

NATURAL MENTORS, ETHNIC IDENTITY, AND
ADOLESCENT MENTAL HEALTH

By

RAMONA GREIG

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Ramona Greig

To my mother for her unconditional love and for always being there.
To my grandmother for teaching me the value of education and lifelong learning.
And to the rest of my family and friends for all of their love and support
that made this possible.

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TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS	iv
ABSTRACT	viii
CHAPTER	
1 INTRODUCTION	1
Problem	1
Purpose	2
Conceptual Framework—Neuman Systems Model	2
Mental Health Functioning	3
Middle-Range Theories	4
Conceptual and Operational Definitions	8
Research Aims and Hypotheses	13
Summary	14
2 REVIEW OF LITERATURE	16
Relevance to Nursing-Adolescent Mental Health	16
Ethnic Identity	19
Mentoring	34
General Discussion	46
3 METHODOLOGY	47
Design	47
Research Aims	48
Research Hypotheses	48
Procedures	48
Instrumentation	51
Data Analysis	56
Limitations	58
4 RESULTS	59
Research Design	59
Sampling Procedure	59
Sample Characteristics	61
Mentors	63
Ethnic Identity	66

5	DISCUSSION AND RECOMMENDATIONS	72
	Adverse Mental Health Outcomes	72
	Mentoring	73
	Ethnic Identity	75
	Recommendations and Future Directions	78
	Nursing Implications	80
APPENDIX		
A	MENTORING ITEMS	84
B	PARENT INFORMED CONSENT	87
C	VERBAL PARTICIPANT ASSENT	91
	REFERENCES	93
	BIOGRAPHICAL SKETCH	102

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By

Ramona Corrin Greig

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Adolescent mental health research has undergone a shift in emphasis from problem-focused to strength-based research. There has also been a shift toward more research that is inclusive of ethnic minority group members and the constructs that are particularly salient to them. This study explored individual and socio-cultural variables and their relationships to adolescent mental health from a nursing perspective.

Ethnic identity development and the presence of natural mentors were examined in a sample of 566 multi-ethnic middle-school students. Adolescent mental health was assessed in the domains of mood-related symptoms (depressed/anxious mood, angry/irritable mood, somatic complaints due to anxiety) and substance use (alcohol/drug use). It was hypothesized that those adolescents with a natural mentor would have better mental health than those without a mentor. It was also hypothesized that there would be a relationship between ethnic identity achievement and mental health outcomes in the African American and Hispanic adolescents. Lastly, a moderation model was tested to

examine the influence of an ethnically matched mentor on the relationship between ethnic identity and mental health.

Multivariate analyses of variance, multiple linear regression, and logistic regression were used to test these hypotheses. The hypotheses were not supported, with one exception. Ethnic identity achievement was predictive of Alcohol/Drug Use for both minority and majority adolescents. Ethnic identity achievement was not predictive of mood-related symptoms possibly because of the early developmental age of the participants. The presence of a natural mentor was also not predictive of mental health in this sample, despite accounting for several aspects of relationship quality. Issues of measurement validity and statistical power were limitations that may have influenced these findings. Nonrandom sample selection, the use of a cross-sectional, correlational design, and self-report measures were also limitations of this study.

This study has direct implications for nursing research, education, and practice. Psychiatric-mental health nurses could use these findings to develop screening protocols for mental health problems. Nursing education, practice, and research should emphasize adolescent socio-cultural and psychosocial strengths.

CHAPTER 1 INTRODUCTION

Ethnic minority groups are a substantial part of U.S. society. Currently, Hispanics and African Americans represent approximately 12% and 13% of the U.S population, respectively (U.S Census Bureau, 2000). This is equivalent to over 32 million people in each group. There is also little empirical knowledge about the mental health problems of nonwhite adolescents (Grisso & Barnum, 2000). Therefore, it is critical for nurses and other health professionals to include issues relevant to these groups in their research.

In addition, adolescent mental health is a growing concern for all ethnic groups. More than half of early adolescents have had at least one physical fight in the last year (Fetro, Coyle, & Pham, 2001; DuRant, Smith, Kreiter, & Krowchuk, 1999). More than half of middle-school students have tried alcohol and more than 17% have tried marijuana (Fetro et al.; DuRant et al.). By the time adolescents reach high school, their rates of clinical depression reach adult levels with over 20% of adolescents being affected (Lewinsohn, Rohde, & Seeley, 1998).

Problem

Research is needed that examines the relationships between individual and social factors and mental health outcomes in adolescents. This area of research has typically neglected factors that are relevant to ethnic minorities. Discovering what attributes or strengths specifically may protect minority adolescents from emotional and behavioral problems is an understudied area of research. More research also is needed that focuses

on positive factors that may be associated with better mental health outcomes for adolescents.

Purpose

The purpose of this study was to evaluate the relationships between ethnic identity, mentorship, and adolescent mental health from a nursing perspective. Multiple factors in various domains are related to mental health functioning. This study specifically addressed these individual and social factors and their relationship to mental health functioning in middle-school students.

Conceptual Framework—Neuman Systems Model

The Neuman Systems Model provides a broad conceptual framework for research that focuses on issues from health promotion and disease prevention to acute illness. It is one of the most widely used nursing models. According to Neuman (1995), nursing can be defined broadly to include “prevention as intervention” (p. 33). Neuman defined the client as a system that could potentially be an individual, a family, a community, or even a social problem. The emphasis in the model is on system stability or health. For this research, the system under consideration is that of an individual adolescent; and system stability is defined as the absence of the signs and symptoms of mental disorder.

The client system is made up of several levels of protection from the onset of illness (Neuman, 1995). The layers of protection are as follows:

- **Flexible line of defense** is an outer protective barrier to the client system that is called into action first in the face of environmental stressors. It protects the wellness or healthy state; and it can expand or contract based on changes in the system and the environment. In this study, the presence of a mentor or a high level of achieved ethnic identity may maintain mental health as evidenced by no adverse symptoms.
- **Normal line of defense** is the conceptual line that delineates and defines health. If the normal line of defense is penetrated, illness has occurred and adverse symptoms are present.

- **Lines of resistance** are activated after illness has occurred. Factors at this level move the client toward recovery and health again. For example, an adolescent may seek out social support from a mentor in response to depressive symptoms. The lines of resistance are activated after the onset of symptoms and include any coping mechanisms or responses that may lead toward recovery.
- **Central core** contains factors that are necessary for survival or are considered common to all individuals. In the case of an individual, factors include bodily organs, cognitive ability, genetic make-up and identity structure. Neuman (1995) described the ego structure as a core construct. Aspects of this may be inherent (e.g., temperament). One's sense of identity also can be conceptualized as a core construct that continues to develop over time. A further extension of this model is to conceptualize ethnic identity as a core aspect of self that also develops over time. The closer adolescents get to an achieved sense of ethnic identity, the more protected they may be from the onset of adverse mental health outcomes.

A primary goal of nursing research is to identify existing and potential protective and risk factors related to illness. Another goal is to develop theoretically based interventions (Neuman, 1995; Fawcett, 2000). This study lays the foundation for nursing interventions that could target individuals' strengths and assist them in resisting illness or in returning to health after the onset of illness. This conceptual model provides a guiding framework in this study of factors that are potentially protective against adverse mental health outcomes in adolescents.

Mental Health Functioning

Mental health functioning is the outcome of interest in this research study. This construct is extremely broad and complex. A detailed explanation of all of the factors involved in determining this construct is beyond the scope of this project. However, this construct fits easily into the systems model described above. Each level of the systems model includes interacting variables from the physiological, psychological, socio-cultural, developmental and spiritual domains (Neuman, 1995). Mental health functioning is determined by a complex interplay among several domains and multiple factors within each domain. This study targets concepts that are specifically in the

individual and socio-cultural domains and their relationship to mental health functioning in adolescents.

Middle-Range Theories

This section describes the theories that are specific to the variables under study. These theories provide the groundwork for this study and much of the literature described in Chapter 2. The social and developmental theories of ethnic identity are described, as well as the theories related to the mentorship of adolescents.

Ethnic Identity Development

Using the developmental theories of Erikson (1968), and Marcia (1980), as well as the social identity theory of Tajfel (1981), Phinney (1989; 1992) constructed a theory of ethnic identity development that occurs during adolescence and early adulthood. According to Erikson (1968), identity development is the primary task of adolescence. During adolescence, the most logical framework for examining the construct of ethnic identity is a developmental perspective.

Tajfel (1981) defined social identity as “that part of an individual’s self-concept which derives from his (or her) knowledge of his (or her) membership of a social group (or groups) together with the value and emotional significance attached to that membership” (p. 255). Social identity, in this context, is the aspect of identity related to ethnic group membership. Ethnic group membership can enhance, have minimal effect on, or be detrimental to general self-concept (Tajfel, 1981).

Ethnic identity is defined as a general phenomenon that applies to all ethnic groups (Phinney & Tarver, 1988; Roberts et al., 1999). It is, however, of particular importance to minority group members (Phinney, 1992). This probably occurs because, when in the ethnic minority, ethnic group membership becomes a more important aspect

of identity. Phinney (1989; 1990; 1992) described three phases of ethnic identity development: unexamined, exploration, and achievement. This differs from other theories because it has been applied to many ethnic groups. The unexamined phase is typified by the irrelevance of one's membership in an ethnic group to their self-concept. The exploration phase is a period of increased participation in cultural activities, increased interest in the history of their ethnic group, and increasing relevance to personal identity. The achieved phase includes both a positive connection to one's group and continued participation in cultural activities and behaviors (Phinney, 1992). This study focuses on the level of overall ethnic identity achievement.

Mentoring Theories

The two main theories that have been used to define and understand mentoring are attachment theory (Bowlby, 1969; Ainsworth, 1989) and social learning theory (Bandura, 1977). The definition of a mentor includes aspects of both theories. Neither one independently allows for full understanding of mentoring. In combination, the definition of a mentoring relationship becomes clearer and the mechanisms of any benefits these relationships may provide to adolescents are better understood.

Ainsworth (1989) extended attachment theory beyond parent-child relationships to friendships, pair bonds and other affectional bonds. Mentor-mentee relationships include an affectional component (Rhodes, Ebert, & Fischer, 1992). These relationships provide unique support that is not necessarily available within peer or parental relationships (Beam, Chen, & Greenberger, 2002). There are several ways in which this type of relationship may positively influence adolescents. It is possible that attachment relationships with key non-parental adults, simply provide more social support (Rhodes, Ebert, & Fischer, 1992; Scales & Gibbons, 1996). These relationships also may serve a

therapeutic purpose. They may be corrective relationship experiences in instances when the parent-child relationships are insecure (Rhodes, Haight, & Ernestine, 1999). The affective aspect of the mentor-mentee relationship can be easily conceptualized based on attachment theory.

The main concept from social learning theory that applies to mentoring is observational or vicarious learning (Bandura, 1977). Vicarious learning is the ability to learn from the behavior of others. One observes both the beneficial and detrimental outcomes that result from specific behaviors. Positive role models demonstrate prosocial behavior, and adolescents learn that this is a viable behavioral option. This defines one mechanism of the behavioral influence of role models. Role modeling is a key concept within the mentoring literature and in the development of mentoring programs (Cavell & Hughes, 2000; Blum & Jones, 1993). Social learning has also been the basis of traditional prevention efforts in the form of social skills training and other teacher-learner models of intervention (e.g., Andrews, Hops, & Duncan, 1997).

Role modeling is, however, different from mentoring. Famous people or world leaders can serve as role models without the context of a relationship. Mentoring has the added component of a supportive, trusting relationship. In a review of youth program evaluations, independent of the type of program, adolescents improved more on behavioral outcomes if there were caring adults involved in program implementation (Roth, Brooks-Gunn, Murray, & Foster, 1998). Consistent and stable relationships had an impact on adolescent outcomes. This provides evidence that the ability of a mentor to serve as a role model stems partly from the quality of the relationship between the adolescent and the mentor.

In summary, it is possible that some adolescent-mentor relationships have more of an attachment component, while others serve more of the role-modeling function. It is also likely that the two functions of mentors may be inextricably linked. In other words, for a mentor to have social influence on an adolescent, there must be an affectional bond present. In this study, these two functions of the mentor-mentee relationship are not differentiated. The presence of mentors in the lives of adolescents was assessed. In addition, the emotionally supportive aspects of these relationships and the amount of influence adolescents believe the mentor has over their life decisions and behaviors were measured.

Ethnic Mentors

An additional characteristic of the adolescent-mentor relationship that this study examined was the ethnic match of the mentor and the mentee. The theoretical frameworks described above have not specifically addressed this concept. However, social learning theory and social identity theory can be applied to the concept of an “ethnic role model” (Brown, 1998, p. 170) and/or an ethnic mentor (the latter term is used in this study). That is, the ethnic match of a mentor may facilitate vicarious learning and may provide a sense of commonality that allows for easier attachment.

Mentoring programs for at-risk adolescents typically attempt to ethnically match mentors and mentees; however, this is not necessarily theoretically or empirically grounded. Ethnic matching has been studied in other areas. For example, research has demonstrated that ethnically matching adoptive parents and children can enhance ethnic identity for Hispanic adolescents (Andujo, 1988). However, the ethnic identity of adolescents matched with mentors that have the same ethnic background has not been extensively studied. An additional goal of this project was to assess the potentially

moderating effect that this ethnic match had on the relationship between an adolescent's ethnic identity and his or her mental health functioning.

Conceptual and Operational Definitions

Mental Health Functioning

Mental Health Functioning is defined as the absence of adverse mental and behavioral symptoms. It is differentiated from the broad construct of general healthy psychological development. Healthy psychological development can broadly include emotional, cognitive, and biological factors. This study focuses on the presence or absence of adverse emotional or behavioral symptoms. The presence of these symptoms has also been called psychopathology in the literature (Lewis, 2000). The investigation of psychopathology over the course of adolescent development has been defined as “the study and prediction of maladaptive behaviors and processes across time (Lewis, 2000, p. 3).

The specific aspects of mental health functioning that were assessed in this study were mood symptoms (i.e., depressed, anxious, angry and irritable moods); somatic symptoms due to anxiety (e.g., elevated heart rate and stomachache); and substance use (alcohol and other drugs). Mental health can be conceptualized as the presence of positive symptoms (e.g., high self-esteem); however, utilizing the above definition for this study allows the results to have direct implications for the applied science of psychiatric and mental-health nursing.

This construct was operationalized with The Massachusetts Youth Screening Instrument-Second Version (MAYSI-2; Grisso, Barnum, Famularo, & Kinscherff, 1998). Four types of adverse mental health outcomes were measured. These were each measured

with a specific subscale of the MAYSI-2. The subscales included three mood-related measures and one measure related to substance use. These were the four subscales used:

1. **Depressed-anxious mood** (8 items)—experiences of a mixture of depressed and anxious feelings.
2. **Somatic complaints due to anxiety** (6 items)—experiences of bodily symptoms associated with anxiety.
3. **Angry-irritable mood** (9 items)—experiences of frustration, anger, and irritability.
4. **Alcohol and other drug use** (8 items)—patterns of use of alcohol or drugs (Grisso & Barnum, 2000).

Ethnic Identity

Ethnic identity can be viewed as a “general phenomenon” that is relevant to all ethnic groups. Different ethnic groups can have various belief systems, cultural practices, even languages. However, it is the group identity or the “sense of identification with, or belonging to, one’s own (ethnic) group” that applies to all groups (Phinney, 1992, p. 158). This construct includes exploration/search and affirmation/belonging (Roberts et al., 1999). The exploration factor is the “developmental and cognitive component” (J. S. Phinney, personal communication, November 13, 2001). It includes searching for information related to one’s ethnicity and participation and involvement in ethnic and cultural activities (Roberts et al., 1999). The affirmation and belonging factors are the “affective components,” (J. S. Phinney, personal communication, November 13, 2001). This includes ethnic pride, a positive feeling about one’s group, and a commitment to that group. It also includes a feeling of belonging and attachment to one’s ethnic group (Roberts et al., 1999).

The Multigroup Ethnic Identity Measure (MEIM) was used as a measure of ethnic identity (Phinney, 1992; Roberts et al., 1999; J. S. Phinney, personal communication, November 13, 2001). This likert scale consists of 12 items. Responses range from Strongly Disagree (1) to Strongly Agree (5). Higher scores indicate a more achieved sense of ethnic identity.

Mentors

A mentor is defined as a nonparental adult who has a trusting relationship with the adolescent (Rhodes & Davis, 1996). According to the Oxford dictionary, a mentor is defined as “an experienced and trusted advisor” (Pearsall, 1999, p. 890). Naturally occurring mentors can be relatives, teachers, community members, or other important adults. They provide both role-modeling and emotional support (Grossman & Rhodes, 2002). Additional defining aspects of a mentor include relational factors. Adolescents believe they can “count on” the adult, that the adult cares for them “deeply,” inspires them to do their best, and has influence over important decisions that adolescents make (Rhodes & Davis, 1996, p. 216).

The presence of a natural mentor was operationalized with the following question previously used by Rhodes and colleagues (1992, p. 449; Appendix A): “Other than your parents or whoever raises you, is there an adult in your life (a mentor, or positive role model) who you go to for support and guidance?”

Mentoring quality factors

Beyond the perception of the presence of a natural mentor, descriptive factors can serve as a measure of quality of the mentoring relationship. Several factors have been shown to influence the association between the presence of a mentor and positive

outcomes (Grossman & Rhodes, 2002; Grossman & Tierney, 1998). These factors have been examined more in the mentoring program evaluation research than in the research done on natural mentors. The duration of the relationship has been found to be important in mentor-mentee matched relationships (Grossman & Rhodes, 2002). Brief (less than 6 months duration) relationships can actually have detrimental effects (Grossman & Rhodes, 2002).

Other factors have been less well studied. The frequency and duration of typical contact may also be important to the quality and potential influence of the relationship. The most extensively studied mentoring program, Big Brothers Big Sisters, sets minimum levels of contact between their matched mentors and mentees (Grossman & Tierney, 1998). Mentors must spend a minimum of 3 to 4 hours with their mentees at least two to four times per month. This program has demonstrated significant positive mental health outcomes for its participants (Grossman & Tierney, 1998).

The final quality factor that was addressed in this study is the amount of trust adolescents have in their mentors and how much they confide in their mentors. These aspects have been considered part of the definition of a mentoring relationship (Rhodes et al., 1992). This includes how much the adolescents tell their mentor about good and/or bad things that happen to them. It also addresses the adolescent's perception of how much this individual influences their behavior.

