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MEASURING INTERPERSONAL DEPENDENCY IN  
ADOLESCENT PSYCHIATRIC INPATIENTS

by

Susan D. Schaffer  
B.S.N. June 1974, Old Dominion University

A Thesis Submitted to the Faculty of  
Old Dominion University in Partial Fulfillment of the  
Requirements for the Degree of

MASTER OF SCIENCE

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May, 1982

Approved by:

\_\_\_\_\_  
Kathryn A. Caufield (Director)

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## ABSTRACT

### MEASURING INTERPERSONAL DEPENDENCY IN ADOLESCENT PSYCHIATRIC INPATIENTS

Susan D. Schaffer  
Old Dominion University, 1982  
Director: Kathryn A. Caufield

The successful inpatient treatment of emotionally troubled adolescents must facilitate their achievement of developmentally appropriate independence while minimizing the maladaptive dependency that can be fostered by the hospitalization experience. Levels of interpersonal dependency were measured in seven adolescent psychiatric inpatients over a ninety day period. The Interpersonal Dependency Inventory by Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff was utilized. The individual therapist of each participant independently assessed the participant's response to hospitalization at forty-five and ninety days using a five point Leikert type scale. The study demonstrated no significant changes in dependency levels at forty-five and ninety days. The therapist's assessment proved to have no relationship to levels of dependency as measured by The Interpersonal Dependency Inventory.

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MEASURING INTERPERSONAL DEPENDENCY IN  
ADOLESCENT PSYCHIATRIC INPATIENTS

"In the early 1960's psychiatric hospitals were challenged by the special needs of a growing population of new patients--adolescents" (Grob & Singer, 1964). Adolescent milieu programs have proliferated with emphasis on the recognition and facilitation of normative developmental tasks of adolescence. Although a wealth of research has been done on adolescent inpatients in the last ten years, and despite the generally acknowledged role that dependency conflicts play in adolescence, a search of the literature has revealed no source that focuses specifically on dependency in adolescent psychiatric inpatients. An exploratory study is proposed to measure the effect that length of psychiatric hospitalization has on levels of interpersonal dependency in adolescent inpatients.

Purpose

This topic is viewed as having particular relevance to psychiatric nursing. Since the professionally prepared nurse is oriented to viewing a patient's behavior globally, the effect of illness and hospitalization on a patient's behavior can be assessed and the personal relationship with the nurse can be utilized in order to facilitate healthy adjustment to these events. The professional nurse's leadership position in the psychiatric milieu setting can enhance healthy change and growth if research supports the need for change.

Adolescents who are admitted to psychiatric hospitals have difficulty mastering age appropriate developmental tasks related to dependency. Bowen (1964), Minuchin (1974), and Mandelbaum (1976) observe that adolescents experience developmental difficulties due to parental neglect, parental absence, or enmeshed, conflictual families. These family conditions can trigger behavioral problems in adolescents that may necessitate psychiatric hospitalization.

It has been the researcher's observation that adolescent psychiatric inpatients frequently manifest extreme anxiety as time nears for their discharge. They express worries about leaving the hospital and doubts about their ability to function outside the structured hospital setting. This observation has led to questions about the effect a psychiatric hospitalization has on the dependency level of an adolescent who is preparing himself to leave home and find his niche in society and who may have preexisting difficulties with dependency.

An exploratory study such as this focuses on the assessment phase of the nursing process. Information will be gathered on which to base further nursing research and intervention.

#### Theoretical Formulation

Erikson's concept of the emergence of the individual through life stages provides a developmental theoretical framework for this study. A developmental framework is advantageous in that it provides a directional set of expectations for the future (Chin, 1980). Basic to Erikson's framework is the definition of a developmental task as one that arises at a predictable point in the life of an individual and



which must be successfully accomplished if later success and happiness are to be achieved (Erikson, 1963).

The concept of dependency is important to an understanding of normative developmental tasks. Dependence occurs when someone relies on other people and the environment for the fulfillment of needs. Various theories about the origin and development of dependency have been proposed. According to psychoanalytic theory, dependence is based on the infant's total reliance on a significant person for physical and emotional needs. This initial total dependence is the prototype for all later relationships (Parsons & Saul, 1971). Social learning theory defines dependency as, "A class of responses that are capable of eliciting positive and ministering responses from others" (Bandura & Walters, 1963). Sociocultural theory holds that economic and demographic factors affect the manifestation of dependency within a culture (Goldin, Perry, Margolin, & Stotsky, 1972).

Dependency as a personality characteristic has been alternately viewed by theorists as a personality trait or a transient state. Ford & Urban (1963) state that "trait" behavior refers to "relatively enduring patterns of behavior which can be expected to occur under a wide range of situations." "State" dependent behavior, according to Dedarian & Clough (1976), occurs "when an individual experiences a major life change or a situation which is not a daily occurrence."

Dependency is viewed as an element of the healthy adult personality structure and is not of itself pathologic (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977). However, dependency has been

implicated in the psychogenesis of depression, alcoholism, and other emotional disorders (Chodoff, 1972).

Looking beyond the origin of dependency, Erikson's developmental theory holds that the initial dependence of the infant should become supplanted by reliance on self and peers as successive developmental stages are reached (Erikson, 1975). The stage of adolescence is marked by identity versus role diffusion in Erikson's framework. Adolescents seek increasing emancipation from parents as they deal with sexual maturation and seek an understanding of their eventual roles in society. This push for emancipation also contains conflictual elements since the adolescent yearns for the security of a dependent relationship with parents while simultaneously feeling the need to compete adequately and independently with peers (Havighurst, 1972). Some families are able to facilitate this process in their adolescent children while others experience intolerable conflict (Goldin, et al., 1972).

