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Relationship between independent living skills and psychosis-proneness

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THE RELATIONSHIP BETWEEN INDEPENDENT LIVING SKILLS AND PSYCHOSIS-PRONENESS

by

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The Relationship Between Independent Living Skills and Psychosis-Proneness (80 pp.)

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This study was designed to determine whether there is a relationship between independent living skills and proneness to psychosis in a normal population. The subjects were 80 caucasian college students between the ages of 18 and 30, equal numbers of males and females. Psychosis-proneness was measured by the Perceptual Aberration and Magical Ideation Scales. High scorers on either scale formed the Per-Mag group, with 20 males and 20 females. There was also a Control group with 20 males and 20 females. Independent living skills were measured by the Self-Assessment Guide (SAG) and the Means Ends Problem Solving procedure (MEPS). Subjects' socio-economic status and intelligence was assessed. The data were analyzed using a two-way ANOVA with gender and group (Per-Mag or Control) as factors. The hypothesis was that psychosis-prone subjects (Per-Mags) would have significantly lower levels of independent living skills. Significant gender effects were not expected. The expected relationship between psychosis-proneness and lower levels of independent living skills was found with the SAG but not with the MEPS. There were no gender differences with either measure. The implication is that the life skills deficits often found in psychiatric patients are not necessarily a result of deterioration due to mental illness and hospitalization, but may be present before the mental illness is evident, and may actually be a causal agent.

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Introduction

Psychological Maladjustment

There are many definitions and theories of mental illness. Mental illness is conceived of by some authors as resulting from an interaction of personal and environmental factors. Personal factors include biological and psychological abnormalities, vulnerability to develop an illness, and coping competency. Environmental factors which affect the development of mental illness include demands on the coping resources of the person and the amount of support available to the person (Wallace, 1986).

It can be argued that psychological maladjustment may be a better label than mental illness. In particular, it allows psychological problems to be viewed on a continuum with normal functioning. "There is no assumption that each mental disorder is a discrete entity with sharp boundaries (discontinuity) between it and other mental disorders, or between it and no mental disorder" (American Psychiatric Association, 1987, p. xxii). Psychological adjustment may be best thought of as a continuum, with positive, normal adjustment on one end and severe maladjustment, or mental disorder, on the other. Normal adjustment has been defined as composed of the positive attributes of personality with which the person adjusts to his or her environment. These

attributes are possessed by normal persons to a greater degree than by abnormal persons. At the other end of the continuum, psychosis, the most severe form of psychological maladjustment, has been defined as impairment in mental functioning that seriously interferes with the person's ability to adjust to the environment (Hilgard, R.L. Atkinson & R.C. Atkinson, 1979).

Independent Living Skills

The study of psychological maladjustment and its causes and treatments has taken many different paths. In the past few years, one area that has proved quite useful is the study of independent living skills. This set of characteristics or behaviors has had many labels, including life skills, functional skills, community living skills, community adjustment and social adjustment. Gazda and Brooks (1985) have defined independent living skills in general as learned behaviors that are necessary for effective living, and that include the knowledge and conditions requisite to the development or acquisition of such behavior. They also offer a more specific definition that includes categories or components of behaviors. The categories are fitness and health maintenance, identity development and purpose in life skills, interpersonal communication and human relations, and problem-solving and decision-making. Schinke and Gilchrist (1984) divide independent living skills into information, problem-solving, self-instruction, coping, communication, and

support system maintenance. R.E. Gordon and K.K. Gordon (1985) include survival skills, basic living skills (self-care), personal and social skills, academic and vocational skills, leisure skills, cognitive skills and integrative skills. Wallace, Boone, Donahoe and Foy (1985) separate independent living skills into interpersonal, community living, and problem-solving skills.

Bellack (1979) describes some methods of measuring independent living skills. In an interview, interpersonal history-taking and informal observation are combined. Self-report inventories may also categorize clients as high or low on specific skills. Behavioral observation of in vivo naturalistic interactions can be used to assess many of the skills of interest. Significant others can rate the skills of the client using structured interviews, questionnaires and systematic observation.

The Relationship Between Psychological Maladjustment and Independent Living Skills

Theory. In order to discuss the relationship between psychological maladjustment and independent living skills, it is necessary to consider the causes of abnormal behavior. Coleman, Butcher and Carson (1980) list several possible causes. Abnormal behavior may be biologically caused by organic conditions which impair brain functioning. Psychological causes include the failure to learn the necessary adaptive behaviors or the learning of maladaptive

behaviors instead. Psychosocial causes include unsatisfactory interpersonal relationships, childhood trauma, and pathogenic family structures. Environmental causes refer to stress and the resulting psychological decompensation. These authors conclude that abnormal behavior is the outcome of faulty development or severe stress or a combination of these and that adjustment is a function of the levels of stress a person is experiencing and the resources he or she has for dealing with it.

Traditional views of community maladjustment have held that it is equivalent to mental illness. More contemporary views see maladjustment as "problems in living" (Willer & Biggen, 1976). Szasz (1974) takes this latter view to the extreme, stating that mental illness does not exist but is a label applied to persons whose behavior annoys or offends others.

For the purposes of this study, psychological maladjustment will be defined as the external manifestations of a mental disorder which are expressed in the person's contact with the environment. Deficient interpersonal relationships, the inability to maintain a level of independence appropriate to age and intelligence, or the inability to cope with a moderately stressful environment successfully are examples of possible manifestations. However, deficiencies in independent living skills or other abnormal behavior, in the absence of a mental disorder, would

not be considered psychological maladjustment according to this definition.

An important distinction between causes and symptoms of psychological maladjustment must be made. Symptoms are part of a medical model and have been traditionally associated with views of psychological maladjustment as mental illnesses or mental disorders. Hallucinations and delusions are symptoms usually associated with a psychotic mental disorder. They are typically not viewed as causing the mental disorder. Deficits in role functioning, or independent living skills, have also been traditionally viewed as symptoms of a mental disorder. Recently, however, these deficits have begun to be viewed as possible causes contributing to psychological maladjustment (Gazda & Brooks, 1985; Gordon, R.E. & Gordon, K.K., 1985; Morrison & Bellack, 1987). It may be that a person can experience psychotic-like symptoms and not be psychologically maladjusted. It may also be that a person can be deficient in independent living skills in the absence of psychotic symptoms, in which case they might be more aptly described as socially than psychologically maladjusted. If so, then perhaps psychological maladjustment is caused by a combination of a mental disorder, which may be characterized by psychotic symptoms, and deficiencies in independent living skills.

Mirsky and Duncan (1986) discuss causal hypotheses in relationship to schizophrenia spectrum disorders. They

emphasize the importance of the relationship between a predisposition to schizophrenia and environmental stress. Predisposing factors mentioned include genetic and maturational abnormalities. Sources of stress include a chaotic family situation, a feeling of being different from other people, and impaired coping skills.

The causal model used in this study incorporates these suggestions and those of Coleman et al. (1980) (see Figure 1). In this model, deficits in independent living skills are one form of stressor and are circular in nature. They are involved in both the development and maintenance of psychological maladjustment and can be seen as both causal and as symptoms. There is a further complication because the predisposing factors are both added to stress factors to result in maladjustment, and may also cause them. Mirsky and Duncan (1986) have suggested that some of the predisposing factors, such as neurointegrative deficits, attentional deficits and impaired cognitive skills, may contribute to impaired coping skills. According to the model, neither the predisposition to a mental disorder nor stress alone will cause psychological maladjustment.

Insert Figure 1 about here.

