Theses and Dissertations   Theses, Dissertations, and Senior Projects

12-1-2004

A Cognitive-Behavioral Treatment for Depression in Native American Middle-School Students

Lori B. Listug-Lunde

A COGNITIVE-BEHAVIORAL TREATMENT FOR DEPRESSION IN NATIVE
AMERICAN MIDDLE-SCHOOL STUDENTS

by

Lori B. Listug-Lunde
Bachelor of Arts, Concordia College, 1996
Master of Arts, University of North Dakota, 2001

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
December
2004

ii

This dissertation, submitted by Lori B. Listug-Lunde in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

_____
Chairperson

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

_____
Dean of the Graduate School

_____
Date

iii

PERMISSION

Title   A Cognitive-Behavioral Treatment for Depression in Native American
             Middle-School Students

Department   Psychology

Degree   Doctor of Philosophy

In presenting this dissertation in partial fulfillment of the requirements for a
graduate degree from the University of North Dakota, I agree that the library of this
University shall make it freely available for inspection. I further agree that permission
for extensive copying for scholarly purposes may be granted by the professor who
supervised my dissertation work or, in her absence, by the chairperson of the department
or the dean of the Graduate School. It is understood that any copying or publication or
other use of this dissertation or part thereof for financial gain shall not be allowed without
my written permission. It is also understood that due recognition shall be given to me
and to the University of North Dakota in any scholarly use which may be made of any
material in my dissertation.

Signature   _Lorei Justig-Lunde_

Date   _7/01/04_

iv

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGMENTS

I want to extend my thanks and appreciation to everyone who worked with me on this project. I especially thank my advisor, Dr. Nancy Vogeltanz-Holm, for her unwavering support, guidance, and confidence in me throughout this project. I also want to thank Dr. John Collins, a member of my advisory committee and clinical supervisor, for his confidence and trust in me. His knowledge and insight were invaluable to the success of this project. To the group leaders, Robyn Drach and DeeAnn Dubray, thank you for your friendship and your commitment to the students, school, and community. I also thank Dr. Douglas McDonald, Dr. Jeff Holm, Dr. Thomas Petros, and Dr. Beverly Uhlenberg, members of my advisory committee, for their support and guidance.

I want to extend my deepest gratitude to the middle-school students, teachers administrators, mental health workers, and community members for their support of this project. It was through their strength and commitment to their community that I was inspired to work on this collaborative project. Thank you for welcoming me into your community and sharing your lives with me.

Finally, I want to thank my family and friends for supporting me in this endeavor. Thank you for your love and support and having faith in me and in this project. To my husband Dane, whose encouragement, patience, and support sustained me through this project, I extend my deepest gratitude. I also want to thank you for all of your editorial and technical support, for which I and our computer are forever indebted.

ix

ABSTRACT

Depression and suicide are serious conditions among Native American adolescents. Despite the need for effective treatment approaches in this population, there continues to be a dearth of empirical research in this area. Intervention studies examining Native American adults at risk for depression and Native American youth at risk for suicide have found effectiveness utilizing group skill-based interventions. Group cognitive-behavioral therapy has demonstrated effectiveness among Caucasian adolescents; however, its effectiveness has never been examined with Native American youth experiencing depressive symptoms.

The current study modified, implemented, and evaluated a cognitive-behavioral intervention for depression among Native American middle-school students. A modification of the Coping With Depression-Adolescent (CWD-A) course (Clarke, Lewinsohn, & Hops, 1990) for middle school students (Kahn, Kehle, Jenson, & Clark, 1990) was administered to a small group of students in a Midwestern reservation school, identified as having moderate to severe depressive symptoms based on the Children's Depression Inventory. The class was also modified for cultural relevance and sensitivity and school scheduling. Nineteen of 36 eligible students participated and were assigned to the intervention ($n = 10$) or wait-list control group ($n = 9$), using a randomized block design. At pre-intervention, post-intervention, and 3-month follow-up students' depressive and anxiety symptoms were measured. At post-intervention, intervention

group students were interviewed to determine class acceptability and the usefulness of class materials.

Findings indicated students in both groups had decreased depressive symptoms across the intervention period, with intervention group students having a faster decrease in interpersonal problems. Students in both groups had decreased anxiety symptoms from pre-to post-intervention; however, only intervention group students continued to have lower anxiety at follow-up. Both groups of students had lower school absence rates while attending the class and intervention group students were more likely to remain in the school district throughout the year. Students' reports indicated that most students enjoyed the class and would take the class again. Students also reported the class helped improve their mood. Additionally, students in both groups decreased their depressive symptoms faster than other students in the school with depressive symptoms who did not participate in the class evaluation.

CHAPTER I

INTRODUCTION

Childhood depression was not recognized as a serious condition until 1970, when the Fourth Congress of the Union of European Pedopsychiatrists first acknowledged it as a mental disorder In fact, before this time it was believed that children did not have the cognitive capacity to experience depression (Kaslow, Croft, & Hatcher, 1999). Today, however, depression among children and adolescents has received a great deal of attention and is considered a serious condition (Stark, Rouse, & Kurowski, 1994). Although research on child and adolescent depression is increasing, there continues to be a paucity of cross-cultural research focusing on child and adolescent depression.

Similar to the population as a whole, depression is considered a serious problem in most Native American communities. It has been suggested that Native Americans have greater needs for social, health, and mental health services than any other ethnic group in the U.S. (Manson, 1982). Renfrey (1992) suggested that the economic, social, and physical problems occurring in Native American communities put Native Americans at even greater risk for further mental health problems. Native American adolescents in particular are believed to be at significant risk for mental health problems, such as depression (Phinney, Lochner, & Murphy, 1990).

Diagnosis and Prevalence

Childhood and adolescent depression is considered to consist of a symptom cluster very similar to that found in adults with depression, but it is unknown whether the clinical manifestations of the disorder are identical (Kazdin, 1989). Manifestations of depression across different cultures are also examined under the same symptom cluster, although it is believed that some differences are in fact present (Politano, Nelson, Evans, Sorenson, & Zeman, 1986). Unfortunately, the literature lacks a clear understanding of both cultural differences and developmental differences in the expression of depressive symptoms. Therefore, a general discussion of depressive symptoms will be presented with the addition of cultural and developmental factors.

An essential feature of a major depressive disorder is the presence of one or more depressive episodes. A major depressive episode includes a loss of interest or pleasure in usual activities or a sad and depressed mood along with other symptoms such as: disturbances of sleep; a change in activity level; appetite disturbance and associated weight loss or gain; a loss of energy and fatigue; negative feelings about self, such as feelings of worthlessness, guilt, and self-blame; difficulty concentrating; and recurrent thoughts of death or suicide (American Psychiatric Association, 1994).

Children are currently diagnosed with depression based on this adult description and definition of depression. Unfortunately, as discussed, the developmental course of depression is largely unknown; therefore, we do not have specific symptoms for depression that describe a particular age or developmental level. According to the current Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric

Association, 1994), the core symptoms of depression for children are similar to those of adults. However, there are some data that suggest that certain characteristics of depression may be more or less prominent at different levels of development. For example, according to the DSM-IV, children are more likely to experience somatic complaints and social withdrawal and are less likely to experience psychomotor retardation, hypersomnia, and delusions compared to adolescents and adults. In addition, children and adolescents with depression may have a mood that is more irritable than sad, may experience a quick drop in school grades, and may fail to reach expected weight gains for regular development.