A series of items were developed to operationally define the quality mentoring relationship constructs (Woolard & Greig, 2001). These items included several ordinal response items that assessed the duration of the relationship and the frequency and duration of typical contact. Also, based on previous measures and definitions a Trust/Confiding likert scale was developed (Appendix A; Institute of Behavioral Science,

1990 as cited in Centers for Disease Control and Prevention, 2002; Nakkula et al., 1990; Rhodes et al. 1992). The Trust/Confiding scale included seven items with the following response options: (a) “a little bit,” (b) “somewhat,” and (c) “very much.” Questions included items such as “How much do you feel you can count on this person to be there for you?” A mean score was calculated to reflect the amount of trust or confidence an adolescent perceives in reference to his or her mentor.

Responses from all of the items described were used to determine the quality of the existing mentoring relationship. Minimum levels were determined based on previous programmatic and empirical work. The following criteria were used as the minimum for a quality relationship:

1. **Duration of the relationship:** those that indicate the relationship has lasted longer than 6 months (Grossman & Rhodes, 2002).
2. **Frequency of visits:** those that indicate that they spend time with their mentor at least weekly (Grossman & Tierney, 1998).
3. **Length of visits:** those that indicate that they spend at least 1 hour per visit with their mentor (Grossman & Tierney, 1998).
4. **Trust and confiding scale:** those that scored at least a mean of 2.0 were categorized as having a quality mentor.

Mentor characteristics

Other aspects related to the characteristics of the mentor were also obtained. These aspects included the ethnic match of the mentor. An ethnically matched mentor (i.e., Ethnic Mentor) is a mentor that is of the same ethnic background as the adolescent. This person meets the above definition of a mentor with the added condition of being an ethnic match with the adolescent.

The gender and mutual community membership of the mentors were also assessed. Also, the relationship that the mentor has to the adolescent (e.g., teacher,

minister, relative, etc.) was assessed. These characteristics were measured using a series of categorical items developed by the principal investigator (Appendix A).

Research Aims and Hypotheses

Aim 1. Evaluate the relationship between the presence of a mentor and the mental health functioning of the mentee.

This will provide information related to the existence of natural mentors (e.g., extended relatives, teachers, ministers) in the lives of adolescents. The mental health of those with and without quality mentoring relationships also was examined. This information is important because there have been very few surveys that have assessed the presence of natural mentors in school samples or defined the nature and quality of these relationships. The studies that have found a relationship between the presence of mentors and the mental health of adolescents have been conducted with non-normative samples (e.g., pregnant teens). Based on existing research findings (Rhodes et al., 1992; Rhodes, Contreras, & Mangelsdorf, 1994; Zimmerman, Bingenheimer, & Notaro, 2002), Hypothesis 1 was reached.

Hypothesis 1. Those adolescents that have a natural mentor have better mental health functioning than those that do not have a mentor.

Aim 2. Examine the relationship between the ethnic identity of the adolescent and his or her mental health functioning.

This will provide important new information about the association of ethnic identity and general aspects of mental health functioning (i.e., mood disturbance and substance use). Although some of these aspects of mental health have been studied, results have been mixed. Existing research has demonstrated that there are differences in the relationship of these variables between ethnic groups and that this construct is more salient to ethnic minority group members (e.g., Phinney, 1992; Roberts et al., 1999).

Based on existing research findings (Roberts et al., 1999; Brook, Balka, Brook, Win, & Gursen, 1998; Brook, Whiteman, Balka, Win, & Gursen, 1998; Scheier, Botvin, Diaz, & Ifill-Williams, 1997), Hypothesis 2 was reached.

Hypothesis 2. There is a relationship between ethnic identity and mental health functioning in minority adolescents.

Aim 3. Evaluate the potential moderating effect of an ethnic mentor on the relationship between the ethnic identity of the mentee and his or her mental health functioning.

This will provide information that has not been specifically addressed in the existing literature. Although ethnicity is assumed to be a critical factor in matching mentors and mentees in youth development programs, this has not been extensively studied. There has been research supporting the idea that those who are ethnically matched in an adoption situation do have higher ethnic identity. Based on research from the adoption literature (e.g., Andujo, 1988), Hypothesis 3 was reached.

Hypothesis 3: The presence of an ethnically matched mentor moderates the relationship between ethnic identity and mental health outcomes in minority adolescents.

Summary

This chapter has described the general background and main purpose of this study. The conceptual and theoretical underpinnings for this research were also described (see Figure 1-1 for Conceptual Model). Conceptual and operational definitions, specific research aims, and hypotheses were detailed. Lastly, a synopsis of the background evidence for the research hypotheses was provided along with each specific hypothesis.

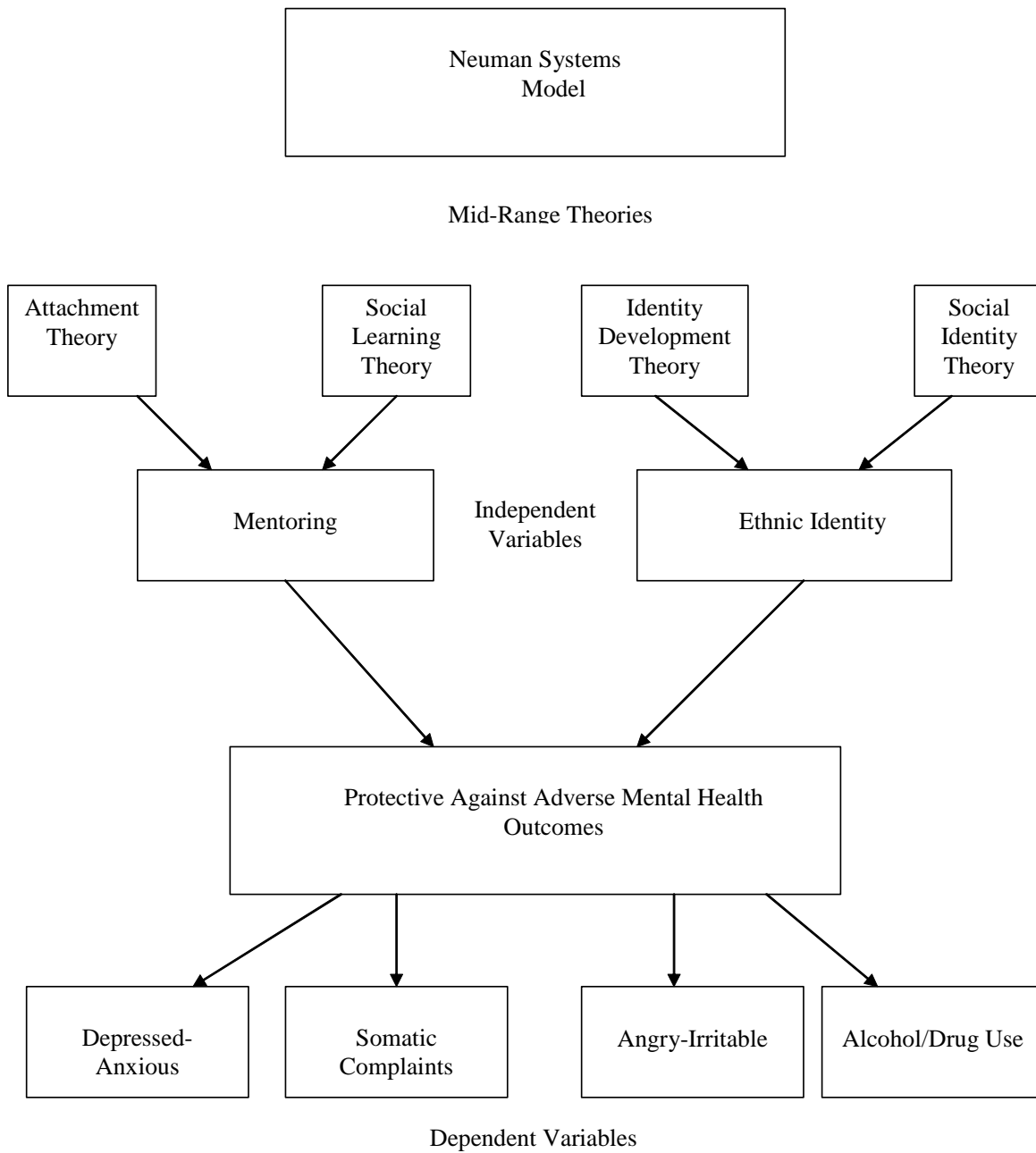


Figure 1-1. Conceptual model

CHAPTER 2 REVIEW OF LITERATURE

This chapter is an integrative review of the relevant literature. Nursing relevance and related mental health research in adolescents is detailed first. Second, literature that examines various psychological and behavioral factors that have been associated with ethnic identity is described. Lastly, mentoring literature is reviewed; including program evaluation research and research focused on naturally occurring mentors.

Relevance to Nursing-Adolescent Mental Health

The discipline of nursing has a history of evaluating mental health issues across the lifespan. Nurse researchers have also been involved in assessing developmental needs of various groups and implementing prevention and intervention programs in response to those needs. This study is unique within the field of nursing because there has been no research examining the presence of natural mentors and ethnic identity in the period of early adolescence. However, this study does join a growing body of literature that addresses mental health functioning in minority adolescents (Doswell, Millor, Thompson, & Braxter, 1998; Gall, Pagano, Desmond, Perrin, & Murphy, 2000; Guthrie & Low, 2000; Guthrie, Young, Williams, Boyd, & Kintner, 2002; Long & Boik, 1993).

Nurse researchers have investigated adolescent substance use in multi-ethnic samples (Long & Boik, 1993; Guthrie et al., 2002; Guthrie & Low, 2000;). Long and Boik surveyed 625 multi-ethnic elementary and middle school students about their alcohol use and various measures of beliefs and self-concept. The sample was followed

longitudinally. There were no significant differences in alcohol use between the Native American, Hispanic or European American participants. However, church attendance, prayer, academic achievement, and a stable adult in the home were all protective against alcohol use. In contrast, negative attitudes about school and a poor self-concept were associated with higher levels of alcohol use (Long & Boik.).

Other nurse researchers have examined specifically African American adolescent females and have developed theoretical models to explain substance use and other aspects of mental health (Doswell et al., 1998; Guthrie et al., 2002; Guthrie & Low, 2000). Guthrie and Low developed a theoretical framework that proposes that multiple social factors (sexism, racism, ageism) influence adolescent's self-efficacy, which mediates the use of substances. An aspect of this model was tested on a sample of 105 African American adolescent girls (Guthrie et al). The results indicated that experiences of discrimination were related to cigarette smoking. This relationship was partially mediated by daily hassles, a measure of stress (Guthrie, et al.). Other work with African American female adolescents has evaluated the relationships between family contextual factors, biological development and self-esteem. Specific findings included establishing the relationship between early onset of menarche and poor global self-image (Doswell et al.).

Less nursing research has focused on the externalizing behavior of violence or the related mood symptoms (i.e., anger/irritability). An exception is a survey of 213 violent and nonviolent adolescent girls (Smith and Thomas, 2000). The two groups were compared on several measures. The violent girls had more generalized anger, while the nonviolent girls were more likely to report being angry after specific events. Feeling angry enough to hit someone was associated with higher levels of loneliness, somatic

symptoms of anger, and peer rejection (Smith & Thomas). This study highlights the relevance of exploring the angry and irritable mood symptoms of adolescent girls.

Lamb and Puskar (1991) conducted a school-based survey of 69 high school students in order to assess the base-line mental health needs of the school. Rates of suicidality and depression were 16% and 14%, respectively. Measures of anger expression and control were also given to the participants. Those who scored high on the depression and suicidality measures were more likely to report high anger expression and low anger control (Lamb & Puskar).

Nursing research has also examined causal models of the depression and outcomes due to depression in early adolescents (Mahon & Yarcheski, 2001; Yarcheski & Mahon, 2000). Utilizing large multi-ethnic samples of middle school students, relationships between stress, state-anxiety, well-being, conflict, social support, and depression were evaluated. Findings were that state-anxiety had a direct effect on depression, while stress was found to have a direct and indirect effect on depression (Yarcheski & Mahon). Outcomes of depression included direct effects on well-being, conflict, and perceived social support (Mahon & Yarcheski).

Nurse researchers working in school-based settings have assessed general psychosocial functioning of adolescents (Gall et al., 2000). In a predominately Hispanic (62%) high school, 383 adolescents were screened for general psychosocial dysfunction. Fourteen percent scored above a cutoff criterion to indicate those that may require intervention. Females, teen-parents, and those with Medicaid insurance were more likely to be above the cutoff. There was no difference between the ethnic groups. Those with higher scores had higher rates of tardiness and absenteeism. The adolescents that were referred for mental health treatment had decreases in their rates of tardiness and

absenteeism, while the other group did not (Gall et al.). This study demonstrates how screening within a school-based health center by nurses can improve some academic indicators for adolescents with adverse mental health symptoms.

These studies demonstrate the value of a nursing developmental perspective in research evaluating mental health in minority adolescents. Nurse researchers have examined predictors of substance use, anger, and violence (Guthrie et al., 2002; Long & Boik, 1993; Smith & Thomas, 2000). They have also developed theoretical models to explain substance use and depression in adolescents (Guthrie & Low, 2000; Yarcheski & Mahon, 2000). School-based surveys and screening procedures have demonstrated the usefulness of these methods for identifying adolescents suffering from adverse mental health symptoms (Gall et al., 2000; Lamb & Puskar, 1991). These methods also provide assessments of the scope of the problem of adverse mental health symptoms in multi-ethnic adolescents. Together this work provides precedence for this type of research within the field of nursing. The following sections detail research primarily from the developmental psychological literature and lay the foundation for this study.

Ethnic Identity

Adolescents are beginning to explore and formulate identities in several domains of life. Choices adolescents make concerning their developing identities can have an impact on long-range outcomes. For example, an adolescent may choose to become someone who is sexually active, uses substances, or plays sports. Other aspects of identity are ascribed, for example ethnicity. During adolescence, the cognitive and affective aspects of ethnic identity are beginning to take shape.

In the following sections, research is reviewed that has evaluated the role of ethnic identity during adolescence for adolescents from several ethnic groups. Special

emphasis is made on studies that have examined the ethnic identity development of Hispanic and African American adolescents and how this construct relates to various measures of mental health. Qualitative and quantitative research that evaluated the developmental model of ethnic identity is presented. Research that relates ethnic identity to several positive aspects of psychological development is reviewed. Also, research that has conceptualized ethnic identity within a resiliency framework is described. Lastly, research that has compared levels of ethnic identity to various mental and behavioral problems is reviewed.

Ethnic Identity Development

The majority of the research on ethnic identity development has been done with adolescents and adults. The concept of ethnic identity development prior to adolescence has been discussed only as it relates to racial or ethnic socialization (e.g., Bowman & Howard, 1985; Caughy, O'Campo, Randolph, & Nickerson, 2002; Rotheram & Phinney, 1987; Thornton, Chatters, Taylor, & Allen, 1990). Rotheram and Phinney (1987) defined ethnic socialization as “the developmental processes by which children acquire the behaviors, perceptions, values, and attitudes of an ethnic group, and come to see themselves and others as members of such groups” (p. 11). This definition clearly links ethnic socialization to the development of ethnic identity, the aspect of identity related to ethnic group membership. Ethnic socialization practices and their long-term effects on ethnic identity development, however, rarely have been studied.

Research with African American families has focused on the many facets of racial socialization (Bowman & Howard, 1985; Caughy et al., 2002; Thornton et al., 1990). In general, the majority of African American parents do provide some level of racial or ethnic socialization. Developing racial or ethnic pride is only one part of this process.

Other aspects include spirituality, preparation for bias, promotion of cultural mistrust, potential racial barriers, egalitarian values, aspects of heritage, traditional practices, and general self-development (Bowman & Howard; Caughy et al.; Thornton et al.).

Racial socialization practices by parents has been linked to fewer behavioral problems in preschool aged children (Caughy et al., 2002). Also, adolescents and young adults who had exposure to racial socialization practices by their parents had increased levels of personal efficacy and better academic achievement than those with no reported history of racial socialization (Bowman & Howard, 1985). Ethnic or racial socialization seems to be associated with positive outcomes. Caughy and colleagues held parental involvement constant and still found that racial socialization practices were associated with positive outcomes for children.

These parenting practices are probably closely related to later levels of ethnic identity. However, other community, peer, and school influences become increasingly important as children enter adolescence. Adolescents are faced with the task of exploring and defining their identity in several domains. Ethnic identity has been relatively understudied in comparison to other aspects of identity (e.g., academic, social, physical). These aspects of identity have been conceptualized as universal. According to Cross (1991), ethnic identity has been viewed as separate from the general aspects of identity, as well as separate from one's state of mental health. The current state of the research in adolescents, however, demonstrates the role ethnic identity plays in the lives of ethnic minorities. It is not only central to the identity of many adolescents, but has been associated with multiple measures of mental health functioning.

Qualitative research with a multi-ethnic (African American, Latino/a, Native American, European American, and Asian) sample of middle and high school students

created the basis for much of the current literature in this area. Interview techniques were used in a series of studies investigating the salience of this construct and the potential existence of developmental phases of ethnic identity formation (Phinney, 1989; Phinney & Chavira, 1992; Phinney & Tarver, 1988).

A sample of 48 black and white 8th graders were interviewed in an urban junior high school and were asked open-ended questions about ethnic identity. Responses were categorized into searching or exploring behavior and commitment to or ethnic identity achievement (Phinney & Tarver, 1988). Over 30 of the participants were moderately high in searching, and 29% were moderately high in commitment. There was a trend for more searching in the African American female adolescents. The construct of ethnic identity was less salient for the white adolescents. They were less likely to discuss their own group membership and more likely to discuss relations with other groups (Phinney & Tarver). This study suggests the salience of ethnic identity for black adolescents, particularly girls.

Additional qualitative research furthered the evidence for a developmental theory of ethnic identity (Phinney, 1989; Phinney & Chavira, 1992). Phinney (1989) utilized several existing developmental theories to code interview data from a sample of Asian, African American, Hispanic, and European American 10th graders. Results indicated that an adaptation of existing theories was needed to explain ethnic identity. A three-phase theory was developed. Students were categorized into an unexamined, a moratorium (exploring without commitment), or an achieved group. The European American response could not be categorized (Phinney). This study provided some initial evidence for a developmental theory of ethnic identity for minority adolescents.

