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The Relationship Between the Level of Codependent Behavior and the Level of Differentiation of Self Among Nursing Students

Vicki Lynn Brandes Hillborg
Grand Valley State University

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THE RELATIONSHIP BETWEEN THE LEVEL OF CODEPENDENT
BEHAVIOR AND THE LEVEL OF DIFFERENTIATION OF SELF
AMONG NURSING STUDENTS

By

Vicki Lynn Brandes Hillborg

A THESIS

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Thesis Committee Members:

Andrea Bostrom, Ph.D., R.N.

Linda Nicholson Grinstead, Ph.D., R.N.

Sandra Portko, Ph.D.

ABSTRACT

THE RELATIONSHIP BETWEEN THE LEVEL OF CODEPENDENT BEHAVIOR AND THE LEVEL OF DIFFERENTIATION OF SELF AMONG NURSING STUDENTS

By

Vicki Lynn Brandes Hillborg

The purpose of this research was to investigate the relationship between the level of codependent behavior and the level of differentiation of self among nursing students. This study employed a descriptive correlational design. The convenience sample of 241 nursing students (221 female, 20 male, ages 18-55) from associate degree, diploma, and baccalaureate degree nursing programs completed, by self-report, the Friel Adult Child/Codependent Assessment Inventory (Friel & Friel, 1988), the Haber Level of Differentiation of Self Scale (Haber, 1990), and an author created respondent characteristics questionnaire. There was a significant moderate negative correlation between the level of codependent behavior and the level of differentiation of self ($r = -.4506$, $df = 233$, $p = .000$). There was a significant, moderate positive correlation between codependency and stress ($r = .3836$, $df = 237$, $p = .000$) and a significant, weak positive correlation between codependency and illness ($r = .2184$, $df = 239$, $p = .001$).

Dedication

This manuscript is dedicated to
my nursing students and nursing colleagues
who have inspired me to create it.

Acknowledgments

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CHAPTER 1

INTRODUCTION

The art of nursing is the application of the science of nursing in assisting clients to achieve maximum health. "Caring" is an essential component of that art. Caring has been defined as "the act of attending to or being concerned with another person" (Janosik & Davis, 1989, p. 976). Nursing educators need to teach nursing students how to "care" for clients without becoming consumed by or obsessed with clients' needs or problems. They need to teach nursing students how to care for themselves as well.

Individual studies have estimated that 75% - 90% of all nurses come from alcoholic families and bring codependency issues from their childhood into the nursing profession (Wegscheider-Cruse, 1985; Snow & Willard, 1989; Summers, 1992). Adult children of alcoholics are conditioned in youth to give service and take care of people. This prepares them to join caretaking professions, among them, nursing (Wegscheider-Cruse, 1985). Nursing students coming from dysfunctional families may have some "unresolved emotional pain due to unspoken secrets and unaddressed addictions" (Ryan, 1991).

Core symptoms of codependency have been identified as (1) difficulty in experiencing appropriate levels of self-esteem; (2) difficulty in setting functional boundaries; (3) difficulty in owning one's own reality; (4) difficulty in acknowledging and meeting one's own needs and wants; and (5) difficulty in experiencing one's own reality moderately (Summers, 1992).

Characteristic behaviors of these symptoms include, but are not limited to, the need to control, perfectionism, caretaking, low self-worth, guilt, denial, anger, poor communication, lack of trust, and weak/damaged boundaries (Beattie, 1987; Summers, 1992).

These characteristic behaviors come from the "self" and are controlled by emotions rather than intellect. Bowen's (1981) concept on the differentiation of self defines individuals according to the degree of fusion or differentiation between emotional and intellectual functioning. At the higher levels of differentiation an individual can maintain intellectual system functioning as opposed to being controlled by emotional forces within the relationship system (Bowen & Kerr, 1988). At the lower levels of differentiation the individual's emotions and intellect are so fused that his/her life is dominated by the emotional system. These individuals are less flexible, less adaptable, and more emotionally dependent on those around them. They are easily stressed into dysfunction, have difficulty recovering

from dysfunction, and inherit a high percentage of all human problems (Bowen, 1981).

An individual's level of differentiation evolves out of relationship systems, which create an environment that either facilitates or inhibits movement toward differentiation. Behaviors that determine how an individual will react within a given relationship are "learned either during childhood, as an adult on the job, or in a relationship" (Herrick, 1992, p. 16).

The profession of nursing, in itself, fosters and promotes codependent behavior and a lower differentiation of self. Beginning with nursing school, it is the expectation of many nursing instructors that student nurses be perfect, caring, and in control at all times. It is also expected that nursing students maintain a positive attitude, remain externally focused (sacrificing their own needs), and be a devoted student to the exclusion of all else. Many nursing instructors fail to show compassion and nurturance to nursing students who may be troubled, which would help them to heal so that they could become healers themselves (Arnold, 1990; Summers 1992). Hospitals and employers also expect nurses to be externally focused and work to the benefit of others rather than themselves. This is often at the sacrifice and neglect of themselves and their families (Arnold, 1990; Cermak, Hunt, Keene, & Thomas, 1989). Obedience, conformity, high levels of

tolerance, and good behavior are all expected nursing behaviors in the work place (Herrick, 1992).

According to Summers (1992), when nursing students constantly give more of themselves than is required for effective client care, when they attempt to meet others' needs and neglect their own, when they feel responsible for all aspects of their client's lives, they are exhibiting signs of codependency. If nursing students are to protect their own mental health they need to distinguish genuine caring from codependent patterns (Sherman, Cardea, Gaskill, & Tynan, 1989) and develop a strong sense of self.

No published research studies were found that investigated the relationship between the level of codependent behavior and the level of differentiation of self among nursing students. Since it has been identified that a majority of nurses come from dysfunctional families it would be helpful to assist nursing students to identify codependent behaviors within themselves that may be detrimental to their own health, well-being, and professional nursing practice.

The purpose of this study is to examine the relationship between the level of codependent behavior and the level of differentiation of self among nursing students. It is hypothesized that nursing students who have higher levels of codependent behavior will also demonstrate a lower level of differentiation of self.

A second hypothesis is that those students with higher levels of codependent behavior will report increased levels of stress in their lives and an increased frequency of illness. If these hypotheses are supported by this study, then it will become important for nursing educators to educate nursing students regarding these concepts. Through education, nursing students can begin self-assessment, self-awareness, and self-care interventions to move themselves toward a higher level of differentiation of self and a higher level of wellness. This will enable them to "recognize the link between caring, which is a core concept of nursing, and caring too much, a core concept of codependency" (Herrick, 1992, p. 13).

CHAPTER 2

CONCEPTUAL FRAMEWORK AND REVIEW OF LITERATURE

Conceptual Framework

Codependency. Codependency is a behavior pattern that develops as a result of prolonged exposure to, and practice of, a set of oppressive rules that prevents open expression of feelings and direct communication of problems. It is characterized by an excessive focus or dependence on relationships with others in order to establish personal identity and self-worth (Subby, 1984; Cermak et al., 1989; Cauthorne-Lindstrom & Hrabe, 1990).

Codependency is often the primary disease that drives a person into substance addiction (drugs, alcohol, food, nicotine) or process addiction (relationships, gambling, sex) in order to stop the pain. This process leads to increased shame, low self-worth, relationship problems, and medical complications (Wegscheider-Cruse, 1985).

According to Arnold (1990), hospitals can be, and most generally are, dysfunctional families in themselves. The dependent relationships may be with clients or between hospital staff members. As in dysfunctional families, members of the hospital family are expected to sacrifice their own needs and become

externally focused to care for the dependents. Nurses frequently receive more rewards for taking care of the dependents rather than themselves. "Nurses who are willing to work extra hours, cover for others, or work well with an abusive physician are considered good" (Arnold, 1990, p. 1581). It is possible that oppressive rules that prevent honest communication can exist in doctor/nurse, administration/nurse, and instructor/student relationships.