There is also a scarcity of research on the phenomenological aspects of depression and symptom expression among Native Americans. Although research is limited, Manson (1995) suggests that Native Americans may be more likely to express emotions in a relational nature (i.e., "I've been disappointing my family"), as compared to discussing emotions unique to the individual (i.e., "I am feeling sad"). In addition, given the lack of differentiation between body and mind in most Native American traditions, it is common to see affective concerns expressed in terms of somatic concerns (Manson, 1995). In addition, one study (Yeager, Lokken, & Zevenbergen, 2002) that examined Northern Plains Native American youth, found factor structures on the Children's Depression Inventory to be similar to a Caucasian sample of youth, but found some differences in regard to individual items, further indicating that some cultural differences in symptom expressions may exist. The lack of research on phenomenological aspects of depression in Native Americans is in part due to the difficulty of making generalizations

3

among Native American communities (Manson, 1995). Although Native American communities have many commonalities, they also have many differences; hence, making generalizations regarding all Native Americans may do little to elucidate particular symptom expressions found among a particular tribe. Diversity among tribes as well as differing levels of acculturation may influence symptom expression and make generalizations difficult (Manson, 1995).

Lifetime prevalence rates for major depressive disorder in an adult community sample have been found to be approximately 20% for women and 10% for men (Weissman & Boyd, 1985). Research has indicated that each year approximately 12% of adult women and 7% of adult men are affected by a depressive illness (National Institute of Mental Health, 2000). Epidemiological studies have found that up to 2.5% of children and up to 8.3% of adolescents suffer from Major Depressive Disorder (MDD) or Dysthymic Disorder (DD) (Birmaher, Ryan, Williamson, Brent, & Kaufman, 1996). In a community study, point prevalence rates of DSM-III-R (American Psychiatric Association, 1987) diagnosable depressive disorders ranged from 3-8% among adolescents, and by age 18, approximately 20% of all teenagers had experienced at least one episode of depression that met DSM-III-R criteria (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). Some data from the Flower of Two Soils project suggests that among Navajo children, 12.6% to 17.8% were found to have some depressive symptoms, while 2.6% to 6.1% displayed clinically significant levels of depression (Morris, 1999). However, the diversity of Native American communities means that prevalence rates for one tribe may be very different from those of another tribe.

4

Consequently, generalizations of Native American prevalence rates may not be indicative of rates within a specific tribe (Manson, 2000). Overall, it is not clear if the rate of depression among Native American adolescents is significantly different from the general population of adolescents (Beals et al., 1997), in part due to a lack of comprehensive epidemiological studies (McShane, 1988). Comprehensive prevalence studies are now underway and may help us understand the prevalence rates more accurately in the future (Beals et al., 1997).

Depression and Associated Risks

Information on child and adolescent depression continues to be limited, but most researchers agree that depression is a serious condition among children and adolescents that requires effective intervention (Stark et al., 1994). Depression has been related to impairment in physical and social functioning that is comparable to or worse than that found in other chronic medical conditions. In addition, depression has been related to reports of greater pain and worse perceived health compared to other chronic medical conditions (Wells et al., 1989). Depressive disorders have been found to place children and adolescents at risk for suicide, substance abuse, physical illness, early pregnancy, and poor academic, vocational, and psychosocial functioning (American Academy of Child and Adolescent Psychiatry, 1998). Adolescent depression has been found to relate to increases in suicide and hospitalization, as well as decreases in vocational and social functioning that persist into adulthood (Weissman et al., 1999). In addition to the myriad of non-lethal health and behavioral outcomes, depression is also related to suicide in youth (Cohen-Sandler & Berman, 1980). Over the past several decades, suicide rates

5

among young people have increased significantly, tripling between 1952 and 1996. A startling finding is that suicide rates among youth 10 to 14 years old increased by 100% from 1980 to 1996. Currently, suicide is the third leading cause of death among people 15-24 years old, only behind unintentional injury and homicide (U.S. Public Health Service, 1999). The increasingly high rate of suicide is of particular concern within many Native American communities. According to a 1990 Office of Technology Assessment (OTA) report, suicide rates among Native American youth 15-19 years of age was 4 times the rate of suicide found among all races of youth 15-19 years of age in the U.S. At this alarming rate, it is not surprising that suicide was found to be the second leading cause of death among Native American youth in this age group. In addition, the suicide rate for adolescent Native American boys was found to be 9 times higher than the rate among Native American girls in the same age range (OTA, 1990). Although suicide and depression are different, depression is a significant risk factor for adolescent suicide behaviors (Bechtold, 1994).

Adolescence is an important time in identity development, and is a particularly complex and challenging time for minority adolescents (Phinney, et al., 1990). As youth move from childhood to adolescence, they encounter more complex issues relevant to their ethnicity. Early adolescence and later adolescence, in particular, are believed to be the most turbulent times of adjustment. According to a review by Yates (1987), Native American children have prevalence rates of emotional disturbance similar to those found in the majority culture, but that in early adolescence emotional disturbances among Native American youth begin to escalate and become more prevalent than in the majority

6

culture. This trend continues into later adolescence, where the greatest numbers of emotional problem occur within many Native American communities. According to Erickson (1968) the primary developmental task of adolescence is identity development. A review of the literature by Waterman (1984) suggests that lack of ego identity is related to ineffective emotional/behavioral functioning. Due to the struggles encountered in this stage of development, adolescents are believed to be at an increased risk for mental disorders such as depression. Phinney et al. (1990) suggests that minority adolescents have two primary developmental challenges that place them at increased risk: (a) the recognition and realization of stereotypes that accompany minority status and (b) the challenge of existing within two cultural contexts, trying to identify with two sets of norms and values.

Due to the high reoccurrence rate of depression throughout the lifespan and its associated risks, it is believed to be important to treat childhood and adolescent depression quickly and effectively (Kovacs, 1996). In addition, children and adolescents with depression are often suffering from comorbid psychiatric diagnoses. Children with depression have been found to have concurrent anxiety (for review see Compas & Oppedisano, 2000), and oppositional/conduct disorder (Angold & Costello, 1993), while adolescents with depression have been found to have comorbid psychiatric disorders such as anxiety, conduct disorder, and substance abuse (Fergusson & Woodward, 2002).

Etiological Theories of Depression

Numerous biological, psychological and environmental theories of depression have been proposed in the literature. Biological theories consist of both genetic and

biochemical models of depression that are based on genetic research, somatic symptom patterns, and the responses of depressed persons to pharmacotherapy. Psychological models of depression include psychodynamic, behavioral, and cognitive theories of depression. Environmental theories consist of social, economic, historical, and political factors. The various etiological theories of depression are believed relevant to various cultural groups. However, the high rate of depression among Native Americans coupled with the poor social, economic, and political realities of many reservation communities, suggest that environmental theories may play an increasingly important role in understanding depression in these settings. The etiological theories for depression in children, adolescents, and adults are believed to be similar in nature. Etiological theories have been examined primarily in adults, but it is less clear whether these theories relate as well to depression in children and adolescents as to adult depression. Unfortunately, only scarce research has been done on the etiology of child and adolescent depression. What has been done appears to support the etiological models for adults, suggesting that there is a valid reason to assume some similarity. It is vital that more research on the etiology of depression in children and adolescents be conducted in order to understand and treat child and adolescent depression.