#### Problem

Even though the adolescent's need to learn independence is well documented (Havighurst, 1972; Maier, 1965; Goldin, et al., 1972), the hospitalization experience can contain inherent forces which can create and intensify dependency in the adolescent patient population. The patient's awareness that he will receive food, shelter, and medical attention despite his behavior can foster dependency. A patient's attempts to do things for himself may be blocked because they interfere with routine, inconvenience staff, or require extra time. The patient who attempts to question institutional procedures may be viewed as a

hindrance to the functioning of the institution rather than as an individual fighting dependence (Goldin, et al., 1972).

Public stigma attached to mental illness may create dependency problems for the patient which block his rehabilitation and tax the skill of the care providers to the utmost. To attain any measure of independence, the patient must deal with and overcome leanings toward dependence which are conditioned by his sheltered experience within the hospital. Couple these problems with the fact that many mental patients had high dependency components within their personality structure prior to their illness and the true magnitude of the dependency problem becomes evident (Goldin, et al., 1972).

However, it must also be considered that dependency can be a positive, even a crucial factor in the successful treatment of emotional disorders. Havens (1963) stressed the point that without some dependence there can be no treatment relationship during which the patient can be weaned toward independence. Pepper (1977) and Peplau (1952) both state that initially meeting patient needs for dependency facilitate later independence.

Meeks (1971) describes the parental transference and subsequent dependency on the therapist that occurs during the process of adolescent psychotherapy. He writes that the adolescent psychotherapist is in a good position to assess and aid the adolescent patient's push away from dependency on adults and toward developmentally appropriate independence. He cautions, however, that "the conscious rational alliance

must be emphasized, not the irrational infantile bonds to the therapist." Meeks clarifies the developmental conflicts inherent in terminating a relationship with an adolescent patient when he writes, "Often the actual leave taking in therapy comes to symbolize the process of loosening the bonds to internalized parental images..." The importance of adolescent dependency on the therapist and the potential benefits and pitfalls of terminating this relationship are thus clarified.

The successful inpatient treatment of emotionally troubled adolescents must facilitate their achievement of developmentally appropriate independence while minimizing the maladaptive dependency that can be fostered by the hospitalization experience. This study attempts to assess the degree to which these conflicting pressures are reconciled in specialized inpatient treatment programs for adolescents. It is anticipated that exposure to an intensive inpatient treatment setting will result in lower levels of maladaptive dependency, and that these levels will continue to decrease as therapy progresses.

#### Review of Research

The major contribution of nursing to research in dependency has been the development of assessment tools to identify dependent behaviors and dependency needs in patients who are hospitalized with medical problems.

Pepper (1977) compared the emotional adjustments to paralysis after acute spinal injury with normal developmental tasks. Her model assumed a natural regression with injury and an obligatory reworking of the first three developmental stages described by Erikson. Pepper writes that

first meeting dependency needs, then later encouraging autonomy and initiative, fosters rehabilitation in patients with spinal cord injuries.

Dediarian and Clough (1976) investigated the concepts of dependency and independence from a nursing viewpoint. They used an observational tool and questionnaires to assess the levels of dependence and independence in patients who had hip and knee replacements. Their study revealed no significant difference in prehospital and post discharge levels of dependency. They reported that dependency levels were elevated during hospitalization as a "state" effect, but returned to "trait" levels in total dependence scores from prehospitalization to pre-discharge. In 1980, Clough and Dediarian followed up their earlier study and devised an observational behavioral check list to measure changes in dependence and independence occurring during hospitalization. They suggested that the check list be used to identify maladaptive or excessive dependent or independent behaviors occurring during hospitalization. Their check list was tested on an orthopedic ward.

Benoliel (1980) interviewed chronic disease patients and assessed their dependency levels based on ability to conduct activities of daily living. A social dependency scale was devised to clarify the needs of these patients.

The previous studies reflect nursing interest in assessing dependency and planning intervention in acute care medical and convalescent settings. The extension of nursing assessment to dependency in a psychiatric setting thus seems appropriate and valuable.

The increasing prominence of adolescent psychiatric treatment fostered a flood of medical research designed to evaluate the effectiveness

of inpatient treatment. Although dependency was not a focus of these studies, factors related to dependency are discussed.

The review of psychiatric inpatient outcome studies with adolescent patients revealed few factors that consistently predicted positive outcome. Masterson (1958) and Levy (1969) correlated positive outcomes with the diagnosis of affective disorders versus the diagnoses of schizophrenia or organicity. Hartman, Glasses, Greenblat, Solomon, and Lavinson (1968) found that positive relationships with others, acute onset of illness, and discharge to home predicted positive outcome. They found that "longer" length of stay may be a negative factor in outcome. Garber (1972) found that patients who did not need psychoactive medication and who were involved with staff members functioned better after discharge. He reported that longer hospitalizations led to greater improvement. Grob (1974) found that adolescents who had good parental relationships, who improved during hospitalization, and who had "shorter than average" hospitalizations did better after discharge.

Badura and Jaromin (1978) found that those adolescents with neurotic disorders had more difficulty breaking up the relationship of dependency with their parents and their superiors than did those with character disorders.

Bloom & Hopewell (1982) studied adolescent patients from a state mental hospital. They found that public school placement, living with at least one biological parent, and shorter hospitalizations led to fewer re-hospitalizations. They found that type and severity of psychopathology was not a significant predictor of re-hospitalization.

Positive relationships with parents and others are clearly important in the resolution of adolescent emotional problems. The impact of length of hospitalization on dependency levels is unclear and requires further study.