Snow and Willard (1989) surveyed 138 nurses from five different areas of the United States who attended a seminar entitled, "I'm Dying To Take Care Of You---Codependence And The Nursing Profession." The nurses completed a Codependence and Nursing Self-Assessment Inventory. Data summary from the study indicated 96% of the nurses with self-esteem issues (awareness of personal value); 84% with boundary issues (inability to protect and respect the self and others); 93% had issues with wants and/or needs (dependency and inability to communicate effectively); 68% experienced moderation issues (function with extreme thinking or behaviors); and 99% experienced reality issues (spirituality, perfectionism, and control) (p. 50). "From this position, accountability, a developing spirituality, and a capacity to be creatively present for the healing needs of another are effectively stifled" (p. 49). There are some limitations to this study. First, no

reliability or validity was completed on the instrument prior to use, nor was a factor analysis done on the statements as they relate to the different variables. Second, it is not certain whether the assessment inventory was completed prior to, or after, the presentation of the seminar content. If the inventory was completed after, that could have affected the results significantly because the nurses in attendance would have been more knowledgeable regarding codependency. The third limitation is the sample was chosen from nurses who elected to go to the seminar so the nurses who attended may have had more codependency issues than those nurses who did not attend. However, the study did demonstrate significant numbers of nurses with low self-esteem and related problems.

Low self-esteem is the core symptom of codependency (Wegscheider-Cruse, 1985; Zerwekh & Michaels, 1989). Self-esteem can be defined as an individual's awareness of his/her own value and that he/she is valuable for who he/she is rather than for what he/she does (Beattie, 1987; Cauthorne-Lindstrom & Hrabec, 1990; Snow & Willard, 1989; Summers, 1992). Codependents learn to focus external of the self rather than internally for definitions of the self, their value and well-being, their wants and needs, and their connection with the environment (Snow & Willard, 1989; Summers, 1992). Low self-worth is frequently connected to much of what the

individual does or does not do (Beattie, 1987). It also leads to many of the connected problems, such as (1) an inability to set boundaries, (2) lack of awareness of own needs, (3) an inadequate perception of reality, and (4) an inability to function in moderation.

Codependents spend most of their energies seeking approval of others because they receive their self-esteem by focusing on how others perceive them (Fagan-Pryor & Haber, 1992; Snow, 1993; Summers, 1992). Little emphasis is placed on learning to care for the self but instead the focus is to care for and control others at the expense of the self which leads to lack of self-identity and symptomatology (Cauthorne-Lindstrom & Hrabe, 1990; Snow, 1993). Moods and reactions reflect the moods and reactions of others (Snow, 1993) and the emotional system determines the well-being of the self.

Differentiation of Self. Bowen (1981, 1985) states that his concept on the differentiation of self involves two main variables. One is the degree of anxiety and the other is the degree of integration of self. This concept is one out of eight in Bowen's family system theory.

Bowen (1981, 1985) defined two levels of self. The first is the "solid self" which is made up of firmly held convictions and beliefs that are formed slowly. These convictions and beliefs can be changed only from within the self and not by coercion or by persuasion

from others. The solid self is very stable and will take action even in situations of high anxiety and duress.

The second level of self is the "pseudo-self" which is the "pretend self." The convictions and beliefs of the pseudo-self are created by emotional pressures to conform to the environment. The environment can be a work place, family, group, society, or personal relationship in which the individual desires to belong. In order to be accepted, the individual conforms to the ideals and principles of the environment even though they may be inconsistent with the convictions of the solid self. These opinions and beliefs are incorporated by the intellectual system, but are strongly fused with the feeling process, or emotional system, in order to enhance one's image with the environment. The pseudo-self involves the "giving, receiving, lending, borrowing, trading, and exchanging of the self" (Bowen, 1981, p. 31). The psuedo-self can have a calming effect on the individual as it provides comfort with the environment. The psuedo-self is unstable and can be "pumped up" or "deflated" by what the environment thinks (Bowen, 1981, 1985; Bowen & Kerr, 1988).

Bowen's concept on the differentiation of self defines individuals according to the degree of fusion or differentiation between emotional and intellectual functioning. At the fusion end of the continuum, the

emotions and intellect are so fused that life events are determined by what feels right within the environment, rather than by logical reasoning. The greater the fusion the more an individual's thoughts, feelings, and behavior are determined by other people, resulting in an undifferentiated sense of self and decreased self-esteem (Bowen, 1981, 1985). The individual is so responsive that the functioning level is almost totally guided by emotional reactions to the environment with reflexive adaptations to alleviate other's discomforts (Bowen & Kerr, 1988).

At the differentiated end of the continuum, the emotional and intellectual systems are distinguishable and decisions are based on thinking versus emotions. When anxiety increases the intellectual system functions autonomously without being dominated by the emotional system (Bowen, 1981, 1985). According to Bowen (1985), highly differentiated individuals are dependent on others, but have clearly defined boundaries and a sense of who they are and what they need. They are not only responsible for themselves, but understand their responsibilities to family and society as well.

Sustained or chronic anxiety is most useful in determining the level of differentiation of self. Anxiety leads to tension and tension leads to symptoms of dysfunction or sickness (Bowen, 1981, 1985). The higher the individual is differentiated the more stress

is required to trigger symptoms (Bowen, 1981; Bowen & Kerr, 1988). When anxiety is high, people can become more reactive and less thoughtful and system functioning will decline. The anxiety destabilizes the individual and increases the environment (relationship) focus, thereby increasing the likelihood that one's functioning is guided by feelings and not by thoughts (Bowen & Kerr, 1988). The functional level (that which is dependent on the relationship/environment) can be enhanced by relationships, drugs, beliefs, cultural values, religion, and even superstitions (Bowen & Kerr, 1988).

Only one study was found that related Bowen's theory with codependence. Prest (1992) completed a quantitative and qualitative study investigating the family of origin dyadic relationship and the level of codependence between alcoholic and non-alcoholic couples. The study consisted of 120 participants (60 couples). Sixty of the participants (30 recovering alcoholics and their spouses) formed the clinical group and the remaining 60 (30 matched comparisons and their spouses) formed a non-alcoholic comparison group. The self-administered instruments used were the Friel Adult Child/Codependent Assessment Inventory to measure codependency, and the Personal Authority in the Family System Questionnaire to assess important elements of the three-generational family system. A brief demographic questionnaire was also completed which included

questions about the current nuclear family and family of origin characteristics. Chi-square analyses were used to explore the nature of the sample and supported the general comparability of clinical and comparison groups. Analyses of variance were used to investigate potential differences between and within groups with respect to intergenerational functioning and level of codependence. These analyses revealed highly significant differences between clinical and comparison groups and very few differences between spouses in either group, in terms of intergenerational family functioning and level of codependence. Both correlational analysis and multiple regression were used to explore the relationship of continuous background variables, intergenerational functioning and level of codependence. Prest (1992) found that codependence within the clinical population is predicted by family of origin factors, whereas within the comparison population it is more likely to be predicted by spousal factors. The qualitative data were utilized to provide greater depth to the results of the quantitative analysis. The results of this study generally support the prospects of using Bowen's Family System Theory in explaining the various manifestations of family of origin dysfunction, including codependence. The study also clarifies the theoretical connection between evolving notions regarding codependence and the intergenerational family system's emotional context.

Bowen's family system theory is widely accepted in the field of family psychotherapy and has been supported by research since its conception. Fagan-Pryor and Haber (1992) believe that documented descriptions of codependent behavior correlate with Bowen's theory of the undifferentiated self.

Neuman's Model. Bowen's scale of differentiation defines an individual's adaptation to stress. At any point on the scale, if stressed sufficiently, the individual can develop physical, emotional, and social symptoms (Bowen, 1981, 1985; Bowen & Kerr, 1988). An individual with codependent behaviors will have a lower self-esteem and a decreased ability to set boundaries. When stress arises he/she will be more susceptible to substance addiction or process addiction in order to feel some level of comfort. Neuman's systems model which is based on the concepts of stress and reaction to stress is an appropriate framework to provide the basis for examining the research hypotheses and discussing the implications of the study findings.

Neuman's model (1989) describes each individual as a unique and multidimensional being, comprised of physiological, psychological, sociocultural, developmental, and spiritual variables. The interrelationships of these variables function together to protect and stabilize the system from internal and external stressors. Dysfunctional variables will cause

disequilibrium and breakdown of the flexible line of defense and lines of resistance. For the individual who demonstrates codependent behaviors, dysfunction occurs in one or all five of these variables leading to disequilibrium. Table 1 is a comparison of Neuman's five variables and the five core symptoms of codependency.

Table 1

Comparison of Neuman's Five Variables and the Five Core Symptoms of Codependency

Neuman's Five Variables	The Five Core Symptoms of Codependency
Physiological - refers to bodily structure and function	Individual has difficulty in acknowledging and meeting one's own needs and wants
Psychological - refers to mental processes and appropriate levels of self-esteem	Individual has difficulty expressing one's own reality
Sociocultural - refers to combined social and cultural functions	Individual has difficulty setting functional boundaries
Developmental - refers to life developmental processes	Individual has difficulty in experiencing relationships
Spiritual - refers to spiritual belief influence	Individual has difficulty owning one's own reality moderately

The highly differentiated individual has all five functional variables as described by Neuman and will be able to resist internal and external stressors. The lower differentiated individual will demonstrate the symptoms of codependency and will be subject to dysfunction and symptomatology.