Genetic Evidence

Studies of families, twins, and adoptees have supported the theory that depression has a heritable component. In family studies, children have been found to have an increased risk for depression if their family has a history of depression, particularly if the family member with depression was a parent (Hammen, 1991). In a study of adults by

Goldin and Gershon (1988), first-degree relatives of patients with unipolar depression were interviewed. The study found that among first-degree relatives of patients with unipolar depression, the incidence of unipolar depression ranged from 14% to 18%; whereas, among first-degree relatives of control subjects, the incidence of unipolar depression ranged from 4% to 6%. These findings suggest that hereditability may be an important component in explaining the etiology of depression. However, these studies do not separate heritability components from other environmental and psychological components that are also believed to be important components in explaining the etiology of depression.

Twin studies that examined concordance rates for monozygotic and dizygotic twins found a higher incidence rate of unipolar depression among monozygotic twins compared to dizygotic twins, suggesting a heritability component. Concordance rates for monozygotic twins were approximately 40%, whereas concordance rates for dizygotic twins were approximately 11% (Allen, 1976). Adoptee studies have not always supported the hereditability of unipolar depression (Kendall & Hammen, 1995); however, a study by Wender and colleagues (Wender et al., 1986) of adoptees found a strong hereditability component. They found that biological relatives of adopted individuals with depression were eight times more likely to have a mood disorder than were non-related controls. Taken together, these adult studies suggest that hereditability may be a component in the etiology of depression. Nonetheless, the environmental and psychological factors that cannot be separated out in these studies are also believed to play a critical role in the etiology of depression.

9

Neurotransmitter Theories

Abnormalities in neurotransmitter systems have been proposed as a factor in the development of depression. Neurotransmitters are chemical messengers released by presynaptic neurons that travel across a synapse to stimulate postsynaptic neurons. The amount of neurotransmitters influence the level of neurological activity in the brain. The neurotransmitters norepinephrine and serotonin, referred to as monoamines, influence an individual's emotional, psychomotor, and biological functions. This subset of neurotransmitters is believed to play a role in the etiology of adult depression. The monoamine hypothesis is that a low level of norepinephrine or serotonin leads to depression and that a high level of these monoamine neurotransmitters (particularly norepinephrine) leads to a state of mania. This hypothesis was supported by several older studies (e.g., Bunney, Murphy, Goodwin, & Borge, 1970), but more recent research appears to be refuting this hypothesis. Antidepressant drugs, such as monoamine oxidase (MAO) inhibitors and tricyclic drugs, have been found to increase the level of monoamine neurotransmitters. It is now known that the level of monoamine neurotransmitters increase initially but return to previous levels after only a few days. Moreover, antidepressant drugs are not believed to be effective until after one to two weeks of use. It is now believed that it is not a simple increase in monoamine neurotransmitters that help antidepressant drugs alleviate depression. More current research suggests that it is the dysregulation of the neurotransmitter system that leads to depression (Kendall & Hammen, 1995), and in particular, the postsynaptic mechanisms of action (e.g., Duman, Heninger, & Nestler, 1997). Research on the role of

10

neurotransmitters in the etiology of depression has focused on adults and has yet to be examined in children and adolescents with depression.

Neuroendocrine Theories

Currently, a great deal of research has focused on the role of the neuroendocrine system, a system of complex interconnections between the brain and certain hormones and organs. Neurotransmitters such as norepinephrine, serotonin, and dopamine interact with the endocrine system by influencing the timing and release of hormones, and hormones influence neurotransmitter activity in turn (Kendall & Hammen, 1995). Different neuroendocrine systems have been implicated in depression. The hypothalamic-pituitary-adrenal (HPA) axis is one system believed to be related to depression. This system was implicated due to its relation to the hormone cortisol, which is present in the body during stress. A higher level of cortisol has been found in depressed adults; however, these findings have not been observed consistently in children (Puig-Antich, 1987). The hypothalamic-pituitary-thyroid (HPT) axis has also been implicated as a factor in depression. The HPT regulates the thyroid hormone, which has been associated with symptoms such as fatigue, lethargy, and sleep disturbance that are often found in individuals with depression (Papolos & Papolos, 1997). Other endocrine systems have been examined in adults (for review, see Thase, Frank, & Kupfer, 1985), while growth hormone abnormalities have been implicated in depression in children (Emslie, Weinberg, Kennard, & Kowatch, 1994). Sleep abnormalities, in particular patterns of rapid eye movement (REM), have been studied in relation to depression.

Research suggests that sleep abnormalities may be indicative of depression in adults (Puig-Antich, 1987) as well as in children (Emslie et al., 1994).

Psychodynamic Theories

Psychodynamic theories of depression have primarily focused on the idea that after a loss, anger is turned inward on the self, leading to depression. Limited research has examined this theory and the few empirical studies conducted have not supported this theory (e.g., Weissman, Klerman, & Paykel, 1971). An area of focus in the psychodynamic literature has been on the importance of the interpersonal relationship. Harry Stack Sullivan (1953) initially wrote about the importance of understanding interpersonal relationships, and more recently, Weissman and colleagues have developed a short-term interpersonal therapy for depression. This therapy is based on the view that depression exists in an interpersonal context, and that it is primarily influenced by significant relationships with others (Weissman & Paykel, 1974). Support for this theory comes from the success of short-term interpersonal psychotherapy (Elkin, 1994) as well as studies that show how chronic and social/ interpersonal stress can be related to the onset of depression (Illfeld, 1977). Interpersonal psychotherapy has recently been modified for use with adolescents with initial studies indicating that the intervention is successful (Mufson, Weissman, Moreau, & Garfinkel, 1999).

Behavioral Theories

According to Lewinsohn's behavioral theory of depression, depression results from a loss or lack of response-contingent positive reinforcement. Lewinsohn hypothesized that this lack of positive reinforcement may be the result of three factors: a

scarcity of reinforcers in the individual's environment; a lack of social skills, which leads to a decrease in positive interactions (reinforcements) with others; or an inability to experience pleasure due to anxiety (Lewinsohn, 1974; Lewinsohn, Biglan, & Zeiss, 1976). According to Lewinsohn's theory, this lack of response-contingent positive reinforcement is believed to be a critical antecedent to depression. Support for this theory comes from multiple sources. One of the primary treatments for individuals with depression is to have them participate in events that are pleasurable and rewarding to them. Behavioral interventions for depression that focus on behavioral activation have been successful (Zeiss, Lewinsohn, & Munoz, 1979). Also, several studies have demonstrated a relationship between social skill deficits and depression in adults (Gotlib & Asarnow, 1979) and adolescents (e.g., Puig-Antich et al., 1985). It is believed that a lack of social skills may increase an individual's risk for depression as well as help to maintain and prolong an individual's depressive course. The success of behavioral therapy interventions and research on interpersonal skill deficits in persons with depression support Lewinsohn's model of depression in adults as well as in children and adolescents.