Significant differences have been shown in the evolution of identity formation in males and females. This may point to sexual differences in the resolution of dependency conflicts. Bell (1969) reported that vocational choice is more significant in males than females. Donovan & Adelson (1966) report that identity formation in women is related to the process of affiliation and the establishment of a significant male relationship. They found that identity formation in men tends to be constructed around a vocational choice. Josselson, Greenberger, and McConochie (1977) found that "the single most prominent and recurrent difference found between girls and boys at this stage (adolescence), is that girls have a far greater interpersonal focus, while the boys identity rests more directly on their development of autonomy." Hirschfeld et al. (1977) measured dependency in adult psychiatric patients and normals using the Interpersonal Dependency Inventory. No significant gender differences were found. However, Mahon (1981) applied the IDI to a normal college population (ages eighteen to twenty-two), and found that although females scored significantly higher on the scale that measured emotional reliance on another person, overall dependency scores were not significantly different. Firm conclusions have not yet been reached on the effect of gender on the resolution of dependency conflicts in adolescence.

## Chapter II

### Method

#### Research Design

The study was designed to measure levels of dependency over the course of an average length hospitalization for adolescent psychiatric inpatients. Inquiries at the three participating hospitals revealed that ninety days was considered to be the average length of stay for adolescent patients. The design incorporated three measurements of dependency: one base line determination just after admission, one on day forty-five, and one on day ninety. The Interpersonal Dependency Inventory (Hirschfeld et al., 1977) was used to measure levels of dependency. Validation of each patient's progress was also sought from each patient's individual therapist on days forty-five and ninety. Since the measurements occurred at regular intervals, a randomized block design was chosen to analyze the data obtained from the differences in IDI scores over the ninety day data collection period.

#### Hypotheses

1. Total dependency scores in adolescent psychiatric inpatients will be lower on day forty-five of hospitalization than on admission.

1A. Scale one scores (Emotional Reliance on Another Person) will be lower on day forty-five of hospitalization than on admission.

2A. Scale two scores (Lack of Social Self-Confidence) will be lower on day forty-five of hospitalization than on admission.



3A. Scale three scores (Assertion of Autonomy) will be lower on day forty-five of hospitalization than on admission.

2. Total dependency scores in adolescent psychiatric inpatients will be lower on day ninety of hospitalization than on day forty-five.

2A. Scale one scores (Emotional Reliance on Another Person) will be lower on day ninety of hospitalization than on day forty-five.

2B. Scale two scores (Lack of Social Self-Confidence) will be lower on day ninety of hospitalization than on day forty-five.

2C. Scale three scores (Assertion of Autonomy) will be lower on day ninety of hospitalization than on day forty-five.

3. Individual therapist's assessment of patients will reflect improvement to coincide with lowered levels of dependency.

#### Terms

Interpersonal dependency--a complex of thoughts, feelings, and behaviors involving undifferentiated emotional attachments to others, doubts about one's capacity to function independently in designated situations, and denial of the extent of one's dependency on others (Hirshfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977).

Attachment--an enduring bond to a single individual that is associated with strong emotions (Hirshfeld et al., 1977).

Physical dependency--biological helplessness due to immaturity or illness.

Patient--an adolescent between the ages of fourteen and seventeen who is admitted to a specialized adolescent psychiatric program because of behavioral, emotional, or legal difficulties.

Individual therapist--a professionally prepared psychiatric worker with minimum preparation of a Master's degree in Social Work or a Doctorate in Psychology who is responsible for orchestrating the milieu treatment and establishing a personal talking relationship with an adolescent psychiatric patient.

Family therapy--treatment modality in which the whole family meets as a group with a therapist and explores its relationship and process. The focus is on the resolution of current reactions to one another, rather than on individual members (Freedman, 1975).

IDI--a self report inventory that measures interpersonal dependency using three separate scales that may be scored individually or collectively.

Adolescent Unit--a specialized psychiatric unit devoted to assessment and treatment of adolescent patients.

#### Apparatus

The Interpersonal Dependency Inventory (IDI) designed by Hirshfeld et al. (1977), was used to assess levels of dependency. The 48 item self-report inventory consisted of three subscales which are summed to arrive at a total dependency score. The subscales are randomized within the inventory. Participants are instructed to rate each item with a number from one to four depending on how closely they feel each item reflects their attitudes, feelings, or behavior.

Scale One, Emotional Reliance on Another Person, reflects dependency and attachment. "Attachment related items in this scale express a wish for contact with and emotional support from specific other persons, as well as expressing a dread of loss of that person. Dependency related

items involve a general wish for approval and attention from others."

Scale Two, Lack of Social Self-Confidence, is a primary reflector of dependency. "Its items express wishes for help in decision making, in social situations, and in taking initiative."

Scale Three, Assertion of Autonomy, reflects a denial of dependency and attachment. This scale addresses, "the degree to which an individual is indifferent to or independent of the evaluations of others."

The IDI was advantageous in that it was a self report inventory. The relative briefness of the inventory lent itself to repeated use on adolescents whose motivation and attention span were minimal. The inventory was examined by a reading specialist who teaches in one of the area psychiatric facilities. She concluded that all words could be understood by a person reading at a sixth grade level.

Criterion validity of the IDI was determined by Hirshfeld et al. by administering the inventory along with control tests and correlating the results. Tabled results of the correlations can be found in the appendix. The inventory differentiated between normal and psychiatric patients on scales one and two which supported construct validity. Internal consistency of the IDI was determined using the split half reliability method. Results on the three scales for the normal sample were 0.86, 0.76, and 0.84, respectively and for the patient sample 0.85, 0.84, and 0.91. The means and standard deviations on the three scales for the developmental cross validating samples can be found in the appendix.