Neuman's model (1989) demonstrates a central core to the system which is the basic structure of the individual. Neuman defines the central core as consisting of the basic survival factors, such as the variables contained within it, the innate or genetic features, and the strengths and weaknesses of the system parts. The basic structure is surrounded by broken internal "lines of resistance" followed by a solid "normal line of defense" followed by a broken "flexible line of defense" (See Figure 1). Each line of defense contains similar protective elements related to the five variables. The lines of resistance and defense are dynamic rather than stable. The resistance lines "contain certain known and unknown internal factors that support the individual's basic structure and normal defense line, thus protecting the system integrity" (Neuman, 1989, p. 30).

The flexible line of defense is accordion-like in function. The greater the distance it expands from the normal line of defense the greater the protection that is provided. This flexible line acts as a protective

buffer system for the individual's normal or usual wellness state. It prevents stressor invasion of the individual's system thus preventing stress reactions or symptomatology (Neuman, 1989).

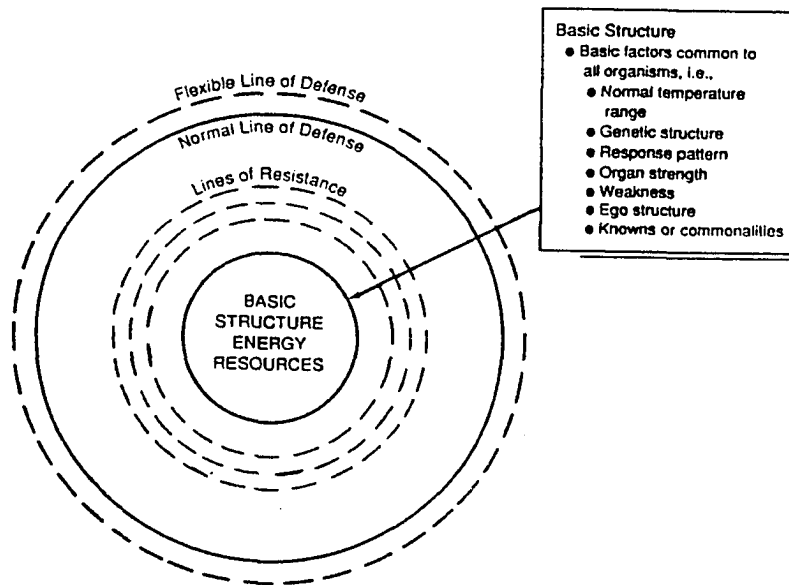


Figure 1. Neuman's Model.

Note. From The Neuman Systems Model (2nd ed.) (p. 28) by B. Neuman, 1989, Norwalk: Appleton & Lange. Copyright 1989 by Appleton & Lange. Reprinted with permission (Appendix A).

The normal line of defense represents the individual's normal state or usual level of wellness. Adjustment of individual system variables to internal and external stressors determines the individual's stability or usual wellness level. When the normal line of defense is penetrated, symptoms of instability or illness develop (Neuman, 1989).

The lines of resistance are activated following invasion of the normal line of defense. The effectiveness of the lines of resistance in reversing the reaction to stressors will determine if reconstitution will occur or if there will be complete depletion of energy leading to the death of the individual (Neuman, 1989).

An individual during the process of developing relationships, either during childhood or adulthood, learns boundary limits for each of Neuman's five variables. Individual boundaries serve two purposes, the first is to facilitate the individual in separating his/her internal environment (body, mind, spirit) from his/her external environment; and the second is to assist the individual in adapting to the changing environment through permeability and flexibility of the existing boundaries (Scott, 1988). Codependents and/or individuals with a lower differentiation of self have difficulty establishing and maintaining personal boundaries. Their self-esteem is so dependent on what others think of them that they try to control and manipulate their external environment. They go out of their way to do things for other people, at the expense of themselves, in order to gain approval of others. This need to control leads to difficulty in maintaining and setting boundaries (Melody & Miller, 1989). Codependents and individuals with lower differentiation

of self have trouble knowing where the self ends and others begin and can have trouble saying no even when failure to do so can be harmful to their health and well-being (Snow, 1993). This inability to establish and maintain boundaries can lead to dysfunction, disequilibrium, and symptomatology.

Codependents believe that they are responsible for how others feel and act. They have difficulty realizing that they do not have the power or control to take on such a responsibility. Many times their desire to "fix" others keeps them from taking care of themselves. What is lost is the self, the core identity is sacrificed for another, whether or not the other needs it (Snow, 1993).

When individuals take on other's problems or stressors as their own in an attempt to fix the problem, the caregiver experiences multiple stressors. Stressors are defined by Neuman (1989) as "tension producing stimuli with the potential for causing disequilibrium" (p. 23). When an individual's flexible line of defense is not capable of protecting and maintaining the normal line of defense from the impact of these stressors, then disequilibrium occurs.

Neuman's theory combined with the concepts of codependency and Bowen's differentiation of self would demonstrate the following hypothesized scenario. An individual with a higher differentiation of self and fewer codependent behaviors will have functioning

variables that will not easily be thrown into dysfunction by increased levels of anxiety or stress. If disequilibrium does occur, this individual will have strong flexible lines of defense and will rebound to functioning levels more quickly. On the other hand, an individual who has a low differentiation of self and demonstrates higher levels of codependent behavior will be easily stressed into dysfunction and disequilibrium, and may not have the reserves to recover.

The latter individual in order to stabilize the functioning system and restore the lines of defense and resistance will become people pleasers in order to create comfort with his/her environment. This individual lacks boundaries and does not know when to resist or say no to internal or external stressors. He/she will continue to neglect himself/herself and/or develop an addiction in order to create a comfortable environment.

It is hypothesized that nursing students with higher levels of codependent behavior and lower levels of differentiation of self will have dysfunction of several, if not all, of the five variables required to protect their system from internal and external stressors. This will make them susceptible to illness (physical, psychological, or social) and/or substance addictions or process addictions in order to provide comfort and stabilization to their functioning system.

According to Bowen's theory, strengthening the student's intellectual system functioning over the emotional system functioning will foster the creation of boundaries and elevate levels of self-esteem which will strengthen and clarify the student's lines of resistance and help to restore the lines of defense.

Review of Literature

No published studies were found that investigated the relationship between the level of codependent behavior in nursing students and the level of differentiation of self. Therefore, the literature review will focus on self-esteem in nursing, which is the core issue in codependency and the core issue that determines the level of differentiation of self.

Seever (1985) investigated the relationship of selected personality and interpersonal factors and demographic data with burnout in nurses. The sample consisted of 129 voluntary participants (126 female and 3 male) from Kansas City area hospitals, ranging in age from 22 to 62 years. The participants completed the Modified Maslach Burnout Inventory, the Fundamental Interpersonal Relationship Oriented-Behavioral Form, the Rosenberg Self-esteem scale, the Adult Self Expression Scale, and an author designed questionnaire to obtain background and demographic data.

According to Seever, a canonical correlation analysis found that five variables were statistically

significantly related ($p < .05$) to one or more of the three measured burnout scales: emotional exhaustion, depersonalization, or feelings of lack of accomplishment. The five variables were self-esteem, wanted need for control in interpersonal relationships, assertiveness, age, and years in nursing. Overall, an increase in self-esteem, assertiveness, and age, and a decrease in wanted need for control and years in nursing were associated with lower burnout scores. Regression analysis of these variables further clarified these relationships. Self-esteem ($B = -.257$, $T = -2.844$, $\text{sig } T = .005$) and wanted need for control in interpersonal relationships ($B = .305$, $T = 3.582$, $\text{sig } T = .005$) both contributed significantly to the prediction of the emotional exhaustion factor of burnout. The depersonalization facet of burnout was best predicted by self-esteem ($B = -.196$, $T = 2.031$, $\text{sig } T = .044$), assertiveness ($B = -.194$, $T = -2.082$, $\text{sig } T = .039$), age ($B = -.262$, $T = -1.903$, $\text{sig } T = .05$), and years of nursing ($B = .276$, $T = 2.021$, $\text{sig } T = .045$). Self-esteem ($B = .274$, $T = 2.904$, $\text{sig } T = .004$) and wanted need for control in interpersonal relationships ($B = -.176$, $T = -1.978$, $\text{sig } T = .05$) were both statistically significant predictors of the burnout factor feelings of lack of accomplishment, while assertiveness scores approached statistical significance ($B = .153$, $T = 1.679$, $\text{sig } T = .09$).