Research. Numerous authors have found that psychological maladjustment is often related to deficiencies

in community adaptation and independent living skills (Bellack, Turner, Hersen, & Luber, 1984; Burnes & Roen, 1967; Eisler & Frederiksen, 1980; Gazda & Brooks, 1985; Gordon, R.E. & Gordon, K.K., 1985; Hersen & Bellack, 1981; Kelly, 1982; Liberman, Massel, Mosk, & Wong, 1985; Mauras-Corsino, Daniewicz, & Swan, 1985; Morrison & Bellack, 1984; Schinke & Gilchrist, 1984). Willer and Biggen (1976) found that community adjustment of former psychiatric patients was related to rehospitalization. According to Stein and Test (1985a) a large percentage of psychiatric inpatients share disturbances in instrumental and problem-solving behaviors, problems in work habits, socialization and leisure activities, powerful dependency needs, a propensity to develop severe psychiatric symptomatology in times of mild to moderate stress, and tenuous community adjustment.

Morrison and Bellack (1987) claim that, although there is much evidence relating skills deficits to mental disorders, most of it is indirect and based on retrospective analyses. They point to the need for prospective studies of the relationship.

Prediction of Psychological Maladjustment

Because serious pathology is often preceded by less deviant symptoms of the same type, severe psychological maladjustment should be predictable in many cases (Eckblad & Chapman L.J., 1983). If persons who are prone to psychological maladjustment can be identified, the

development of that maladjustment and the environmental events which affect the probability of its development can be studied (Chapman, L.J. & Chapman, J.P., 1985). Psychological maladjustment is here viewed as being caused by a combination of a mental disorder and a deficiency in independent living skills, so each will be addressed.

Predicting psychosis-proneness. Much work has recently been done in the area of predicting psychosis specifically. Several traits of persons suspected to be at an elevated risk for the development of psychosis have been identified. Descriptions of these traits have been based on the study of relatives of schizophrenics, retrospective studies of people who later become schizophrenic, case studies of people who appear to be schizophrenic-like, reports of the symptoms of very early schizophrenia and case histories of schizophrenics. L.J. Chapman, Edell and J.P. Chapman (1980) review this literature and list the traits that have been implicated. These include perceptual distortion, anhedonia, emotional ambivalence, social isolation, mild thought disorder, transient or isolated psychotic symptoms, and antisocial behavior.

Only a portion of the people who are prone to psychopathology will actually develop it. Therefore, it is necessary to assess other factors which contribute to the probability of a psychotic break in psychosis-prone persons (Chapman, L.J., Chapman, J.P., Numbers, Edell, Carpenter &

Beckfield, 1984).

Predicting chronicity. Chronic psychological maladjustment has been defined by Goldman, Gattozi and Taube (1981) as a mental or emotional disorder which erodes or prevents the development of the functional abilities necessary for independent living. Peele and Palmer (1980) have stated that the factors which distinguish between chronic and episodic psychological maladjustment are dependency, functional deficiencies, and the need for indefinite health care and social services. Chronicity is often measured by rehospitalization rates, so measures which predict rehospitalization can be said to predict chronicity. Diagnostic measures have not been found to predict rehospitalization effectively (Anthony & Buell, 1974; Rosenblatt & Mayer, 1974; Willer & Biggen, 1976; Willer & Miller, 1977). A possible reason for this failure, suggested by Weissman & Bothwell (1976), is that a given group of patients may have an absence of symptoms after treatment, but may have varying levels of independent living skills.

Independent living skills and premorbid community adjustment have been found to be related to severity, response to treatment, and rehospitalization (Bellack, et al., 1984; Burnes & Roen, 1967; Kelly, 1982; Liberman, et al., 1985; Mauras-Corsino, et al., 1985; Morrison & Bellack, 1984; Stein & Diamond, 1985; Stein & Test, 1985a; Wallace, 1986; Weissman & Bothwell, 1976; Willer & Biggen, 1976;

Willer & Guastaferro, in press). Further evidence for the use of measures of independent living skills to predict chronicity, either before or after hospitalization, can be found in the many studies which found that training in those skills can prevent chronicity (Bellack, et al., 1984; Gazda & Brooks, 1985; Gordon, R.E. & Gordon, K.K., 1985; Liberman, et al., 1985; Mauras-Corsino, et al., 1985; Stein & Diamond, 1985; Stein & Test, 1985a; Test, Knoedler, Allness, & Senn Burke, 1985; Wallace, 1986).

Combining prediction of psychosis-proneness and of chronicity. Coleman, et al. (1980) describe several classes of causes of abnormal behavior. They are: primary, predisposing, precipitating, reinforcing, and circular. Perhaps psychosis-proneness can be viewed as a ***predisposing*** cause of psychological maladjustment, and deficits in independent living skills may increase the probability of ***precipitating*** stress and may result in ***reinforcing*** maladaptive behavior. If that is the case, then measuring psychosis-proneness and independent living skills should narrow down an 'at risk' population so that community resources can be effectively used to enhance their coping behavior preventively (Burnes & Roen, 1967).

Hypothesis

The first step in identifying an 'at risk' group in the normal population, by measuring psychosis-proneness and independent living skills, is to determine whether the two

characteristics are related in that population. It is postulated that deficiencies in independent living skills are present in people before they become psychologically maladjusted, and may be causal. This study does not answer that question. However, if deficiencies are present in people who later become psychotic, they would be expected to be present in people who are identified as psychosis-prone, perhaps to a greater degree than in those not so identified. This study does attempt to answer that question. Psychosis-proneness and independent living skills were measured in a sample of the normal population. The hypothesis was that psychosis-proneness and deficiencies in independent living skills would be related. Specifically, subjects who had high scores on measures of psychosis-proneness (2 or more standard deviations [SDs] above the mean) were predicted to score significantly lower on measures of independent living skills than those subjects who scored in the normal range (within .5 SD of the mean) on the psychosis-proneness measures.

Method

Subjects

The subjects in this study were drawn from a pool of students taking an Introductory Psychology class. They had filled out the Perceptual Aberration Scale, Magical Ideation Scale, Physical Anhedonia Scale and an Infrequency Scale as part of a course experimental requirement. Subjects were selected to be recontacted if they met the requirements for either the Perceptual Aberration-Magical Ideation (Per-Mag) group or the Control group, following the procedure usually used by the Chapmans and their colleagues (e.g., Chapman, L.J., et al., 1980). Per-Mag subjects were those who scored at least two SDS above the mean on either the Perceptual Aberration or the Magical Ideation scale, but not the Physical Anhedonia scale. Control subjects were those who scored no more than one-half SD above the mean on those three scales. All subjects received a score of two or less on the 13-item Infrequency Scale. All subjects were also caucasian, native speakers of English, and between 18 and 30 years old. Those students who met the criteria for either of the groups were contacted by telephone and asked to participate in the study. They were offered a small honorarium to participate if they had already completed their course experimental requirements. There were 80 subjects, selected to construct the following groups: Control males, Control females, Per-Mag males, and Per-Mag females (n = 20 in each group).

Assessment

Psychosis-proneness. L.J. Chapman and his colleagues have developed and tested scales for psychosis-proneness, using several of the traits of schizotypy described in the literature (Chapman, L.J. & Chapman, J.P., 1985). The scales are in a true-false, self-report format. The scales used in this study were the Perceptual Aberration Scale, the Magical Ideation Scale and the Physical Anhedonia Scale. All of the scales have adequate reliability.

The construct validity of these scales has been investigated by L.J. Chapman and his colleagues. They have found that people identified as psychosis-prone by the scales differ significantly from normals on several other characteristics expected in the psychosis-prone. The specific characteristics they have studied are social isolation, psychotic-like symptoms, mild thought disorder, and psychosis at short-term follow-up (Chapman, L.J., & Chapman, J.P., 1985).