The suitability of the IDI for repeated use over time was demonstrated by Hirschfeld, Klerman, & Clayton (Note 1). They found significant reductions in the scores of subjects who had recovered from depressive episodes one year before.

Although the reliability and validity of the IDI has been documented, it is of interest to note that the authors have continued to research the value of the summed total score. Although the summed score reflects the current recommendation of Dr. Gough, he notes that this may be replaced in the future with a score that reflects the suppressor character of scale three (Gough, Note 2). It is possible that scale three is a positive or independent indicator when scales one and two are low, and a negative, or dependent indicator when scales one and two are elevated.

The problem with scale three is that it is really viewed as a defense, significant if employed by persons with problems in the areas assessed by scales one and two. If those two scales are elevated, then elevations on three are hypothesized to rest on defensive bases. A problem occurs in testing of "normals," who have modal (and probably moderate) problems in areas one and two. For them, elevations on scale three should indicate ego syntonic expressions of positive functioning. Our view, you can see, is that a transformation occurs somewhere along the line, in which the meaning of an elevation on scale three shifts from being a negative to a positive indicator of effective functioning (Gough, Note 2).

Since the authors did not test the inventory on adolescents, IDI mean scores for 122 normal 18 to 20 year olds were obtained from a doctoral dissertation (Mahon, 1981). These scores are documented in the appendix.

### Procedure

Permission to perform the study was secured from three area psychiatric facilities. The facilities were matched for programmatic offerings and average lengths of stay. All three facilities contain separate adolescent units and offer individualized education on the premises. All programs include individual therapy, family therapy, and group therapy. All programs feature activities' programs to enhance the social and recreational skills of patients. All programs feature therapeutic leaves of absence in order to facilitate post-discharge adjustment to the home environment.

Data collection began as soon as permission was received from the facilities and continued as long as the time constraints of the researcher permitted.

Consent forms (see appendix) were sent to parents or legal guardians of all patients from the ages of 14 to 17 who were admitted to the adolescent units during the data collection period. A cover letter was enclosed which explained the purpose of the study, the researcher's credentials, and the confidentiality of the study. The letter can be found in the appendix. The consent forms were signed by the appropriate attending physicians. Self addressed and stamped envelopes were included with the consent forms. Parents were contacted by phone in seven days to answer questions they might have about the study

and to encourage cooperation by means of a personal contact.

Adolescent patients were approached by the researcher only after parental consent was obtained. Patients were not approached for the study if they had been hospitalized longer than 14 days when the parental consent forms were received to ensure that the pretest did not reflect significant treatment effect.

The pretest information given to participants was standardized. Participants were told that the inventory measured personal attitudes of adolescents during hospitalization. They were assured that the study had no effect on their therapy and that their therapists would not see their scores. Participants were taken to a quiet, well lit room. The directions at the top of the inventory were read aloud to participants prior to each administration of the inventory. They were asked to answer each question. If the participants raised questions about specific test items, the items were read aloud as written.

Additional data was gathered on each patient so that equivalence or nonequivalence of groups could be determined. Sex, age, race, diagnosis, and family involvement or noninvolvement in therapy were recorded. Previous psychiatric hospitalizations and current regular psychoactive medications were also noted.

The individual therapist of each patient was asked to provide a brief assessment of the patient's overall response to hospitalization on day forty-five and day ninety of the hospitalization. The therapists were also asked at the time of the ninety day assessment to estimate the length of time each patient would remain in the hospital. A Leikert type scale was used and can be found in the appendix.

The rights of human subjects were carefully considered. The approval of appropriate university and hospital human subjects' committee was obtained. Confidentiality of participants, therapists, and facilities was maintained. Consent forms and IDI forms were stored in a locked file in each facility. Access was limited to the researcher and the hospital administrators. Participants were asked to explain the consent forms to the researcher so that informed consent was assured. The study posed no known risks to participants, and the benefits of the anticipated knowledge were considered to be worthwhile to psychiatric facilities and eventually to adolescent patients.

#### Assumptions

- 1) Participants were not previously exposed to the IDI.
- 2) The IDI was of sufficient sensitivity to measure relatively short-term fluctuations in dependency.
- 3) Situation relevant variables were controlled by providing equivalent encouragement, light, space, and temperature during test administration.
- 4) Subjects answered all questions to the best of their ability.
- 5) Recall and practice effects were minimized by the forty-five day interval between tests.

### Chapter III

#### Results

##### Observations

Twenty-four patients in the appropriate age range were admitted to adolescent units of participating facilities during the data collection period. All parents were sent consent forms. Of these admissions, only seven patients completed the study. One hospital was dropped from the study due to attrition of all potential participants. Participant personal data is summarized in the appendix along with dependency scores and the therapist assessments.

A combination of factors were responsible for the high rate of attrition. Four parents refused permission for their child to participate. Two parental consent forms were received more than 14 days after admission of the child so that a valid initial inventory was not possible. Four participants were discharged before completion of the data collection period. The researcher was asked not to do phone follow-up with one set of parents because it was felt that the parental commitment to the hospitalization was already tenuous. One set of parents was not followed up because their phone was disconnected. The remaining five parents gave verbal agreement, but did not return the signed consent forms. This may have reflected ambivalence about the study, turmoil resulting from the hospitalization of a family member, or the hectic pace of the Christmas season. All patients that were approached by the researcher agreed to participate in the study.