Cognitive Theories

Proponents of cognitive theories of depression assert that negatively biased cognitions are the core etiological elements of depression. The best-known theory was developed by Beck (Beck, 1967; Beck, Rush, Shaw, & Emery, 1979). According to Beck, in childhood or adolescence some people develop a negative schema, that is, they develop a tendency to see the world negatively. Beck hypothesized that these negative

13

schemata are further maintained by negative cognitive biases that lead people to misperceive reality. Together, negative schema and negative cognitive biases maintain what Beck referred to as the "negative triad of depression," having a negative view of self, world, and future. Depressed individuals view themselves as ineffective, inadequate, and worthless; their environment as overwhelming and presenting insurmountable obstacles; and the future as full of despair and hopelessness. This negative view of self and the world around them is seen as a deviation from regular thought processes. Moreover, their negative views are often not supported by available evidence (Young, Beck, & Weinberger, 1993). This cognitive theory also proposes that individuals with depression have particular thinking patterns that distort reality and exacerbate their negative thinking patterns. These thinking patterns include biases such as all-or-nothing thinking, overgeneralization, selective abstraction, arbitrary inference, and magnification and minimization (for a review of cognitive biases, see Beck et al., 1979). Emery (1983) has found evidence for the cognitive distortion model of depression in children. Clinical observations (Beck, 1967), as well as many empirical studies, support Beck's theory of depression by finding that individuals with depression have more negative thoughts and are more hopeless regarding themselves, their environment, and the future as compared to nondepressed individuals (e.g., Alford, Lester, Patel, Buchanan, & Giunta, 1995). However, it is not clear from the research whether there is a causal relationship in which negative thoughts lead to a depressed mood. Some research has found that manipulating mood can show a change in thinking patterns (e.g., Isen, Shaiken, Clark, & Karp, 1978). Many believe that the relationship probably works both

14

ways, and that thoughts can influence mood as well as mood influencing thoughts. More longitudinal research is being done to determine the temporal relationship of negative thoughts and depressed mood (e.g., Stader & Hokanson, 1998).

Another cognitive theory is the helplessness/hopelessness theory. This theory has been modified throughout the past 30 years. Initially, Seligman presented the learned helplessness theory (Seligman, 1974). Seligman proposed that depression is caused by an individual's sense of lack of control or helplessness, which was learned from having past unpleasant experiences and traumas that the person tried unsuccessfully to control. A revised version of this theory was proposed by Abramson, Seligman, and Teasdale (1978). They proposed a theory of depression based on the concept of attribution. Attributions are people's patterns of explaining events. Attribution theory primarily examines the following three dimensions: internal/external, stable/unstable, and global/specific. Attribution theory proposes that depressed individuals have more internal, stable, and global attribution patterns for negative events and more external, unstable, and specific attribution patterns for positive events. Hence, depressed individuals view negative events as caused by an internal source that is unlikely to change and that is broad or global in nature, and positive events as caused by an agent outside of themselves that is likely to change and is related to this specific circumstance. It is theorized that when an individual with a depressive attribution style is faced with multiple stressors they are more likely to respond with a depressed mood than someone without a depressive attribution style, suggesting a diathesis-stress model (Peterson & Seligman, 1984). This theory has been supported by some research, suggesting that a

15

negative attributional style may lead children to be at risk for depression (Kaslow et al.,

1999). The most recent version of this theory (Abramson, Metalsky, & Alloy, 1989) is

based on a diathesis-stress model. The model proposes that a diathesis, such as a

negative attributional style or negative self-esteem interact with negative life stressors to

create a state of hopelessness that in turn leads to depression. This state of hopelessness

is an expectation that negative outcomes are likely and that positive outcomes are

unlikely and that the individual has little control over changing the situation. Studies

have supported the hopelessness theory in adults as well as in adolescents (e.g., Joiner,

2000). Although cognitive theories of depression, primarily based on adults, appear to be

appropriate for children and adolescents, there continues to be a lack of evidence

supporting these models for children and adolescents.

Environmental Theories

Environmental theories consist of social, economic, historical, and political

factors. Socioeconomic status has often been related to difficulties in

emotional/behavioral functioning and is believed to play a large role in increasing stress,

often leading to a state of depression (Dohrenwend et al., 1980). Dohrenwend et al's

(1980) additive burden corollary theory suggests that when individuals with limited

resources to handle adversity experience stress these resources are further drained. This

loss of already limited resources is related to increased feelings of stress when faced with

adversity, often leading to feelings of helplessness and loss of control within these

individuals. In addition, the role of the environment is often considered an important

16

aspect in behavioral theories, as well as in some cognitive theories, which stress the role of perceived helplessness in situations where people may feel disempowered.

Socioeconomic as well as historical and political factors are particularly important to examine when working with minority and disenfranchised populations. For Native Americans, many reservations have high unemployment rates and have an economy that is chronically depressed. For example, on average 63% of Native Americans in North Dakota are unemployed, compared to the U.S. rate of 4.3% (North Dakota's First Citizens, n.d.). In addition, on many North Dakota reservations the poverty rate is three times that found among North Dakota's population as a whole (North Dakota's First Citizens, n.d.). The reality of poverty on these reservations strikes at the core of the community, leading to poor health, inadequate housing, and ineffective transportation systems (Beauvais & LaBoueff, 1985). LaDue (1994) says that in Native American communities the "despair, depression, and loss of the family and community lead to a profound cultural trauma that has persisted to the present" (p. 98). Phinney et al. (1990) discusses how the disruption of the socialization process within the Native American culture has been linked to emotional distress, including depression. The political and social realities of many Native Americans also include a sense of loss of power and control over their own self-determination. Depression is believed to be a common response to this perceived loss of control and autonomy (Beauvais & LaBoueff, 1985). Furthermore, growing up as a member of a severely disadvantaged minority group, as well as suffering multiple emotional, physical and social difficulties may likely create a sense of hopelessness and helplessness (Yates, 1987) that research has shown is

17

correlated to depression (e.g., Seligman, 1974). Also, intergenerational conflict, a political and social factor, which is common among minority populations, has been found to lead to emotional distress (Boggs, 1956; Szapocznik & Truss, 1978). Intergenerational conflict is considered an acculturative stress as it occurs as young people acculturate more rapidly then their parents and elders. This creates a stress within the family as parents often feel abandoned and devalued as their children choose to acculturate to the majority culture (Yates, 1987). Intergenerational conflict is just one example of an acculturative stress, which more generally applies to stress caused by having to interact with a culture other than one's own (Berry, 1998). The high rate of depression among Native Americans and its relation to the poor social, economic, and politic realities of many reservation communities, suggest that environmental theories may play an increasingly important role in understanding depression in these settings.

The precise etiology of depression remains unknown, but many theories have been examined and supported, suggesting that the etiology of depression is multifaceted. Etiological explanations of depression in children and adolescents are very limited, but many of the etiological studies that have been conducted on adults are believed to be useful in understanding child and adolescent depression. When examining studies on child and adolescent depression, biological, psychological, and environmental models of depression are supported. In terms of biological studies, heritability is believed to be a component in the etiology of depression, although various environmental and psychological factors cannot be separated out of the studies supporting this research base. Limited research on the neuroendocrine systems has found etiological support for child

18

and adolescent depression; however, the research findings contain mixed results. In terms of the psychological models of depression, psychodynamic theories have rarely been examined with children and adolescents. One exception to this, interpersonal psychotherapy for adolescents (IPT-A), has been found to be effective with adolescents, indicating that interpersonal relationships may be an important etiological factor in depression. Behavioral theories of depression for children and adolescents have received the most support. The success of behavioral interventions and research on interpersonal deficits in persons with depression supports the behavioral theory in children and adolescents. Although cognitive theories of depression, primarily developed for and with adults, appear to be appropriate for children and adolescents, there continues to be a lack of research data and clinical observations regarding the role of depressive cognitions in child and adolescent depression. Environmental theories have particular relevance with children and adolescents from minority and disenfranchised populations. Given the difficult socioeconomic and historically traumatic environments of many Native American communities, environmental theories become increasingly relevant.

Effective Treatments for Depression

Most treatment outcome research for children and adolescents has examined cognitive-behavioral therapy (CBT). Interpersonal psychotherapy (IPT), however, is also beginning to receive some attention. Family and dynamic therapies have received minimal research, so little is available on their effectiveness with children and adolescents with depression. Traditional Native American therapies have also received minimal attention in the literature; hence little is available on their relative efficacy.