People identified by the Perceptual Aberration Scale or the Magical Ideation Scale as psychosis-prone have been found to be more socially isolated, to experience more psychotic and psychotic-like symptoms, to show more evidence of thought disorder and communication deviance, to have reaction time crossover similar to schizophrenics, and to experience more affective symptoms than normal people (Chapman, L.J., & Chapman, J.P., 1985; Chapman, L.J., et al., 1980; Eckblad &

Chapman, L.J., 1983; Haberman, Chapman, L.J., Numbers, & Mcfall, 1979; Martin & Chapman, L.J., 1982; Mishlove & Chapman, L.J., 1985; Numbers & Chapman, L.J., 1982; Simons, MacMillan, & Ireland, 1982).

The Physical Anhedonia Scale seems to identify a different group of psychosis-prone people. These people have been found to show more evidence of thought disorder, to be more socially isolated, and to have poorer social skills than normals (Chapman, L.J., et al., 1980; Numbers & Chapman, L.J., 1982). Some of the other characteristics found in the psychosis-prone people identified by the Perceptual Aberration and Magical Ideation scales are not found in this group. In addition, the Physical Anhedonia Scale has been found to be negatively correlated with the other two scales.

The Perceptual Aberration Scale has 35 items and measures odd perceptions, especially distorted body images. Items such as, ***Sometimes I've had the feeling that I am united with an object near me*** (keyed true), and ***I have sometimes felt that some part of my body no longer belongs to me*** (keyed true), are included in this scale (Chapman, L.J. & Chapman, J.P., 1985).

The Magical Ideation Scale has 30 items and measures the belief in forms of causation that are not consensually valid. These include beliefs such as thought transmission, psychokinetic effects, precognition, astrology, spirit influences, reincarnation, good luck charms, and transfer of

energies between people. Items such as ***Numbers like 13 and 7 have no special powers*** (keyed false) and ***I have sometimes felt that strangers were reading my mind*** (keyed true), are included in this scale (Chapman, L.J. & Chapman, J.P., 1985). A person is considered to be psychosis-prone as measured by these scales if he or she scores two SDs or more above the mean on either of these two scales.

The Physical Anhedonia Scale is composed of 61 items. Items such as ***The beauty of sunsets is overrated*** (keyed true), and ***I have always loved having my back massaged*** (keyed false), are included in this scale (Chapman, L.J. & Chapman, J.P., 1985).

These three psychosis-proneness measures, along with an Infrequency Scale which measures non-meaningful test-taking, were presented as a survey of attitude and experiences (see Appendix A). The test is not considered to be harmful to subjects, so no debriefing was done.

Independent living skills. Independent living skills have been defined and categorized in many different ways, but most of the definitions include the three general categories of interpersonal skills, community living skills, and problem-solving skills in one form or another. These are the types of skills which were assessed in this study.

The Self-Assessment Guide (SAG) is a measure of community adjustment developed by Willer (1975). Seven factors which had been found to be related to long-term

community tenure of previous psychiatric inpatients were identified. They are physical health, general affect, use of leisure time, interpersonal skills, personal relationships, control of aggression, and support. Items which were related to those seven factors were selected by Willer from available scales and modified to fit the self-report format. The SAG was then tested in several rounds on samples of patients and non-patients. Only those items which reliably discriminated between the two groups were retained. Items were found to be significantly correlated within the seven subscales. The subscales were found to be significantly correlated with each other also, although not as highly.

The SAG was found to predict rehospitalization of psychiatric patients successfully and has been found to be reliable and valid in several studies of the community adjustment of former psychiatric patients. Scores on this measure have been found not to be related to sex or previous hospitalization (Willer, 1977; Willer & Biggen, 1976; Willer & Miller, 1977).

The SAG consists of 55 items answered with one of a forced response set of three (see Appendix B). Responses are given a score of 1, 2 or 3, with 3 considered to be the most problematic and 1 considered to be normal adjustment. The total score was obtained by adding the scores for each of the items.

The SAG includes assessment of two of the three general

areas of independent living skills measured in this study, interpersonal skills and community living skills. The third, problem-solving, was assessed separately, using Platt & Spivack's (1975) Means-Ends Problem-Solving Procedure (MEPS). This procedure measures the subject's ability to analyze and solve interpersonal problems. This ability has been broken down to include sensitivity to the presence of personal problems, the ability to generate alternate courses of action, the ability to conceptualize the means to solve a problem, and sensitivity to the consequences of human behavior (Platt & Spivack, 1975).

The MEPS has been extensively studied and has been found to discriminate between psychiatric patients and non-patients. It has also been found to discriminate reliably between different levels of psychological adjustment in many other groups. Reliability and validity are adequate and norms are available for several different groups. A scoring manual is also available (Platt & Spivack, 1975).

The MEPS can be self-administered or administered by an examiner. The self-administered adult version requires a 10th grade education. There are ten stories for which the beginning and end are given and the subject must provide the middle, or means to the end. The adult male and adult female forms were used (see Appendix C). Stories were scored for the number, elaboration and relevancy of means, the number of possible obstacles mentioned and the mention of time

passage,using a detailed scoring manual. The primary scorer was an undergraduate research assistant who was blind to the hypotheses and to group membership of subjects. Twenty-five percent of the tests were also scored by this author, who was blind to group membership. The inter-rater reliability coefficient was .75.

Social class. Social class was assessed because of the possibility that it might have affected the opportunity of people to learn independent living skills as they were measured in this study. A.B. Hollingshead's Two-Factor Index of Social Position, as described by Myers and Bean (1968), was used to assess this factor (see Appendix D). This measure combines an index of occupation and of education. Because the subjects were college students, most of whom had not completed their education nor entered an occupation, socioeconomic status (SES) was estimated based on the occupation and education of their parents.

For subjects who were employed 20 or more hours per week, an SES index was computed using both their parents' and their own occupation and educational level. The correlation between these figures was about .35. A plot of the indices computed in the two different ways showed that there was a high correlation between the scores except for about seven subjects whose socio-economic level was conspicuously lower than the high level of their parents. The implication is that, for these subjects, their occupation is not a good

portrayal of their social class. Therefore, social class was estimated for all subjects using their parents' occupation and educational level.

Intelligence. Intelligence (IQ) of the subjects was estimated for the same reasons that social class was assessed. The Shipley Institute of Living Scale was used for this measure (Zachary, 1986). It has a 40-item multiple choice Vocabulary subtest and a 20-item fill-in-the-blank Abstraction subtest. This test was given untimed.

Results

Group differences were assessed using two-way analysis of variance (ANOVA) with subject's group (Per-Mag vs. Control) and gender as factors. (See Table 1.) These ANOVAs were conducted with all effects mutually, simultaneously adjusted (the regression approach, SPSS Institute, 1983). Gender was included as a factor because males and females tend to score differently on the Perceptual Aberration and Magical Ideation Scales (Chapman, L.J., Chapman, J.P., & Raulin, 1978; Eckblad & Chapman, 1983).

Insert Table 1 about here.

The first step in the analysis of the data was to see whether SES and IQ accounted for a significant amount of the variance in the SAG or the MEPS. They were found to do so for the SAG but not for the MEPS. (See Tables 2 and 3.) Therefore, an ordinary two-way ANOVA was computed for the MEPS. The results were non-significant for group $F(1,76) = 1.56$, $p > .05$, gender $F(1,76) = 2.44$, $p > .05$, and their interaction $F(1,76) = 0.11$, $p > .05$. (See Table 4.)

Insert Tables 2, 3, and 4 about here.

For the SAG data, the linearity assumption was tested and met for SES but not for IQ. (See Tables 5 and 6.)