Phinney and Chavira (1992) conducted a longitudinal study of 18 African American, Hispanic, and Asian American high school students. These adolescents were interviewed to determine their phase of ethnic identity development and then followed into young adulthood. Most of those adolescents that were in the unexamined or moratorium phases of development at baseline progressed to a higher phase over time. Those that were in the achieved phase at baseline were also in the achieved phase at follow-up (all except one). These findings provide some preliminary evidence for the developmental progression of ethnic identity and a relatively stable end state of an achieved ethnic identity (Phinney & Chavira).

Dubois, Swenson, Tevendale, and Hardesty (2002) found no significant difference in levels of ethnic identity between the African American and European children that were in 5th and 6th grade. However, participants in their study that were in 7th and 8th grade did differ. The African American students had significantly higher ethnic identity than their European American classmates (DuBois, Burk-Braxton, et al.). This suggests that ethnic identity may increase over time, particularly for ethnic minorities. Phinney, Ferguson, and Tate (1997) compared 547 8th and 11th graders and found higher levels of ethnic identity in high school students than middle school students. This work provides additional evidence for the theory of ethnic identity development across the span of adolescence.

The following sections review literature on ethnic identity and various aspects of mental health functioning. The majority of the research in the following sections has assessed the overall level of ethnic identity. Exceptions are highlighted, as are the specific aspects of ethnic identity that were assessed in the various studies. Unless

otherwise noted, the term ethnic identity refers to the overall level of ethnic identity achievement for the adolescent.

Ethnic Identity and Positive Mental Health Functioning

The majority of research that has measured ethnic identity in adolescents has compared this construct to positive aspects of mental health and psychological functioning. The most commonly studied construct has been self-esteem (See Phinney, 1991 for a review). Other research has compared ethnic identity levels to aspects of self-concept, self-efficacy, and academic achievement (Beale Spencer, Noll, Stoltzfus, & Harpalani, 2001; Phinney, 1992; Phinney & Chavira, 1992; Smith, Walker, Fields, Brookins, & Seay, 1999;). Effective coping styles and culturally based coping have also been associated with ethnic identity (Constantine, Donnelly, & Myers, 2002; McMahon & Watts, 2002; Phinney & Chavira, 1995)

Research connecting ethnic identity and self-esteem, has consistently found a positive relationship (Phinney, 1992; Phinney & Chavira, 1992). Ethnic identity was positively correlated with self-esteem in the minority participants of a sample of 417 high school and 136 college students. This was not found in the white students, with one exception. Ethnic identity was associated with self-esteem for the white students that were the minority within their school (Phinney, 1992). This demonstrates that self-esteem is related to ethnic identity for those with minority status and that the relevance of this status may be contextual. In other words, minority status in one setting may make ethnic identity salient in that context despite majority status in the larger social context.

Ethnic identity was also positively related to self-esteem levels longitudinally in a sample of African American and Hispanic high school students that were followed into young adulthood (Phinney & Chavira, 1992). Those with an achieved ethnic identity had

higher self-esteem at both baseline and follow-up. Interestingly, self-esteem was found to be relatively consistent over time (self-esteem at baseline and follow-up were highly correlated), while ethnic identity underwent developmental progression (phase of ethnic identity development at baseline was not related to phase at follow-up; Phinney & Chavira).

In a sample of 5,423 Mexican American, African American, and European American early adolescents, ethnic identity was associated with increased levels of coping, general mastery, self-esteem, and optimism (Roberts et al., 1999). Aspects of this result were confirmed in a sample of 100 6th grade African American students (Smith et al., 1999). Ethnic identity was linked directly and indirectly self-concept and self-efficacy (Smith et al., 1999). Ethnic identity was directly related to general mastery, emotional well-being, as well as peer and familial aspects of self-concept. It was also positively correlated with perceived self-efficacy in the academic and career domains. Interestingly, ethnic identity had a direct negative effect on prosocial attitudes (i.e., use of legitimate methods for goal attainment). This finding was offset by the indirect effect ethnic identity had on prosocial attitudes via self-efficacy (Smith et al.).

Some research that has supported the notion of differential effects over the course of ethnic identity development has been in the area of academic achievement (Beale Spencer et al., 2001). Academic achievement is a somewhat distal outcome variable in comparison to self-esteem. However, this is an important area of functioning during adolescence.

Beale Spencer and colleagues (2001) evaluated a sample of 562 African American middle-school students, 80% to 90% of which were receiving free lunch. In this study, standardized test rankings were used to operationalize academic achievement.

Four stages of racial identity were described: *Eurocentric* (unexamined acceptance of the majority culture), *transitional*, *reactive Afrocentrism* (an early exploration of an Afrocentric identity, considered “superficial” identification by the author), and *proactive Afrocentrism* (the achieved, secure sense of racial identity; Beale Spencer et al., p. 26). Although these terms are specific to African Americans and differ from those described in the ethnic identity research, the findings are still relevant to the proposed research.

The Eurocentric (unexamined) and the reactive Afrocentrism (exploration/searching) phases were associated with significantly lower levels of academic achievement. In contrast, the proactive Afrocentrism (achieved) phase of racial identity development was positively associated with academic achievement (Beale Spencer et al., 2001). These findings suggest that certain phases of ethnic identity development may be a vulnerable time for adolescents, but that an achieved ethnic identity is associated with adequate functioning within the academic domain.

The relationship between ethnic identity and coping style within intergroup relationships was examined in a study of 60 multi-ethnic parent-adolescent dyads (Phinney & Chavira, 1995). Ethnic socialization, ethnic identity and coping styles in the face of prejudice and stereotypes were studied. Findings were that those high school students with high levels of ethnic identity were more likely to have proactive coping styles. They were more likely to use discussion, self-affirmation, and attempts to disprove stereotypes than to utilize passive or aggressive coping styles (Phinney & Chavira). This suggests that ethnic identity has a positive effect on the ability to cope with the stress of prejudice.

McMahon and Watts (2002) found that higher ethnic identity was associated with an active coping style in a predominately African American early adolescent sample.

This coping style included direct problem-solving, seeking understanding, and positive cognitive restructuring (McMahon & Watts). Constantine and colleagues (2002) found that public self-esteem and the importance of collective self-esteem (defined similarity to ethnic identity) were associated with culturally specific coping behaviors or Africultural coping styles. In a sample of 106 African American adolescents, public self-esteem (or how one believes their group is viewed by others) was associated with more use of spiritually-centered coping. Greater importance of collective self-esteem was associated with more collective coping (Constantine et al.).

These studies provide significant evidence for the positive nature of ethnic identity development. Its association with positive psychological constructs (e.g., self-esteem, effective coping styles, self-efficacy) places it in the realm of healthy or adaptive development for those with minority status. Ethnic identity can be viewed as an aspect of self-concept that develops in psychologically healthy individuals. That is not to say that each individual requires the same level of this factor. It is only to say that a secure sense of oneself as an ethnic group member is a positive aspect of self-concept.

Resiliency Models of Ethnic Identity

The broad conceptual framework of risk and resiliency has been utilized within the disciplines of developmental psychology, medicine and nursing (Mandleco & Peery, 2000; Resnick, 2000; Werner, 1986). This framework is simple in that there are two primary concepts, risk and resiliency. Risk factors are those factors (e.g., individual, familial or social) that increase a person's chances of becoming ill? Resiliency factors are those factors that increase a child's or adolescent's chances to complete healthy development in the face of adversity or known risk factors (Garmezy, 1991; Werner, 1986). The finding that some individuals are able to avoid serious illness or behavioral

problems in spite of serious risk has led to a shift in the focus of research to the identification of factors that promote resiliency.

A growing area of research has examined ethnic identity within the risk and resiliency framework (Brook, Balka, et al., 1998; Brook, Whiteman, et al., 1998; Miller & MacIntosh, 1999; Scheier, Botvin, Diaz, & Ifill-Williams, 1997). These studies have evaluated how protective ethnic identity achievement is against adverse mental health outcomes.

Brook, Balka, and colleagues (1998) utilized several measures of ethnic identity in a sample of 627 African American adolescents. African American awareness and church attendance had a main effect on drug involvement. Those participants that reported more African American awareness and that attended church regularly had lower levels of drug involvement. The authors assessed risk and protective factors in multiple domains (personality, family, peer, and ecological). Ethnic identity enhanced personality, familial and peer protective factors. It protected against drug use in the face of personality (i.e., depressive symptoms) and ecological risk factors, such as drug offering strangers (Brook, Balka, et al.).

A similar study of 555 Puerto Rican adolescents found that ethnic identity ameliorated several known risk factors for substance abuse and enhanced other protective factors (Brook, Whiteman, et al., 1998). Spanish language preference and immigrant status (as measures of ethnic identity) were both associated with lower levels of substance abuse. In addition, several aspects of ethnic identity (e.g., affirmation and belonging; familism; Hispanic awareness) were found to enhance resiliency or to be protective against substance use (Brook, Whiteman, et al.).

A longitudinal study followed 1,303 7th graders into 8th grade (Scheier et al., 1997). Risk factors were grouped into several domains (e.g., social skills risk like lack of assertiveness). High ethnic identity was actually associated with high alcohol use in African American and Hispanic adolescents. This association was especially strong in the presence of cognitive-affective risk (e.g., knowledge and expectancies related to alcohol use). In contrast, ethnic identity was protective against alcohol use in the presence of social skills risk (e.g., assertiveness, communication, etc.). Ethnic identity was also protective against marijuana use in the presence of social skills and social influence risk (e.g., perception of peer usage and availability of marijuana; Scheier et al.).

These findings, together, paint a complex picture about the relationship between ethnic identity and substance use. Although some aspects of ethnic identity may be protective against certain substances in certain individuals, many questions are still unanswered. In some cases ethnic identity may even increase risk, specifically for alcohol use (Scheier et al., 1997).

One study examined ethnic identity as a resiliency factor that potentially protects adolescents in the domain of academic achievement (Miller & MacIntosh, 1999). In a sample of 131 African American adolescents that were at risk for academic failure, ethnic identity was positively correlated with grade point average and inversely related to school absenteeism. Ethnic identity also had a buffering or protective effect on academic achievement in the presence of risk factors. Specifically, when the participants reported a high amount of daily hassles, ethnic identity protected their level of academic achievement (Miller & MacIntosh).

Simmons and colleagues (2002) found that community-wide ethnic identity was protective against depressive symptoms in the face of criminal victimization personally

or within the family. The association between criminal victimization and depressive symptoms was larger for those early adolescents living in communities with lower ethnic identity. This study did not specifically utilize a resiliency framework, but it was a multi-community study that included 810 children and early adolescents (Simmons et al.)

This body of research provides an interesting framework for studying the protective nature of ethnic identity in minority adolescents. However, due to the nature of the resiliency framework, it is best suited for studying adolescents at risk for certain problems (e.g., substance abuse or academic failure). The construct of ethnic identity development is relevant to ethnic minority adolescents despite their risk status.

Ethnic Identity and Adverse Mental Health Outcomes

There is a growing body of literature that has examined ethnic identity and its relationship to adverse mental health outcomes in school-based samples. Based on the consistent finding that ethnic identity is directly related to positive mental health functioning, researchers have begun to examine the question of its relationship to negative outcomes. Findings have demonstrated that ethnic identity achievement has both direct and indirect effects on adverse mental health outcomes depending on the methodology utilized and the sample. The various findings related to this topic are described here and contradictory results are discussed along with methodological issues.

Several studies have examined ethnic identity and levels of depressive and anxious symptoms (Arroyo & Zigler, 1995; Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Dubois, Burk-Braxton, et al., 2002; McMahon & Watts, 2002; Roberts et al., 1999; Rotheram-Borus, 1989; Simons et al., 2002). Research involving African American and Puerto Rican high school students found differential relationships between phases of ethnic identity development and internalizing and externalizing symptomology

(Rotheram-Borus). An achieved ethnic identity was associated with less self-destructive behavior, but still was related to elevated levels of inattentiveness and nervousness.

Those adolescents in the moratorium phase of development (the period of exploration/searching without commitment) were more likely to have internalizing and externalizing symptoms (Rotheram-Borus). This study lends evidence to the idea that exploration of ethnic identity may be a vulnerable time of development for adolescents, while the achieved phase is protective against some adverse symptoms.

Findings related to mood symptoms and other internalizing symptoms have differed among ethnic groups. Roberts and colleagues (1999) found that ethnic identity was inversely related to depression and loneliness in a large sample of middle-school students. However, this finding was only in African American middle-school students and the effect sizes were very small. There was no significant relationship between ethnic identity and internalizing symptoms in the Mexican American adolescents (Roberts et al.).

In a sample of 91 African American high school students, high levels of “racelessness,” (identification with mainstream European American culture at the expense of ethnic identification) was associated with more anxious and depressive symptoms (Arroyo & Zigler, 1995, p. 904). In addition to racelessness, the researchers also measured collective (ethnic) self-esteem. This construct was inversely related to racelessness and also was positively related to self-efficacy (Arroyo & Zigler, 1995). This research suggests that sacrificing one’s ethnic identity is related to an increase in anxiety and depressive symptoms.

McMahon and Watts (2002) found no relationship between ethnic identity and depressive or anxious symptoms in a sample of 209 middle school students at high risk

for aggression. Simons and colleagues (2002) also found no association at the individual level in a community sample of 810 African American early adolescents. However, when community level ethnic identity scores were calculated, ethnic identity was related to fewer depressive symptoms (Simmons et al.).

Other research has found indirect relationships between ethnic identity and mental health outcomes (Caldwell et al., 2002; DuBois, Burk-Braxton, et al., 2002). Ethnic identity was indirectly related to both emotional and behavioral problems via global self-esteem in a sample of 350 black and white elementary and middle school students (DuBois, Burk-Braxton, et al.). Racial Identity had an indirect effect on anxious and depressive symptoms via perceived stress in a sample of 521 African American high school students (Caldwell et al.). This latter study utilized a different conceptual framework that assesses aspects of racial identity, mainly the private regard and centrality of race (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). Interestingly, the private positive regard was inversely related to perceived stress, and the centrality of race within the adolescents' self-concept was positively related to perceived stress.

There have been even fewer studies evaluating externalizing symptoms and ethnic identity. No research has actually evaluated ethnic identity and angry/irritable mood in early adolescents. However, attitudes about fighting and ethnic identity were evaluated in a sample of 330 multi-ethnic middle-school students (Arbona, Jackson, McCoy, & Blakely, 1999). The researchers controlled for two well-known risk factors for aggression: lack of parental involvement and negative peer behaviors. Ethnic identity was significantly related to non-fighting attitudes, in African American adolescents, but not in Hispanics.

McMahon and Watts (2002) found a more achieved ethnic identity to be associated with both less approval of aggressive behavior and less self-reported aggression. This finding was in a sample of 209 predominately African American middle school students from an urban, predominately low-income area. This finding contrasted the finding that higher global self-esteem was associated with more self-reported approval of aggressive behavior (McMahon & Watts).

Other research has examined ethnic identity and the externalizing symptom of substance abuse. In a study of 127 11 to 20 year olds, there was a discussion about the association between ethnic identity and high levels of substance abuse. However, this actual statistical finding was not detailed in the article (James, Kim, & Armijo, 2000). There were also differential findings between ethnic groups. The African American adolescents had the highest level of ethnic identity, while there was no significant difference between the Hispanics and European American adolescents (James et al., 2000). The findings contradict the predicted direction of the relationship between ethnic identity and substance abuse. They also demonstrate the need for research that examines ethnic group differences.

Conclusions

The concept of ethnic identity has only been studied systematically in adolescents over the last 10-15 years. It is clear from this research, that young people are examining the meaning of their membership in ethnic minority groups. Adolescence is the logical period of the lifespan to study aspects of identity formation (Erikson, 1968). Ethnic identity has been consistently associated with positive aspects of psychological functioning in adolescents. Research has demonstrated that ethnic identity can serve as a resiliency factor in certain 'at risk' adolescents, protecting them from adverse outcomes.

Research measuring adverse mental health outcomes utilizing normative samples has had the most mixed results and is the sparsest. More research is needed in this area, especially research including Hispanic participants.

Mentoring

Most of the research examining mentors as a positive factor in children and adolescent's lives has been in the area of program evaluation research. This research has widely varying types of methodologies in part because programs also vary widely. There is a growing body of research that has begun to examine naturally occurring relationships between adolescents and mentors. The effect these relationships have on different mental and behavioral problems is an understudied area. There have also been very few studies that have systematically assessed factors that pertain to the quality of these relationships. The exceptions are detailed in this review. Relevant program evaluation research is also described in the following section. The work that has been done in the area of natural or existing mentors is reviewed. A discussion of ethnic mentors and related research is also reviewed.

Program Evaluations

Prevention research has indicated that broad based nonspecific prevention programs are effective at providing basic developmental needs to at risk children and adolescents (Grossman & Tierney, 1998; Tierney, Grossman & Resch, 1995). Recent research has demonstrated that relationships with mentors are developmentally normative (Beam et al., 2002). Mentoring of youths by consistent caring adults provides a developmentally necessary stable relationship for young people.

Mentoring is an intervention that has been gaining a lot of attention in recent history. Mentoring, as a youth violence prevention strategy, was named one of four best

practices by the Centers for Disease Control along with family-based, home-visiting, and social-cognitive strategies (CDC, 2000). The Search Institute (2002) named the presence of a caring relationship with an adult as one of the key developmental assets for adolescents.

One of the most scientifically rigorous program evaluations was done in association with Big Brothers Big Sisters of America (Grossman & Tierney, 1998). Big Brothers Big Sisters (BBBS) is the oldest and largest organized mentoring program in the United States. The program is unique because of the extensive supervision of matched youths and mentors by case managers. Mentors are thoroughly screened and trained prior to any contact with the youths. Mentors are also required to have consistent, regular contact for an extended period of time with the mentee.

A sample of 959 7 to 14 year olds was randomly assigned to community-based mentoring or a wait-list comparison group (Grossman & Tierney, 1998). Measures were taken at baseline and after 18 months of mentoring. Participants in the experimental group had increases in positive attitudes toward school and increased perceived trust in their familial relationships. Girls had improved academic performance. Those that had a mentor also had reductions in aggressive behavior, substance use initiation, and school truancy (Grossman & Tierney).

Rhodes, Grossman, and Resch (2000) also examined a mediation model using the data from this longitudinal evaluation of BBBS. Mentoring was found to have significant indirect effects on valuing school and academic achievement via improvements in parental relationships. The authors theorized that the mentoring relationships might have been corrective relationships that influenced the adolescents' working models about

relationships. In general, the relationships seemed to alleviate tensions in the parent-child relationships, which was associated with school-related improvements (Rhodes et al.).

