrs later were very similar to graduating nontruants. The former scored significantly higher on academic ability and grade point average (GPA) and lower on number of siblings than truants of unknown graduation status.

52. Manaster, Chan and Safady (1992) studied 151 academically successful and academically unsuccessful high-risk Mexican-American migrant high school students. The 2 groups were compared on sociological and psychological indicators of acculturation, urbanization, and socioeconomic status (SES). Their world views were compared by exploring early recollection data. The unsuccessful group came from families that were larger, poorer, more rural, and more "foreign" (i.e., more parents and children born in Mexico) than the successful students' families. Regarding the psychological indicators of acculturation, the successful group was found to score higher on modernism, to be more stably acculturated, to have a clearer sense of themselves, to have higher occupational aspirations and expectations, and tended to desire jobs with greater responsibility and stability than did the unsuccessful group.

Zheng et. al. (1993) studied self-esteem among endogenously depressed persons as compared to normal controls. Ss were 45 endogenous depression outpatients (aged 20-49 yrs), 15 bipolar disorder patients (aged 20-49 yrs), and a control group of 71 (aged 20-49 yrs). The experiment was designed to intentionally decrease Subjects' scores on a 20-item intelligence test and to assess Ss' responses (attributions) on a 10-item questionnaire using a 7-level rating scale. Correlations between general scores on the test and item choices on the questionnaire were assessed. Comparisons were made among the 3 S groups. Results are discussed in terms of the incidence of self-accusations during frustrating situations, objective evaluations, and differences in self-accusations between normal subjects and subjects with bipolar disorders.

The aims of this study (1995) are to (1) observe which of the models (skill development, self-enhancement or reciprocal) better fits the [achievement motivation and academic self confidence] data at adolescence; (2) verify whether the formal evaluation in the Portuguese school system is associated with the impact of academic self-concept on school performances; (3) test whether the same models are adequate to

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each gender and SES; (4) interpret the differential results, through analysis of the social context influence, on patterns of relationship between motivation and achievement during adolescence self-concept was assessed with the Portuguese version of [the] Self-Description Questionnaire [achievement motivation was assessed] with the Portuguese version of the Prestatie Motivatie Test. There were 236 subjects of 5th, 7th, and 9th grade.

55. Balcar, Karel (1995) studied the relationships between the Logo Test (E. S. Lukas, 1986) --an existential frustration measure -- and scales from Czech versions of 5 psychological tests. Human Ss: 131 normal male and female Czech adults (aged 20-24 yrs) (medical students). The correlation between the meaningfulness of life and various personality dimensions was assessed. Tests used: The Intelligence Structure Test, the Tridimensional Personality Questionnaire (C. R. Cloninger, 1991), the Eysenck Personality Questionnaire, the Impulsiveness-Venturesomeness Questionnaire (H. J. Eysenck and S. B. Eysenck, 1991), and the Interpersonal Check List.

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56. Grigorenko and Carter (1996) investigated the influence of relational aspects of shared twin environments on the development of cognitive functioning, based on data collected between 1988 and 1990 as part of a larger twin study conducted within the Moscow Psychological Institute. The total sample included 246 high school students (142 girls and 104 boys) who were members of 123 adolescent same-sex twin pairs, 60 monozygotic (MZ) and 63 dizygotic (DZ). The Russian adaptation of the Wechsler Adult Intelligence Scale (WAIS) determined IQ. The association between parental SES and maternal education with maternal ratings of similarity Vs dissimilarity and twin relation styles were examined. There were several significant associations between parental styles and maternal education and SES. The type of twin relationship was associated with the degree of similarity between MZ and DZ twins on IQ scores.

57. Wadsby and Svedin (1996) examined whether academic achievement, measured by the children's final grade in compulsory school, is inferior among Swedish children of divorce, if time elapsed since the divorce makes a difference in the Ss' final grades, and if there is a relationship between the Ss' GPA and their SES. 74 children (aged 11-17

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yrs at the time of divorce) who finished school within 1 yr before to 5 yrs after the parental divorce were studied. Each S was matched with 2 controls of the same sex and age from nondivorced homes. Results show the grades of the children of divorce and the controls were similar, but children of manual workers were found to have a lower GPA than children of professional or higher level nonmanual employees. The results contradict many studies conducted outside Sweden.

58. Radziszewska et. al. (1996)¹ examined the effects of ethnicity, gender, and SES on the relationship between parenting style and adolescent depressive symptoms, smoking, and academic grades. Four parenting styles (autocratic, authoritative, permissive, and unengaged) are identified based on parent-adolescent decision-making patterns. A 1988 survey of 3,993 White, Hispanic, African-American, and Asian 15-yr-olds revealed that authoritative parenting yielded best and unengaged parenting yielded worst outcomes. Permissive and autocratic styles produced intermediate results. This pattern generally held across ethnic and socio-demographic subgroups. Moderating effects of ethnicity and gender on the relationship between autocratic or unengaged parenting and depressive symptoms identified 3 subgroups at elevated risk for

depression. Instruments included M. Kovacs and A. T. Beck's (1977) Children's Depression Inventory.