Therefore, covariance analysis was conducted with SES as the only covariate. Highly significant results were found for group $F(1,75) = 10.24$, $p < .01$, but not for gender $F(1,75) = 0.26$, $p > .05$, or the interaction $F(1,75) = 0.46$, $p > .05$. (See Table 7.)

Insert Tables 5, 6, and 7 about here.

Discussion

Results

The results of this study support the hypothesis in part. One of the two measures of independent living skills is quite significantly related to psychosis-proneness, while the other is not. There are several possible reasons for this difference.

The SAG is more of a self-report questionnaire than is the MEPS and it is possible that the psychosis-prone group reported or perceived themselves as more deficient in the types of community living and interpersonal skills assessed than did the control group. The MEPS is a more indirect, subtle test of skills than is the SAG, and it is possible that the real differences were in the self-perceptions of the groups. It is also possible that the psychosis-prone group is deficient in the types of skills assessed by the SAG but not in the problem-solving tested by the MEPS. Studies which separate the different types of independent living skills or which assess them in ways other than self-report might help to dispel this discrepancy.

Another possibility is that the task required by the MEPS is related to the types of ability required in college work and is not sensitive enough to discriminate among a group composed only of students. Platt and Spivack (1975) administered the MEPS to several groups of adults, and college students consistently scored higher than other

groups. The mean score obtained in this study is similar to those of college students in their norm groups. Studies which address the relationship between problem-solving and psychosis-proneness in groups of adults other than college students, or with methods which are less dependent upon verbal ability might be better able to discriminate between groups. Despite the different results of the two dependent measures, a relationship between some types of independent living skills and psychosis-proneness is clearly supported.

Implications

This study was correlational in nature. Therefore, a causal relationship between psychosis-proneness and independent living skills is neither supported nor disproved. The results do suggest that psychosis-proneness and deficits in independent living skills tend to co-occur in a normal population. They also provide preliminary support for the implied suggestion that the deficits in independent living skills often found in people with psychotic disorders may be present before the development of, rather than as a result of a mental disorder.

Chronic psychological maladjustment is a large and growing problem in this country.. Freedman & Moran (1984) report that there are 1.7 million chronically mentally ill people who are severely disabled and 2.4 million who are moderately to severely disabled. They also report that between 1955 and 1980 there was a 75% decline in the

population of state mental hospitals. More of these people now live in family homes, board and care facilities, nursing homes, independently, or on the streets.

In recent decades, the focus of treatment for people who are psychologically maladjusted has changed from the traditional effort to decrease symptoms, often with no significant decrease in the level of disability, to the recent effort to increase positive functioning by intervening directly in the areas of coping which are compromised. This effort has taken the form of improving the competencies, reducing the environmental demands, and increasing the supports of the clients through independent living skills training. The results of such training programs have been overwhelmingly positive (Bellack, et al., 1984; Gazda & Brooks, 1985; Kelly, 1982; Mauras-Corsino, et al., 1985; Schinke & Gilchrist, 1984; Stein & Test, 1985a; Test, et al., 1985; Wallace, 1986; Willer & Biggen, 1976; Willer & Guastaferro, in press). In addition to improvement in the specific skills taught, the clients who participate in this kind of treatment have been found to show decreases in abnormal behavior, to be more satisfied with treatment, to have fewer rehospitalizations, to be more likely to be employed in the future, to be more achievement-motivated, responsible and stable, and to have improved environmental supports and reduced stress (Gazda & Brooks, 1985; Gordon, R.E. & Gordon, K.K., 1985).

Morrison and Bellack (1987) report that in the last two decades, it has become widely accepted that poor social competence predates the onset of schizophrenia and that the level of premorbid social competence is one of the best prognostic indicators. Social competence is one component of independent living skills and a similar temporal relationship between these skills and the expected development of a mental disorder is supported by the results of this study.

Schinke and Gilchrist (1984) suggest that if abnormal behavior is the result of faulty or incomplete learning, it may be sensible to consider preventive independent living skills training. Actually, some work in this area has been done, with promising results (Gazda & Brooks, 1985; Goldstein, Sprafkin, & Gershaw, 1976). Deficits in independent living skills can be prevented if the skills are regularly monitored. There may also be an optimum age for learning many of these skills. Gazda and Brooks (1985) suggest that the accomplishment of developmental tasks depends on the life skills which are appropriate for that stage. Since each developmental stage depends on progression through the previous stages, psychological maladjustment can result from a failure to learn the necessary life skills. They also suggest that schools do not prepare students for effective living. Perhaps routine training in independent living skills as part of a child's or adolescent's schooling could prevent many people from becoming psychologically

maladjusted, or could lessen the severity of disability for those who do.

Schinke and Gilchrist (1984) discuss the problems involved in the prevention of social and health problems. Preventive programs are expensive and not enough money to ensure success is available. They are time-consuming. The results are not immediate and are difficult to guage. They require long-range planning, assessment, and intervention. The problems they address are usually so large that changes in many parts of the environment are necessary. The area of independent living skills training is not immune to these problems. However, there are some characteristics of it which make it more plausible. Because the best age for the intervention is in childhood and adolescence, schools could be the context for the intervention. The skills which are being taught to psychiatric inpatients would not need much alteration to be appropriate for a young, normal population. There is very little controversy about the helpfulness of such skills.

If the need for independent living skills training is to become a priority, the relationship between these skills and psychological adjustment in the normal population must be strengthened. Identifying a relationship between deficient independent living skills and psychosis-proneness in normal adults is a step in this direction, and this study has done so.

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Appendix A

Chapman Psychosis-Proneness Scales

Instructions

This booklet contains a questionnaire consisting of approximately 200 questions. Answer each question True (1) or False (2) as best applies for you, using the answer sheet provided.

The questionnaire asks about a number of different attitudes and experiences people might describe themselves as having. Please blacken choice "1" on your scantron if the statement is true as best applies for you, and blacken choice "2" if the statement is false as best applies for you. You may leave an item blank, if you wish, but try to answer even if you are not sure the statement really applies to you.

It is best to work as quickly as possible.

After we begin, please keep your answers to yourself and do not discuss them with your neighbors. Again, please no talking while you are filling out the questionnaire.

Answer the questionnaire only for times you were not using drugs.

This will take you about 50 minutes to fill out.

1. PLEASE ENTER YOUR SEX IN ITEM 1. Male = 1. Female = 2.
2. I have sometimes enjoyed feeling the strength in my muscles.
3. Sometimes I have had feelings that I am united with an object near me.

4. On seeing a soft, thick carpet, I have sometimes had the impulse to take off my shoes and walk barefoot on it.
5. I sometimes have a feeling of gaining or losing energy when certain people look at me or touch me.
6. There just are not many things that I have ever really enjoyed doing.
7. Sometimes when I look at things like table and chairs, they seem strange.
8. The sound of rustling leaves has never much pleased me.
9. Sometimes I feel like everything around me is tilting.
10. I have always hated the feeling of exhaustion that comes from vigorous activity.
11. At times when I was ill or tired, I have felt like going to bed early.
12. I don't understand why people enjoy looking at the stars at night.
13. I have been fascinated with the dancing of flames in a fireplace.
14. I have sometimes been fearful of stepping on sidewalk cracks.
15. I have often enjoyed receiving a strong, warm handshake.
16. The color that things are painted has seldom mattered to me.
17. I can remember when it seemed as though one of my limbs took on an unusual shape.
18. The taste of food has always been important to me.