Grossman and Rhodes (2002) examined the duration of these mentoring relationships. The participants were categorized into four groups based on the duration of their relationship with their mentor and were evaluated on several outcome variables. Those adolescents that had relationships that lasted longer than 12 months reported less substance abuse and reported higher perceived self-worth, value of school, social acceptance, and scholastic competence. They also reported better relationship quality with their parents than those without a matched mentor. In contrast, those adolescents that had relationships that lasted less than six months reported significantly more alcohol use than the control group that received no mentoring (Grossman and Rhodes). The implications for these findings are that long lasting mentor-mentee relationships can be a positive influence on adolescents, while short lasting relationships may be damaging.

The duration of a matched mentoring relationship was also an important factor in a program evaluation of a work-based mentoring program for African American high school students (Linnehan, 2001). Out of 202 eligible students (GPA at least 2.0), 34 were matched with a mentor in the first part of the school year and 34 were matched in the second half of the year. Those students that were matched for more than half the year had better grades and attendance rates than those that did not participate at follow-up (Linnehan).

Grossman and Rhodes (2002) also examined factors that might predict relationship duration. Those matches with mentors that had higher incomes lasted longer, but other mentor qualities did not consistently predict relationship duration. They found that adolescents who had suffered abuse or were referred for psychological or educational

services were more likely to have a shorter relationship (Grossman & Rhodes). This is a key point because mentoring programs are increasingly seen as a potential way to help the adolescents at greatest risk for emotional and behavioral problems. Therapeutic mentoring programs have been developed specifically to address this issue (Cavell & Hughes, 2000 Jackson, 2002).

Undergraduate psychology students enrolled in a 15-hour per week practicum, served as mentors for junior high school students with significant academic and behavioral problems (Jackson, 2002). The mentees had declines in parent-reported internalizing (depressed/anxious mood) and externalizing (behavioral) problems. They did not show improvements in adaptive behaviors or teacher-reported problems. However, other school related data was promising (i.e., reduced number of infractions). This program is an innovative way to bridge mentoring and professional services. However, the evaluation has methodological issues that plague much of the other program evaluation research. Lack of controls within the field of program evaluation is often a necessary reality.

The types of mentoring program implementation are as varied as the research methodologies. Mentoring may take place in the community, in the school, or both. Mentoring programs have been initiated for elementary school, middle school, and high school students. Programs often include mentoring as one piece of a broader intervention. This makes it difficult to differentiate effects of mentoring alone. However, researchers have evaluated outcomes from aggression (Cavell & Hughes, 2000) to school attitudes and classroom behavior (Dennison, 2000) to self-efficacy and future possible selves (Lee & Cramond, 1999).

Cavell and Hughes (2000) found significant decreases in parent reported aggression in a sample of 62 2nd and 3rd graders with behavior problems who had school-based “therapeutic mentors” (p. 199). These mentors were not specifically psychology students, but were provided with training specific to handling aggressive children. The children with these mentors had better outcomes than those in the “standard mentoring” group (Cavell & Hughes, p. 203). The mentors in the latter group had no training or ongoing supervision.

Other research has found no significant improvement in classroom behavioral functioning in 25 3rd and 4th graders evaluated in a pre-test post-test design (Dennison, 2000). These participants did, however, show academic improvement. They received an in-school peer tutoring and mentoring program. It is difficult to tease out if the tutoring was the key ingredient, or the mentoring, or both. Other mentoring programs, that do not have a tutoring component, have also demonstrated an effect on academic achievement (Blum & Jones, 1993; Grossman & Tierney, 1998).

Blum and Jones (1993) found declines in the number of poor grades (Ds and Fs) and increases in better grades (Bs and Cs) in a sample of 22 middle school students that received mentoring from school personnel and a weekly peer support group. The mentoring involved daily interaction between the mentor and mentee and occasional planned recreational activities over 8-10 weeks.

Other programs that have yielded positive psychological outcomes have included increases in levels of future aspirations (Lee & Cramond, 1999). A sample of 130 (78% African American) elementary and middle school students that were mentored for more than one year were compared to a wait-list group. The mentored group had higher levels

of future aspirations, but there were no differences in self-efficacy or future possible selves.

Many of these studies utilized small sample sizes, lacked a comparison group, or did not obtain baseline measurements on the dependent variables. This makes interpretation of the findings difficult. However, some general conclusions can be made. Mentors seem to help with aggressive behavior and substance use initiation (Cavell & Hughes, 2000; Grossman & Tierney, 1998). These relationships also seem to promote positive attitudes about school and academic achievement, a primary area of functioning for children and adolescents (Blum & Jones, 1993; Dennison, 2000; Grossman & Tierney, 1998). Longer mentoring relationships seem to be better than those of shorter duration (Grossman & Rhodes, 2002; Linnehan, 2001) and therapeutic mentoring seems to be effective for children and adolescents with behavioral problems (Cavell & Hughes, 2000; Jackson, 2002).

A recent meta-analysis of mentoring program evaluations utilized strict inclusion and exclusion criteria (DuBois, Holloway, Valentine, & Cooper, 2002). Each study included had to have utilized a comparison group or a pretest posttest design. The average weighted effect size ($d = .14$) was interpreted to mean that, on average, those with mentors did 55% better than those without mentors or had a 55% improvement over baseline measurements. Outcomes included psychological, behavioral, academic, and employment variables.

The authors also evaluated several moderating effects on outcomes. Effect sizes did not vary between mentoring only programs and those that included mentoring along with other interventions. Other factors that increased effect size included community settings, structured activities, ongoing training for mentors, parental involvement, and

mentors with a background in a helping profession (e.g., teacher). The frequency of contact with the mentor and the duration of the relationship were not moderators of effect size. However, very few evaluations measured these variables. The type of outcome variable did not moderate effect size, but the risk status of the youth did. Those youth from economically disadvantaged backgrounds or that had other environmental risk factors had more improvements than those that did not (DuBois, Holloway, et al., 2002).

Program evaluation research is often difficult to conduct with scientific rigor. However, experimental designs and meta-analyses assist in truly evaluating which interventions are effective for promoting healthy adolescent development. This review details the existing research evaluating the effectiveness of mentoring programs. This research provides evidence for the effectiveness of mentoring programs to have an influence on several domains of functioning for children and adolescents. The following section describes the literature related to natural mentors in the lives of adolescents.

Natural Mentors

The study of natural mentors is a relatively new area of research and there are fewer studies than in the program evaluation literature. Interventionists are eager to supply mentors without the assessment of existing supports in the natural environment. The following literature addresses the existence of natural mentors in the lives of adolescents at risk for emotional behavioral problems, as well as in more normative samples of adolescents.

Early research on natural mentors by Rhodes and colleagues focused on African American and Latino adolescent mothers (Rhodes et al., 1992, 1994). Only 35% of the Latino female adolescent mothers had natural mentors (Rhodes et al, 1994). However, of those that did, 95% had access to their mentors as often as weekly. The mentors tended to

be female (84.2%) and almost half of the adolescents had known their mentor for at least 16 years (46.4%). Those participants with supportive mentors had significantly less anxiety and depression than those without mentors (Rhodes et al., 1994).

A descriptive study of 162 predominately Mexican American 10th graders found that 78% had natural mentors (Sanchez & Reyes, 1999). The majority of these mentors provided emotional support to their mentees (78%). This finding of almost double the rate of the study with Latino teen mothers is striking. It could possibly demonstrate the lack of a normative resource for the teen mothers. Other findings were similar between the two samples. The school-based sample tended to have gender and ethnically matched mentors. Seventy-one percent of the mentors were familial and another 23% were informal (i.e., neighbor or friend). Almost half saw their mentor daily and 37% saw them at least weekly.

Natural mentors were also protective against depression in African American adolescent mothers (Rhodes et al., 1992). Of the sample of 129 14 to 22 year olds, those that had a natural mentor had lower levels of depression than those who did not. Interestingly, those young women with mentors also made better use of their social support networks and accessed other support more readily.

In a sample of 770 high school freshmen, the existence of natural mentors and several emotional and behavioral outcomes were measured (Zimmerman et al., 2002). The sample was 79.6% African American and did not include those that were high achieving (over 3.0 GPA) or those that had been diagnosed with emotional disturbances. The findings were that 53.8% of the adolescents had a natural mentor. Those with a mentor were less likely to smoke marijuana, had lower levels of violent and nonviolent delinquency, and had more positive attitudes toward school.

Research on the protective quality of natural mentors for adolescents experiencing stressful situations (i.e., pregnancy) has been expanded to examine the role of natural mentors in normal adolescent development (Beam et al., 2002). In a sample of 243 multi-ethnic 11th graders in California, 82% reported having a natural mentor. Approximately half were relatives and half were not. The researchers found that these relationships were low in conflict and highly supportive. The adolescents received support from their mentors as often as once or twice a week. These relationships served different functions than either peer or parental relationships. The adolescents also tended to obtain more support from their mentor if their relationship with their parents was high in conflict.

Many of these studies have been done with African American samples; however, the socioeconomic status (SES) of the participants is often confounded with ethnic background (Hirsch, Mickus, & Boerger, 2002). Hirsch and colleagues demonstrated that certain aspects of the adolescent mentor relationship are culturally specific and other aspects are not. A sample of 122 African American and European American high school students was asked to describe their relationships with an important grandparent and/or a significant male adult (other than their father). African American adolescents were more likely to name a natural mentor, either their maternal grandmother or an adult male mentor. However, when SES was accounted for in the analysis, only the relationships with grandmothers remained significant. Therefore, the African-American adolescents were only more likely to name their grandmother as a natural mentor after SES was accounted for in the analysis. This study demonstrates how certain types of mentoring relationships are culturally defined, while others are related to economic factors.

The existence of natural mentors has been associated with less depressive symptoms, less substance use, and lower rates of delinquency in adolescents (Rhodes et al., 1992, 1994; Zimmerman et al., 2002). There is evidence to suggest that relationships with natural mentors are a normative part of healthy adolescent development (Beam et al., 2002). However, rates tend to vary widely across samples. Additional research is needed to assess the existence and quality of these relationships. Clearly the relationships between adolescents and naturally occurring mentors are different than those initiated by intervention programs. Strengthening existing relationships with natural mentors may be an additional way to intervene and enhance the lives of adolescents.

Ethnic Mentors

Another interesting question that has been studied minimally brings the area of ethnic identity and mentoring together. The question of whether or not the ethnicity of a natural mentor has an effect on the ethnic identity of the mentee has not been evaluated extensively. This aspect of the research study will be somewhat exploratory. However, there is some evidence to suggest that contact with same ethnic adults can influence ethnic identification.

The construct of ethnic identity development has been studied in the foster parent and adoption literature (Andujo, 1988; Friedlander, 1999; Friedlander et al., 2000). Researchers have been interested in the development of ethnic identity in those children and adolescents that are parented by adults with the same ethnic background compared to those that are raised by parents with a different ethnic background.

One study included 60 families, 30 European American couples, and 30 Mexican American couples that adopted Mexican American children (Andujo, 1988). Both groups of adolescents (mean age 14 years old) had comparable levels of self-esteem after

approximately 5 years in the adoptive home. However, the ethnically matched families had adolescents who were more likely to identify themselves as Mexican Americans and had lower scores on a measure of acculturation. Also, the Mexican American parents were more likely to socialize their children biculturally than the European American parents.

Other researchers have utilized qualitative methods to examine the ethnic identity of international adoptees (Friedlander, 1999). A study of 12 parents and 12 children and adolescents utilized interviews and family drawings (as a measure of family relationships and sense of belonging) to study ethnic identity development. Results indicated that all but one of the participants were in the unexamined phase of ethnic identity. The implications are that international cross-ethnic adoption may be related to a lack of exploration of ethnic identity by the adoptee.

In a review of the research examining ethnic identity in internationally adopted children, Friedlander and colleagues (2000) found that many cross-ethnically adopted children are uncomfortable with their appearance and tend to have an Americanized identity rather than a bicultural or achieved ethnic identity. These conclusions were drawn from limited research and do not negate the findings that most of these children and adolescents are fairly well adjusted (Friedlander et al., 2000). This population (international adoptees) differs from ethnic minority group members born in the United States. However, these findings provide some evidence that contact with those from the same ethnic background can influence adolescent's ethnic identity development.

Rhodes and Reddy (2002) compared same-race to cross-race matches in the longitudinal evaluation of BBBS. The results indicated that there were differences between the groups. Mentees talked more about their problems with cross-race matches.

Also, parents perceived these relationships to improve peer relationships more than the parents of those in same-race matches. However, girls in same-race matches had smaller declines in the amount of value placed on school and self-worth. Boys in same-race matches had smaller declines in school competence (Rhodes & Reddy, 2002). These mixed results do not clearly indicate whether an ethnically matched mentor is, in total, more beneficial for adolescents. The construct of ethnic identity was not evaluated in this study.

Mentoring programs typically do attempt to ethnically match mentors and mentees. It is considered common sense that adolescents will be able to relate more easily to an adult from the same ethnic background and that that person will be better suited to serve as a role model and mentor. Natural mentors tend to be ethnically matched (Sanchez & Reyes, 1999). However, the possible effect an ethnic mentor may have on ethnic identity has not been studied. Research is needed to examine the potential mechanisms by which an ethnic mentor may be beneficial for adolescents and their mental health functioning.

Conclusions

Whether a caring adult is part of a program or is a family or community member, these relationships seem to have the potential to promote healthy psychological development. It may be that as adolescents mature, the support of a trusted adult, other than a parent, becomes important. Although mentors seem to be a part of normative development, descriptions of the quality of these relationships, the characteristics of the mentor (e.g., community member, ethnic match) are factors that have only been minimally studied. This clearly is an area that needs more research. Surveys can be

useful in assessing the availability of natural mentors and the quality of these relationships for ethnic minority youth.

General Discussion

Adolescence is a time of growth, transition, and unfortunately risk for a variety of mental health problems. There has been a large body of research examining various risk factors for emotional and behavioral disturbance during adolescence. However, there has been significantly less research examining issues that are specific to ethnic minority group members. Ethnic identity and its relationship to mental health outcomes is one new area of research that needs to be expanded. The mentoring literature is also under the early stages of development. The existence of natural mentors and the roles they play in the lives of adolescents are important research topics. Lastly, the question of how ethnic mentors may influence ethnic identity and enhance mental health has yet to be answered.

CHAPTER 3 METHODOLOGY

Research is needed that examines the relationships between individual and social factors and mental health outcomes in adolescents. This area of research has typically neglected factors that have particular relevance to ethnic minorities. Discovering what attributes or strengths may protect adolescents from emotional and behavioral problems is also an understudied area of research.

The purpose of this study was to evaluate the relationships between ethnic identity, mentorship, and adolescent mental health from a nursing perspective. The Neuman Systems Model provided the framework for this study (Neuman, 1995). This enables the findings to add to the body of knowledge within the applied field of nursing science. The specific aims included: evaluating the relationship between ethnic identity and adverse mental health outcomes, comparing the mental health of those that have a mentor and those that do not, and examining the moderating effect of an ethnic mentor on ethnic identity and adverse mental health outcomes.

Design

This study utilized a cross-sectional, multi-site survey design. It was part of a larger study that addressed several psychological constructs related to school violence. The larger research study was entitled “National Middle-School Survey: School Violence and Beliefs About Self, Others, and the Future” (Miller et al., 2001). The primary purpose of the larger study was to develop a survey instrument that measures

psychological factors that have been or may be associated with aggressive and violent behavior in early adolescents.

Research Aims

Aims of this study were to

- Explore the presence of reported natural mentors in the lives of adolescents, define the quality of these relationships, and describe the general characteristics of these mentors.
- Evaluate the relationship between the presence of a mentor and the mental health functioning of the mentee.
- Evaluate the relationship between the presence of a quality mentoring relationship and the mental health functioning of the mentee.
- Examine the relationship between the ethnic identity of the adolescent and his or her mental health functioning.
- Evaluate the potential moderating effect of an ethnic mentor on the relationship between ethnic identity of the mentee and his or her mental health functioning.

Research Hypotheses

Related hypotheses include

- Those adolescents who have natural mentors will have better mental health functioning than those that do not have a mentor.
- There is a relationship between ethnic identity and mental health functioning in minority adolescents.
- The presence of ethnically matched mentor moderates the relationship between ethnic identity and mental health outcomes in minority adolescents.

Procedures

Setting

The larger school violence study will, when concluded, include data from approximately 25 public middle schools in four states (Florida, Texas, California, and New Jersey). This study includes data from 14 schools in four counties, and two states

(Florida and California). The public schools included mainstream schools only. Testing took place in classrooms, gymnasiums, cafeterias, libraries, and/or auditoriums as dictated by the school personnel and administration. The entire survey took participants between 45 minutes and 2 hours depending on the version of the survey administered and the school. Research assistants were available to answer questions throughout the survey procedures.

Human Subjects

Active parental consent, as required for Department of Education funded projects, was obtained for all minor participants (Appendix B). A research team member distributed permission slips to students after describing the research purpose and procedures. Parents were provided the option of consenting or refusing participation for their child. Failure to sign the informed consent form was considered a refusal. Research assistants returned to the schools a second time to administer the survey. The survey was given only to those students that returned a signed permission slip/informed consent form.

The current ethical standard is to obtain assent from participants that are at least seven years of age (Vanderpool, 1996). A verbal assent form was read to potential participants that had already returned a signed parental consent form (Appendix C). Students were given the option to decline participation before the implementation of the instrument. They were also told that they could stop participation at any time or leave blank any questions they did not want to answer.

The survey was anonymous. Participants were instructed not to put any identifying information on the survey. The participant's names were on the parental informed consent forms. However, this information was kept confidential. All informed

consent forms and completed surveys were kept in locked filing cabinets in the research lab at The University of Florida. There is no way to connect a specific survey to a specific consent form.

Questions on the overall survey were related to a variety of sensitive issues from victimization, aggressive behavior, and relationships with parents to adverse mental health symptoms. For this reason, participants were told to contact the school counselor if they felt upset or uncomfortable. The name of the school specific counselor was provided in the verbal assent process. Because the research team cannot match individual responses to specific participants, individual interventions were not implemented. However, if a participant became visibly upset during the survey, he or she was referred directly to the school specific counselor.