19

Cognitive-behavioral Therapy

CBT refers to a cluster of treatment techniques that focus on changing negative

cognitions and behaviors. CBT is a short-term therapy that maintains focus on current

situations. CBT is characterized by being a structured treatment, directed by the therapist

that incorporates homework assignments into an intervention that focuses on

accomplishing specific goals through the use of both cognitive and behavioral strategies.

CBT can be conducted in a group or individual format. Below are descriptions of

different components or techniques that are often used in CBT:

> *cognitive restructuring* – a component focused on working toward changing an
>
> individual's maladaptive thoughts, causal attributions, negative self-statements,
>
> and cognitive distortions.
>
> *self-control therapy* – a technique used to teach skills in self-monitoring, self-
>
> evaluation, and self-reinforcement (Rehm, 1977).
>
> *pleasant event scheduling* – a technique used to increase the number of
>
> pleasurable events in which an individual participates.
>
> *social skills training* – training utilizing different strategies, such as modeling
>
> appropriate social behaviors or role playing ways to interact in social situations, to
>
> improve an individual's social interaction skills.
>
> *relaxation training* – various relaxation techniques, such as progressive muscle
>
> relaxation or guided imagery, used to instruct an individual on how to relax when
>
> they become tense.

problem-solving training – the instruction of problem-solving steps to teach good decision making skills. The following steps are an example of what may be used: identify the problem, generate alternative responses or solutions, evaluate the consequences of each response or solution, and select the solution or response that is preferred.

Interpersonal Psychotherapy

IPT is a brief psychodynamic therapy based on the theory that depression exists in an interpersonal context and that it is influenced by significant relationships with others (Weissman & Paykel, 1974). Treatment is short-term and oriented to current interpersonal relationships. One of the primary goals of IPT is to improve interpersonal functioning by enhancing interpersonal communication skills. In IPT, depression is conceptualized as being related to one of four problem areas: interpersonal role disputes, grief, role transitions, or interpersonal deficits.

Family Therapy

Family therapy generally focuses attention on the entire family, taking the immediate attention off of the child or adolescent with depression. Family therapy examines the interaction patterns within a family. The therapist works with the family to change maladaptive family interactions and to improve family relationships. Therapists try to understand how the family works, actively reframing the child's or adolescent's problems as a function of the families' interpersonal relationships and interactions, taking the responsibility for problems away from the child.

21

Psychodynamic Therapy

Themes consistent with psychodynamic theory often include the attachment relationship with the caregiver, as well as issues of guilt and inferiority. The early experiences of the child or adolescent are explored, while transference, as well as other principles of psychodynamic therapies, are employed to understand the child's or adolescent's depression (Weisz, Valeri, McCarty, & Moore, 1999). Play therapy is typically considered a psychodynamic treatment. Play therapy creates an environment in which a child is able to play with the therapist, having the opportunity to express himself/herself in a non-threatening environment. The child's play behavior is observed and analyzed in order to determine current psychological issues. In turn, through the play experience, the therapist can communicate with the child and enhance the child's self-esteem (Weisz et al., 1999).

Traditional Therapies

Many traditional Native American therapies differ depending on the tribe. Some examples of traditional therapies are healing traditions such as the talking circle, the sweat lodge, and the four circles. All of these traditional means of healing have been used to treat depression. The talking circle is a form of group therapy, typically held in a circle formation. The sweat lodge consists of an often extended ceremony typically held in a circular dome-shaped structure. The four circles refers to a "process for visualizing the significant relationships in one's life" and analyzing these relationships (Manson, 1992). Please refer to Manson (1992) for a more detailed understanding of these traditional Native American therapies.

22

Treatment Outcome Results

Minimal research has examined specific treatments for depression with Native

American adolescents, hence we will largely rely on treatments which have been found to

be effective within the Native American community (with adults and adolescents on

issues relevant to or closely related to depression) and on treatments found to be effective

from the broad literature on children and adolescents with depression.

Treatments in the Native American Community

A variety of treatment modalities are used within Native American communities.

Some traditional approaches (i.e., the talking circle, the sweat lodge, the four circles) are

used to treat depression as well as non-traditional approaches such as psychoanalysis,

group therapy, family-network therapy, and cognitive-behavioral therapy (Manson,

1992). The use of psychoanalysis with Native Americans has been described by

Devereux (1951), but the literature in this area is scarce. Family-networking therapy has

received minimal attention as well, with LaFromboise and Low (1989) making some

suggestions for increasing the cultural sensitivity of family therapies. Group therapy is a

commonly used modality among Native Americans (Edwards & Edwards, 1984).

Manson (1992) suggests that it may be a good treatment modality because of the

importance of group collaboration and responsibility within the social ecology of Native

American culture. In addition, many Native American cultures have a history of utilizing

groups for both social and religious activities, perhaps increasing their level of comfort

within the group setting. Cognitive-behavioral treatments continue to need more

evaluation, but research has generally supported the efficacy of CBT with Native

23

American persons (LaFromboise & Howard-Pitney, 1995; Manson & Brenneman, 1995).

The assertiveness skills training program, developed by LaFromboise (1983) for use with

Native Americans, is one intervention example. This program has been conducted with

Native American high school students (LaFromboise & Rowe, 1983) as well as with

adults. In addition, cognitive-behavioral treatment studies have primarily been conducted

in a group format, perhaps capitalizing on some of the advantages of group therapy.

Manson and Brenneman (1995) adapted the Coping with Depression Course

(CWD) (Lewinsohn, 1974; Lewinsohn, Munoz, Youngren, & Zeiss, 1978) to be used

with older Native Americans suffering from chronic disease. The course was provided as

a prevention intervention for depression and the name of the course was changed to the

Coping with Stress Course (CWS), to remove stigma from attending the group. The

effectiveness of the CWS course was examined with 48 Native American adults (aged 45

years or older) who were found to be at risk for depression. Adults were included in the

group if they had a physical illness such as diabetes, rheumatoid arthritis, or coronary

heart disease, and received a score higher than 5 and lower than 15 on the Center for

Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), which represents

minimal to moderate depressive symptoms. Because the course was a prevention

intervention, adults with severe depression at intake were excluded from the course.

Adults were randomly assigned to one of two conditions: (a) Coping with Stress course

(CWS) or (b) wait-list control (WLC). The CWS course was designed to teach skills that

are often deficient in depressed persons. The beginning of the course concentrated on

explaining the social-learning theory of depression and providing a rationale for learning

24

basic self-change skills. Subsequent sessions focused on the following areas of training:

(a) relaxation, (b) increasing pleasant activities, (c) changing irrational thoughts and

increasing positive thinking, and (d) social skills. The closing sessions taught skills

regarding maintaining gains. Modifications were made to increase the cultural sensitivity

and relevance of the course. Modifications for language level, vocabulary, conceptual

clarity, and culturally recognizable problem situations, skills, and coping strategies were

made to make participants more receptive to the class and make the class material more

relevant to current stressors in the participants lives. The class material consisted of

structured lectures, activities, homework assignments, a workbook, and a textbook. The

class was administered in a community college setting to decrease stigma from attending

a therapy group. Sixteen 2-hour group sessions, including six to eight adults in each

group, were held over a 16-week period of time. The wait-list control group was given

treatment at the end of the 16-week study. Adults' level of depression, pleasant events,

locus of control, life satisfaction, health status, perceived pain, health care utilization and

satisfaction, coping, and social support were assessed at pre-treatment and post-treatment.