There were no clear trends observed in the total scores of the Interpersonal Dependency Inventory (see appendix I). The total scores of two participants reflected a change in the hypothesized direction; i.e., lower at forty-five days than on admission, and lower still at ninety days. One of these therapist's assessments reflected improvement from "fair" to "good." The other therapist rated the participant's response to hospitalization as "good" at forty-five days but only "fair" at ninety days. One participant's total score remained constant during the three measurements. This therapist responded "fair" at forty-five days and "good" at ninety days. One participant's score was higher at forty-five days and higher still at ninety days. This therapist felt the patient's response to hospitalization was "fair" at both assessments. One patient's total score was elevated at forty-five days, then dipped down slightly at ninety days. His therapist rated his progress as "good" at forty-five days and at ninety days. Two participants' total scores decreased at forty-five days, but elevated beyond initial levels at ninety days. One therapist assessed the participant as having a "good" response to hospitalization at forty-five and ninety days. One therapist felt the participant's response improved from "fair" to "good."

Individual scale scores were also diverse and reflected no clear trends. Three participants' scores on scale one (Emotional Reliance on Another Person), reflected the hypothesized downward trend at forty-five and ninety days. Two participants' scores showed an upward trend in scale one scores. The scale one score of one participant dipped at forty-five days, but elevated beyond the initial level at ninety days.

One participant's scale one score elevated at forty-five days and dipped at ninety days.

Scale two scores (Lack of Social Self-Confidence) reflected less change than the other scales over the ninety day period. Scale two scores also failed to support the hypothesis of a downward trend. Two scores were lower at forty-five days than on admission and showed no further changes at ninety days. One participant's scores reflected an upward trend. One participant obtained the same score throughout. One participant obtained a lower score on day forty-five, then obtained an elevated score on day ninety. Two participants' scores were elevated at forty-five days, but lower at ninety days.

Scale three scores also failed to support the hypothesis of a downward trend. Two participants' scores were lower at forty-five days and lower still at ninety days. One participant's scores reflected an upward trend. Two scores were elevated at forty-five days and decreased at ninety days. One was decreased at forty-five days and elevated at ninety days. One score was elevated at forty-five days and remained stable at ninety days.

#### Statistical Analysis

Statistical analysis was done on six participants in order to determine the significance of the findings. Time constraints prevented the inclusion of participant seven in the statistical analysis. However, the similarity of his scores to the others indicated that the same conclusion would be reached. A University of California, Los Angeles BMDP2V computer program was used entitled, "Analysis of Variance and

Covariance Including Repeated Measures." A randomized complete block design was utilized to determine the variation in scores that was attributable to length of hospitalization (treatment). Each participant was placed in a different block. Hartley's test was done to test the assumption that the mean scores had equal variances. The null hypothesis was not rejected, so the assumption of equal variances was supported. Three null hypotheses were formulated and tested using the computer program. These hypotheses were: 1) All times are equal, 2) all scales are equal, and 3) time x scales are equal. Alpha was set at .05. Degrees of freedom were two for the time factor, two for the scale factor, and four for the factor of time x scale. The critical values of F for testing the three hypotheses were .84124, 2.54784, and .26386, respectively. The three hypotheses were not rejected at the chosen level of significance, indicating that there were no significant differences in time, scales, or any product of time and scales. P values were  $< .460$ ,  $< .128$ , and  $< .898$ , respectively.

Although there were observable differences in male mean scores versus female mean scores (male > female), the small sample size made statistical analysis impractical.

The mean scale scores of the study participants were compared with the normal and psychiatric mean scale scores of the original developmental sample (Hirschfeld et al., 1977). The base line scores of the participants were used so that treatment effect would not be a consideration. The null hypothesis of no differences in means was tested using a T-test. Equal variances were assumed on the basis of the previously

discussed Hartley's test. Alpha was set at .05. The mean participant scores were 43.333 for scale one, 31.5 for scale two, and 33.167 for scale three. The tabled T value with alpha at .05 and five degrees of freedom was 2.5706. Calculated T values for the three scales were .997, .529, and 1.141 for the normal developmental sample and -1.295, -.872, and 1.372 for the psychiatric developmental sample. These values were less than 2.5706 and greater than -2.5706 so the null hypothesis of no difference in means cannot be rejected. In other words, the means of the study participants fell between those of the normal and the psychiatric sample.

In summary, no statistical differences were found in the Interpersonal Dependency Scores of the participants at forty-five or at ninety days. The mean scale scores of the study participants were not found to be statistically different from either the normal or psychiatric mean scale scores of the original developmental sample.

## Chapter IV

### Findings and Interpretations

Although there were changes observed over time in the IDI scores of the adolescent participants, they were found to be of no statistical significance, and no clear trends in an upward or downward direction emerged. The smallness of the sample size hampered this study since statistical analysis was limited.

The therapist independent assessments showed no relationship to the IDI scores of the participants. It is likely that the vagueness of this tool rendered it impractical.

The apparent difference in IDI scores between male and female scores was of interest, even though it was of limited statistical significance. The elevated dependency scores in male participants was unanticipated since the literature describes females as having a greater interpersonal focus and stronger leanings toward affiliation with others. Further research is indicated in this area.

The comparison between the mean scale scores of the study participants and the mean scale scores of the psychiatric and developmental samples is also of interest. Although the small participant sample size precludes generalization, further application of the IDI to normal and psychiatric adolescent samples seems warranted to determine if their mean scores are different from adult scores.

Anticipated downward trends in dependency scores were not demonstrated in this study. However, the results may be due to the participant's therapeutic status. Although average lengths of stay at the study hospitals were ninety days for adolescent patients, none of the study participants were near discharge at the end of the ninety day study period according to their individual therapists. This finding may explain the lack of a downward trend in dependency scores. It may also be a reflection of sampling bias in the small group of participants since their hospitalizations will be longer than the ninety day average length of stay.