19. I have always loved having my back massaged.
20. I have wondered whether the spirits of the dead can influence the living.
21. The bright lights of a city are exciting to look at.
22. The sounds of a parade have never excited me.
23. Things sometimes seem to be in different places when I get home, even though no one has been there.
24. I think I could learn to read others' minds if I wanted to.
25. The beauty of sunsets is greatly overrated.
26. I have felt that my body and another person's body were one and the same.
27. When I have seen a statue I have had the urge to feel it.
28. At times I perform certain little rituals to ward off negative influences.
29. I have felt that I might cause something to happen just by thinking too much about it.
30. I have been disappointed in love.
31. After a busy day, a slow walk has often felt relaxing.
32. Parts of my body occasionally seem dead or unreal.
33. I have always had a number of favorite foods.
34. I have occasionally had the silly feeling that a TV or radio broadcaster knew I was listening to him.
35. Sometimes people whom I know well begin to look like strangers.

36. There have been times when I have dialed a telephone number only to find that the line was busy.
37. It has always made me feel good when someone I care about reaches out to touch me.
38. I usually work things out for myself rather than get someone to show me how.
39. I have sometimes felt that strangers were reading my mind.
40. I have sometimes had the feeling that one of my arms or legs is disconnected from the rest of my body.
41. Sex is okay, but not as much fun as most people claim it is.
42. My hands or feet have never seemed far away.
43. When I have walked by a bakery, the smell of fresh bread has often made me hungry.
44. Flowers aren't as beautiful as many people claim.
45. It has often felt good to massage my muscles when they are tired or sore.
46. It has seemed at times as if my body was melting into my surroundings.
47. Poets always exaggerate the beauty and joys of nature.
48. There have been a number of occasions when people I know have said hello to me.
49. Some people can make me aware of them just by thinking about me.
50. I have worried that people on other planets may be

influencing what happens on earth.

51. I have never had the passing feeling that my arms or legs had become longer than usual.

52. I have usually finished my bath or shower as quickly as possible just to get it over with.

53. The hand motions that strangers make seem to influence me at times.

54. I have felt as though my head or limbs were somehow not my own.

55. Numbers like 13 and 7 have no special powers.

56. I have seldom cared to sing in the shower.

57. People often behave so strangely that one wonders if they are part of an experiment.

58. Now and then when I look in the mirror, my face seems quite different than usual.

59. I cannot remember a time when I talked with someone who wore glasses.

60. I have never had the feeling that certain thoughts of mine really belonged to someone else.

61. Often I have a day when indoor lights seem so bright that they bother my eyes.

62. I've never cared much about the texture of food.

63. When I pass by flowers, I have often stopped to smell them.

64. I have sometimes had the feeling that my body is decaying inside.

65. It is not possible to harm others merely by thinking bad thoughts about them.
66. I have had the momentary feeling that someone's place has been taken by a look-alike.
67. I have sometimes felt that some part of my body no longer belonged to me.
68. I like playing with and petting soft little kittens or puppies.
69. I have felt that there were messages for me in the way things were arranged, like in a store window.
70. Beautiful scenery has been a great delight to me.
71. When introduced to strangers, I rarely wonder whether I have known them before.
72. I never wanted to go on any of the rides at an amusement park.
73. I have sometimes danced by myself just to feel my body move with the music.
74. I have often found walks to be relaxing and enjoyable.
75. I have never found a thunderstorm exhilerating.
76. I cannot remember a single occasion when I have ridden on a bus.
77. I have noticed sounds on my records that are not there at other times.
78. When I start out in the evening I seldom know what I'll end up doing.
79. I never have the desire to take off my shoes and walk

through a puddle barefoot.

80. I sometimes have to touch myself to make sure I'm still there.

81. My sex life is satisfactory.

82. When eating a favorite food, I have often tried to eat slowly to make it last longer.

83. I have sometimes felt confused as to whether my body was really my own..

84. At times I have felt that a professor's lecture was meant especially for me.

85. The boundaries of my body always seem clear.

86. I enjoy many different kinds of play and recreation.

87. It worries me if I know there are mistakes in my work.

88. I have felt that something outside my body was a part of my body.

89. I think that flying a kite is silly.

90. I have usually found lovemaking to be intensely pleasurable.

91. I almost never dream about things before they happen.

92. Sometimes I have had the feeling that a part of my body is larger than it usually is.

93. I have had very little fun from physical activities like walking, swimming, or sports.

94. A good soap lather when I'm bathing has sometimes soothed and refreshed me.

95. For several days at a time I have had such a heightened

awareness of sights and sounds that I cannot shut them out.

96. At times I have wondered if my body was really my own.

97. I am more sensitive than most other people.

98. The first winter snowfall has often looked pretty to me.

99. I sometimes have had the feeling that some parts of my body are not attached to the same person.

100. When I'm feeling a little sad, singing has often made me feel happier.

101. One food tastes as good as another to me.

102. My hearing is sometimes so sensitive that ordinary sounds become uncomfortable.

103. I have had very little desire to try new kinds of foods.

104. I have never felt that my arms or legs have momentarily grown in size.

105. I have always found organ music dull and unexciting.

106. I have sometimes had the passing thought that strangers are in love with me.

107. Occasionally I have felt as though my body did not exist.

108. I have seldom enjoyed any kind of sexual experience.

109. I have had the momentary feeling that I might not be human.

110. Sex is the most intensely enjoyable thing in life.

111. Occasionally it has seemed as if my body had taken on the appearance of another person's body.

112. I don't know why some people are so interested in music.
113. Horoscopes are right too often for it to be a coincidence.
114. I go at least once every two years to visit either northern Scotland or some part of Scandinavia.
115. I have usually found soft music boring rather than relaxing.
116. Good luck charms don't work.
117. Standing on a high place and looking out over the view is very exciting.
118. I am sure I am being talked about.
119. The smell of dinner cooking has hardly ever aroused my appetite.
120. I have had the momentary feeling that my body has become misshapen.
121. I have often felt uncomfortable when my friends touch me.
122. Dancing, or the idea of it, has always seemed dull to me.
123. Sunbathing isn't really more fun than lying down indoors.
124. Sometimes I have had a passing thought that some part of my body was rotting away.
125. Trying new foods is something I have always enjoyed.
126. On some mornings, I didn't get out of bed immediately when I first woke up.

127. The sound of organ music has often thrilled me.
128. I sometimes have had the feeling that my body is abnormal.
129. The sound of the rain falling on the roof has made me feel snug and secure.
130. I have had the momentary feeling that the things I touch remain attached to my body.
131. I have not lived the right kind of life.
132. Ordinary colors sometimes seem much too bright to me (without taking drugs).
133. Sometimes part of my body has seemed smaller than it usually is.
134. The warmth of an open fireplace hasn't especially soothed and calmed me.
135. On hearing a good song I have seldom wanted to sing along with it.
136. Sometimes I have felt that I could not distinguish my body from other objects around me.
137. I have often enjoyed the feel of silk, velvet, or fur.
138. I have sometimes sensed an evil presence around me, although I could not see it.
139. If reincarnation were true, it would explain some unusual experiences I have had.
140. I have never doubted that my dreams are the product of my own mind.
141. The government refuses to tell us the truth about flying

saucers.