Depression was assessed with the CES-D.

At post-treatment, adults in the CWS condition reported significantly lower levels

of depression than they had reported at pre-treatment. In addition, adults in the CWS

condition had significantly lower levels of depressive symptoms at post-treatment when

compared to adults in the wait-list control condition. A similar pattern was found for

pleasant events with adults in the CWS condition reporting more pleasant events at post-

treatment as compared to pre-treatment and reporting more pleasant events at post-

treatment than adults in the control condition. This indicates that the CWS course was effective at decreasing depressive symptoms in the short-term. No-long term follow-up was conducted. This study was methodologically sound, utilizing a standardized treatment protocol, a wait-list control group, robust inclusion/exclusion criterion, and a lengthy intake interview. The CWS course was carefully modified to be culturally sensitive and relevant to an older Native American population. Limitations of this study include the high proportion of female participants ($n = 19$) compared to male participants ($n = 3$), as well as some comprehension difficulties with cognitive components of the treatment. Overall, this study suggests that in the short-term, CWS, a cognitive-behavioral treatment based in social-learning theory, is an efficacious prevention intervention for depression among older Native Americans. This study was conducted in a non-stigmatizing manner and serves as a model for future research with older Native Americans.

Another skills-training model was evaluated by LaFromboise and Howard-Pitney (1995). The Zuni Life Skills Development (ZLSD) curriculum (LaFromboise, 1991) was developed as a suicide prevention program for Zuni high school students and was administered as part of the language arts classes. The program was evaluated with 62 students (aged 14-19 years), one-half participating in the intervention and one-half serving as a control condition. Due to school constraints neither students nor classes were randomly assigned to conditions. The ZLSD curriculum focused on training students specific skills in the following areas: (a) self-esteem, (b) stress and emotions, (c) communication and problem-solving, (d) recognizing and eliminating self-destructive

26

behavior, (e) information on suicide, (f) training on suicide intervention, and (g) personal and community goal-setting. This curriculum was developed specifically for Zuni adolescents, ensuring a high degree of cultural sensitivity and relevance of materials. LaFromboise discussed how the four fundamental components of the Zuni Life Skills Program (psychoeducation, modeling, skill rehearsal, and feedback) are consistent with values within most Native American communities. In addition, the skills training approach is believed to be non-pathological, non-stigmatizing, flexible to cultural modification, and consistent with Native American culture and values. The course was held three times per week for 30 weeks. Students' levels of suicide vulnerability, hopelessness, depression, self-efficacy, suicide intervention, and problem-solving skills were assessed at pre- and post-treatment. Suicide vulnerability was assessed with the Suicide Probability Scale (Cull & Gill, 1988), hopelessness was assessed with the Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974), and depression was assessed with the Indian Adolescent Health Survey (Greer, 1988).

Results indicated that at post-intervention, students who participated in the ZLSD classes were significantly less suicidal and more hopeful than students in the control condition. At post-intervention, no differences were found in the level of depression between students in the intervention condition as compared to students in the control condition. No long-term follow-up was conducted. Strengths of this study include the use of a developed curriculum that was culture specific and monitored for intervention fidelity, the use of a control condition, and the use of multi-method assessment procedures. The study is limited by the lack of random assignment and follow-up data.

27

In sum, this research indicated that the skills-based curriculum (ZLSD) was effective at decreasing suicidality and hopelessness in high school students when evaluated in the short-term.

The American Indian Life Skills Development Curriculum (LaFromboise, 1992), which was developed as a suicide prevention program from Zuni youth, was evaluated by Buhs (2000) among a group of American Indian and Caucasian adolescents in the Midwest. The program was evaluated with 25 students (aged 13-18 years) in the Math Science Initiative Program (MSIP), a program for low-income first generation college bound students. Ten American Indian and 15 Caucasian students participated. Participants were divided into two groups based on age, and were administered the course simultaneously, meeting daily for 50 minutes over the six weeks of the MSIP. The Life Skills course curriculum focused on training students specific skills in the following areas: (a) self-esteem, (b) stress and emotions, (c) communication and problem-solving, (d) recognizing and eliminating self-destructive behavior, (e) information on suicide, and (f) training on suicide intervention. This curriculum was developed specifically for American Indian adolescents, ensuring a high degree of cultural sensitivity and relevance of materials. Students' levels of self-esteem, depression, suicide recognition and intervention, and problem-solving skills, were assessed at pre-, post-treatment, and 3-month follow-up. Self-esteem was assessed with the Tennessee Self-Concept Scale - Second Edition (TSCS-2; Fitts, 1965), depression was assessed with the CES-D, suicide recognition and intervention, as well as problem-solving skills were assessed with an

adaptation of the Suicide Attitude Vignette Experience Scale (SAVE; Stillion, McDowell, & Shamblin, 1984) and interviews.

Results indicated that at post-intervention, students that participated in the classes had significantly higher self-esteem scores and significantly lower depression scores. These gains were maintained at 3-month follow-up. At post-intervention and 3-month follow-up, no differences were found in the knowledge of suicide recognition and intervention, or problem solving skills. Strengths of this study include the use of a developed curriculum that was culture specific and monitored for intervention fidelity. The study is limited by the lack of a control group, therefore it is unclear if differences can be contributed to the class or may be artifacts of the passing of time. In sum, this research indicated that the American Indian Life Skills Curriculum was effective at increasing self-esteem and decreasing depressive symptoms in adolescents up to a 3-month follow-up.

Overall, the success of these skill-based cognitive-behavioral intervention programs suggest that CBT may be an effective form of intervention for Native Americans at-risk for depression or suicidal behaviors when culturally appropriate modifications are used. It is unclear how depression is influenced by the Life Skills curriculum for adolescents as findings are mixed on the curriculum's ability to lead to changes in depression over time. Further research on this curriculum needs to examine the effectiveness of this treatment for different Native American communities and determine how it influences depressive symptoms. Research also needs to examine what cultural modifications are essential to the effectiveness of the treatment. In all three

29

studies the use of the skills-based approach, allowing for structure and flexibility within the CBT framework, and the non-stigmatizing group format of the groups make them effective and acceptable treatments for Native Americans at risk for suicide and/or depression.

It is unclear how these treatments would work for Native American adolescents with moderate to severe depression. An extension of this research literature would be to examine these skills-based programs among a group of children with current elevated depressive symptoms. Due to the lack of a research base focusing on Native American children or adolescents with current elevated depressive symptoms, the broad literature on child and adolescents with moderate to severe depression will be consulted and reviewed in detail.

Child and Adolescent Group CBT

Butler, Miezitis, Friedman, and Cole (1980) conducted the first empirical treatment outcome study on groups of children with depression. This study examined the efficacy of two active group interventions with 56 fifth- and sixth-grade students with moderate depressive symptoms. Level of depressive symptoms was based on scores from the Piers-Harris Children's Concept Scale (Piers-Harris; Piers, 1969), the Children's Depression Inventory (CDI; Kovacs, 1992), the Moyal-Miezitis Stimulus Appraisal Questionnaire (Moyal, 1977), and the Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1973). Students that received scores 1.5 or more standard deviations above the mean on two or more of the above measures were included in the study. Students were randomly assigned to one of four conditions: (a) role play

(RP), (b) cognitive restructuring (CR), (c) attention-placebo (placebo), or (d) classroom control (control). The RP groups' objectives were to teach social interaction skills and problem-solving skills. The CR groups' objectives were to help children recognize and change irrational and self-deprecating thoughts, improve listening skills, and see connections between thoughts and feelings. The placebo groups were taught to solve a variety of problems in a cooperative manner. Children in the control group remained in the regular classroom, unidentified to the teachers. The program consisted of 10 1-hour sessions held weekly with seven children in each group. Children's self-esteem, level of depression, stimulus appraisal, and locus of control were assessed at pre- and post-treatment.