Sample

The sample includes all of the middle school students that completed the measures specific to this study during their participation in the “The National Middle-School Survey: School Violence and Beliefs About Self, Others, and the Future” (Miller et al., 2001). Survey data were projected to be collected from 5000 middle-school students in four states (Florida, California, Texas and New Jersey). Only the data from Florida and California were completed at the time of this analysis. The measures of interest for this study were removed from future testing plans. Therefore, this study includes data from California and Florida only. A variety of geographic locations (e.g., rural vs. urban) were surveyed. Nonprobability, purposive sampling procedures were used to obtain a sample that is overrepresentative of African American and Hispanic adolescents.

Representative percentages vary based on which national statistics are utilized. According to the 1999-2000 public elementary and secondary school enrollment statistics

released by the U.S. Department of Education (2002), 15.57% and 17.16% of students are Hispanic and African American, respectively. According to the United States Census Bureau (2000), 12.3% of the population are of Hispanic origin and 12.5% are black or African American. These percentages are different due to the fact that more African American and Hispanic families have children under the age of 18 years old (U.S. Census Bureau, 2000) and these ethnic groups are over-represented in the public school system.

Instrumentation

Demographics

The following demographic data were included in the survey: age, sex, ethnicity, socioeconomic status (SES), and single-parent household status. The racial and/or ethnic background was assessed utilizing categories designed to accompany the Multigroup Ethnic Identity Measure (Phinney, 1992).

Socioeconomic Status (SES) was assessed utilizing the Two Factor Index of Social Position, developed by Hollingshead (1965). This is a widely used measure of SES that asks the participants to report their parent's level of education and occupation. These responses were categorized and weighted to calculate a score from 11-77. This score can be used as a continuous variable or converted into social class categories (Hollingshead, 1965). For this study the social class categories were used in the analyses. This measure has been widely validated. The two-factor index is preferable with adolescents, because they are usually unable to answer accurately the third factor, household income.

Multigroup Ethnic Identity Measure

The Multigroup Ethnic Identity Measure (MEIM) was used to measure ethnic identity. The MEIM was originally designed based on prior qualitative data (Phinney,

1992). The current version has 12 items that are scored on a likert scale from (1) strongly disagree to (5) strongly agree. Higher scores indicated a more achieved ethnic identity (J. S. Phinney, personal communication, November 13, 2001).

Results of an exploratory factor analysis with 200 middle school students indicated two primary factors: (a) affirmation, belonging and commitment, and (b) exploration and behaviors (Roberts et al., 1999). The correlations between these two factors ranged from 0.70-0.75. This provides evidence that both factors are part of one overarching construct and that the questionnaire can be used as a single measure of ethnic identity. The factorial structure was weaker for the European American students.

Roberts and colleagues (1999) conducted the most recent and relevant study that provided evidence of reliability and validity for early adolescents. They surveyed 5,423 middle-school students from several ethnic backgrounds. Cronbach's alpha was between 0.81-0.89 across ethnic groups for the 12-item survey. The MEIM was positively correlated with coping ($r=.23, p<.001$), general mastery ($r=.19, p<.001$), self-esteem ($r=.20, p<.001$), and optimism ($r=.19, p<.001$). It was inversely associated with loneliness ($r=-.09, p<.001$), and depression ($r=-.09, p<.001$). The strongest relationship that helped to provide validation for this measure was the relationship between the MEIM scores and the salience of ethnic identity ($r=.48, p<.001$). Although these correlations are low to moderate, they help to provide evidence for convergent and divergent validation of the MEIM.

Mentoring Items

The first question used to assess the presence of a mentor was "Other than your parents or whoever raises you, is there an adult in your life (a mentor or positive role-model) who you go to for support and guidance?" (Rhodes et al., 1992, p. 449). This

question was developed based on the theoretical work of Levinson and colleagues (Levinson, Darrow, Klein, Levinson, & McKee, 1978, as cited in Rhodes et al., 1992). It has been used in previous research to assess the presence of a natural mentor (Rhodes et al. 1992; 1994). This question has a “yes” or “no” dichotomous response. If the participants answered, “yes” to this question, then they answered follow-up questions relating to mentoring relationship quality and mentor characteristics. These items were used to distinguish between the simple presence of someone perceived as a mentor and the presence of a “quality” mentoring relationship.

Theorists and researchers alike have differing definitions of mentoring relationship quality. There is also not a consistent way to measure this construct. Previous researchers have asked individual items related to a mentor-mentee relationship, however, there is not an existing measure of relationship quality that has been tested for reliability and validity. For this reason, the Principal Investigator and other members of the research team used existing research and theoretical literature on mentoring, to develop a series of questions pertaining to mentoring relationship quality.

These questions related to the duration of the relationship, the frequency of contact with mentor, and the length of time spent on a typical visit. These items were developed in order to assess the amount of time spent together, the consistency of contact, and the duration of the relationship. Previous theoretical, applied, and empirical literature were used to determine cutoff points for each aspect of relationship quality that was used to define a quality mentoring relationship (Chapter 1). These items have ordinal response options.

Previous research has found that arranged mentoring relationships that last less than six months can have minimal beneficial and actually some detrimental effects on

adolescents (Grossman & Rhodes, 2002). For this reason, those adolescents that reported at least a 6-month duration of relationship were categorized as having a quality mentor. The aspects of the frequency of contact and the amount of time spent at each visit have also not been specifically researched in reference to natural mentors. The baseline criteria used by Big Brothers Big Sisters (BBBS) was used as a guideline for these factors. Community-based mentors in BBBS are required to meet with their mentees at least 2-4 times per month and to spend approximately two to four hours at each visit (Grossman & Tierney, 1998). For this study, those participants that reported seeing their mentor at least once per week and that spent at least one hour per visit with their mentor were categorized as having a quality mentor.

The last factor used to determine the quality of the existing mentoring relationship was the amount of trust the adolescent has in their mentor and the comfort they have with confiding in their mentor. A scale comprised of seven questions was developed based on previous definitions of mentors and other measures of social support (Nakkula et al., 1990 & Institute of Behavioral Science, 1990, as cited in Centers for Disease Control and Prevention, 2002; Rhodes et al. 1992;). The reliability of this subscale has not been previously tested. However, reliability coefficients are detailed for the current study in Chapter 4. This construct has been specifically used to define a mentoring relationship (Pearsall, 1999; Rhodes et al., 1992). The minimum level for this factor is also described in Chapter 1.

Several specific characteristics of the mentors were assessed using categorical response items. The ethnic match of the mentor and their gender were assessed. Also, the relationship between the mentor and the mentee or who the mentor is in reference to the

adolescent (e.g., relative, teacher, minister, etc.) was ascertained. Lastly whether or not they live in the adolescent's community was determined.

Mental Health Functioning

The Massachusetts Youth Screening Instrument-Second Version (MAYSI-2) assesses several aspects of psychological symptoms (Grisso et al., 1998). The instrument was originally developed to screen adolescents ages 12-17 who have entered the juvenile justice system. The instrument has several subscales that assess different domains of emotional and behavioral symptoms. As previously mentioned, four subscales (depressed/anxious mood, somatic complaints due to anxiety, angry/irritable mood, and alcohol/drug use) were utilized in this study. The items have true/false responses and one point is given for a yes response and zero points are given for a no response. The responses are summed and ranges of available scores are utilized to assess risk (Grisso & Barnum, 2000).

The original development of this instrument involved 1,200 adolescents in the juvenile justice system in Massachusetts. Additional studies have been conducted in California, Washington, and several other states. These data were utilized to establish its reliability and validity for this population. The established average alpha coefficient for the entire measure was 0.75. The average test-retest correlation coefficient was 0.74. Validity coefficients ranged from .40-.65 (depending on subscale) when subscales were correlated with other standardized assessments of psychopathology (Grisso & Barnum, 2000). Recent research with the MAYSI-2 has included community samples of adolescents (J. Woolard, personal communication, January 11,2001). This has provided evidence for the reliability and validity of this instrument in normative samples of adolescents.

This measure of adverse mental health outcomes was chosen for two primary reasons. First, this measure assesses several domains of mental health functioning in relatively few questions. The use of a brief measure is necessary in order to fit the time constraints (a one class period survey) of the larger research project. Second, this instrument has been used as a screening tool in the juvenile justice system. A brief screening instrument may be useful in assessment of adverse mental health outcomes in a school setting as well. This study provides additional validity and reliability for use with a normative school sample.

Data Analysis

The statistical computer program SPSS was utilized for data analysis. Descriptive statistics (frequencies, means and standard deviations) were done as appropriate for all of the demographic variables. Univariate analyses were done to examine differences between groups on the variables of interest. Descriptive statistics were also used to analyze the specific characteristics of the natural mentors. The statistical tests used for the specific research hypotheses are described in Table 3-1. A secondary series of Factorial MANOVAs were done to examine the relationship between the presence of a mentor and adverse mental health outcomes and to test for interactions between mentoring and gender, ethnicity, socioeconomic status, and single-parent status.

Power Analysis

Power for the regression analyses was sufficient. At least 50 participants are required per independent variable to ensure adequate power in multiple linear and logistic regression (Tabachnik & Fidell, 1989; Wright, 1997). Previous research that has examined the variables under study has yielded small effect sizes (Roberts et al., 1999; Zimmerman et al., 2002). For example one study examined the presence or absence of a

natural mentor and adverse mental health outcomes (i.e., marijuana use) and demonstrated that those adolescents that had a natural mentor had significantly lower use [$\gamma = (4.71-3.90)/4.34 = 0.18$] than those that did not have a mentor (Zimmerman et al., 2002). A difference of this size would be considered clinically relevant on the outcome measures for this study.

Table 3-1. Statistical analyses

Research Aims	Hypotheses	Analysis
I. Evaluate the relationship between the presence of a mentor and mental health functioning of the mentee.	I. Those adolescents who have natural mentors have better mental health functioning than those who do not have natural mentors.	I. Multivariate Analysis of Variance (MANOVA)
II. Examine the relationship between the ethnic identity of the adolescent and his or her mental health functioning.	II. There is a relationship between ethnic identity and mental health functioning in minority adolescents.	II. Multiple Linear Regression & Logistic Regression.
III. Evaluate the potential moderating effect of an ethnic mentor on ethnic identity of the mentee and his or her mental health functioning.	III. The presence of ethnically matched mentor moderates the relationship between ethnic identity and mental health outcomes in minority adolescents.	III. Multiple Linear Regression was used to test for a significant interaction.

A simple analysis for a dichotomous predictor variable (natural mentor, yes or no) and a continuous outcome variable (alcohol/drug use subscale) was utilized to estimate sample size. Assuming an alpha (two-tailed) = .05, and a beta of 0.20 (power = 0.80), how many participants are needed to demonstrate a 6.25% difference on the alcohol/drug use subscale, a small effect size? Utilizing an estimated standardized effect size of 0.20 SD, approximately 197 participants are needed per group to avoid a Type II error with

80% power (Marks, 1999; Polit & Hungler, 1991). Observed power is provided in Chapter 4. Power was adequate for some of the research questions, but not others. This issue is discussed in Chapter 5.

Limitations

Despite careful research design, there are several study limitations that should be considered in reference to the interpretation of results. The limitations are as follows:

- The use of a nonrandomly selected sample can limit external validity of the research findings. However, for this study a purposeful sampling procedure was utilized to ensure a representative number of minority participants
- The use of active parental consent may introduce bias into sample selection and can also limit the generalizability of the research findings (Anderman et al., 1995). However, the Department of Education requires active parental consent for all of their funded research studies.
- The use of cross-sectional and correlational design limits the ability to determine cause and effect relationships. A longitudinal or quasi-experimental design is beyond the scope and purpose of this study. The primary purpose of the larger study was to develop a survey.
- The use of adolescent self-report measures as the only data source may limit the accuracy of the findings. Peer nominations and parent or teacher reports can be utilized to address this problem. However, in order to maintain anonymity and to remain within the time and financial constraint of the study grant, self-report methods were utilized.
- Any effects that are due to the ethnic background of the research team and data collectors will not be accounted for in the research findings. Even though the research team is multi-ethnic, some students may have exposure to only European American, African American or Hispanic team members. This factor is not accounted for in the data analysis and is therefore a study limitation.
- Lastly, due to time and financial constraints this survey was only available in English. This may be a limitation because the English reading and writing skills of the participants were not assessed. It is possible that there were difficulties with comprehension in some of the Hispanic participants.

CHAPTER 4 RESULTS

This chapter describes the study design and sample as well as the larger research project. The sample is then described in terms of demographic characteristics and the other variables of interest. Lastly, the results related to the research aims and specific hypotheses are detailed.

Research Design

This cross-sectional survey was part of a larger study of school violence. The larger study was a pilot project for a national survey and had as one of its primary objectives the testing and design of a survey instrument. The procedures included adding, evaluating, and deleting instruments and specific items at different phases of the project based on empirical, theoretical, and logistical factors. For this reason the instruments specific to this study were utilized on a subset of the larger sample. In order to maximize statistical power, data from all available participants were utilized for each statistical analysis.

Sampling Procedure

Nonprobability, purposive sampling was used to obtain an overrepresentation of Hispanic and African American participants. The school violence survey obtained a total of 866 participants at the time of this analysis. Of those participants, 548 received the primary outcome measure (MAYSI-2) and the measure of ethnic identity (MEIM). The mentoring items and the MAYSI-2 were given to 429 participants. All of the participants

received every demographic variable item with the exception of the single-parent status question. This item was given to a subset of 281 participants. Missing data rates varied from 2.5 to 8 % on demographic items and from 11.31 to 19% on the independent and dependent variables.

One demographic measure did have a higher rate of missing data than those reported above. This was the measure of socioeconomic status. This measure required the respondent to report their parents' type of job and their parents' occupation. Many participants said they did not know this information or left it blank. Another subset responded to the occupation item with a response that was too vague to be accurately coded. Consequently, this variable was only included in the secondary analyses.

For the primary research objectives, data were included in the analyses that reached a certain level of completeness. For the MAYSI-2 the guidelines outlined in the survey manual were used. These guidelines require that a minimum of approximately 70% of the items per subscale be complete (Grisso & Barnum, 2000). For the other subscales, those who completed at least 80% of the items were included in the analysis. This cutoff was used for the larger survey for those measures that did not prescribe any set procedure for handling missing data.

Analyses for the primary research questions were done with and without an adjustment for missing data. The method utilized to account for missing data was replacement with group means for the MAYSI-2 subscales and the MEIM. The results were the same for both sets of analyses. Therefore, only the analyses utilizing the completed dataset are presented.

Sample Characteristics

Demographics are presented for the sub-sample of 548 participants. The geographic breakdown for this sample is presented in table 4.1.

Table 4-1. Sample breakdown by geographic location

Location (State, County)	n	%	Description
California			
Los Angeles	182	33.2	Metropolitan
Florida	366	66.8	
Alachua	143	26.1	Urbanized
Dade	32	5.8	Metropolitan
Hamilton	191	34.9	Rural

Note: Census 2000; Definitions based on population density.

The other characteristics of the sample are listed in Table 4-2. The majority of the sample was African American, European American or Hispanic. The remaining ethnic groups (Asian, Native American, Multiracial and Other) were combined into one group entitled “Other” for analysis purposes. The sample ranged in age from 10 to 15 years of age with a mean age of 12.41 (SD = 0.96).

The socioeconomic status of the participants who could be categorized (n = 132) had a mean of 3.72 (SD = 1.01) on a scale from 1 to 5 with lower numbers representing a higher social class. The top two groups were combined because of the few (n = 2) in the highest socioeconomic group. Another general descriptive factor related to economic status is the percentage eligible for free or reduced lunch. The schools that participated in this survey had rates of student eligibility for free and reduced lunch that ranged from 30% to 86%. The majority of the schools had rates of over 50% eligibility (California Department of Education, 2002; Florida Department of Education, 2002).

Table 4-2. Sample breakdown by demographic characteristics

Characteristics	n	%
Ethnicity		
African American	163	29.7%
Hispanic	160	29.2%
European American	125	22.8%
Other	100	18.2%
Gender		
Male	203	40.3%
Female	301	59.7%
Grade		
6	153	28.1%
7	210	38.5%
8	182	33.4%

The subscales of the MAYSI-2 were significantly inter-correlated. See Table 4-3 for exact figures. The overall Cronbach's Alpha was 0.86. The Cronbach's Alphas for each subscale are listed in Table 4-3. Reliability coefficients were acceptable and similar to those obtained in previous studies using this measure (Grisso & Barnum, 2000). Correlations and descriptive statistics were also similar to those reported in the scoring manual. The exception was the difference in the alcohol/drug use subscale. The youths from the juvenile justice system had a higher mean score on this measure as would be expected (Grisso & Barnum, 2000).

Subgroups means were compared based on ethnicity, grade and gender using univariate analysis of variance tests with multiple comparisons. Differences were found only on the depressed/anxious mood subscale. Girls scored higher on this subscale than boys [$F(1, 434) = 7.76; p = .006$] and European Americans scored lower than the other three ethnic groups [$F(3, 443) = 7.29; p < .004$].

Table 4-3. Measures of adverse mental health outcomes

MAYSI-2 subscale	α	Mean	SD	A/I	D/A	S/C	A/D
Angry/irritable (A/I)	.77	4.08	2.54		.61*	.49*	.30*
Depressed/anxious (D/A)	.72	2.84	2.20			.45*	.35*
Somatic complaints (S/C)	.69	3.19	1.83				.16*
Alcohol/drug use (A/D)	.79	.624	1.35				

*p<.001

Mentors

Out of 362 respondents, 76.2% (n = 276) reported the presence of a mentor. Of the group with mentors, 75.3% (n = 204) reported an ethnic match with their mentor and 63.4% (n = 170) reported that they are both from the same community. Seventy-two percent of the mentors were female (n = 186) and 28.5% were male (n = 74). The mentors were a gender match for 75% (n = 180) of the total matches; 54.6% (n = 131) were female matches and 20.4% (n = 49) were male matches. Table 4-4 details who the mentors are in relationship to the mentee.

Table 4-4. Description of mentors

	Relative	Neighbor	Teacher	Coach	Minister	Other
n	150	20	18	7	6	63
%	56.8	7.6	6.8	2.7	2.3	23.9

Mentoring Quality Factors

The results thus far have pertained to the general perception of the presence of a mentor. More specific aspects of these relationships were also assessed. A series of items about the duration of the relationship, frequency of contact, typical length of visits, and the amount trust the mentee has in their mentor were used to categorize those who

perceived the presence of a mentor and those who had a substantial and consistent or “quality” relationship.