The major conclusion of Seever (1985) was that measures of degree of wanted need for control in interpersonal relationships, assertiveness, self-esteem, age, and years in nursing may be valuable tools in helping identify the burnout prone, or burnout resistant individual. The limitations of this study were that the study was limited to nurses working only in the hospital setting, participation in the sample was voluntary, and the study was completed by self-report measures. The study did support that emotional exhaustion, depersonalization, or feelings of lack of accomplishment were determined by the individual's level of self-esteem.

In a descriptive study Wickett (1989) investigated 48 full-time public health nurses to determine if there was a positive and significant relationship between the nurses' perceptions of self-esteem and job satisfaction. The instruments used in this study were the Rosenberg Self-Esteem Scale and the Brayfield-Rothe Index of Job Satisfaction. There was a positive Pearson product-moment correlation (.164) between the nurses' perception of self-esteem and job satisfaction; however, this relationship was not statistically significant at the $p < .05$ level. Wickett's findings did support the fact that low self-esteem individuals have certain characteristics that inhibit creativity, performance, and effective interpersonal relations. Given the

results of this study, the level of self-esteem cannot predict job satisfaction. This study was limited to only a small sample of public health nurses and could not be generalized to the nursing population as a whole.

Williams, Bissell, and Sullivan (1991) in a descriptive exploratory study, evaluated the effect on physicians and nurses of being closely involved with one or more chemically dependent persons either in their personal or professional lives. A sample of 67 physicians and 133 nurses (from 33 states, ages 23-74 years, and primarily caucasian) with chemically dependent significant others were surveyed. A seven page questionnaire, developed by the authors, was completed to elicit information regarding the relationship with a chemically dependent person(s) and the effects on the relationship. Subjects also were asked about their professional education and their own use of chemicals.

Chi-square analysis determined significant differences between physicians and nurses, males and females, and codependent and non-codependent respondents on personal and professional variables. Significance was set at .05. Subjects with more than one relationship more often reported absenteeism ($p < .05$), inability to concentrate ($p < .05$), and a negative contribution of their professional education ($p < .05$). The personal effects more often reported were damaged

self-esteem ($p < .0001$), development of other illnesses ($p < .001$), antidepressant use ($p < .01$), and their own chemical dependence ($p < .001$). Three-fourths of the respondents stated that the relationship had affected their work. Responses as to how it had affected their work were: missed work, inability to concentrate at work due to exhaustion, anxiety, or arguments; 12% had missed work to protect their children; and 7% had been physically abused. A moderate negative correlation was found between the subject's level of work impairment due to the relationship and the quality of care given by the subject to assigned clients (Spearman's $p = -.45$).

There were also other effects reported. Personal professional development was affected by not attending continuing education, not participating in professional organizations, neglecting professional reading, and one physician gave up practice entirely to deal with issues at home. Many subjects reported illnesses they attributed to living with a codependent person: depression, anxiety, gastrointestinal disturbances, and cardiovascular disorders. More nurses than physicians reported illnesses and more females than males reported these illnesses ($p < .001$) reflecting a sex bias. The majority reported quality of work was adversely affected by this association. About half of the respondents had attempted to treat the chemically dependent person(s) themselves, sometimes giving medication and occasionally

diverting drugs for this purpose. Most reported their professional education had not prepared them to recognize and assist people with chemical dependence and half thought their professional education negatively influenced their ability to help. Most said their self-esteem and self-confidence were damaged by these relationships. Over 1/3 reported being diagnosed as depressed and 12% had attempted suicide. There were few differences between physicians and nurses on the effects of being in a codependent relationship, although nurses and women were more likely to have chemically dependent parents. Implications for professional education were identified and it was felt that professional education needed to teach chemical dependence as a primary illness.

There were several limitations to this study. First the sample population was a convenience sampling of attendees at conferences on chemical dependence and the participants may have been more aware of the problem. Second, reliability and validity of the survey instrument were not completed prior to the study. Subjects commented that some items contained bias which suggests more work needs to be done on the instrument. Third, the data were self-reported and the self-selected population may be different from non-participants. However, this study does suggest that impaired practice may result from both chemical dependence and from

codependence.

Burns (1991) investigated the risk indicators that identify populations at risk for substance abuse among nurses. Substance abuse was measured by participation in a nurse support group for chemical addiction and/or personal admission to being dependent. This study contrasted the early risk indicators among substance abuse (SA) and non-substance abuse (NSA) in professional nurses and explored to what extent the risk factors, in combination, predicted SA and NSA group membership. The combination of risk factors identified in this study were the Efinger Alcohol Risk Survey (EARS), hassles, self-esteem, sensation-seeking, and number of peer abusers. Data were collected from two criterion groups. One group of 86 female nurses had a history of substance abuse. The second group of 82 female nurses were selected at random from the total number of New Jersey registrants and had no previous history of substance abuse. The questionnaire completed by each participant was based on the theoretical construct of stress, early predictors of alcohol abuse and factors supported by research to precede drug abuse.

Data analysis yielded significantly higher scores ($p < .001$) in the SA group than the NSA group for each of the risk factors (EARS, hassles, self-esteem, sensation-seeking, and number of peer abusers). The scoring of self-esteem was reversed so that a high score

indicated low self-esteem. The regression analysis demonstrated that EARS and self-esteem were dominant variables and that peers, sensation-seeking, and hassles were next in importance. In the discriminant analysis, the canonical correlation of .873 indicated a strong relationship between variables and the prediction of group membership. Classification results indicated a correct prediction of SA group membership in 94.2% of the cases and correct NSA group membership in 97.6% of the cases with an overall 95.8% for grouped cases correctly classified. The discriminant analysis results strongly supported the significance of the five variables to determine the difference between the SA and NSA groups. Identifying populations at risk for substance abuse is an important component of nursing knowledge and a requisite for initiating prevention strategies. This research made significant predictions for group membership among nurses. It represents an important step toward the recognition of the portion of the nursing population at risk for substance abuse and provides the opportunity for intervention strategies.

Clark and Stoffel (1992) investigated the relationship between codependency and caregiving to determine whether codependent persons tend to be attracted to caregiving professions. The study also examined the relationship between codependency, self-esteem, and locus of control. The voluntary sample

consisted of 15 occupational therapy students and 15 health information administration (HIA) students believed to be different from one another with respect to the caregiving aspects of their professions. The instruments used were the Friel Adult Child/Codependent Assessment Inventory, the Tennessee Self-Concept Scale by Fitts, and the Internal-External Locus of Control Scale by Rotter. The occupational therapy group scored significantly lower than the HIA group on the measure of codependency ($M = 21.2$ vs. $M = 28.8$ respectively, $t = 2.258$, $p = .05$). No other significant differences were noted between groups for the other test scores. Only codependency scores between 31 and 60, that is moderate-to-severe and severe concerns ($n = 6$), had a strong negative correlation with self-esteem scores ($r = -.974$) and a moderate correlation with locus of control scores ($r = .683$). Moderate-to-severe and severe codependency scores were indicative of low self-esteem and high external locus of control. No student in the occupational therapy group scored within the moderate-to-severe or severe range. The results between these two groups of students did not support a relationship between codependency and choice of a caregiving-oriented profession. The authors implications of this study suggested incorporation into the academic preparation of occupational therapy students information regarding codependency and self-assessment of codependency to

facilitate awareness of the student's need to nurture others. However, their research does not support these implications since the occupational therapy group had low codependency scores. Another limitation to this study was the small sample.

In summary, after review of the literature there is evidence nurses and nursing students have a tendency to have low self-esteem and demonstrate codependent behaviors. Low self-esteem leads to emotional exhaustion, depersonalization, feelings of lack of accomplishment, ineffective interpersonal relationships, and various illnesses. The literature also points to the lack of education in providing the nurse with information regarding the concept of codependency, the concept of the differentiation of self, and chemical addiction itself. It is apparent that there is limited research on codependency. Many self-help books are available that explain what codependency is, how it develops, and how to treat it. However, there is very little scientific data to support what clinicians think. The literature does suggest that an individual with codependent behaviors also has many of the characteristics of an individual with a lower differentiation of self. There is evidence to suggest that self-esteem is important for an individual to be able to set boundaries, to be able to feel good about oneself, and to be able to function more efficiently and

at higher levels of wellness. Further research is needed to support these suggestions scientifically.