Results indicated that students in the RP, CR, and control groups had significantly less depressive symptoms at post-treatment compared to pre-treatment. Children in the RP groups demonstrated the greatest improvement in depression scores, with the CR group receiving the next best improvement. A particular strength of this study was the inclusion of an attention placebo group as well as a no-treatment control group. Furthermore, it is useful that they compared two of the active components of CBT (RP and CR). A weakness of this study was its unusual screening process. For example, a child without moderate depression may have been included in the study due to low scores on locus of control and self-esteem. Taking this into account, this study may be examining the effect of the intervention on some children with moderate depression and some children at risk for depression, decreasing the generalizability of these findings to children with moderate depression. Overall, this study suggests that cognitive

restructuring, and in particular, behavioral role play, may be efficacious treatment modalities for children with moderate levels of depression. The authors also found that the control group improved significantly over the course of the 10 weeks, suggesting that time alone may be a factor in decreasing children's depression scores.

Stark and colleagues (Stark, Reynolds, & Kaslow, 1987) later conducted a rigorous study that examined the efficacy of self-control therapy (SC) and behavioral problem-solving therapy (BPS) with 29 moderately depressed children (aged 9-12 years). Children were included in the study if they received a score of 13 or higher on two administrations of the CDI. Children were randomly assigned to one of three group therapy conditions: (a) SC, (b) BPS, or (c) wait-list control (WL). The SC condition was designed to teach adaptive self-monitoring, self-evaluation, self-attribution, and self-consequating. The BPS condition was designed to teach self-monitoring, pleasant activity scheduling, and problem-solving skills. Twelve 45-minute group sessions, including five children in each group, were held over a 5-week period of time. Children's levels of depression, self-esteem, and anxiety were assessed pre-treatment, post-treatment, and at an 8-week follow-up. Depression was assessed with the CDI and the Reynolds Child Depression Scale (RCDS; Reynolds, 1989). Self-esteem was assessed with the Coopersmith Self-Esteem Inventory (CSEI; Coopersmith, 1975), and anxiety was assessed with the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). Children in the SC and BPS groups had significantly less depression and anxiety at post-treatment and at 8-week follow-up, compared to pre-treatment scores; whereas, the WL condition changed minimally. Self-esteem was found to increase

32

significantly for children in the SC condition only. This study had a rigorous design, including a detailed treatment manual and regular checks of treatment integrity. A weakness of the study was the lack of an attention-control group. These findings indicate that both SC and BPS therapies were effective at decreasing depressive scores in the short-term, and that SC was effective at increasing self-esteem scores in the short-term.

Liddle and Spence (1990) examined the efficacy of a group cognitive-behavioral therapy with 31 children (aged 7-11 years) with moderate depression. Children were included in the study if they had a score of 19 or more on the CDI, and a score of 40 or more on the Children's Depression Rating Scale-Revised (CDRS-R; Poznanski et al., 1984) which was given two weeks after the initial CDI screening. Children were randomly assigned to one of three conditions: (a) social competence training (SCT), (b) attention-placebo control (APC), or (c) no-treatment control (NTC). SCT incorporated cognitive restructuring, social skills training, and interpersonal problem solving into therapy. APC incorporated equal time and attention into the therapy, but no skill-based instructions were given. Children in the NTC group remained in the classroom. Sessions consisted of eight 1-hour sessions held weekly, with four to six children in each group. Children were assessed on depression and social interaction skills at pre-treatment, post-treatment, and at 3-month follow-up. Depression was assessed with the CDI. Results indicated that children in all groups had significantly lower levels of depression at post-treatment and 3-month follow-up compared to pre-treatment. There were no significant differences found for the effect of treatment type at post-treatment or 3-month follow-up. When examining the pre- and post-treatment trends, the depressive symptoms of children

33

in the SCT group decreased more than the depressive symptoms of the children in either control condition. A strength of this study was the inclusion of an attention-placebo control group along with a no-treatment control group. Due to the small sample size in this study, the Type II error rate may have been inflated making it difficult to obtain statistically significant findings. In addition, the intervention may have been too brief, with the time between pre- and post-treatment being too short to recognize changes in depression scores. An examination of mean scores would suggest that the SCT group tended to be more effective than the control conditions, with no noticeable differences in the means of the two control conditions. When the statistically significant findings of this study are examined, children's depression scores appear to change more as a function of time rather than as a function of the therapy group. Yet, when trends (CDI mean scores) are examined, the CBT treatment appears more effective, suggesting that CBT may be more helpful at reducing depression than time or attention.

Weisz, Thurber, Sweeney, Proffitt, and LeGagnoux (1997) conducted a rigorous study with 48 elementary school children (aged 8-12 years) with mild to moderate depressive symptoms. Children were included in the study if they scored 11 or higher on the CDI and/or scored 34 or higher on the Revised Children's Depression Rating Scale (CDRS-R; Poznanski & Mokros, 1996). Children were randomly assigned to one of two group conditions: (a) primary and secondary control enhancement training (PASCET) or (b) wait-list control. PASCET involved components such as pleasant activity scheduling, goal setting, cognitive-restructuring, and relaxation training. Sessions consisted of eight 50-minute sessions held weekly with no more than six children per group. Children were

34

assessed on depressive symptoms at pre-treatment, post-treatment, and at 9-month

follow-up. Depression was assessed with the CDI and the CDRS-R. Results indicated

that at post-treatment and at follow-up, children in the treatment group had significantly

less depressive symptoms than those in the control according to both measures of

depressive symptoms. Strengths of this study include the use of a detailed therapy

manual as well as a measure of treatment integrity. Also, this study was conducted in a

school setting, suggesting that these findings may be applicable to other school settings, a

likely setting for conducting group interventions. The conclusions of this study,

however, are limited to children with mild to moderate levels of depression. Since the

cut-off scores for this study were lower than other studies, the current findings may not

generalize to a more clinically depressed population of children. For children with mild

to moderate levels of depression, this study supports the use of PASCET.

A study by Kahn, Kehle, Jenson and Clark (1990) examined the short-term

efficacy of three school-based small group interventions with 68 moderately to severely

depressed young adolescents (aged 10-14 years). Students were included in the study if

they received a score of 15 or higher on the CDI and a score of 72 or higher on the

Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987) at two stages of

assessment and a score of 20 or higher on the Bellevue Index of Depression (BID; Petti,

1978), a structured clinical interview. Students were randomly assigned to one of four

conditions: (a) CBT, (b) relaxation (RT), (c) self-modeling (SM), or (d) wait-list control

(WL). CBT focused on self-observation, monitoring of mood, goal setting, self-

reinforcement, pleasant activities planning, constructive thinking, and communication

skills, and was an adaptation of The Coping with Depression Course for Adolescents (CWD-A; Clarke, Lewinsohn, & Hops, 1990). RT taught progressive relaxation, relaxation generalization and home practice. SM had students record a video of the student behaving in a non-depressed manner and had the student watch this video weekly. Twelve 50-minute group sessions, including two to five students in each group, were held over a 6- to 8-week period of time for students in the CBT and RT conditions. Students in the SM condition had 12 individual therapy sessions. Students' levels of depression and self-esteem were assessed at pre-treatment, post-treatment, and 1-month follow-up. Depression was assessed with the CDI and RADS; self-esteem was assessed with the Piers-Harris. All active treatment groups had decreased depression and increased self-esteem scores from pre- to post-treatment. At post-treatment, CBT and SM groups showed significant improvement over the WL group, with CBT having the most robust improvement. CBT and RT groups continued to maintain post-treatment improvement at the 1-month follow-up, but the students in the SM group did not maintain improvement. This study had a rigorous design, including a detailed treatment manual, regular checks for treatment integrity, and a three-stage assessment process. Another strength of this study was its use of school personnel in the regular school setting, increasing generalizability of findings. A limitation of this study was the lack of an attention-control group. Therefore, it is unknown whether the three active treatments would be better than an attention-control treatment. This is the first study to examine the efficacy of CBT and RT among middle-school students. This research demonstrates the short-term efficacy of small group school-based interventions such as CBT and RT at

decreasing depression and increasing self-esteem in middle-school students with moderate to severe depression.