The majority of the mentoring relationships was stable and consistent. Eighty-three percent knew their mentors for more than one year, 45% saw them everyday, and 50% spent over four hours at a typical visit. The average amount of trust and confiding the youths reported was also high (mean = 2.67; range 0 to 3).

The following cutoffs were developed to define a quality mentoring relationship:

- Frequency of visits: At least weekly,
- Length of visits: At least one hour,
- Duration of the relationship: Six months or longer,
- Trust and confiding subscale: Those that scored at least a mean of 2.0.

Descriptive information is provided in Table 4-5. These criteria allowed for the creation of two new groups, those with a quality mentoring relationship (n = 144) and those without (n = 163).

Table 4-5. Descriptive statistics for quality mentoring items

	n (%) above cutoff	n (%) under cutoff
Frequency of contact	214 (81.7)	48 (18.3)
Duration of typical contact	223 (85.4)	38 (14.6)
Duration of relationship	213 (90.6)	22 (9.4)
Trust and confiding subscale ($\alpha = .83$)	238 (92.2)	20 (7.8)

Natural Mentors and Adolescent Mental Health

The research questions related to the presence of natural mentors, the presence of quality mentoring relationships, and adolescent mental health were answered using two Multivariate Analyses of Variance (MANOVAs). The statistical rationale for using MANOVA included the significant correlations between dependent measures and the desire to reduce the risk for Type I error by repeated univariate analyses (Weinfurt,

1997). This test is appropriate only if the dependent variables can be combined theoretically which is the case in this study. Combining the four dependent variables creates a general construct of adverse mental health symptoms.

The statistical assumptions for MANOVA include multivariate normality, homogeneity of covariance matrices, linearity, and independence of observations (Tabachnik & Fidell, 1989; Weinfurt, 1997). These assumptions were met with the exception of the distribution of the alcohol/drug use subscale, which had a positively skewed distribution. Several transformations were attempted without success. However, this subscale was retained in the model because MANOVA is robust to skewed distributions with sample sizes greater than 200 (Tabachnik & Fidell, 1989; Weinfurt, 1997). In addition, the central limit theorem is applicable to studies with at least 20 degrees of freedom in each cell. This theory states that the sampling distribution of means approach normality even if the sample data does not (Tabachnik & Fidell, 1989).

Two MANOVAs were done; the results are in Table 4-6. The first test compared those who reported the presence of a mentor and those who did not. Those with a natural mentor had higher levels of adverse mental health outcomes than those without a mentor. The observed power was 0.78. The first hypothesis was not supported.

Second, the participants who met all four of the quality factor cutoff points described in the previous section were categorized as having a quality mentoring relationship. The second MANOVA compared the adverse mental health outcomes of those with a quality mentor to the rest of the adolescents. These two groups were not different on the mental health outcomes. There was no significant difference between these two groups. However, this analysis had an observed power of only 0.20.

Table 4-6. Results for presence of a mentor and quality mentor analyses

Mentor grouping	Hotelling's T	F	df (b/w)	p	η^2
Presence of a mentor	.036	2.88	4/324	.023	.034
Quality mentor	.009	.617	4/281	.651	.009

Is the relationship between the presence of a mentor and adverse mental health outcomes different when gender, ethnicity, socioeconomic status, and single-parent status are taken into account? These questions were addressed by the use of three Factorial MANOVAs. These analyses tested for interaction effects between the presence of mentors and various demographic variables. All of the demographic variables were not included in one model, because of the relatively smaller availability of data assessing the SES ($n = 137$) and single-parent ($n = 281$) statuses of the adolescent's household. The following analyses were done: 2 (mentor) X 4 (ethnicity) X 2 (gender) MANOVA; 2 (mentor) X 2 (single-parent) MANOVA; 2 X 4 (SES) MANOVA. Results indicated that there were no significant interactions between the mentoring factor and the SES or single-parent status variables. There were also no two-way or three-way interactions between mentoring, gender, and ethnicity.

Ethnic Identity

The second major area of interest pertains to the construct of ethnic identity. The basic information about this measure is presented in Table 4-7. The European American participants scored significantly lower ($p = .019$) than the African Americans and those categorized as Other ($p = .017$), but not the Hispanic participants. There was no significant difference on this measure based on grade or gender.

Ethnic Identity and Adverse Mood Related Symptoms

Multiple regression and logistic regression were used to test the second hypothesis: *There is a relationship between ethnic identity and mental health functioning in minority adolescents.* The assumptions for linear regression include residual homoscedasticity (i.e., equal variance of the dependent variable at each level of the independent variable), normal distribution, and linearity. Also, all pertinent variables must be included, and all irrelevant variables are excluded. Lastly, measures must be reliable and observations must be independent (Licht, 1997). These assumptions were met with the exception of linearity. Transformation of the data and/or use of a non-linear model were not appropriate due to the large number of zero scores. However, multiple regression is robust to the effects of violations of the error assumptions (Licht, 1997).

Table 4-7. Multigroup Ethnic Identity Measure by Ethnic Group

	α	Mean	SD
African American	.74	3.55	.61
European American	.75	3.33	.53
Hispanic	.83	3.47	.59
Other	.85	3.59	.67

Three subscales of the MAYSI-2 (angry/irritable mood, depressed/anxious mood, and somatic complaints due to anxiety) were summed to create one dependent variable ($\alpha = 0.86$). This variable was normally distributed. This sub-divides the general construct of adverse mental health symptoms and creates two more specific constructs. The constructs are mood related adverse mental health symptoms and substance use. The alcohol/drug use measure was not normally distributed and this measure was analyzed separately using logistic regression. The rationale for this separation is detailed in the following section.

Standard multiple regression was done with gender, ethnicity, ethnic identity, and an interaction term predicting the sum of the three mood related symptoms. The interaction term combined ethnic identity and ethnic minority status. The interaction term tested the idea that the significant relationship between ethnic identity and mood related symptoms existed for minority group members only. Gender and ethnicity were dummy coded and four dichotomous variables were created (African American = 1, Hispanic = 1, European American = 1; Female = 1). The final model had six predictors. The model was not predictive of the outcome variable [$F(6, 403) = 1.76; p = .106$]. Ethnic identity achievement was not predictive in minorities for this dependent variable. The second hypothesis was not supported for mood related symptoms.

Ethnic Identity and Alcohol/Drug Use

The alcohol/drug use subscale was positively skewed with the majority of the respondents (73.5%) scoring zero on this subscale. Multiple transformations were unsuccessful in obtaining a normal distribution. Therefore, this measure was changed to a dichotomous outcome variable (0/1). A score of one indicated a positive response to any item. This subscale was then used as an outcome in a logistic regression analysis.

In logistic regression it is assumed not only that the dependent variable is dichotomous, but also that the options are statistically independent, mutually exclusive, and collectively exhaustive (Wright, 1997). Also, the model must be adequately specified (includes all relevant predictors and excludes all irrelevant predictors), and the sample size must be adequate. Logistic regression requires at least 50 participants per independent variable (Wright, 1997). All of these assumptions were met in this case.

Multiple logistic regression was done with the same predictor variables used in the multiple regression analysis. The results indicated that the overall model was

predictive of alcohol/drug use category membership [$X^2(6, 399) = 14.44; p = .025$].

Group membership was accurately predicted for 98.1% of the participants based on the predictors in the model.

Upon further analysis, the primary predictor of category membership was gender ($B = .531$, Wald's $X^2 = 5.18$, $p = .023$). Forty-five percent of the boys were categorized as having any problems due to alcohol/drug use and only 30% of the girls were. The rest of the predictor variables (including the interaction term) did not provide a significant contribution to the model. The second hypothesis was not supported for alcohol/drug use.

A second multiple logistic regression was done without the interaction term included. The rationale for this test was to create a more parsimonious model to test the independent contribution of ethnic identity to the prediction of alcohol/drug use category for all ethnic groups. The overall model maintained its significance with no loss of accuracy in categorization [$X^2(5, 400) = 14.07; p = .015$]. The individual predictor statistics are presented in Table 4.8. This finding demonstrates that ethnic identity does predict alcohol/drug use for all of the study participants, not simply the minority adolescents. Those participants with higher ethnic identity scores were more likely to be in the non-use group than those with lower scores. The mean ethnic identity score for those in the nonuse group was 3.52. The mean for the use group was 3.33.

Table 4-8. Variable contributions to the prediction of alcohol/drug use category

Variable	B	SE	Wald	Sig.
African American	-.290	.350	.689	.407
Hispanic	.025	.355	.005	.943
European American	.283	.364	.604	.437
Gender	.526	.233	5.09	.024
MEIM Score*	-.507	.202	6.32	.012

*MEIM = Multigroup Ethnic Identity Measure

Ethnic Mentors: Testing A Moderation Model

A series of multiple linear and logistic regressions were done to test the moderation model. The predicted model is presented in Figure 4-1. Although no significant results were demonstrated for the minority adolescents alone, the moderation model was tested in this group and in the sample as a whole.

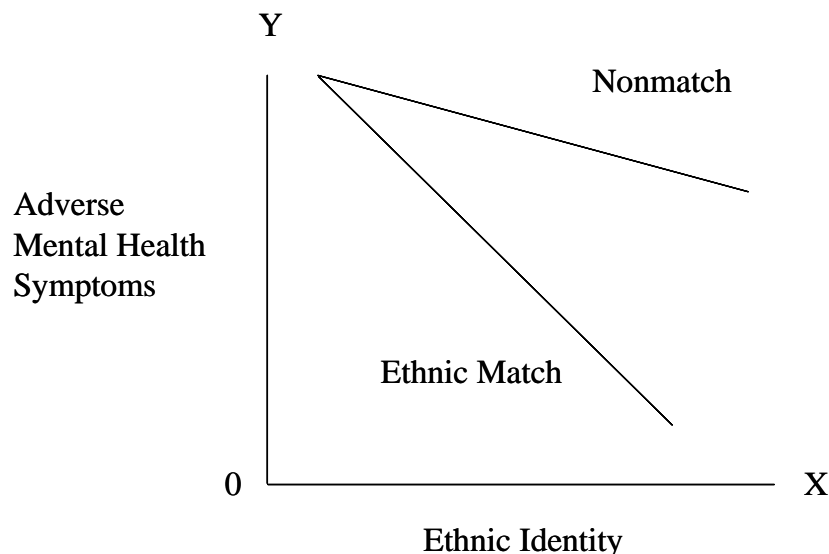


Figure 4-1. Ethnic mentors and ethnic identity: Moderation model

Two multiple linear regressions were done with gender, ethnicity, ethnic identity, presence of an ethnic mentor (Y/N), and an interaction term as predictors. The interaction term combined ethnic identity and the presence of an ethnic mentor. These results are in Table 4-9. Neither of these models was significantly predictive of mood related symptoms despite the addition of a new interaction variable. The interaction variables also were not independently predictive.

Two multiple logistic regressions were done with the same predictor variables. These results are also detailed in Table 4-9. These two models were significantly predictive in both the minority adolescents and the sample as a whole. However, the interaction term was not independently predictive of alcohol/drug use categorization.

In the entire sample gender was the only significantly predictive variable ($B = .773$; $X^2 = 5.87$; $p = .015$). In the minority sub-sample gender ($B = .791$, $X^2 = 4.93$; $p = .026$) and Ethnic Identity ($B = -.708$, $X^2 = 3.87$; $p = .049$) were the variables that provided the significant contributions to the outcome variable. Hypothesis 3 was not supported based on these analyses.

Table 4-9. Results of regressions testing the moderation model

Model	Sample	Outcome	df	Test Value	Sig.
Linear	Minority	Mood Sym.	6/188	F = .554	.766
Linear	Min/Maj	Mood Sym	7/237	F = .984	.443
Logistic	Minority	Alc/Drug	6/173	$X^2 = 16.12$.013
Logistic	Min/Maj	Alc/Drug	7/177	$X^2 = 19.68$.006

Min = Minority Group Membership

Maj = Majority Group Membership/European American Ethnicity

Sym = Symptoms

Alc = Alcohol

CHAPTER 5 DISCUSSION AND RECOMMENDATIONS

This study has explored individual and socio-cultural variables and their relationships to mental health functioning in early adolescents. These factors were conceptualized as strengths or aspects of healthy psychological development. They were examined for their relationship to adverse mental health symptoms. This chapter explores the results of the study. Findings related to the mental health functioning of the sample are presented and then the constructs of ethnic identity and mentoring are detailed separately. Recommendations are made and future directions for this area of study are listed. Lastly, the implications for nursing are described.

Adverse Mental Health Outcomes

The assessment of levels of adverse mental health outcomes in a multiethnic sample provides information that in and of itself contributes to the research literature. There were no significant differences between the ethnic groups with the exception of the depressed/anxious mood subscale. The European American adolescents scored significantly lower on this measure than the other three ethnic groups. There are many factors that may explain this finding. Differences in levels of depressed/anxious symptoms may be due to socioeconomic factors (Conger, Ge, Elder, Lorenz, & Simons, 1994) or increased stress related to racism and/or discrimination (Guthrie et al., 2002). However, other studies using this measure have found no significant differences between ethnic groups or different profiles (Grisso & Barnum, 2000).

The MAYSI-2 was designed “to identify those youths who are most seriously at risk of mental and emotional disturbances” (Grisso and Barnum, 2000, p. 32). The authors of this instrument provided “Caution” and “Warning” cutoff levels for scores on each subscale. The caution level was defined as having “possible clinical significance,” while the warning level indicates those adolescents with the greatest need for clinical intervention (Grisso and Barnum, p. 27).

The mean levels for this study did not reach even cautionary levels except for the somatic complaints due to anxiety subscale. Thirteen percent of this sample met the warning level criteria for somatic complaints due to anxiety. Fourteen percent and 11% respectively were in the warning range on the depression/anxiety and angry/irritable subscales respectively. Less than 1% met the warning level for alcohol/drug use.

The results of the alcohol/drug use measure (over 50% with a score of zero) indicate that this measure may not be an appropriate measure of substance use for this age group in a school-based sample. This subscale measures frequent use of substances and the potential for serious difficulties with substances (e.g., dependence). A more appropriate measure for middle-school students might instead measure experimentation or infrequent use. However, reports of any presence of problems due to substance use in this age range may predict future difficulties in this domain. Longitudinal studies are necessary to determine the significance of these findings.

Mentoring

The majority of adolescents reported the presence of a natural mentor. This validates earlier findings that have found natural mentoring relationships to be a part of normative development (Beam et al., 2002). The majority of the mentoring relationships were stable and consistent. The adolescents also reported a fairly high level of trust in

their mentors and were comfortable confiding in them as well. Over half of the mentors were relatives. This finding is consistent with prior research (Rhodes et al., 1992, 1994; Beam et al., 2002).

Despite these general trends, when strict criteria were utilized to define quality mentoring relationships, the sample size became quite a bit smaller. Fifty-five more participant responses could not be used because of at least some missing data on the quality factor items. There was no significant difference between those with a quality mentoring relationship and the other adolescents. This finding has a high risk for a Type II error because of the low observed power. Future research could answer this question more confidently with a larger sample. Also, it is possible that the criteria were too strict and excluded mentoring relationships that were potentially beneficial in some way.

Those adolescents who reported the presence of a natural mentor did not have better mental health functioning than those without a mentor. In contrast, they had higher levels of adverse mental health symptoms than those without the presence of a mentor. Although, the effect size was small and may be of little clinical significance, there are some possible explanations for this finding.

It is possible that adolescents experiencing adverse mental health symptoms may seek out mentors to help them cope with these difficulties. The theory that mentors can make up or compensate for problems that adolescents are experiencing is part of the basis for mentoring programs and also for some of the research on natural mentors (Rhodes et al., 1992, 1994). Beam and colleagues (2002) found that the presence of natural mentors was normative and not indicative of problems. However, these adolescents did tend to seek out support from their mentors when their relationship with their parents was high in conflict.

As previously mentioned, a large majority of participants in this study reported the presence of a natural mentor. This group had higher rates of adverse mental health symptoms. If having a natural mentor is normative, a logical follow-up question is “Is it normative to have adverse mental health symptoms during early adolescence?” Early theories of adolescent development stated that it was a period of turmoil, stress, transition, and mood lability (Muuss, 1996). However, despite the common stereotypes, modern theory and research have demonstrated that the majority of adolescents transition quite well through this period of the lifespan (Lewinsohn et al., 1998). It is unclear what the explanation is for this unexpected finding. Additional studies are needed to further evaluate this finding and examine its clinical significance

Ethnic Identity

Ethnic identity was not found to be predictive of mood related symptoms. This finding is in contrast to some previous research (Arroyo & Zigler, 1995; Roberts et al., 1999; Rotheram-Borus, 1989). Other studies have also found no direct links between ethnic identity and adverse mood related symptoms (Caldwell et al., 2002; DuBois, Burk-Braxton, et al., 2002). Some research has confirmed models that demonstrate an indirect relationship between ethnic identity and mood related symptoms. Ethnic identity has been related to mood symptoms via perceived stress (Caldwell et al., 2002) and global self-worth (DuBois, Burk-Braxton, et al., 2002). These additional constructs were not measured in this study, so it is impossible to confirm if such mechanisms were at work in this sample.

The developmental level of the participants in this study is also important to consider. Ethnic identity increases over time and it is possible that many of the participants in this study were still in a relatively early phase of this developmental

progression. DuBois and colleagues (DuBois, Burk-Braxton, et al., 2002) found no significant differences between African American and European American children (5th and 6th grades), but in early adolescents (7th and 8th grades) African Americans had significantly higher ethnic identity. This change in only a matter of one to two years of development may also play a role in the influence of ethnic identity to mood related symptoms.

Research with high school students has demonstrated many of the previous findings in this area (Arroyo & Zigler, 1995; Rotherman-Borus, 1989). It is possible that the influence of ethnic identity on mental health does not manifest until further along the developmental path. Previous research has demonstrated that early during the development of ethnic identity (i.e., exploration and increasing ethnic awareness), adolescents can actually have increases in anxiety and depression (Rotheram-Borus, 1989). Stages of development were not assessed in this study; rather a general measure of level of ethnic identity achievement was measured. It is possible that these differences, which were not detectable with the measurement technique used in this study, clouded the accuracy of the findings.

Ethnic identity was negatively related to alcohol/drug use. This finding validates previous studies that have found ethnic identity to be protective against substance use in minority adolescents (Scheier et al., 1997; Brook, Balka, et al., 1998; Brook, Whiteman, et al., 1998). However, the results from these studies were varied based on the type of substance and the ethnic group.