142. I've never cared to sunbathe; it just makes me hot.

143. A brisk walk has sometimes made me feel good all over.

144. I often get so mad that I lose track of some of the things I say.

145. I never get so angry I can't speak coherently.

146. Thinking things over too carefully can destroy half the fun of doing them.

147. It's important to save money.

148. I usually quit before finishing one activity in order to start something else.

149. As often as once a month I have become so angry that I have had to hit something or someone to relieve my anger.

150. I frequently overeat and wonder why later.

151. Most people say "please" and "thank you" more often than is necessary.

152. My friends consider me to be a cool, controlled person.

153. When I want something, delays are unbearable.

154. I don't have much sympathy for people whom I can push around and manipulate easily.

155. Most of the mourners at funerals are just pretending to be sad.

156. My way of doing things is apt to be misunderstood by others.

157. Most people think of me as reckless.

158. I always let people know how I feel about them, even if it hurts them a little.
159. I almost always do what makes me happy now, even at the expense of some distant goal.
160. I have had to invent some good excuses to get out of work or taking exams.
161. I think people spend too much time safeguarding their future with savings and insurance.
162. I break rules just for the hell of it.
163. I usually find myself doing things "on impulse".
164. I usually act first and ask questions later.
165. I rarely act on impulse.
166. I prefer being spontaneous rather than planning ahead.
167. I always stop at red lights.
168. I sometimes do dangerous things just for the thrill of it.
169. No one seems to understand me.
170. I let go and yell a lot when I'm mad.
171. I find it difficult to remain composed when I get into an argument.
172. Long-term goals are not as important for me as living for today.
173. During one period when I was a youngster I engaged in petty thievery.
174. Driving from New York to San Francisco is generally faster than flying between these cities.

175. I often do unusual things just to be different from other people.
176. I usually consider different viewpoints before making a decision.
177. Sometimes when walking down the sidewalk, I have seen children playing.
178. In school I sometimes got in trouble for cutting up.
179. Being in debt would worry me.
180. I like to use obscene language to shock people.
181. People who drive carefully annoy me.
182. If I burped loudly while having dinner at the house of someone I knew, I would be embarrassed.
183. I liked to annoy my high school teachers.
184. When I really want something, I don't care how much it costs.
185. I believe that most light bulbs are powered by electricity.
186. My parents often objected to the kind of people I went around with.
187. I would probably purchase stolen merchandise if I knew it was safe.
188. I have never been in trouble with the law.
189. I do many things that seem strange to others but don't seem strange to me.
190. I wouldn't worry too much if my bills were overdue.
191. I try to remember to send people birthday cards.

192. I usually laugh out loud at clumsy people.

193. On some occasions I have noticed that some people are better dressed than myself.

194. I avoid trouble whenever I can.

195. It would embarrass me a lot to have to spend a night in jail.

196. I find that I often walk with a limp, which is the result of a skydiving accident.

197. I have never combed my hair before going out in the morning.

198. I usually control my feelings well.

Appendix B

Self-Assessment Guide

Subject number_____

Date_____ Sex [ ]M [ ]F

[ ] Married

[ ] Single, Separated, Divorced, Widowed

Instructions

1. Read the question.
2. Decide which answer is correct for you.
3. Place an X in the box next to the best answer.
   Example: Are you friendly to strangers?

   [X] Not at all

   [ ] Sometimes

   [ ] Almost always

4. Go on to the next question.
5. Please try to answer every question.

---

1. During the past 3 months, have you had any trouble sleeping?

   [ ] Never

   [ ] Sometimes

   [ ] Almost always

2. During the past 3 months, have you fainted or passed out?

   [ ] Not at all

   [ ] Once

   [ ] Twice or more

3. During the past 3 months, have you had many headaches?

[ ] Hardly ever

[ ] Sometimes

[ ] Most of the time

4. During the past 3 months, have you had any stomach trouble?

[ ] Hardly ever

[ ] Sometimes

[ ] Most of the time

5. During the past 3 months, have you had other physical problems or ailments?

[ ] None

[ ] A few

[ ] Several

6. During the past 3 months, has your appetite been such that

[ ] You are eating regularly

[ ] You are eating too much

[ ] You often do not feel like eating

7. During the past 3 months, have you felt in good physical health?

[ ] Most of the time

[ ] Sometimes

[ ] Not very often

8. During the past 3 months, have you found yourself dwelling on one specific thought or event?

[ ] Rarely

[ ] Sometimes

[ ] Almost all of the time

9. During the past 3 months, have you felt that you get upset or irritable easily?

[ ] Not very often

[ ] Occasionally

[ ] Usually

10. During the past 3 months, have there been some things that you have done repeatedly that seem senseless to you?

[ ] Not at all

[ ] Occasionally

[ ] Most of the time

11. During the past 3 months, have you experienced any strange feelings that you can't really explain to yourself?

[ ] Not once

[ ] A few times

[ ] Often

12. During the past 3 months, have you had any extremely upsetting fears?

[ ] Never

[ ] Sometimes

[ ] Often

13. During the past 3 months, did you feel happy as often as other people seem to be?

[ ] Most of the time

[ ] Sometimes

[ ] Never

14. During the past 3 months, have you felt calm and relaxed?

[ ] Most of the time

[ ] Sometimes

[ ] Not very often

15. During the past 3 months, have you had the feeling that something terrible is going to happen?

[ ] Never

[ ] Sometimes

[ ] Most of the time

16. During the past 3 months, have you had any difficulties in making decisions?

[ ] Not very often

[ ] Sometimes

[ ] Almost always

17. During the past 3 months, how much time have you spent feeling guilty about things that go wrong?

[ ] None of the time

[ ] Sometimes

[ ] Most of the time

18. During the past 3 months, have you felt confused?

[ ] Not very often

[ ] Sometimes

[ ] Almost always

19. During the past 3 months. have you felt moody and not in good control of your feelings?

[ ] Hardly ever

[ ] Usually

[ ] Always

20. During the past 3 months, have you felt lonely?

[ ] Not very much

[ ] Sometimes

[ ] Most of the time

21. During the past 3 months, have you felt that people are saying bad things about you?

[ ] Rarely

[ ] Often

[ ] Very often

22. During the past 3 months, have you been able to talk to people when you want to?

[ ] Most always

[ ] Often

[ ] Not usually

23. During the past 3 months, have you known anybody whom you can trust?

[ ] Several people

[ ] A few people

[ ] Nobody

24. During the past 3 months, have people been able to rely on you?

[ ] Almost always

[ ] Sometimes

[ ] Not at all

25. During the past 3 months, have you found that you talk to yourself?

[ ] Not at all

[ ] Sometimes

[ ] Very often

26. During the past 3 months, have you liked to be with other people?

[ ] Almost always

[ ] Often

[ ] Not very often

27. During the past 3 months, did most people seem to be cooperative with you?

[ ] Usually

[ ] Sometimes

[ ] Never

28. During the past 3 months, have you been friendly with other people?

[ ] Most of the time

[ ] Often

[ ] Not very often

29. During the past 3 months, have you had difficulty in talking to or explaining things to others?

[ ] Not very often

[ ] Sometimes

[ ] Almost always

30. During the past 3 months, have you gotten along with your family or relatives?

[ ] Usually

[ ] Sometimes

[ ] Not at all

31. During the past 3 months, have you seen any close or special friends?

[ ] Several times

[ ] A few times

[ ] Not at all

32. During the past 3 months, have you written to or seen your family?

[ ] Several times

[ ] Once or twice

[ ] Not at all

33. If you are single, divorced, or widowed, have you gone out on a date with someone during the past 3 months?

[ ] Twice or more

[ ] Once

[ ] Not at all

If you are married, how much time have you spent with your spouse during the past 3 months?