59. The National Education Longitudinal Study of 1988 was used to investigate (1997) the longitudinal influence of select demographic and latent variables on the development of adolescents' occupational aspirations at 3 critical points in the career development process—early, mid-, and late adolescence. Linear structural equation analysis examined the contributions of demographic variables, SES, self-esteem, locus of control, educational aspirations, and academic achievement on adolescents' occupational aspirations measured at grades 8, 10, and 12. Occupational aspirations of adolescents were relatively stable across the 4-yr time period. Further, earlier aspirations offered significant predictive power for subsequent ones. Structural coefficients for social demographic variables indicated that SES had significant effects on adolescents' aspirations. In contrast, 2 latent variables, academic achievement and self-evaluation, initially represented only modest effects on aspirations which then decreased consistently over time.

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Faria and Fontaine (1997) examine the development of a measure of personal conceptions of intelligence in adolescents, and incorporates factors such as the importance of effort and ability in relation with personal conceptions of intelligence. Factor analysis showed the existence of 2 distinct static and dynamic factors that explain together 31.7% of the total variance. The internal consistency of the scales evidenced alpha coefficients between .74 and .80. Test-retest reliability proved to be better for the static scale than the dynamic one, as well as with the results of an external validity study (correlations with grade point average). Some differential exploratory studies showed differences in personal conceptions of intelligence related to school grades. Scores increased from the 5th-11th grade, showing that older students were less static, and also related to the socioeconomic status, with the higher SES subjects also appearing less static than the subjects with lower SES.

Kline (1997) examines the impact of community, defined as life in association with others, on individual achievement, particularly those factors of communal life which make an individual more susceptible to academic failure. Specifically, the impact of wealth, cultural identity of the family, parent support, single-parent families, mobility, and school

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organization on academic achievement at the community level and on individuals in the context of the community is considered. Key definitions and specific indicators often cited in the literature are presented. The interrelations among these factors are emphasized.

62. The differences between pregnant and parenting and never pregnant adolescents on measures of self-efficacy, hope, social skills, academic competence, and problem behaviors were examined in this study (1998). The subjects consisted of 192 seventh through twelfth graders in the Fort Worth Independent School District. The pregnant and parenting adolescents were enrolled in the New Lives or Project Reach programs, which are designed to provide support services to these students. The control group was matched with the treatment groups by ethnicity and socioeconomic status as determined by Federal Free Lunch Program status. Each student completed a demographic questionnaire, the Personal Efficacy Beliefs Scale/Personal Outcome Expectancy Scale - School Version, the Hope Scale, and the Social Skills Questionnaire - Student Form. The Participant's teacher completed the Social Skills Questionnaire - Teacher Form. The study employed a Multivariate Analysis of Variance design to measure differences on the self-efficacy, hope, student ratings of social skills, teacher ratings of social skills,

1 Hix, Laurie Sprinkle (1998), Predictors of adolescent pregnancy: Self-efficacy, hope, social skills, academic competence, and problem behaviors, Dissertation Abstracts International; Section-B: The Sciences and Engineering, Vol. 59(5-B), pp. 2485.
academic competence, and problem behaviors measures. Additionally, a discriminant function analysis was conducted to investigate the predictive values of measures of self-efficacy, hope, social skills and academic competence on adolescent pregnancy/parenting status. Results of this study indicate that there was no difference on measures of self-efficacy and hope for pregnant and parenting adolescents as compared to never pregnant adolescents. However, teacher rated social skills were significantly higher for the never pregnant adolescents as compared to the pregnant and parenting adolescents in the New Lives program. Interestingly, teacher ratings of academic competence were significantly lower for the Black adolescents as compared to the Anglo adolescents for participants in the New Lives and Control groups. Furthermore, teacher rated problem behaviors were higher for Black adolescents as compared to Hispanic students across all three participant groups. Finally, student rated social skills and teacher rated academic competence were lower for lower SES adolescents, and teacher rated problem behaviors were higher for lower SES adolescents. The researcher points to the need for an analysis of the predictors of adolescent pregnancy by comparing specific ethnic and socioeconomic groups within the pregnant and never pregnant populations in order to control for the cultural and environmental differences that contribute to the incidence of adolescent pregnancy.
Rygaard (1998) hypothesized that children with early emotional frustration (EEF) would have been exposed to contact-disrupting events at a higher rate than a control group of normal children, and that the EEF children would deviate in their performances on the Wechsler Intelligence Scale for Children—Revised (WISC-R). The study examined whether the EEF children as a group would display a high frequency of characteristics known to increase the probability of organic dysfunction later in life, and to determine whether the EEF children would differ from the control group at test and restest by more than 2 points on average single WISC-R subtest scores, and whether their total WISC-R profile would differ. The links between the characteristics mentioned about EEF and the WISC-R results were also examined. Ss were 48 children with EEF and their mothers. Children were evaluated on neonatal records, estimated gestational age, and complications, and completed the WISC-R. Mothers were evaluated on their recent alcohol and drug use. Results show that children with EEF syndrome often seem to suffer from stresses during pregnancy and birth that are known to cause organic dysfunction. The hypothesis that the total WISC-R profile of the sample would differ from that of the control group was confirmed, including the lower IQ results of the EEF sample.