Hypotheses

This study seeks to test the following hypotheses:
(1) Codependent behavior in a nursing student will be negatively correlated with the student's level of differentiation of self, and (2) Those students who demonstrate high codependence scores will report increased levels of stress in their current lives and an increase frequency of illness.

Definition of Terms

For the purpose of this study, the following definitions will be used.

Codependency: Codependency will be defined as a condition characterized by dysfunctional boundaries in physiological, psychological, sociocultural, developmental, and spiritual variables that leave an individual in a constant state of disequilibrium thus allowing internal and external stressors to have great impact on the self-esteem and wellness of the individual.

Differentiation of Self: Differentiation of self is defined as the degree to which a person can maintain boundaries in intellectual system functioning as opposed to being controlled by emotional forces within the relationship system (Bowen & Kerr, 1988) when faced with internal and external stressors.

Stressors: Neuman (1989) defines stressors as tension-producing stimuli or forces capable of causing disequilibrium within the internal and external environment of an individual. The impact of these stressors can be assessed by measuring an individual's perception of stress and frequency of illness.

CHAPTER 3

METHODOLOGY

Research Design

This study employed a descriptive correlational design to describe the relationship between the level of codependent behavior and the level of differentiation of self among nursing students. This study also describes the relationship between the nursing student's level of codependency and level of differentiation of self and the nursing student's perception of stress and frequency of illness.

There were no threats to internal validity since this study did not manipulate the independent variable. There could however, have been a competing hypothesis that something other than codependency could interfere with one's level of differentiation of self. For example, if stress/anxiety levels were high during the time of administration of the questionnaires (e.g., final exam, personal problems), the student might have demonstrated lower levels of differentiation of self but may not have demonstrated codependent behaviors.

The Hawthorne Effect could have been a threat to the external validity of the study. If nursing students were aware that codependent behavior and levels of

differentiation of self were being measured, they may not have wished that behavior to be identified and may not have answered the questions truthfully. This threat was eliminated by not informing the nursing students of the reason for the questions and by ensuring them that their confidentiality would be maintained.

Interaction of History and Treatment Effects could have also been a threat to the external validity of the study. The environment in which the questionnaires were completed could have an effect on the students' answers. Also, as previously, mentioned, the other stresses and life events that were occurring at the same time could have impacted upon the students' reaction to the questionnaires. This threat was decreased, as much as possible, by not distributing the questionnaires at midterm, or exam time, or when a major project or paper was due. Class time was allowed for some students to complete the questionnaires and for others they could take the questionnaires home and complete them at their leisure.

Respondent Characteristics

A total of 456 questionnaires were distributed with a return rate of 53%. The sample from which data were analyzed consisted of 241 nursing students enrolled in three different nursing programs in southwest Michigan. The nursing students represent a convenience sample solicited for voluntary participation via classrooms at

the nursing schools. Two hundred twenty-one of the students were females and 20 were males. The mean age of the sample was 28 (SD = 8.337) with a range of 18 through 55 years. Ninety-four students (39% each) participated from both the Associate Degree Nursing (ADN) program and the Bachelor of Science Nursing (BSN) program and 52 students (21.6%) participated from the Diploma Nursing program. Most of the respondents were in their first year of nursing courses and had never been married (see Table 2).

Table 2

Respondent Characteristics (N = 241)

Variable	n	%
<u>Gender</u>		
Male	20	8.3
Female	221	91.7
<u>Age</u>		
18-20	16	6.6
21-30	146	60.5
31-40	50	20.7
41-50	24	9.9
51-55	3	1.2
<u>Nursing Student Type</u>		
ADN	94	39.0
Diploma	52	21.6
BSN	94	39.0
<u>Level</u>		
1st year nursing	146	60.5
2nd year nursing	88	36.5
3rd year nursing	5	2.1
<u>Marital Status</u>		
Married	103	42.7
Separated	6	2.5
Divorced	18	7.5
Widowed	1	0.4
Never Married	113	46.9

Instruments

Friel Adult Child/Codependent Assessment Inventory.

To assess if the nursing student possessed codependent behaviors the Friel Adult Child/Codependent Assessment Inventory (Friel & Friel, 1988) was used. This instrument contains 60 statements and requires the respondent to answer true or false to each statement. To score the questionnaire, one point is given for every true response to all even-numbered items; and one point for every false response to odd-numbered items (Friel & Friel, 1988). There is a total possible score of 60. In research thus far, scores of 10-20 indicate mild codependency/adult child concerns; scores of 21-30 indicate mild-moderate concerns; scores of 31-45 indicate moderate-severe concerns; and scores over 45 indicate severe codependency/adult child concerns (Friel & Friel, 1988).

Reliability figures of this inventory, using the Kuder-Richardson formula 20, are reported to be "in the range of 0.83 and 0.85 on fairly homogeneous samples with a somewhat restricted range" (Prest, 1992, p. 54). The inventory has been examined for face and content validity. It has been determined to be congruent with the Iceberg Model of Codependency (Friel & Friel, 1987). It has distinguished "between comparison groups and significant others (both male and female) from dysfunctional families" (Prest, 1992, p. 54).

Reliability analysis for this study was completed on the total 60 item scale and yielded an alpha coefficient of .9257.

Haber Level of Differentiation of Self Scale. To assess the level of differentiation of self the Haber Level of Differentiation of Self Scale (LDSS) (Haber, 1990) was used. This instrument is a 24 statement questionnaire on which subjects respond on a 4-point likert-type scale to each item. Response categories consist of numbers indicating Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). Responses indicating evidence of differentiation of self are scored in the above manner. However, responses to items indicating lack of differentiation of self are reverse scored. The higher the total score, the higher the level of differentiation of self. Item 1-7, 9, 10, 12, 13-16, 18, 20, 21, 23, and 24 are direct score questions. Items 8, 11, 17, 19, and 22 are reverse score questions. Scores for the LDSS range from 24-96 (Haber, 1990).

Internal consistency reliability among the items of each of two subscales was established in three stages during the course of three studies utilizing three different samples. The Emotional Maturity (EM) subscale (including values and beliefs, goals, cognitive versus emotional processes, I-positions, assessment of self, and expectations of others) yielded an alpha coefficient

of 0.86 for all three studies (Haber, 1990). The Emotional Dependency (ED) subscale (including decision making, need for approval, need for security, response to group pressure, feelings about self, and problem solving ability) yielded an alpha coefficient of 0.83, 0.80, and 0.83 in the three studies (Haber, 1990). The content validity was established by review panel and by use of a content validity index demonstrating a satisfactory level of content validity. The content validity index for the EM subscale was 0.95 and for the ED subscale was 0.92 (Haber, 1990). Construct validity was established through a varimax rotated factor analysis in two of the three studies. The items on the EM subscale and ED subscale demonstrated a factor pattern loading of 0.40 or higher (Haber, 1990). Due to a marked stability in the factor structure of the LDSS and consistent data pattern from the three studies, a decision was made to revise the LDSS as a unidimensional 24 item measurement tool (Haber, 1990). Reliability analysis for this study was completed on the total 24 item scale and yielded an alpha coefficient of .8595.

Respondent Characteristics Questionnaire. The respondent characteristic data (See Appendix B) that were collected helped to determine some basic characteristics about the sample. These data helped to control for extraneous variables. It also helped to determine the current level of stress and the current

level of wellness of the participants. The respondents were asked to make a mark on a 100 mm line to identify between 0-100 where their current level of stress was (0 = No Stress and 100 = Worst Stress). The respondents were asked to determine their level of wellness over the past year by answering "yes" or "no" to the 17 listed stress-related illnesses. The number of "yes" responses were added to yield an illness score.

Procedure

Approval from the Human Subject Review Committee at Grand Valley State University was obtained prior to data collection. Permission to collect data was also sought and received from the two other institutions. Permission from both authors was received to use and reproduce both instruments (See Appendix C). The collection of data took place by the researcher or nursing faculty member distributing the self-administered questionnaires to students directly in the classroom. An introductory letter to the nursing student (See Appendix D) was attached to the questionnaires and explained why the study was important, how long it would take to complete the questionnaires, why the student's participation was important, that the student's confidentiality would be protected, and that by completing and returning the questionnaires the student would be giving consent for his/her data to be used in the study. The letter also

gave the student information on how to receive answers to questions, the results of the study, and how to return the questionnaires once finished. An introductory statement began each questionnaire to explain how to complete the questionnaire. A self-addressed stamped envelope was distributed with each set of questionnaires. Subjects were instructed to place the questionnaires into the envelope and mail them to the researcher. The questionnaires were not collected by the students' faculty in order to maintain confidentiality.