This study measured the overall influence of ethnic identity on any difficulties related to substance use and found it to be predictive. This finding was found for the

sample as a whole. It was not found specifically for the minority adolescents. There are several possible reasons why this may have occurred. One possibility is the presence of white-ethnics, those who strongly identify with their European country of origin.

Unfortunately, subgroups within the European American participants were not specifically identified, and it is therefore not possible to determine if this may have influenced the findings. Another factor, that was not directly assessed, was the possible minority status of the European American adolescents in some of the schools. Phinney (1992) found that ethnic identity was associated with self-esteem for white high school students when they were the minority in the school. A final reason that could explain why this construct predicted substance use for all of the adolescents could relate to self-esteem. A positive self-concept could be partially reflected by higher scores on the ethnic identity measure. This could be true since many of the items reflect positive attitudes toward one's ethnic group membership.

The predicted moderation model including ethnic mentors and their influence on the relationship between ethnic identity and mental health outcomes was not supported. In reference to adverse mood symptoms, this was probably not supported due to the lack of a significant relationship between ethnic identity and this outcome. However, this model was also not supported when there was a significant relationship (i.e., prediction of substance use). It is possible that ethnic mentors do have an effect on adolescents in different domains (e.g., self-esteem). The practice of matching mentors and mentees based on ethnicity, gender, and interests is still considered standard. Although, this makes intuitive sense, more research is needed to explain the mechanism by which these relationships may influence adolescents and in what domains.

Recommendations and Future Directions

The first area of recommendations is related to methodology. Nonrandom sampling procedures limit the external validity of the findings. Future studies using probability-sampling techniques could greatly increase the generalizability of findings. The use of survey methods has several limitations, some of which are described in Chapter 3. Additional research in this area could be supplemented with additional informants (e.g., parents, teachers, mentors) to validate the reports of the adolescents.

Another methodological issue was the length of the survey. The survey, at its longest, contained 338 items. It took participants between 45 minutes and 2 hours to complete. Fatigue and attention span are serious issues. Many were unable to complete the survey due to fatigue or, in some cases, time constraints set by the school. Instruments toward the end of the survey had higher rates of missing data than those at the beginning. Future surveys of this type could be improved by giving shorter versions to subgroups of participants.

As previously mentioned, it might be beneficial to translate the questionnaire into Spanish or other languages for new immigrants whose English language skills may be less well developed than other participants. Other ethnic groups could be examined and specific items could be added to assess the specific Hispanic heritage of the participants. Also, specifically in reference to the mentoring items, interview techniques could be very useful. Many participants had difficulty following the directions that asked them to answer questions if they had a mentor and to leave blank if they did not. Difficulty with instructions may have interfered with the accuracy of the responses.

A different measure of SES should be utilized in future studies due to the high rates of missing data and the somewhat dated occupational coding scheme used for the

Hollingshead (1965). In addition, longitudinal research is the ideal way to study developmental issues. Longitudinal research could examine ethnic identity development across adolescence. Also, the formation of mentoring relationships, their quality and duration as well as any influence they have on the adolescent's well-being could be studied over time.

Continued research related to the presence of natural mentors is definitely needed. This area would benefit from qualitative research that explores the nature and quality of mentoring relationships. Qualitative research would also improve the construct validity of measures that could benefit from further development and validation. Also, a large portion of the adolescents categorized their mentors as "other." In order to assess who these mentors are, open-ended interview or survey items are necessary. Philip and Hendry (2002) interviewed adolescents in Scotland and found intriguing results in response to questions about natural mentors. The adolescents indicated that individual peers (or best friends), peer groups, and adult-teen groups were all contexts in which they obtained mentoring support. More research of this type is needed.

Alternative or supplemental measures of ethnic identity could be utilized in future studies. For example, the Hispanic participants did not score significantly differently from the European American participants. However, Spanish language usage and level of acculturation are aspects of ethnic identity that were not assessed. These specific issues are not part of the MEIM, which is a generic measure that can be utilized for all ethnic groups. More specific measures may be needed for certain subgroups. It is possible that these factors are related to mental health. Also population divisions may even have to be more specific (e.g., Cuban American) if the intent is to develop programs or to intervene with specific sub-populations.

As described above, this study utilized a measure of alcohol/drug use that assessed problems due to drinking or drugs. A measure of substance use that assesses infrequent use or experimentation with substances may be more appropriate in future research with this age group. There are large-scale studies that address these sorts of substance use issues (e.g., Youth Risk Behavior Surveillance-Middle-School; CDC, 1998 as cited in Fetro et al., 2001) for this age group. However, these studies tend to focus only on the problem behaviors rather than examining strengths factors. Future studies could examine individual and socio-cultural strengths and their relationship to substance experimentation in middle-school students.

Nursing Implications

Several future directions for research are described in the previous section. This section addresses the direct implications to nursing practice, education, and research. One goal of an applied science such as psychiatric mental-health nursing is to provide the basis for interventions that promote mental health, prevent disease, and treat mental health problems when indicated. Psychiatric-mental health nurses are increasingly involved in school-based screenings for those in need of mental health services (Gall et al., 2000; Lamb & Puskar, 1991). The results of this study demonstrate that a brief screening instrument can identify adolescents who are suffering from mental health problems. The adolescents who scored in the warning range of the MAYSI-2 could be referred for intervention in school-based settings.

In terms of the direct applications of this research study to the field of nursing, ethnic identity achievement was found to be negatively related to alcohol/drug use. Aspects of self-concept, including ethnic identity could be assessed when intervening with adolescents. Research focused on psychosocial strengths can provide nurses with the

tools to develop theoretically based interventions with empirical support. Individual or group interventions could target issues related to ethnic identity development in young adolescents.

Schools of nursing also have implemented holistic interventions that have included mentoring adolescents (Scheuring, Hanna, & D'Aquila-Lloyd, 2000). Nursing education typically includes learning about the development of nurse-client relationships. Nursing students could potentially serve as mentors as well as health care providers. In addition, school nurses can serve as collaborators with the increasing number of school-based mentoring programs. School nurses can play an integral role in helping to develop these programs and to ensure that factors such as consistency, adequate duration, and relationship building are considered within these programs. Nursing education must also integrate knowledge of factors that are pertinent to the well being of ethnic minorities. Culturally sensitive health care includes an acknowledgement of differences. These differences ideally should be viewed as strengths rather than liabilities. Nurses also should learn how to tap into resources beyond the walls of the health care setting. Adolescents can be encouraged to access the support provided by natural mentors in times of difficulty. Holistic health care must include assessment of multiple domains of functioning and attempts to develop or enhance existing resources.

Nurse researchers have studied multiple individual and social factors that are associated with depressive and anxious symptoms (Mahon & Yarcheski, 2001; Yarcheski & Mahon, 2000) and substance use (Long & Boik, 1993). Additional mood symptoms were assessed in this study (i.e., angry/irritable mood and somatic complaints due to anxiety). This expanded the body of knowledge to include the wide array of mood related symptoms that can be experienced by early adolescents. This study adds to the existing

nursing literature by examining factors relate to ethnic group membership and how this relates to adolescent mental health. An achieved ethnic identity was associated with less risk for alcohol/drug use. This study also describes the prevalence and characteristics of an important community resource: natural mentors.

APPENDIX A
MENTORING ITEMS

For the next question, please circle 1 for YES or 2 for NO to answer whether that question is true for you.

- | | | |
|--|------------|-----------|
| | <u>YES</u> | <u>NO</u> |
| 10. Other than your parents or whoever raises you,
is there an adult in your life (a mentor, or positive role model)
who you go to for support and guidance? | 1 | 2 |

If you answered YES to question number 10, please answer the following questions about this adult you go to for support or guidance.

If you answered NO to last question, please go on to page 15.

- | | | | | | | |
|---|-----------------|------------------------------------|----------------------------------|----------------------------------|------------------------------|--------------|
| | <u>Relative</u> | <u>Neighbor</u> | <u>Teacher</u> | <u>Coach</u> | <u>Minister</u> | <u>Other</u> |
| 11. Is this person a? | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. Is this person from the same
ethnic group that you are? | | | | <u>YES</u>
1 | <u>NO</u>
2 | |
| 13. What is the person's gender? | | | | <u>Female</u>
1 | <u>Male</u>
2 | |
| 14. Is this person from your community?
(Ex. lives in your neighborhood,
attends your church) | | | | <u>YES</u>
1 | <u>NO</u>
2 | |
| | | <u>Less than
once per week</u> | <u>1 to 3 times
per week</u> | <u>4 to 6 times
per week</u> | <u>Every
day</u> | |
| 15. How many times each week
do you see this person? | 1 | 2 | 3 | 4 | | |
| | | <u>Less than
1 hour</u> | <u>1 to 2 hours</u> | <u>3 to 4 hours</u> | <u>More than
4 hours</u> | |
| 16. How long do you spend
together on a typical visit? | 1 | 2 | 3 | 4 | | |

Thinking of the adult you go to for support or guidance, for the following items, choose the number (1) for A little bit, the number (2) for Some, and the number (3) for A lot that best describes your feelings about that adult. Circle the number you choose.

	<u>A little bit</u>	<u>Some</u>	<u>A lot</u>
17. How much do you feel you can count on this person to be there for you?	1	2	3
18. If you needed some information or advice about something, how likely is it that you could talk with this person?	1	2	3
19. If you got an award or did something well, how likely is it that you would tell this person?	1	2	3
20. If you were in trouble at home, how likely is it that you would tell this person?	1	2	3
21. How much do you feel he or she believes in and cares deeply about you?	1	2	3
22. How much do you feel that he or she inspires you to do your best?	1	2	3
23. How much do you think that knowing him or her has really affected what you do and the choices you make?	1	2	3

Thinking of the adult you go to for support or guidance, for the next question, please indicate the length of time you have known the person by choosing the number (1) for Less than 3 months, the number (2) for 3 to 6 months, the number (3) for 6 to 12 months, and the number 4 for more than 12 months. Circle the number you choose.

	<u>Less than 3 months</u>	<u>3-6 months</u>	<u>6-12 months</u>	<u>Greater than 12 months</u>
24. How long have you known this person?	1	2	3	4

(Centers for Disease Control and Prevention, 2002; Rhodes, Ebert, & Fischer, 1992; Woolard & Greig, 2001)

APPENDIX B
PARENT INFORMED CONSENT

National Middle-School Survey: School Violence and Beliefs About Self, Others,
and the Future

Scott A. Miller

Parent Letter

Dear Parent:

A research team from the University of Florida is currently conducting a project at your child's school. The purpose of this letter is to explain the project and to ask your permission for us to include your child in the testing.

The goal of our project is to develop and to test a survey for middle-school students. The survey is intended to identify some of the important thoughts and concerns and characteristics of the present generation of middle-school students. We believe that the results will provide some new and valuable information about this age group for the educators and policy makers who shape children's school experiences. Your child's school is one of about 25 schools around the country at which we are administering the survey.

The survey will be given in the regular classroom setting [or whatever setting applies in the particular school], and it will take about an hour to complete [if pilot testing reveals a different session length this wording will be adjusted accordingly]. The questions will address a number of topics that are important in the lives of middle-school students. Some will ask students to reflect about themselves—what they feel especially satisfied or dissatisfied about, what their expectations are for the future. Others will ask about the child's relations with the important people in his or her life. Still others will ask about experiences at school, including possible worries or fears about bullying and school violence. In each case, we have worked hard to make the questions as clear as possible for students this age, and to try to ensure that none will be upsetting to the child.

An important point to note about the survey is that responses will be completely anonymous and confidential. Students will not put their names on the response forms, and there will be no information on the forms from which individual children could ever be identified. This means that no one will ever know how particular children responded—no one at your child's school, for example, and indeed none of us on the research team. Our interest is in general patterns of response and in possible variations across different groups (for example, boys compared with girls, or 6th graders compared with 8th graders). We have no need ever to know particular children's names.

The fact that responses are confidential is something that we will explain carefully to the children. We want the children to feel free to answer honestly—and we want to be sure that no child is ever concerned that someone might know how he or she responded.

Please indicate on the attached form whether you are willing to have your child participate in the survey. The form should be returned to the child's school. Children who

do not participate will be given an appropriate alternative activity by their teachers. There will be no negative consequences of any sort for children who do not participate.

In addition to asking your permission we will be asking your child's permission. Prior to administering the survey, the researcher will provide a general description of the questions to be asked and will emphasize that children are free to decide not to take part—either from the start or at any point after beginning the survey. Children will also be told that they do not have to answer any question that they do not wish to answer. Again, there will be no negative consequences for children who decide not to participate. Children who decide not to participate [here we will describe whatever alternative activity the teachers have decided is appropriate for nonparticipants].

Our work is supported by grant from the Department of Education's Fund for the Improvement of Education program. This project has been approved by the University of Florida's Committee for the Protection of Human Subjects. It has also been approved by the principal of your child's school.

We hope that both you and your child will decide to help us with the project. We believe that the results of the survey can provide valuable information about the thoughts and concerns of today's middle-school students, information that may eventually help to make the school experience a more rewarding one for all children. The greater the number of students who participate, the more accurate and helpful the results will be.

If you have any questions about the project, please call or e-mail Scott Miller at the number or address given below. [Note: When we test in states other than Florida we will attempt to provide a local contact number.] Questions or concerns about your child's rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

Scott A. Miller
Professor
Department of Psychology
University of Florida
Gainesville, FL 32611
352-392-0605, x 216 samiller@ufl.edu

University of Florida—Middle-School Survey

Child's name _____

Child's grade _____

I am willing to have my child participate in the project.

parent/guardian_____
2nd parent/witnessI do not wish to have my child participate in the project._____
parent/guardian_____
2nd parent/witness

(Miller, 2001)

APPENDIX C
VERBAL PARTICIPANT ASSENT

National Middle-School Survey: School Violence and Beliefs About Self, Others, and the Future

Scott Miller

Assent Script for Middle-School Participants

We're from the University of Florida and we're doing a project at your school. The project is for students in middle school, and your principal and teachers have given us permission to do it at _____ School. We're hoping that you'll decide to help us out.

The way you can help us out is by answering some questions about yourself—what you're like, how you feel or think about different things. The questions are on this survey [tester holds up copy], and you answer them on your own without anyone seeing your answers. We'll give out the survey here in a few minutes, and it should take about an hour to finish [if pilot testing reveals a different session length this wording will be adjusted accordingly].

We can't tell you in advance about all the questions on the survey, but we'll try to give you some idea of what they're like. Some of them are about things about yourself that you're happy or perhaps not so happy about—for example, what you feel you're good at and what you feel you're not so good at. Some of them are about your relations with other people—for example, how you feel about other kids, or about your teachers or parents. And some of them are about things that sometimes worry kids at school—for example, the problem of bullies or school violence. In each case, we just want to know what you honestly think.

There are several things that are very important to understand before we start. One is that you don't have to do this. You can decide not to do it before we even start. Or if you start and decide you don't want to do it that's OK too. Nothing bad will happen to you if you decide not to do the survey—for example, your teachers won't be mad or give you bad grades. If you decide not to do it [Here, we will describe whatever alternative activity the teachers have decided is appropriate for nonparticipants.]

Another thing that's important is that you don't have to answer any question that you don't want to answer. If there's anything that you just don't want to think about or don't want to give an answer to you can leave it out. Now, if there's ever simply something that you don't understand you should raise your hand and ask us. We want you to skip a question only if you really don't want to answer it.

One last thing is very important. All the answers you give on the survey will be confidential. This means that no one will ever know how you answered. Your teachers won't know, your parents won't know, and those of us doing the project won't know. We won't know because you won't put your name on the survey. Also, all the copies of the survey are the same, so no one can tell which one you got. Finally, when you're done you drop your survey in this box, and when we take them out later we'll have no way to know which one is yours. We set it up this way for a couple reasons. One is that what we're

interested in finding out is how kids your age in general think—we don't need to know how any one particular kid thinks. The other is that we want you to feel free to answer honestly, because you know that no one will ever know how you answered.

One more thing, we hope that taking the survey will be an interesting experience. But there's a chance that some kids might find some of the questions upsetting to think about, or might have some things that they want to talk about afterwards. Your counselors know this, and they'll be ready to talk to anyone who wants to talk. [Here, we will provide more specifics if the school desires—e.g., “Mrs. Smith will be in her office from 3 to 4 every day this week.”]

We hope all this is clear! Does anyone have any questions before we start? Remember, if you have questions when you're taking the survey just raise your hand and we'll try to answer them. And if you have any questions after you're done we'll be here to talk to you.

(Miller, 2001)

REFERENCES

- Ainsworth, M. D. S. (1989). Attachments beyond infancy. *American Psychologist*, *44*(4), 709-716.
- Anderman, C., Cheadle, A., Curry, S., Diehr, P., Shultz, L., & Wagner, E. (1995). Selection bias related to parental consent in school-based survey research. *Evaluation Review*, *19*(6), 663-674.
- Andrews, J. A., Hops, H., & Duncan, S. C. (1997). Adolescent modeling of parent substance use: The moderating effect of the relationship with the parent. *Journal of Family Psychology*, *11*(3), 259-270.
- Andujo, E. (1988, November-December). Ethnic identity of transethnically adopted Hispanic adolescents. *Social Work*, 531-535.
- Arbona, C., Jackson, R. H., McCoy, A., & Blakely, C. (1999). Ethnic identity as a predictor of attitudes of adolescents toward fighting. *Journal of Early Adolescence*, *19*(3), 323-340.
- Arroyo, C. G., & Zigler, E. (1995). Racial identity, academic achievement, and the psychological well-being of economically disadvantaged adolescents. *Journal of Personality and Social Psychology*, *69*(5), 903-914.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Beale Spencer, M., Noll, E., Stoltzfus, J., & Harpalani, V. (2001). Identity and school adjustment: revising the “acting white” assumption. *Educational Psychologist*, *36*(1), 21-30.
- Beam, M.R., Chen, C., & Greenberger, E. (2002). The nature of adolescents’ relationships with their “very important” nonparental adults. *American Journal of Community Psychology*, *30*(2), 305-325.
- Blum, D. J., & Jones, L. A. (1993). Academic growth group and mentoring program for potential dropouts. *The School Counselor*, *40*(3), 207-217.
- Bowlby, J. (1969). *Attachment and loss. Vol. 1: Attachment*. New York: Basic Books.