While there is some research examining the relationship between academic achievement, substance use, and related psychosocial factors, few studies have used standardized achievement scores as measures of academic achievement. Further, few investigations have been conducted in which high academic achieving substance users have been examined. The primary objective of the present study (1998)\(^1\) was to identify characteristics related to marijuana use among high and low academic achieving Mexican American students. Marijuana use and standardized achievement scores were used as a classification criterion of academic status. Results are discussed in terms of psychological risk factors for both males and females, as well as for the use of marijuana among high and low academic achieving students.

Walker et. al. (1998)\(^2\) examined health, nutrition, and behavioural determinants of school achievement, attendance, and dropout in 452 female students (aged 13-14 yrs), randomly selected from grade 8 in nine schools in inner-city Kingston, Jamaica. Subjects completed several measures including the Wide Range Achievement Test. Results show that girls who were anaemic, sexually active, or aggressive had worse


achievement levels. Better achievement levels were associated with possession of school materials and access to reading material outside of school. Poor attendance, early sexual activity, and not living with both parents predicted school dropout in the subsequent year. Strategies to reduce anaemia, to improve sex education, and to reduce the levels of aggression may benefit school performance.

66. The purpose of this study (2000) was to test a conceptual model of young adult educational attainment, two-years post-high school. Specifically, the model posited that experiencing greater connection with parents, greater parental involvement in academic activities, and greater parental regulation of behaviors in the 8th grade would result in higher levels of academic achievement and affiliation with peer groups that held education-oriented values in the 10th grade. In turn, it was posited that higher academic achievement and affiliating with peer groups holding education-oriented values would result in greater post-secondary educational attainment two years post-high school. Finally, higher academic achievement and peer academic values in the 10th grade would result in less substance use in the 12th grade, which, in turn, would result in higher post-secondary educational attainment two years later.

Participants in the study were drawn from those who participated in all four waves of the National Education Longitudinal Study (NELS:88). A sample of 13,116 were analyzed. The full model was examined using structural equation modeling procedures for the strength of standardized regression weights and goodness-of-fit indicators. Stacked models for comparisons by sex, race, and socioeconomic status also were assessed. Finally, revised models for the full sample and each group were tested. The current study provides strong evidence that post-secondary educational attainment can be facilitated among all sexes, racial, and socioeconomic groups by greater parental discussion of academic activities with their child during early adolescence. This greater discussion of academic activities is associated with greater academic achievement during middle adolescence that, in turn is associated with greater post-secondary educational attainment. This relationship was significant and positive for all groups, but was significantly stronger from youth from a higher SES background and those who are Asian or Caucasian. Parenting behaviors had a modest impact on peer group values for Caucasian youth only. Peer group values, in turn, significantly influenced alcohol and substance use for all groups except Asian youth. Substance use was negatively associated with post-secondary educational attainment for all youth except Asian youth. Alcohol use was not associated with educational attainment except for Caucasian youth who were identified as
having a positive relationship between alcohol use and post-secondary educational attainment. A similar positive relationship between alcohol use and post-secondary educational attainment was identified for higher SES youth. The current study overcomes many of the limitations of previous research in that a longitudinal design and large nationally representative sample were used. Group comparisons by sex, race, and socioeconomic status illustrated important variations in later educational development.

67. Mendez (2000)\(^1\) compared early-adolescent girls in gifted and general education programs on constructs related to gender-role stereotyping. Participants included 132 girls in a gifted program and 77 girls in general education. All Ss were in grades 6-8. Because the gifted group was significantly higher in socioeconomic status than the general education group, this variable was co-varied in the analyses. Results showed that girls in the gifted education program held stronger self-perceptions of instrumentality (or stereotypically masculine personality attributes), evidenced higher achievement motivation, were less traditional in their career aspirations, and were more liberal toward the rights and roles of women than their peers in general education. The 2 groups did not differ significantly on self-perceptions of expressiveness.

The purpose of this study (2001) is to investigate the influence of gender, ethnicity, grade level, achievement level, and socio-economic status (SES) on career aspirations and career expectations in early adolescence as related to projected occupational trends for the seven county area designated as the North Central Texas Region. The data were analyzed for the total sample of 429 students as well as for each of demographic subgroups. Descriptive data, based on separate analysis of aspirations and expectations are given for each demographic [gender, ethnicity, grade level, achievement level and socio-economic status (SES)] factor. In addition, frequency counts and chi-square analyses were included. Overall, neither aspirations nor expectations match projected employment openings for the region. Discrepancies occurred in both directions, i.e., some instances with fewer students than projected openings; others with fewer projected openings than students to fill those openings. Taking into account identified limitations; caution should be

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1 Lockridge, Eddie Jewel Kirkpatrick (2001). Career aspirations and expectations of selected Texas high school students as they relate to demographic characteristics and occupational projections, Dissertation Abstracts International Section A: Humanities and Social Sciences, Vol. 61(7-A), pp. 2595.
taken in making generalizations from this study. Based on these results and limitations, recommendations for future research and practice are provided.