CHAPTER 4

RESULTS AND DATA ANALYSIS

Hypothesis 1

To determine if there was a relationship between a student's level of codependency and level of differentiation of self a Pearson Product Moment Correlation Coefficient was calculated. The research hypothesis: "Codependent behavior in a nursing student will be negatively correlated with the student's level of differentiation of self," was supported. A significant moderate negative correlation was found between the two variables ($r = -.4506$, $df = 233$, $p < .001$).

The mean codependency score for the entire sample ($N = 241$) in this study was 28.7 ($SD = 10.5$, range 5-56) indicating a mild to moderate level of codependent behavior for the sample. The mean differentiation of self score for the portion of the sample that responded ($n = 235$) was 75.6 ($SD = 7.8$, range 47-95) indicating a moderately high level of differentiation of self for the sample.

The levels of codependency on the Friel Adult Child/Codependent Assessment Inventory (Friel & Friel, 1988) were identified as follows: group 1 (mild

codependency score = 10-20), group 2 (mild to moderate codependency score = 21-30), group 3 (moderate to severe codependency score = 31-45), and group 4 (severe codependency score over 45).

An analysis of variance was calculated and demonstrated a significant difference in the level of codependency and the level of differentiation of self ($F = 15.9104$, $df = 3, 230$, $p < .001$). The Scheffe method of post hoc comparison demonstrated that these differences were between group 4 compared to groups 1, 2, and 3 and group 3 compared to groups 1 and 2 (See Table 3). Those students with lower levels of codependency scored higher on the Haber scale for the level of differentiation of self which is consistent with the Pearson Product Moment Correlation Coefficient for Hypothesis 1.

Table 3

Comparison of Codependency Levels and Differentiation of Self Scores

Codependency Group	n	LDSS Mean	SD	Range
1	49	79.1837	6.7227	67-95
2	86	77.1628	6.6666	65-92
3	78	73.1667	7.8234	55-92
4	18	67.6111	7.5936	47-80

Note. Data reflects responses of subjects who completed both scales.

Hypothesis 2

To determine if there was a relationship between codependency and stress and codependency and illness a t-test and Pearson Product Moment Correlation Coefficient were calculated. The research hypothesis: "Those students who demonstrate high codependence scores will report increased levels of stress in their current lives and an increase frequency of illness," was supported.

The mean stress level for the portion of the sample (n = 239) that indicated their stress level on the characteristics questionnaire was 61.8 (SD = 19.2, range 5-99). Fifty-eight respondents (24.3%) scored their current stress level between 5 and 50 while 181 respondents (75.7%) scored their current stress level between 51 and 99. The mean number of stress-related illnesses for the sample (N = 241) was 7.1 (SD = 2.7, range 0-13).

A high codependence score was a score of greater than 30. Therefore, groups 1 and 2 were combined as group A for a codependency score of less than or equal to 30 and groups 3 and 4 were combined as group B for a codependency score of greater than 30.

The t-test examining the difference in stress between the means for groups A (M = 56.2448, SD = 20.982) and B (M = 69.9583, SD = 12.465) was calculated using the separate variance estimate

($t = 6.33$, $df = 233.92$, $p < .001$). This indicates with significance that the higher the level of codependency the higher the stress level. The t -value testing the difference in illness between the means for groups A ($M = 6.7917$, $SD = 2.768$) and B ($M = 7.5258$, $SD = 2.606$) was calculated using the pooled variance estimate ($t = 2.07$, $df = 239$, $p = .040$). This indicates with significance that the higher the level of codependency the higher the incidence of stress-related illnesses.

The Pearson Product Moment Correlation Coefficient calculation between the variables of codependency and stress and codependency and illness demonstrated a significant, but moderate positive correlation between codependency and stress ($r = .3836$, $df = 237$, $p < .001$). There was also a significant, but weak positive correlation between codependency and illness ($r = .2184$, $df = 239$, $p = .001$).

Table 4 contains the mean scores of stress levels for each of the four groups of codependency. An analysis of variance demonstrated a significant difference ($F = 13.1535$, $df = 3, 235$, $p < .001$) in stress among the groups. The Scheffe method of post hoc comparison demonstrated that these differences were between group 1 compared to groups 3 and 4 and group 2 compared to groups 3 and 4. These data are consistent with the Pearson Product Moment Correlation Coefficient calculation for Hypothesis 2.

Table 4

Comparison of Codependency Levels and Levels of Stress

Codependency Group	n	Stress Level Mean	SD	Range
1	51	52.0784	19.6304	6-90
2	89	58.7865	21.2563	5-93
3	78	68.9103	12.9205	33-99
4	18	74.5000	9.2371	51-86

Note. Stress level was measured by a visual analog scale on a 100 mm line (0 = no stress, 100 = worst stress).

Table 5 contains mean scores of illness levels for each of the four groups of codependency. An analysis of variance demonstrated no significant difference between groups at the .05 level for illness. However, the Pearson Product Moment Correlation Coefficient for Hypothesis 2 did demonstrate a significant, but weak positive correlation between codependency and illness. Table 5 demonstrates this by an increase in the mean scores of illness as the level of codependency increases.

There were seven stress-related illnesses experienced over the past year that were reported by over 50% of the sample. Those illnesses were headache, backache, cold, anxiety, sore throat, diarrhea, and exhaustion. Depression was reported by 46% of the sample. Table 6 illustrates the level of codependency and the frequency that stress-related illnesses were reported.

Table 5

Comparison of Codependency Levels and Frequency of Illness

Codependency Group	n	Illness Mean	SD	Range
1	51	6.7255	2.9670	0-12
2	89	6.9551	2.5933	1-13
3	79	7.3797	2.4667	2-13
4	18	8.1667	3.1483	2-12

Note. The number of "yes" responses to 17 stress-related illnesses were added to yield an illness score.

Table 6

Reported Stress-Related Illnesses over the Past Year by Codependency Group

Illness	Total Freq.	Codependency Group			
		1	2	3	4
		n = 51	n = 89	n = 79	n = 18
		n(%)	n(%)	n(%)	n(%)
Headache	222	46 (90)	81 (91)	77 (98)	18 (100)
Backache	186	36 (71)	68 (76)	64 (81)	18 (100)
Cold	183	39 (77)	70 (79)	60 (76)	14 (78)
Anxiety	175	32 (63)	62 (70)	66 (84)	15 (83)
Sore Throat	168	31 (61)	67 (75)	59 (75)	11 (61)
Diarrhea	155	36 (71)	56 (63)	52 (66)	11 (61)
Exhaustion	133	23 (45)	49 (55)	47 (60)	14 (78)
Depression	112	17 (33)	35 (39)	47 (60)	13 (72)
Flu	92	20 (39)	39 (44)	25 (32)	8 (44)
Vomiting	81	18 (35)	28 (32)	28 (35)	7 (39)
Bladder Inf.	45	12 (24)	14 (16)	13 (17)	6 (33)
Chest Pain	27	4 (8)	10 (11)	9 (11)	4 (22)
Ulcer	16	3 (6)	5 (6)	6 (8)	2 (11)
Asthma	15	5 (10)	4 (5)	6 (8)	0 (0)
Hypertension	14	2 (4)	4 (5)	4 (5)	4 (22)
Pneumonia	4	0 (0)	2 (2)	1 (1)	1 (6)
Heart Problem	3	1 (2)	2 (2)	0 (0)	0 (0)

An analysis of variance was calculated to determine whether there would be differences in the different levels of codependency and the other variables included in this study. There were no significant differences demonstrated between the four levels of codependency and the variables of sex, age, nursing student type, nursing student level, marital status, work, or children.

Incidental Findings

A comparison was done between the three nursing student types to determine homogeneity of the sample. An analysis of variance was calculated to determine if there were significant differences between the three types of nursing students and the variables of level of codependency, level of differentiation of self, stress, illness, age, and number of hours worked. At the .05 level there were no two types of nursing students who were significantly different in regards to the level of codependency, stress, and illness. However, for the level of differentiation of self, there was a significant difference among the types of nursing students. This difference was between the ADN and BSN students. The ADN students scored significantly higher ($F = 4.1426$, $df = 2, 231$, $p = .0171$) than the BSN students (See Table 7). There was a significant difference in age ($F = 11.2893$, $df = 2, 237$, $p = < .001$) with the ADN students being older than the Diploma and BSN students (See Table 8). There was also a

significant difference in the number of hours worked per week ($F = 5.05$, $df = 2, 239$, $p = .0071$) with the Diploma students working a significant number of hours more than the BSN students (See Table 9).