#### Study Limitations

1. The small number of adolescent patients in the study precludes generalization to the population of adolescent psychiatric inpatients.
2. Post-hospitalization follow-up was not part of this study. Thus it is not known how dependency levels during hospitalization relate to dependency levels after hospitalization or to overall post-hospital adjustment.
3. The IDI has not been tested with normal adolescents in the age range of the study participants, thus a normal sample is not available for comparison.

#### Recommendations

1. A long-term study in which the Interpersonal Dependency Inventory would be administered on admission and a week before planned discharge might demonstrate statistically significant change in dependency.

2. Combining interpersonal dependency measurements during hospitalization with a post-hospitalization follow-up program would determine if dependency changes during hospitalization were related to post-hospitalization adjustment. An additional IDI measurement after discharge would be valuable.

3. Obtaining parental consent for the study at the time of admission would decrease attrition and increase sample size.

4. A control group to measure IDI changes in a normal adolescent population over the study time would facilitate clearer interpretation of results.

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**APPENDIX A**

Consent For Participation in Adolescent  
Personal Attitude Survey

I, \_\_\_\_\_, agree to participate in a survey that will study the effects that psychiatric hospitalization may have on the attitudes of adolescent patients. I will be asked to complete the Personal Attitude Survey at three different times during my hospitalization. There are no known risks of this study.

I understand that I may stop my participation at any time without affecting my treatment at (            ). I understand that I will not be paid for my participation. I realize that my name will not be used in the study, and that the confidentiality of my hospitalization will be maintained.

I understand that this study is being conducted as part of a Master's Degree in Nursing by Susan D. Schaffer from Old Dominion University. The results of the study will be available to me on request through the Department of Nursing, Old Dominion University. Any questions about the study can be directed to Susan Schaffer at the O.D.U. Department of Nursing.

\_\_\_\_\_  
Attending Physician                      Date

\_\_\_\_\_  
Parent or Guardian                      Date

\_\_\_\_\_  
Participant                                  Date

\_\_\_\_\_  
Witness                                      Date

**APPENDIX B**

Dear Parent or Guardian:

I am a graduate student at Old Dominion University. I have a special interest in adolescent psychiatry since I have worked on adolescent psychiatric units as a Registered Nurse for six years.

I'm presently conducting a study at ( ) as part of my master's thesis. My study will look at the effects that a psychiatric hospitalization has on the personal attitudes of adolescent patients. Your adolescent will be asked to complete a two page survey at three different times during his hospitalization. His participation will be completely voluntary. He will not be approached until we have a signed consent form from you. All information received will be strictly confidential. This project is sanctioned by the Medical Director and the Research Committee of ( ), and is supervised by ( ) who is chairman of the Research Committee.

I would appreciate your prompt attention to this matter since the study is time-limited. A self addressed, stamped envelope is enclosed to aid your return of the signed consent form. Please note that a witness signature is required. This should be signed by a neighbor or other non-family member before you return your questionnaire.

Sincerely,

Susan D. Schaffer

**APPENDIX C**



### Personal Attitude Survey

Name: \_\_\_\_\_ . Date: \_\_\_\_\_

Age: \_\_\_\_\_ . Sex: \_\_\_\_\_ . Education: \_\_\_\_\_

Instructions: 48 statements are presented below. Please read each one and decide whether or not it is characteristic of your attitudes, feelings, or behavior. Then assign a rating to every statement, using the values given below:

4 = very characteristic of me  
 3 = quite characteristic of me  
 2 = somewhat characteristic of me  
 1 = not characteristic of me

- \_\_\_ 1. I prefer to be by myself.
- \_\_\_ 2. When I have a decision to make, I always ask for advice.
- \_\_\_ 3. I do my best work when I know it will be appreciated.
- \_\_\_ 4. I can't stand being fussed over when I am sick.
- \_\_\_ 5. I would rather be a follower than a leader.
- \_\_\_ 6. I believe people could do a lot more for me if they wanted to.
- \_\_\_ 7. As a child, pleasing my parents was very important to me.
- \_\_\_ 8. I don't need other people to make me feel good.
- \_\_\_ 9. Disapproval by someone I care about is very painful for me.
- \_\_\_ 10. I feel confident of my ability to deal with most of the personal problems I am likely to meet in life.
- \_\_\_ 11. I'm the only person I want to please.
- \_\_\_ 12. The idea of losing a close friend is terrifying to me.
- \_\_\_ 13. I am quick to agree with the opinions expressed by others.
- \_\_\_ 14. I rely only on myself.
- \_\_\_ 15. I would be completely lost if I didn't have someone special.
- \_\_\_ 16. I get upset when someone discovers a mistake I've made.
- \_\_\_ 17. It is hard for me to ask someone for a favor.
- \_\_\_ 18. I hate it when people offer me sympathy.
- \_\_\_ 19. I easily get discouraged when I don't get what I need from others.
- \_\_\_ 20. In an argument, I give in easily.
- \_\_\_ 21. I don't need much from people.
- \_\_\_ 22. I must have one person who is very special to me.