- Bowman, P. J., & Howard, C. (1985). Race-related socialization, motivation, and academic achievement: A study of black youths in three-generation families. *Journal of American Academy of Child Psychiatry, 24*(2), 134-141.
- Brook, J. S., Balka, E. B., Brook, D. W., Win, P. T., & Gursen, M. D. (1998). Drug use among African Americans: Ethnic identity as a protective factor. *Psychological Reports, 83*, 1427-1446.
- Brook, J. S., Whiteman, M., Balka, E. B., Win, P. T., & Gursen, M. D. (1998). Drug use among Puerto Ricans: Ethnic identity as a protective factor. *Hispanic Journal of Behavioral Sciences, 20*(2), 241-254.
- Brown, L. M. (1998). Ethnic stigma as a contextual experience: A possible selves perspective. *Personality and Social Psychology Bulletin, 24*, 163-172.
- Caldwell, C. H., Zimmerman, M. A., Bernat, D. H., Sellers, R. M., & Notaro, P. C. (2002). Racial identity, maternal support, and psychological distress among African American adolescents. *Child Development, 73*(4), 1322-1336.
- California Department of Education. (2002). *Nutrition Services Division Free/Reduced Price Data*. Retrieved April 17, 2003, from <http://www.cde.ca.gov/nsd/freereduced/index.html>
- Caughy, M. O., O'Campo, P. J., Randolph, S. M., & Nickerson, K. (2002). The influence of racial socialization practices on the cognitive and behavioral competence of African American preschoolers. *Child Development, 73*(5), 1611-1625.
- Cavell, T. A., & Hughes, J. N. (2000). Secondary prevention as context for assessing change processes in aggressive children. *Journal of School Psychology, 38*(3), 199-235.
- Centers for Disease Control. (2000). *Best practices of youth violence prevention. A source book for community action*. Atlanta, GA: Center for Disease Control.
- Centers for Disease Control and Prevention. (2002). *Measuring violence-related attitudes, beliefs, and behaviors among youths: A compendium of assessment tools*. Retrieved October 19, 2002, from <http://www.cdc.gov/ncipc/pub-res/measure.htm>
- Conger, R. D., Ge, X., Elder, G. H., Jr., Lorenz, F. O., & Simons, R. L. (1994). Economic stress, coercive family process, and developmental problems of adolescence. *Child Development, 65*, 541-561.
- Constantine, M. G., Donnelly, P. C., & Myers, L. J. (2002). Collective self-esteem and Africultural coping styles in African American adolescents. *Journal of Black Psychology, 32*(6), 698-710.

- Cross, W. E. (1991). *Shades of black*. Philadelphia: Temple University Press.
- Dennison, S. (2000). A win-win mentoring and tutoring program: A collaborative model. *The Journal of Primary Prevention, 20*(3), 161-174.
- Doswell, W., Millor, G. K., Thompson, H., & Braxter, B. (1998). Self-image and self-esteem in African American preteen girls: Implications for mental health. *Issues in Mental Health Nursing, 19*, 71-94.
- DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., & Hardesty, J. L. (2002). Race and gender differences on adjustment in early adolescence: Investigation of an integrative model. *Child Development, 73*(5), 1573-1592.
- DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*(2), 157-197.
- DuRant, R. H., Smith, J. A., Kreiter, S. R., & Krowchuk, D. P. (1999). The relationship between early age of onset of initial substance use and engaging in multiple health risk behaviors among young adolescents. *Archives of Pediatric and Adolescent Medicine, 153*, 286-291.
- Erikson, E. (1968). *Identity youth and crisis*. New York: W. W. Norton.
- Fawcett, J. (2000). *Analysis and evaluation of contemporary nursing knowledge: Nursing models and theories*. Philadelphia: F. A. Davis.
- Fetro, J. V., Coyle, K. K., & Pham, P. (2001). Health-risk behaviors among middle school students in a large majority-minority school district. *Journal of School Health, 71*(1), 30-37.
- Florida Department of Education. (2002). *Florida school indicators report*. Retrieved April 17, 2003, from <http://info.doe.state.fl.us/fsir/>
- Friedlander, M. L. (1999). Ethnic identity development of internationally adopted children and adolescents: implications for family therapists. *Journal of Marital and Family Therapy, 25*, 1, 43-60.
- Friedlander, M. L., Larney, L. C., Skau, M., Hotaling, M., Cutting, M. L., & Schwam, M. (2000). *Journal of Counseling Psychology, 47*(2), 187-198.
- Gall, G., Pagano, M. E., Desmond, S., Perrin, J. M., & Murphy, M. (2000). Utility of psychosocial screening at a school-based health center. *Journal of School Health, 70*(7), 292-298.
- Garnezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatric Annals, 20*(9), 459-466.

- Grisso, T., & Barnum, R. (2000). *The Massachusetts youth screening instrument—Second version (MAYSI-2) User's manual and technical report*. Worcester, MA: University of Massachusetts Medical School.
- Grisso, T., Barnum, R., Famularo, R., & Kinscherff, R. (1998). *The Massachusetts youth screening instrument—Second version (MAYSI-2)*. Worcester, MA: University of Massachusetts, Page.
- Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*(2), 199-219.
- Grossman, J. B. & Tierney, J. P. (1998). Does mentoring work? An impact study of Big Brothers Big Sisters program. *Evaluation Review, 22*(3), 403-426.
- Guthrie, B. J., & Low, L. K. (2000). A substance use prevention framework: Considering the social context for African American girls. *Public Health Nursing, 17*(5), 363-373.
- Guthrie, B. J., Young, A. M., Williams, D. R., Boyd, C. J., & Kintner, E. K. (2002). African American girls' smoking habits and day-to-day experiences with racial discrimination. *Nursing Research, 51*(3), 183-190.
- Hirsch, B. J., Mickus, M., & Boerger, R. (2002). Ties to influential adults among black and white adolescents: Culture, social class, and family networks. *American Journal of Community Psychology, 30*(2), 289-303.
- Hollingshead, A. B. (1965). *Two factor index of social position*. New Haven, CT: Yale Station.
- Jackson, Y. (2002). Mentoring for delinquent children: An outcome study with young adolescent children. *Journal of Youth and Adolescence, 31*(2), 115-122.
- James, W. H., Kim, G. K., & Armijo, E. (2000). The influence of ethnic identity on drug use among ethnic minority adolescents. *Journal of Drug Education, 30*(3), 265-280.
- Lamb, J., & Puskar, K. R. (1991). School-based adolescent mental health project survey of depression, suicidal ideation, and anger. *Journal of Child and Adolescent Psychiatric-Mental Health Nursing, 4*(3), 101-104.
- Lee, J., & Cramond, B. (1999). The positive effects of mentoring economically disadvantaged students. *Professional School Counseling, 2*(3), 172-178.
- Lewinsohn, P. M., Rohde, P., Seeley, J. R. (1998). Major depressive disorder in older adolescents: Prevalence, risk factors, and clinical implications. *Clinical Psychology Review, 18*(7), 765-794.

- Lewis, M. (2000). Toward a development of psychopathology models, definitions, and prediction. In A. J. Sameroff, M. Lewis, & S. M. Miller (Eds.), *Handbook of developmental psychopathology* (2nd ed., pp. 3-22). New York: Kluwer Academic/Plenum Publishers.
- Licht, M. H. (1997). Multiple regression and correlation. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics*. Washington, DC: American Psychological Association.
- Linnehan, F. (2001). The relation of a work-based mentoring program to the academic performance and behavior of African American students. *Journal of Vocational Behavior, 59*, 310-325.
- Long, K. A. & Boik, R. J. (1993). Predicting alcohol use in rural children: A longitudinal study. *Nursing research, 42*(2), 79-85.
- Mahon, N. E., & Yarcheski, A. (2001). Outcomes of depression in early adolescents. *Western Journal of Nursing Research, 23*(4), 360-375.
- Mandelco, B. L., & Peery, J. C. (2000). An organizational framework for conceptualizing resilience in children. *Journal of Child and Adolescent Psychiatric Nursing, 13*(3), 99-111.
- Marcia, J. E. (1980). Identity in adolescence. In J. Edelson (Ed.), *Handbook of adolescent psychology* (pp. 159-165). New York: John Wiley & Sons.
- Marks, R. (1999). *Designing a research project: Class notes*. Gainesville, FL: Renaissance Printing.
- McMahon, S. D., & Watts, R. J. (2002). Ethnic identity in urban African American youth: Exploring links with self-worth, aggression, and other psychosocial variables. *Journal of Community Psychology, 30*(4), 411-431.
- Meyer, A. L., & Farrell, A. D. (1998). Social skills training to promote resilience in urban sixth-grade students: One product of an action research strategy to prevent youth violence in high-risk environments. *Education and Treatment of Children, 21*(4), 461-488.
- Miller, S., Fondacaro, M., Woolard, J., Boggs, S., Cliett, W., Lucas, M., & Smith, S. (2001). *The National middle-school survey: School violence and beliefs about self, others, and the future*. Unpublished grant submission to the Department of Education.
- Miller, D. B., & MacIntosh, R. (1999). Promoting resilience in urban African American adolescents: Racial socialization and identity as protective factors. *Social Work Research, 23*(3), 159-69.

- Muuss, R. E. (1996). *Theories of adolescence* (6th ed.). New York: McGraw-Hill.
- Neuman, B. (1995). *The Neuman systems model* (3rd eEd.). Norwalk, CT: Appelton and Lange.
- Pearsall, J. (Ed.). (1999). *The concise Oxford dictionary* (10th ed.). New York: Oxford University Press.
- Philip, K., & Hendry, L. B. (2002). Making sense of mentoring or mentoring making sense? Reflections on the mentoring process by adult mentors with young people. *Journal of Applied Social Psychology, 10*, 211-223.
- Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *Journal of Early Adolescence, 9*(1-2), 34-49.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin, 108*(3), 499-514.
- Phinney, J. S. (1991). Ethnic identity and self-esteem: A review and integration. *Hispanic Journal of Behavioral Sciences, 13*(2), 193-208.
- Phinney, J. S. (1992). The multigroup ethnic identity measure. *Journal of Adolescent Research, 7*(2), 156-176.
- Phinney, J. S., & Chavira, V. (1992). Ethnic identity and self-esteem: An exploration longitudinal study. *Journal of Adolescence, 15*, 271-281.
- Phinney, J. S., & Chavira, V. (1995). Parental ethnic socialization and adolescent coping with problems related to ethnicity. *Journal of Research on Adolescence, 5*(1), 31-53.
- Phinney, J. S., Ferguson, D. L., & Tate, J. D. (1997). Intergroup attitudes among ethnic minority adolescents: A causal model. *Child Development, 68*(5), 955-969.
- Phinney, J. S., & Tarver, S. (1988). Ethnic identity search and commitment in black and white eighth graders. *Journal of Early Adolescence, 8*(3), 265-277.
- Polit, D. F. & Hungler, B. P. (1991). *Nursing Research Principles and Methods* (4th Ed.). J. B. Lippincott Company: Philadelphia.
- Resnick, M .D. (2000). Resilience and protective factors in the lives of adolescents. *Journal of Adolescent Health, 27*(1), 1-2.
- Rhodes, J. E, Contreras, J. M., & Mangelsdorf, S. C. (1994). Natural mentor relationships among Latina adolescent mothers: Psychological adjustment, moderating processes, and the role of early parental acceptance. *American Journal of Community Psychology, 22*(2), 211-227.

- Rhodes, J. E., & Davis, A. B. (1996). Supportive ties between nonparent adults and urban adolescent girls. In B. J. Ross Leadbeater & N. Way (Eds.), *Urban girls revisiting stereotypes, creating identities* (pp. 213-225). New York: New York University Press.
- Rhodes, J. E., Ebert, L., & Fischer, K. (1992). Natural mentors: An overlooked resource in the social networks of young, African American mothers. *American Journal of Community Psychology, 20*(4), 445-461.
- Rhodes, J. E., Grossman, J. B., & Resch, N. L. (2000). Agents of change: Pathways through which mentoring relationships influence adolescents' academic adjustment. *Child Development, 71*(6), 1662-1671.
- Rhodes, J. E., Haight, W. L., & Ernestine, B. C. (1999). The influence of mentoring on peer relationships of foster youth in relative and nonrelative care. *Journal of Research on Adolescence, 9*(2), 185-201.
- Rhodes, J. E., & Reddy, R. (2002). Volunteer mentoring relationships with minority youth: an analysis of same-versus cross-race matches. *Journal of Applied Social Psychology, 32*(10), 2114-2133.
- Roberts, R. E., Phinney, J. S., Masses, L. C., Chen, Y. R., Roberts, C. R., & Romero, A. (1999). The structure of ethnic identity of young adolescents from diverse ethnocultural groups. *Journal of Early Adolescence, 19*(3), 301-322.
- Roth, J., Brooks-Gunn, J., Murray, L., & Foster, W. (1998). Promoting healthy adolescents: Synthesis of youth development program evaluations. *Journal of Research on Adolescence, 8*(4), 423-459.
- Rotheram, M. J., & Phinney, J. S. (1987). Introduction: Definitions and perspectives in the study of children's ethnic socialization. In J. S. Phinney & M. J. Rotheram (Eds.), *Children's ethnic socialization* (pp. 10-28). Newbury Park, CA: Sage Publications.
- Rotheram-Borus, M. J. (1989). Ethnic differences in adolescents' identity status and associated behavior problems. *Journal of Adolescence, 12*, 361-374.
- Sanchez, B., & Reyes, O. (1999). Descriptive profile of the mentorship relationships of Latino adolescents. *Journal of Community Psychology, 27*(3), 299-302.
- Scales, P. C., & Gibbons, J. L. (1996). Extended family members and unrelated adults in the lives of young adolescents: A research agenda. *Journal of Early Adolescence, 16*(4), 365-389.

- Scheier, L. M., Botvin, G. J., Diaz, T., & Ifill-Williams, M. (1997). Ethnic identity as a moderator of psychological risk and adolescent alcohol and marijuana use: Concurrent and longitudinal analyses. *Journal of Child and Adolescent Substance Abuse, 6*(1), 21-47.
- Scheuring, S. E., Hanna, S., & D'Aquila-Lloyd, E. (2000). Strengthening the safety net for adolescent health: Partners in creating realities out of opportunity. *Family Community Health, 23*(2), 43-53.
- Search Institute. (2002). *Developmental assets: An overview*. Retrieved March 16, 2002, from <http://www.search-institute.org/>
- Sellers, R. M., Rowley, S. J., Charous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional inventory of black identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology, 73*, 805-815.
- Simons, R. L., Murray, V., McLoyd, V., Lin, K. H., Cutrona, C., & Conger, R. D. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology, 14*, 371-393.
- Smith, H., & Thomas, S. P. (2000). Violent and nonviolent girls: Contrasting perceptions of anger experiences, school, and relationships. *Issues in Mental Health Nursing, 21*, 547-575.
- Smith, E. P., Walker, K., Fields, L., Brookins, C. C., & Seay, R. C. (1999). Ethnic identity and its relationship to self-esteem, perceived efficacy and prosocial attitudes in early adolescence. *Journal of Adolescence, 22*, 867-880.
- Tabachnick, B. G., & Fidell, L. S. (1989). *Using multivariate statistics* (2nd ed.). New York: Harper & Row.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press.
- Tierney, J. P., Grossman, J. B., & Resch, N. C. (1995). *Making a difference. An impact study of Big Brothers Big Sisters*. Philadelphia, PA: Public/Private Venture.
- Thornton, M. C., Chatters, L. M., Taylor, R. J., & Allen, W. R. (1990). Sociodemographic and environmental correlates of racial socialization. *Child Development, 61*, 401-409.
- U.S. Census Bureau. (2000). *State and county quick facts*. Retrieved March 14, 2002, from <http://www.census.gov/>

- U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD). (2002)., *State Nonfiscal Survey of Public Elementary/Secondary Education, 1999-2000*. Retrieved March 22, 2002, from <http://www.ed.gov/>
- Vanderpool, H. Y. (1996). *The ethics of research involving human subjects; facing the 21st century*. Fredrick, MD: University Publishing Group.
- Weinfurt, K. P. (1997). Multivariate analysis of variance. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics*. Washington, DC: American Psychological Association.
- Werner, E. E. (1986). Resilient offspring of alcoholics: A longitudinal study from birth to age 18. *Journal of Studies on Alcohol*, 47(1), 34-40.
- Wright, R. E. (1997). Logistic regression. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics*. Washington, DC: American Psychological Association.
- Woolard, J., & Greig, R. (2001). Mentoring items. *Unpublished manuscript*. Gainesville, FL: University of Florida.
- Yarcheski, A., & Mahon, N. E. (2000). A causal model of depression in early adolescents. *Western Journal of Nursing Research*, 22(8), 879-894.
- Zimmerman, M. A., Bingenheimer, J. B., & Notaro, P. C. (2002). Natural mentors and adolescent resiliency: A study with urban youth. *American Journal of Community Psychology*, 30(2), 221-243.

BIOGRAPHICAL SKETCH

Ms. Ramona Greig obtained a Bachelor of Science degree in nursing from the University of Florida in 1995, with high honors. She worked briefly in intensive care, but then focused her career on psychiatric-mental health nursing. She obtained a Master of Science in nursing with a specialization in psychiatric-mental health nursing from the University of South Florida in 1998. She received the Rose Horn Psychiatric Nursing Scholarship as recognition for her work during her master's program. She then began her practice as a certified clinical nurse specialist and licensed psychiatric nurse practitioner in a family psychiatric outpatient clinic. At this time, Ms. Greig began teaching courses at the University of Florida. She also worked as a study coordinator and sub-investigator conducting clinical pharmaceutical research in an outpatient setting.

She entered the Ph.D. program in nursing science at the University of Florida in August of 2000 and received the Alumni Fellowship Award from the University of Florida for support of her doctoral education. During her tenure in doctoral studies, Ms. Greig helped to develop the Doctoral Student Council and began a doctoral student mentorship program for new students. She also served as the student representative on the College of Nursing Ph.D. Task Force at the University of Florida in 2002 and 2003.

Ms. Greig's aspirations include further development of her career within the field of child and adolescent mental health. She plans to expand her experience as practitioner, educator and researcher. She would like to work as a member of an interdisciplinary team that creates, implements, and evaluates prevention and early intervention programs for

adolescents at risk for emotional and behavioral problems. Ms. Greig's primary career goal is to promote adolescent mental health within a multicultural society and the larger global community.