[ ] The right amount of time

[ ] Too much time

[ ] Not as much as I'd like to

34. During the past 3 months, has there been anybody whom you could rely on in the event of a financial difficulty?

[ ] Family or friends

[ ] Not really sure

[ ] Nobody

35. During the past 3 months, has there been anybody whom you could rely on in the event of a personal difficulty?

[ ] Family or friends

[ ] Not really sure

[ ] Nobody

36. During the past 3 months, have you been contributing to family or household duties?

[ ] Most of the time

[ ] Sometimes

[ ] Not very often

37. During the past 3 months, have you had a hobby that you spend time on?

[ ] Whenever I get a chance

[ ] Once in a while

[ ] Not at all

38. During the past 3 months, has there been some recreational activity or sport that you spend some time at?

[ ] Very often

[ ] Sometimes

[ ] Not at all

39. During the past 3 months, have you visited friends, or gone to parties or other social gatherings?

[ ] Twice or more

[ ] Once

[ ] Not at all

40. During the past 3 months, how much of your free time did you spend watching television?

[ ] Occasionally

[ ] Often

[ ] Most of the time

41. During the past 3 months, have you felt like you had no interest in anything?

[ ] Not often

[ ] Sometimes

[ ] Very often

42. During the past 3 months, have you been able to keep your mind on what you are doing?

[ ] Usually

[ ] Once or twice

[ ] Not at all

43. During the past 3 months, have you been satisfied with the way that you are doing things?

[ ] Most of the time

[ ] Sometimes

[ ] Never

44. During the past 3 months, have you been so angry that you've broken things?

[ ] Not at all

[ ] Once or twice

[ ] More than twice

45. During the past 3 months, have you been so angry that you physically hurt others?

[ ] Not at all

[ ] Once or twice

[ ] More than twice

46. During the past 3 months, have you found that your moods change without reason?

[ ] Not very often

[ ] Occasionally

[ ] Often

47. During the past 3 months, have you found that you have acted without taking other people's feelings into account?

[ ] Not very often

[ ] Sometimes

[ ] Most of the time

48. During the past 3 months, have you attempted to or thought about committing suicide?

[ ] Not at all

[ ] Once

[ ] Twice or more

49. During the past 3 months, how often were you in trouble with the law for anything other than minor traffic violations?

[ ] Not at all

[ ] Once

[ ] Twice or more

50. During the past 3 months, have you taken drugs other than those prescribed by the hospital or a doctor?

[ ] Not at all

[ ] Once

[ ] Twice or more

51. During the past 3 months, have you found that most other people are doing things the wrong way?

[ ] Not often

[ ] Occasionally

[ ] Most of the time

52. During the past 3 months, have you spent your money wisely, buying only those things which you needed or could afford?

[ ] Almost every time

[ ] Often

[ ] Not very often

53. During the past 3 months, what has been your <u>main</u> source of income?

[ ] Employment

[ ] Other self-support

[ ] Family support

[ ] Welfare

54. During the past 3 months, have you looked for any sort of job?

[ ] Employed

[ ] Several times

[ ] Not at all

55. During the past 3 months, have you worked at a job or looked after a household?

[ ] Full-time

[ ] Part-time

[ ] Not at all

Appendix C

Means-Ends Problem-Solving Procedure (MEPS)

Instructions

In this procedure we are interested in your imagination. You are to make up some stories. For each story you will be given the beginning of the story and how the story ends. Your job is to make up a story that connects the beginning that is given to you with the ending given to you. In other words, you will make up the middle of the story.

Write at least one paragraph for each story.

(Male form)

1. Mr. A. was listening to the people speak at a meeting about how to make things better in his neighborhood. He wanted to say something important and have a chance to be a leader too. The story ends with him being elected leader and presenting a speech. You begin the story at the meeting where he wanted to have a chance to be leader.
2. H. loved his girlfriend very much, but they had many arguments. One day she left him. H. wanted things to be better. The story ends with everything fine between him and his girlfriend. You begin the story with his girlfriend leaving him after an argument.
3. Mr. P. came home after shopping and found that he had lost his watch. He was very upset about it. The story ends with Mr. P. finding his watch and feeling good about

it. You begin the story where Mr. P. found that he had lost his watch.

4. Mr. C. had just moved in that day and didn't know anyone. Mr. C. wanted to have friends in the neighborhood. The story ends with Mr. C. having many good friends and feeling at home in the neighborhood. You begin the story with Mr. C. in his room immediately after arriving in the neighborhood.
5. During the Nazi occupation a man's wife and children were viciously tortured and killed by an SS trooper, and the man swore revenge. The story begins one day after the war, when the man enters a restaurant and sees the ex-SS trooper. The story ends with the man killing the SS trooper. You begin when he sees the SS trooper.
6. One day Al saw a beautiful girl he had never seen before while eating in a restaurant. He was immediately attracted to her. The story ends when they get married. You begin when Al first notices the girl in the restaurant.
7. Bob needed money badly. The story begins one day when he notices a valuable diamond in a shop window. Bob decides to steal it. The story ends when he succeeds in stealing the diamond. You begin when he sees the diamond.
8. John noticed that his friends seemed to be avoiding him. John wanted to have friends and be liked. The story ends when John's friends like him again. You begin where he

first notices his friends avoiding him.

9. One day George was standing around with some other people when one of them said something very nasty to George. George got very mad. George got so mad he decided to get even with the other person. The story ends with George happy because he got even. You begin the story when George decided to get even.
10. Joe is having trouble getting along with the foreman on his job. Joe is very unhappy about this. The story ends with Joe's foreman liking him. You begin the story where Joe isn't getting along with his foreman.

(Female form)

1. Ms. A. was listening to the people speak at a meeting about how to make things better in her neighborhood. She wanted to say something important and have a chance to a be a leader too. The story ends with her being elected leader and presenting a speech. You begin the story at the meeting where she wanted to have a chance to be leader.
2. H. loved her boyfriend very much, but they had many arguments. One day he left her. H. wanted things to be better. The story ends with everything fine between her and her boyfriend. You begin the story with her boyfriend leaving her after an argument.
3. Ms. P. came home after shopping and found that she had lost her watch. She was very upset about it. The story

ends with Ms. P. finding her watch and feeling good about it. You begin the story where Ms. P. found that she had lost her watch.

4. Ms. C. had just moved in that day and didn't know anyone. Ms. C. wanted to have friends in the neighborhood. The story ends with Ms. C. having many good friends and feeling at home in the neighborhood. You begin the story with Ms. C. in her room immediately after arriving in the neighborhood.
5. During the Nazi occupation a woman's husband and children were viciously tortured and killed by an SS trooper, and the woman swore revenge. The story begins one day after the war, when the woman enters a restaurant and sees the ex-SS trooper. The story ends with the woman killing the SS trooper. You begin when she sees the SS trooper.
6. One day Ann saw a handsome man she had never seen before while eating in a restaurant. She was immediately attracted to him. The story ends when they get married. You begin when Ann first notices the man in the restaurant.
7. Barbara needed money badly. The story begins one day when she notices a valuable diamond in a shop window. Barbara decides to steal it. The story ends when she succeeds in stealing the diamond. You begin when she sees the diamond.
8. Jill noticed that her friends seemed to be avoiding her.

Jill wanted to have friends and be liked. The story ends when Jill's friends like her again. You begin where she first notices her friends avoiding her.

9. One day Grace was standing around with some other people when one of them said something very nasty to Grace. Grace got very mad. Grace got so mad she decided to get even with the other person. The story ends with Grace happy because she got even. You begin the story when Grace decided to get even.
10. Janet is having trouble getting along with the foreman on her job. Janet is very unhappy about this. The story ends with Janet's foreman liking her. You begin the story where Janet isn't getting along with her foreman.

Appendix D

Two-Factor Index of Social Position

Instructions

What is your mother's occupation?_____

_____

What is your father's occupation?_____

_____

What is your occupation? (if you work more than 20 hours per week)_____

What is the highest grade your mother completed in school?

_____

What is the highest grade your father completed in school?

_____

What is the highest grade you completed in school?

_____

Appendix E

Shipley Institute of Living Scale

Part I

Instructions: In the test below, the first word in eac line is printed in capital letters. Opposite it are four other words. Circle the ***one word*** which means the ***same thing***, or most nearly the same thing, as the first word. If you don't know, guess. Be sure to circle ***one word*** in each line that means the same thing as the first word.