- \_\_\_ 23. When I go to a party, I expect that the other people will like me.
- \_\_\_ 24. I feel better when I know someone else is in command.
- \_\_\_ 25. When I am sick, I prefer that my friends leave me alone.
- \_\_\_ 26. I'm never happier than when people say I've done a good job.
- \_\_\_ 27. It is hard for me to make up my mind about a TV show or movie until I know what other people think.
- \_\_\_ 28. I am willing to disregard other people's feelings in order to accomplish something that's important to me.
- \_\_\_ 29. I need to have one person who puts me above all others.
- \_\_\_ 30. In social situations I tend to be very self-conscious.
- \_\_\_ 31. I don't need anyone.
- \_\_\_ 32. I have a lot of trouble making decisions by myself.
- \_\_\_ 33. I tend to imagine the worst if a loved one doesn't arrive when expected.
- \_\_\_ 34. Even when things go wrong, I can get along without asking for help from my friends.
- \_\_\_ 35. I tend to expect too much from others.
- \_\_\_ 36. I don't like to buy clothes by myself.
- \_\_\_ 37. I tend to be a loner.
- \_\_\_ 38. I feel that I never really get all that I need from people.
- \_\_\_ 39. When I meet new people, I'm afraid that I won't do the right thing.
- \_\_\_ 40. Even if most people turned against me, I could still go on if someone I love stood by me.
- \_\_\_ 41. I would rather stay free of involvements with others than to risk disappointments.
- \_\_\_ 42. What people think of me doesn't affect how I feel.
- \_\_\_ 43. I think that most people don't realize how easily they can hurt me.
- \_\_\_ 44. I am very confident about my own judgment.
- \_\_\_ 45. I have always had a terrible fear that I will lose the love and support of people I desperately need.
- \_\_\_ 46. I don't have what it takes to be a good leader.
- \_\_\_ 47. I would feel helpless if deserted by someone I love.
- \_\_\_ 48. What other people say doesn't bother me.

APPENDIX D

Scales of the Interpersonal Dependency Inventory

I. Emotional Reliance on Another Person

- 3. I do my best work when I know it will be appreciated. (A)
- 6. I believe people could do a lot more for me if they wanted to. (A)
- 7. As a child, pleasing my parents was very important to me. (A)
- 9. Disapproval by someone I care about is very painful to me. (A)
- 12. The idea of losing a close friend is terrifying to me. (A)
- 15. I would be completely lost if I didn't have someone special. (A)
- 16. I get upset when someone discovers a mistake I've made. (A)
- 19. I easily get discouraged when I don't get what I need from others. (A)
- 22. I must have one person who is very special to me. (A)
- 26. I'm never happier than when people say I've done a good job. (A)
- 29. I need to have one person who puts me above all others. (A)
- 33. I tend to imagine the worst if a loved one doesn't arrive when expected. (A)
- 35. I tend to expect too much from others. (A)
- 38. I feel that I never really get all that I need from people. (A)
- 40. Even if most people turned against me, I could still go on if someone I love stood by me. (A).
- 43. I think that most people don't realize how easily they can hurt me. (A)
- 45. I have always had a terrible fear that I will lose the love and support of people I desperately need. (A)
- 47. I would feel helpless if deserted by someone I love. (A)

II. Lack of Social Self-Confidence

- 2. When I have a decision to make, I always ask for advice. (A)
- 5. I would rather be a follower than a leader. (A)

10. I feel confident of my ability to deal with most of the personal problems I am likely to meet in life. (D)
13. I am quick to agree with the opinions expressed by others. (A)
17. It is hard for me to ask someone for a favor. (A)
20. In an argument, I give in easily. (A)
23. When I go to a party, I expect that the other people will like me. (D)
24. I feel better when I know someone else is in command. (A)
27. It is hard for me to make up my mind about a TV show or movie until I know what other people think. (A)
30. In social situations I tend to be very self-conscious. (A)
32. I have a lot of trouble making decisions by myself. (A)
36. I don't like to buy clothes by myself. (A)
39. When I meet new people, I'm afraid that I won't do the right thing. (A)
41. I would rather stay free of involvements with others than to risk disappointments. (A)
44. I am very confident about my own judgment. (D)
46. I don't have what it takes to be a good leader. (A)

### III. Assertion of Autonomy

1. I prefer to be by myself. (A)
4. I can't stand being fussed over when I am sick. (A)
8. I don't need other people to make me feel good. (A)
11. I'm the only person I want to please. (A)
14. I rely only on myself. (A)
18. I hate it when people offer me sympathy. (A)
21. I don't need much from people. (A)

- 25. When I am sick, I prefer that my friends leave me alone. (A)
- 28. I am willing to disregard other people's feelings in order to accomplish something that's important to me. (A)
- 31. I don't need anyone. (A)
- 34. Even when things go wrong I can get along without asking for help from my friends. (A)
- 37. I tend to be a loner. (A)
- 42. What people think of me doesn't affect how I feel. (A)
- 48. What other people say doesn't bother me. (A)

APPENDIX E

## Correlations Between Inventory and Selected Scales

	Emotional Reliance on Another Person	Lack of Social Self- Confidence	Assertion of Autonomy
Age	.12*	.04	.04
Education	-.20*	-.21**	.10*
General Neuroticism (MPI)	.49**	.47**	.01
Social Desirability (EPPS)	-.44**	-.56**	-.09
Anxiety (SCL)	.34**	.27**	.06
Depression (SCL)	.44**	.42**	.08
Interpersonal Sensi- tivity (SCL)	.45**	.53**	.17*

NOTE: Correlations for age and education are based upon 400 subjects. Correlations for the other five variables are based on 180 psychiatric patients.

\*p .05.

\*\*p .01.