Table 7

Comparison of Nursing Student (NS) Type and Level of Differentiation of Self

NS Type	n	LDSS Mean	SD	Range
ADN	91	77.0659	8.5372	55-92
Diploma	52	75.9808	6.7519	57-90
BSN	91	73.8132	7.3544	47-95

Table 8

Comparison of Nursing Student (NS) Type for Age

NS Type	n	Mean	SD	Range
ADN	94	31.4457	8.4728	18-49
Diploma	52	26.5385	7.5185	19-51
BSN	94	26.3085	7.7696	20-55

Table 9

Comparison of Nursing Student (NS) Type and Number of Hours Worked Per Week

NS Type	n	Mean	SD	Range
ADN	94	14.9894	12.9270	0-40
Diploma	52	18.8269	11.3910	0-48
BSN	94	12.5426	9.7965	0-40

Chi-square analysis was calculated to compare nursing student type with the variables of sex, level in program, marital status and number of children. At the .05 level there were no two types of nursing students significantly different for the variables of sex and level of program. There was a significant difference in marital status ($\chi^2 = 40.34$, $df = 6$, $p = < .001$). Sixty-six percent of the ADN students were married as compared to the Diploma (30.8%) and BSN (26.6%) students. There was also a significant difference ($\chi^2 = 61.32$, $df = 2$, $p = < .001$) in the number of children between the types of nursing students. A higher percentage of ADN students had children (78.7%) as compared to the Diploma (32.7%) and BSN (24.5%) students.

The subsample groupings based on nursing student type were not homogeneous for the variables of the level of differentiation of self, age, number of hours worked, marital status, and number of children. With increased age comes more marriages and children and with increased responsibility comes an increased need to work more hours. Since the level of differentiation of self varied between the types of nursing students and the level of codependency did not, the variable of age will be considered as a factor in the difference.

A Pearson Product Moment Correlation Coefficient was calculated to determine if age was a significant variable between the three nursing student types in

relation to codependency and differentiation. Age was not a significant factor with codependency, however age was a significant factor ($r = .2278$, $df = 234$, $p < .001$) with the level of differentiation of self. A Stepwise Multiple Regression Analysis was calculated with age and nursing student type as the independent variables and the level of differentiation of self as the dependent variable. Only the independent variable age entered the equation. This equation was Differentiation of Self = $69.48 + .2128 \text{ Age}$ ($F = 12.662$, $p = .0005$). This equation explains 5% of the variance of the data ($R^2 = .052$).

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Discussion

There was a significant moderate negative correlation found between the level of codependent behavior and the level of differentiation of self ($r = -.4506$, $df = 233$, $p < .001$) in ADN, Diploma, and BSN nursing students who participated in this study. This finding supports the theoretical prediction of this author in Hypothesis 1 of this study. This finding would also support Fagan-Pryor and Haber (1992) who believed documented descriptions of codependent behavior correlated with Bowen's theory of the undifferentiated self. It also would support Prest (1992) who indicated that Bowen's Family System Theory could be used to explain codependency which is a manifestation of family dysfunction. There were no previous scientific studies found that investigated the relationship between the level of codependent behavior and the level of differentiation of self in nursing students.

There were no significant differences between the three types of nursing students regarding codependency. However, the ADN students were significantly different

from the BSN students ($p = .0171$) for the level of differentiation of self scores. It was determined through a stepwise multiple regression analysis that age was a significant factor ($p < .001$), not nursing student type, in predicting the level of differentiation of self. The ADN students had a higher mean age (31.4457) than that of the BSN students (26.3085) and scored higher levels of differentiation of self. This could support Neuman's theory (1989) of stress and reaction to stress. Increased age means increased life experiences which individuals can draw upon in times of duress to resist internal and external stressors and maintain equilibrium (wellness).

There was a significant moderate positive correlation between codependency and stress ($r = .3836$, $df = 237$, $p < .001$). There was also a significant but weak positive correlation between codependency and illness ($r = .2184$, $df = 239$, $p = .001$). Those students in the moderate to severe and severe codependency levels reported higher stress levels and an increase in the number of reported stress-related illnesses. These findings would support Neuman's theory (1989) of stress and reaction to stress. Neuman theorizes that a combination of physiological, psychological, sociocultural, developmental, and spiritual variables function to protect (defend) and stabilize (provide equilibrium) the individual (system) from internal and

external stressors. Individuals who demonstrate codependent behaviors and a lower differentiation of self may have dysfunction in one or all of Neuman's five variables leading to disequilibrium and breakdown of the flexible lines of defense and lines of resistance making the individual susceptible to illness. These findings also support Bowen (1981, 1985) who reported that increased stress and anxiety leads to tension and tension leads to symptoms of dysfunction or sickness. They also support Wegscheider-Cruse (1985) who indicated that the process of codependency would lead to medical complications. Low self-esteem leads to emotional exhaustion (Seever, 1985) and development of illnesses such as depression, anxiety, gastrointestinal disorders, and cardiovascular disorders (Williams, Bissell, & Sullivan, 1991). In this study the most frequently reported stress-related illnesses over the past year were: headache, backache, sore throat, cold, diarrhea, exhaustion, anxiety, and depression.

The Friel Adult Child/Codependent Assessment Inventory measured self-esteem issues while the Haber Level of Differentiation of Self Scale measured personal boundary issues. Snow and Willard (1989), in their study of nurses, indicated that low self-esteem and inability to set or maintain personal boundaries were two symptoms of codependency. Clark and Stoffel (1992) indicated in their study that moderate to severe and

severe codependency scores were indicative of low self-esteem and high external locus of control. According to Wegscheider-Cruse (1985) and Zerwekh and Michaels (1989), self-esteem is the core issue of codependency. Snow and Willard (1989) and Summers (1992) indicated that codependents focus external of the self for definition of the self, their value and well-being, wants and needs, and connection with the environment. Bowen and Kerr (1988) indicated that an individual at a lower level of differentiation of self would be more externally controlled by emotions within a relationship system. Bowen (1981) stated that this type of individual would be less flexible, less adaptable, emotionally dependent, easily stressed to dysfunction, have difficulty recovering from dysfunction, and inherit a high percentage of all human problems.

The majority of the participants in this study scored mild to moderate and moderate to severe levels of codependency. This would indicate that the majority of nursing students in this study have low self-esteem and have difficulty in setting personal boundaries. This is supported by the negative correlation between the levels of codependency and the levels of differentiation of self.

Limitations

There were several areas which present possible limitations to this study. These include

instrumentation, sample, and methods.

Instrumentation. Although a positive correlation was found between codependency and stress and codependency and illness, the correlations were moderately weak and weak respectively. One factor that may help to explain the weakness of the relationship between the variables may have been the instruments which measured stress and illness. Stress was measured essentially on a one-item scale by having the respondent place a mark along a 100 mm line as to where his/her current level of stress was. This response may have varied depending on the respondent's stress level for the day. Another factor may be that the stress and illness portion was at the very end of the questionnaires and the respondent may have tired. This could have affected how accurately the respondent answered the questions and may have influenced his/her final scores on the two research variables. The questionnaires were also distributed at the end of the semester which could have been a time of more or less stress for some respondents or at least a different type of stress. An instrument that would have measured stress and illness in various ways or in relation to self-esteem may have been more accurate at measuring continued current stress and illness levels.

The Friel Adult Child/Codependent Assessment Inventory (Friel & Friel, 1988) is a true/false

questionnaire which made it difficult to establish validity. If the scale were established with a Likert scoring procedure then factor analysis could be used to examine construct validity.

Sample. The use of a convenience sample is a limitation of this study because it decreases the generalizability of the study results to the greater population of nursing students. It is not known to what extent individuals who chose not to participate in this study may have influenced the results. This study was also predominantly females which makes it difficult to generalize the results of the study to male nursing students. However, this study did include a higher percentage of male students than the general population of nurses.

Methods. The absence of follow-up mailings or distributions is also a limitation of this study. These efforts may have encouraged others to participate in the study who had chosen not to participate with the initial distribution of questionnaires. The use of a cross-sectional research design in which the variables are measured at only one point in time is another limitation to the study. Students' anxiety and stress levels could have influenced how they responded on any given day.

Recommendations for Further Research

Follow up and/or replication studies are necessary in order to support this study. Subsequent studies may

address the limitations of this study. Especially studies that would develop more reliable ways to measure stress and illness consistently and in relation to self-esteem. The development of the Friel Adult Child/Codependent Assessment Inventory (Friel & Friel, 1988) in the Likert format would also be helpful. Replication of this study in other areas of nursing or in other allied health professions may be beneficial to support this study and its implications for education.