Example:

LARGE	red	big	silent	wet

1.	TALK	draw	eat	speak	sleep
2.	PERMIT	allow	sew	cut	drive
3.	PARDON	forgive	pound	divide	tell
4.	COUCH	pin	eraser	sofa	glass
5.	REMEMBER	swim	recall	number	defy
6.	TUMBLE	drink	dress	fall	think
7.	HIDEOUS	silvery	tilted	young	dreadful
8.	CORDIAL	swift	muddy	leafy	hearty
9.	EVIDENT	green	obvious	skeptical	afraid
10.	IMPOSTER	conductor	officer	book	pretender
11.	MERIT	deserve	distrust	fight	separate
12.	FASCINATE	welcome	fix	stir	enchant
13.	INDICATE	defy	excite	signify	bicker
14.	IGNORANT	red	sharp	uninformed	precise

15.	FORTIFY	submerge	strengthen	vent	deaden
16.	RENOWN	length	head	fame	loyalty
17.	NARRATE	yield	buy	associate	tell
18.	MASSIVE	bright	large	speedy	low
19.	HILARITY	laughter	speed	grace	malice
20.	SMIRCHED	stolen	pointed	remade	soiled
21.	SQUANDER	tease	belittle	cut	waste
22.	CAPTION	drum	ballast	heading	ape
23.	FACILITATE	help	turn	strip	bewilder
24.	JOCOSE	humorous	paltry	fervid	plain
25.	APPRISE	reduce	strew	inform	delight
26.	RUE	eat	lament	dominate	cure
27.	DENIZEN	senator	inhabitant	fish	atom
28.	DIVEST	dispossess	intrude	rally	pledge
29.	AMULET	charm	orphan	dingo	pond
30.	INEXORABLE	untidy	involatile	rigid	sparse
31.	SERRATED	dried	notched	armed	blunt
32.	LISSOM	moldy	loose	supple	convex
33.	MOLLIFY	mitigate	direct	pertain	abuse
34.	PLAGIARIZE	appropriate	intend	revoke	maintain
35.	ORIFICE	brush	hole	building	lute
36.	QUERULOUS	maniacal	curious	devout	complaining
37.	PARIAH	outcast	priest	lentil	locker
38.	ABET	waken	ensue	incite	placate
39.	TEMERITY	rashness	timidity	desire	kindness
40.	PRISTINE	vain	sound	first	level

Part II

Instructions: Complete the following by filling in either a number or a letter for each dash (_). Do the items in order, but don't spend too much time on any one item.

Example: A B C D _

---

1. 1 2 3 4 5 _
2. white black short long down __
3. AB BC CD D_
4. Z Y X W V U _
5. 12321 23432 34543 456___
6. NE/SW SE/NW E/W N/_
7. escape scape cape ___
8. oh ho rat tar mood ____
9. A Z B Y C X D _
10. tot tot bard drab 537 ___
11. mist is wasp as pint in tone __
12. 57326 73265 32657 26573 _____
13. knit in spud up both to stay __
14. Scotland landscape scapegoat ____ee
15. surgeon 1234567 snore 17635 rogue _____
16. tam tan rib rid rat raw hip ___
17. tar pitch throw saloon bar rod fee tip end plank _____ meals
18. 3124 82 73 154 46 13 _
19. lag leg pen pin big bog rob ___
20. two w four r one o three _

Table 1

Design

		Group	
		Per-Mag	Control
Gender	Male	20	20
	Female	20	20

Table 2

Covariance analysis of SAG with SES and IQ

Source	DF	SS	MS	F	p
Regression	2	1259.6	629.8	3.31	<.05
Error	77	14636.9	190.1		
Total	79	15896.5			

Table 3

Covariance analysis of MEPS with SES and IQ

Source	DF	SS	MS	F	p
Regression	2	756.7	378.4	2.63	NS
Error	77	11075.2	143.8		
Total	79	11832.0			

Table 4

Analysis of variance of MEPS

Source	DF	SS	MS	F	p
Group	1	231	231	1.56	NS
Gender	1	361	361	2.44	NS
Interaction	1	16	16	0.11	NS
Error	76	11223	148		
Total	79	11832			

Table 5

Testing the linearity assumption of SAG and SES

Source	DF	SS	MS	F	p
Regression	1	15.8	15.8	0.08	NS
Error	78	15880.7	203.6		
Total	79	15896.5			

Table 6

Testing the linearity assumption of SAG and IQ

Source	DF	SS	MS	F	p
Regression	1	932.0	932.0	4.86	<.05
Error	78	14964.5	191.9		
Total	79	15896.5			

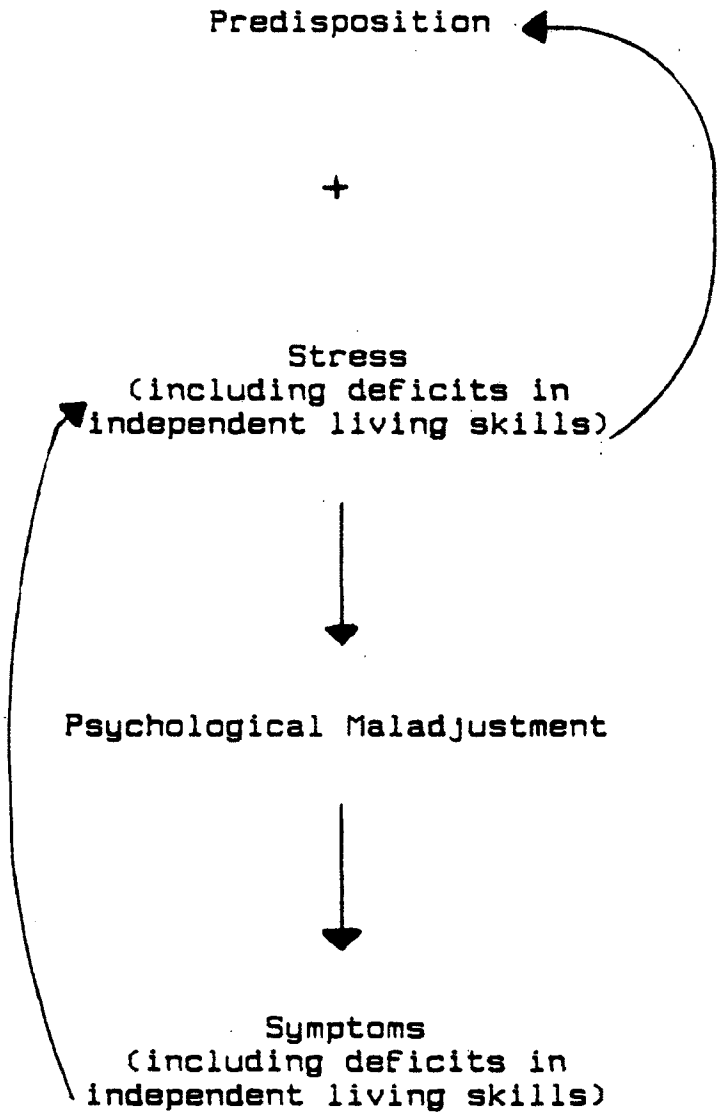
Table 7

Analysis of variance of residuals of SAG with SES removed

Source	DF	SS	MS	F	p
Group	1	1781	1781	10.24	<.01
Gender	1	45	45	0.26	NS
Interaction	1	80	80	0.46	NS
Error	75	13038	174		
Total	78	14943			

Figure Caption

Figure 1: A Model of Causality of Psychological Maladjustment


Predisposition
+
Stress
(including deficits in
independent living skills)
Psychological Maladjustment
Symptoms
(including deficits in
independent living skills)