**APPENDIX F**

Means and Standard Deviations of the Three Scales of IDI  
for the Developmental Cross-validating Samples

Samples and Scales	Males		Females		Total	
	M	SD	M	SD	M	SD
<b>Normals, developmental sample</b>						
1. Emotional reliance on another person	38.2	7.9	39.7	7.7	39.2	7.8
2. Lack of social self-confidence	30.1	6.0	29.7	6.7	29.8	6.4
3. Assertion of autonomy	31.6**	6.4	29.4	5.7	30.2	6.1
<b>Psychiatric patients, developmental sample</b>						
1. Emotional reliance on another person	47.9	10.0	49.4	10.3	48.7 <sup>a</sup>	10.2
2. Lack of social self-confidence	34.8	7.1	33.9	7.5	34.3 <sup>a</sup>	7.5
3. Assertion of autonomy	31.3**	6.2	28.3	6.0	29.6	6.3
<b>Normals, cross-validating sample</b>						
1. Emotional reliance on another person	38.8	9.4	40.4	9.4	39.6	9.4
2. Lack of social self-confidence	28.3	6.5	30.0	7.9	29.1	7.2
3. Assertion of autonomy	29.4*	7.5	26.4	6.1	28.1	7.0
<b>Psychiatric patients, cross-validating sample</b>						
1. Emotional reliance on another person	41.3	7.9	44.1	12.5	43.3 <sup>b</sup>	11.4
2. Lack of social self-confidence	33.7	8.2	33.4	8.0	33.5 <sup>c</sup>	8.0
3. Assertion of autonomy	29.3	6.9	26.0	7.6	26.9	7.5

<sup>a</sup> mean higher for patients than normals, developmental samples,  $p < .01$

<sup>b</sup> mean higher for patients than normals, cross-validating samples,  $p < .05$ .

<sup>c</sup> mean higher for patients than normals, cross-validating samples,  $p < .01$ .

\*mean higher than that for other sex,  $p < .05$ .

\*\*mean higher than that for other sex,  $p < .01$ .

APPENDIX G

## College Age IDI Mean Scores According to Mahon

<u>Sex</u>	<u>Sex</u>	<u>Mean Score</u>
Interpersonal Dependency	Males (N= 89)	= 28.18
	Females (N=119)	= 31.92
Emotional Reliance on Another Person	Males (N= 89)	= 41.61
	Females (N=119)	= 52.52
Lack of Social Self- Confidence	Males (N= 89)	= 28.58
	Females (N=119)	= 30.04
Assertion of Autonomy	Males (N= 89)	= 28.27
	Females (N=119)	= 26.66
<u>Age</u>	<u>Age</u>	<u>Mean Score</u>
Interpersonal Dependency	18-20 (N=122)	= 31.48
	21-25 (N= 86)	= 28.68
Emotional Reliance on Another Person	18-20 (N=122)	= 42.43
	21-25 (N= 86)	= 41.71
Lack of Social Self- Confidence	18-20 (N=122)	= 30.05
	21-25 (N= 86)	= 28.52
Assertion of Autonomy	18-20 (N=122)	= 27.05
	21-25 (N= 86)	= 27.78

APPENDIX H

## Participant Data

Table 1A

Participant	Age	Sex	Race	Diagnosis
1	14	F	Cau.	1. Conduct disorder, socialized aggressive type 2. Major depressive episode
2	15	M	Cau.	1. Oppositional personality disorder 2. R/O learning disability
3	16	M	Cau.	1. Conduct disorder, socialized aggressive type 2. Tourette's syndrome
4	16	F	Cau.	1. Dysthymic disorder 2. ETOH and cannabis dependency, in remission
5	17	M	Cau.	1. Major depression (single episode) 2. R/O conduct disorder, socialized aggressive type
6	14	M	Cau.	1. Dysthymic reaction 2. Conduct disorder 3. Attention deficit disorder
7	17	M	Cau.	1. Major depressive disorder 2. Conduct disorder, socialized aggressive type

Table 1B

Participant	Family Involvement	Psychotropic Medication	Previous Psych. Hospitalizations
1	Yes	No	No
2	Yes	No	No
3	Yes	Yes	Yes
4	Yes	No	No
5	Yes	No	No
6	Yes	No	No
7	Yes	Yes	Yes

**APPENDIX I**

## Participant IDI Scores

Table 2A

## Base Line Scores

Participant	IDI 1	IDI 2	IDI 3	IDI Total Score
1	28	27	31	86
2	40	29	40	109
3	47	28	24	99
4	39	23	31	103
5	45	29	36	110
6	48	38	32	118
7	58	44	31	133

Table 2B

## Forty-five Day Scores

Participant	IDI 1	IDI 2	IDI 3	IDI Total Score
1	22	21	34	77
2	43	28	38	109
3	41	25	27	93
4	33	27	38	98
5	63	40	40	143
6	38	38	38	114
7	63	45	28	136

Table 2C

## Ninety Day Scores

Participant	IDI 1	IDI 2	IDI 3	IDI Total Score
1	23	22	46	91
2	47	28	34	109
3	36	25	26	87
4	27	33	34	94
5	66	43	27	136
6	51	38	34	123
7	59	39	40	138



APPENDIX J

Dear

I am conducting an approved research study at ( ).  
As a control mechanism, I am asking the individual therapist of  
involved patients to independently assess the patient's response  
to hospitalization. Please use the following scale to assess your  
patient's level of improvement at this point in time. This response  
will be confidential. Please contact me through ( ) if you  
have questions.

---

Susan D. Schaffer

Patient's first name:

In my opinion this patient's response to hospitalization at this  
point in time is:

Excellent

Good

Fair

Poor

None

Comments?

APPENDIX K

## Therapist Data

Participant	Therapist 45 day Assessment	Therapist 90 day Assessment	Therapist LOH* Assessment
1	good	good	4-6 months
2	fair	good	3-4 weeks
3	fair	good	6 weeks
4	good	fair	4-6 weeks
5	fair	fair	4 weeks
6	fair	good	8 weeks
7	good	good	2-4 months

\*Therapist estimate of remaining length of hospitalization at 90 days.