A longitudinal study might be helpful from the beginning to the end of nursing school to study changes over time that occur in nursing students in regards to the concepts of codependency and differentiation of self. This would help to see if the student's level of codependency and level of differentiation of self improves or declines during the educational process. An intervention study would be helpful in a longitudinal study that would look at the effect of an educational intervention to increase self-esteem and promote higher levels of differentiation of self.

Nursing Implications

This study identified that the majority of nursing students in the sample reported mild to moderate and moderate to severe levels of codependency. The majority of participants also reported exhaustion, anxiety, and various stress-related illnesses.

Due to these findings it will be important to teach

the concepts of codependency and differentiation of self so that the student can begin self-assessment and self-awareness. This will enable the student to have a choice to begin self-care interventions that will move him/her toward a higher degree of differentiation of self and toward higher levels of wellness. This will help to strengthen the student's intellectual system functioning over the emotional system functioning and will help to foster the creation of boundaries and elevate levels of self-esteem. The creation of boundaries and elevation of self-esteem levels will strengthen and clarify the student's lines of resistance and help restore or maintain the lines of defense. This will prevent illness when stress occurs.

An individual's level of differentiation of self is created out of relationship systems which create an environment that either facilitates or inhibits movement toward differentiation (Herrick, 1992). It will be the responsibility of nursing educators to be role models of appropriate behavior (intellectual system functioning) that will foster positive relationships with students that will facilitate their growth and self-healing.

Burns (1991) reported that stress and low self-esteem are high risk indicators for alcohol and/or substance abuse. Therefore it will be important to teach about concepts of chemical dependence and the treatment modalities that surround the various

substances. Seever (1985) reported that low self-esteem was associated with a higher burnout score. Therefore, measures need to be taken to foster learning/work environments that would help students/nurses to feel good about themselves and the care that they give.

Through education of these concepts, students will have the opportunity to learn how to distinguish genuine caring from codependency and will have the opportunity to elevate their level of self-esteem and develop a strong sense of self. Through these efforts students will be able to create and strengthen personal boundaries. This will enable students to maintain equilibrium when internal and external stressors are present and promote a higher degree of wellness for themselves.

APPENDIX A

Permission for use of Neuman's Model

APPENDIX A

Permission for use of Neuman's Model

Vicki L. Hillborg, B.S.N., R.N.
673 Farrand Rd.
Sherwood, Michigan 49089

May 14, 1995

Appleton & Lange
25 Van Zant Street
East Norwalk, Connecticut 06855


To Whom This May Concern:

This is a letter of request to reproduce, in the final copy of my Masters thesis, Figure 1-4 found on page 28 in the book entitled The Neuman Systems Model, 2nd Ed. This book was written by Betty Neuman, R.N., Ph.D. and published by you in 1989.

I have completed my Masters thesis entitled "The Relationship Between the Level of Codependent Behavior and the Level of Differentiation of Self Among Nursing Students." The nursing theorist for my conceptual framework is Betty Neuman. I feel it will be easier for my readers to understand her theory if I can include this figure in the body of my paper. Full credit will be given. Please advise me as to what I need to do to obtain permission to use this figure and if there will be any cost to do so.

Thank you for your assistance.

Sincerely,


Vicki L. Hillborg

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BY 

DATE 5/18/95

APPLETON & LANGE

APPENDIX B

Respondent Characteristics Questionnaire

APPENDIX B

Respondent Characteristics Questionnaire

Respondent Characteristics

Please complete all of the following information by putting a check mark or number in the space provided.

Sex: Male: _____ Female: _____

Age: _____

Type of Nursing Program: ADN: _____
Hospital Diploma: _____
BSN: _____

Semester and Year that you began Nursing courses: Fall: _____ Winter: _____
Year: _____

Marital status: Married: _____
Separated: _____
Divorced: _____
Widowed: _____
Never Married: _____

Hours of work/week outside of home: _____

The number of children you have in the following age groups:

None: _____
Birth - 2 years: _____
3 years - 6 years: _____
7 years - 12 years: _____
13 years - 18 years: _____
Older: _____

Perceived Current Level of Stress: Place a slash (/) through the line where you feel your stress level is presently at.

No Stress _____ Worst Stress
(100 mm. line)

Perceived Current Level of Wellness: Have you experienced any of the following in the past year?

Headache:	yes: _____ no: _____	Ulcer:	yes: _____ no: _____
Backache:	yes: _____ no: _____	Heart problem:	yes: _____ no: _____
Sore Throat:	yes: _____ no: _____	Chest pain:	yes: _____ no: _____
Cold	yes: _____ no: _____	Hypertension:	yes: _____ no: _____
Pneumonia:	yes: _____ no: _____	Bladder infection:	yes: _____ no: _____
Asthma:	yes: _____ no: _____	Exhaustion:	yes: _____ no: _____
Diarrhea:	yes: _____ no: _____	Depression:	yes: _____ no: _____
Vomiting:	yes: _____ no: _____	Anxiety:	yes: _____ no: _____
Flu:	yes: _____ no: _____		

Other illnesses that may have impacted on your wellness:

Thank you for completing these questionnaires. Please enclose them in the envelope provided for you and return them to me. Your participation is appreciated and your confidentiality will be maintained.

APPENDIX C

Permission from Authors

APPENDIX C

Permission from Authors

Vicki L. Hillborg, B.S.N., R.N.
673 Farrand Rd.
Sherwood, Michigan 49089

May 14, 1995

Health Communications, Inc.
Enterprise Center
3201 SW 15th Street
Deerfield Beach, Florida 33442


To Whom This May Concern:

This is a letter of request for permission to reproduce, in the final copy of my Masters thesis, the Friel Adult Child/Co-dependency Assessment Inventory that I found in the book entitled Adult Children: The Secrets of Dysfunctional Families. This book was written by John Friel & Linda Friel and published by you in 1988.

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Thank you for your assistance.

Sincerely,


Vicki L. Hillborg

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APPENDIX C

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Vicki L Hillborg BSN RN
673 Farrand Road
Sherwood MI 49089

Please refer to
this number in
correspondence:

BPL 95 - 64

Dear Ms Hillborg,

Thank you for your request of 14 May 1995 to reprint from our publication

Waltz/Strickland: MEASUREMENT OF NURSING OUTCOMES, Vol 4; 1990

the following material:

The Haber Level of Differentiation Scale....," by J. Haber

Your reprint is requested for inclusion in: (Title, Author, Publisher,
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Masters Thesis: "The Relationship Between the Level of Codependent
Behavior....," V. Hillborg; 1995

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Dorothy Kouwenberg, Permissions Coordinator

Date: 29 March 1995

APPENDIX D

Introductory Letter

APPENDIX D

Introductory Letter

Dear Participant, '

Individuals enter the profession of nursing for various reasons. Sometimes those reasons will later have an impact on an individual's career. Identifying reasons why individuals choose nursing as a career will help nurse educators to identify ways to facilitate nursing students in their quest to learn to care for other people. Your participation is important for input from a variety of people in a variety of nursing programs.

Enclosed are three short questionnaires that will take you only 15-20 minutes to complete. The instructions are simple and are written at the top of each section. When you have completed the questionnaires, please seal all three in the self-addressed stamped envelope given to you and return them by mail. Please complete and return the questionnaires by December 15th. Your honesty in answering the questions is imperative and all questions need to be completed. The return of your questionnaires to me will be giving me your permission to use your information in this study. Please do not put your name on the questionnaires or on the envelope. The results of the study will be shared with you.

Let me assure you that your responses are completely anonymous and cannot be traced back to you. Confidentiality of your information is guaranteed. All results will be reported as group scores. If you choose not to participate you are completely free to do so. Your participation is solely voluntary. Your experience in your nursing program will not be affected should you decide you are unwilling to complete the questionnaires.

If you have any questions during the completion of the questionnaires my phone number is (616) 965-3931 Ext. 2308. Please leave a message if I am not there and I will return your call as soon as possible. If in completing the questionnaires you have any personal concerns please call and I will provide you with a list of counselors within the area in which you live. Neither Grand Valley State University, Bronson Methodist Hospital, Kellogg Community College, nor myself will be responsible for the cost of that counseling.

Thank you for your assistance in helping me complete my work towards my degree. I am a graduate student in nursing at Grand Valley State University and am completing work on my Master's thesis. I really appreciate your willingness to assist me in this way.

Sincerely,

Vicki L. Hillborg

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