The first treatment outcome study for adolescents with depression was conducted by Reynolds and Coates (1986). This study investigated the efficacy of two active short-term group therapies for 30 adolescents (mean age 15.5 years) with moderate depression. Adolescents were included in the study if they received a score of 12 or higher on the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), a score of 72 or higher on the RADS, and a score of 20 or higher on the BID. Adolescents were randomly assigned to one of three conditions: (a) cognitive-behavioral (CBT), (b) relaxation training (RT), or (c) wait-list control (WL). The CBT condition emphasized self-control skills such as self-monitoring, self-evaluation, and self-reinforcement, while the RT condition emphasized progressive relaxation skills. Ten 50-minute group sessions, including about five children in each group, were held over a 5-week period of time. Adolescents' level of depression, self-concept, and anxiety were assessed at pre-treatment, post-treatment, and 5-week follow-up. Depression was assessed with the BDI, the RADS, and the BID. Depression scores at post-treatment and 5-week follow-up were significantly lower for the CBT and RT groups as compared to the WL group. However, no differences were found between the two active treatments at either assessment. The multi-method assessment processes, as well as the inclusion of a WL control group, were strengths of this study. Limitations of this study included the lack of an attention-control group as well as the lack of structured manuals. This research demonstrated that both CBT and RT appear to be effective group treatments in the short-term for adolescents

with moderate depression, but that there were no differences between the effectiveness of the two treatments.

One of the most sophisticated studies on adolescent depression was conducted by Lewinsohn, Clarke, Hops, and Andrews (1990). In this study, Lewinsohn and colleagues examined the impact of parental involvement in cognitive-behavioral group treatments with 59 high school students (aged 14-18 years) who met DSM-III (American Psychiatric Association, 1980) and Research Diagnostic Criteria (RDC; Spitzer, Endicott, & Robins, 1978) for a diagnosis of depression. Adolescents were randomly assigned to one of three treatment conditions: (a) adolescent and parent (AP), (b) adolescent only (AO), or (c) wait-list control (WL). AP and AO groups followed the CWD-A course, a cognitive-behavioral group intervention, which addressed conflict resolution, negotiation, communication, relaxation, controlling negative thoughts, and improving social interactions. The adolescents' participation was equivalent in both the AP and AO groups. In the AP groups the parents attended a separate group in which they learned the skills their children were practicing. Sessions consisted of 14 2-hour sessions held bi-weekly. Children's levels of depression, anxiety, attitudes, pleasant events, social skills, and conflict-resolution skills were assessed at pre-treatment, post-treatment, and at 1-, 6-, 12-, and 24-month follow-up. The wait-list control group was given treatment at the end of the eight-week study, and therefore was not included in the 1-, 6-, 12-, and 24-month follow-up. Depression was assessed with The Kiddie-Schedule for Affective Disorders and Schizophrenia (K-SADS; Puig-Antich & Chambers, 1978), which is a diagnostic

interview, the BDI, and the CES-D. Parental perceptions of adolescent behavior were assessed with the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983).

Depression scores for adolescents in the AP and AO groups decreased significantly from pre- to post-assessment and again from post-assessment to 6-month follow-up. Treatment gains were maintained at the 24-month follow-up. At post-treatment, depression scores for the AP and AO groups were significantly lower than the WL group. The AP group scores showed a trend toward more improvement than those of the AO group, though differences were not significant. Also, parents in the AP group reported significantly lower problem scores for their children than parents in the AO group, suggesting that parental involvement may influence the parent's view of the child. Strengths of this study include the rigor of the study, the use of a structured manual to guide treatment, as well as checks for treatment integrity. This study was among the first to examine the benefit of including parents in an adolescent depression group and did so in a time-limited and cost-effective manner. Limitations of this study include the possible lack of generalizability of findings based on the select group of subjects recruited for this study. Findings suggest that CBT group therapy, in particular the CWD-A course, can lead to a decrease in depression among adolescents in the short-term as well as in the long-term. However, it does not appear that teaching parents the material presented to their adolescents will greatly improve the efficacy of the treatment.

A second clinical trial, replicating and expanding upon the above trial (Lewinsohn et al., 1990) was completed in 1999. This trial (Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999) examined both acute and maintenance cognitive-behavioral therapy with

39

adolescents (aged 14-18 years) who met DSM-III-R criteria for major depressive disorder or dysthymia. Participants were randomly assigned to one of three treatment conditions: (a) adolescent and parent (AP), (b) adolescent only (AO), or (c) wait-list control (WL). Subsequently, participants in the AP or AO condition were randomly reassigned to one of three conditions for the 24-month follow-up: (a) assessments every four months with booster session, (b) assessments every four months, or (c) assessments every 12 months. The AP and AO groups are similar to that described in Lewinsohn et al. (1990). Sessions consisted of 16 2-hour sessions held bi-weekly for eight weeks. Adolescents' depression, behavior problems, and global functioning were assessed pre- and post-treatment with additional assessment conducted based on their random assignment to one of three conditions for the 24-month follow-up period. Depression was assessed with the BDI and the K-SADS. At post-treatment, adolescents in the two active treatments had significantly less depressive symptoms than adolescents in the wait-list control condition, yet no differences between the two active conditions were detected. According to the 12- and 24-month follow-up, adolescents that remained depressed at post-treatment were found to recover significantly faster if they were in the "booster" condition as compared to the assessment only conditions. However, for adolescents considered to be recovered at post-treatment, no differences in the recurrence rates of depression were found between the three follow-up conditions. In addition, Clarke and colleagues found that higher rates of CBT attendance resulted in better outcomes. Strengths of this study are similar to those found in Lewinsohn et al. (1990), with the addition of an examination of the impact of booster sessions. This study further supports the efficacy of group

40

cognitive-behavioral treatments, and CWD-A in particular. It also suggests that for adolescents that have not recovered after an acute treatment phase continued assessment and booster sessions are likely to be efficacious.

In summary, group CBT, the most commonly studied treatment modality for children and adolescents with depression, has repeatedly demonstrated its effectiveness. Child (e.g., Weisz et al., 1997) and adolescent studies (e.g., Reynolds & Coats, 1986) have indicated that components of CBT, when delivered in a brief group intervention, are associated with decreases in child and adolescent depression.

Research has also compared the efficacy of group CBT with a no-treatment control group, finding CBT to decrease depression more than time alone in both children (Stark et al., 1994) and adolescents (Lewinsohn et al., 1990). Some studies of children with depression (Butler et al., 1980; Liddle & Spence, 1990) did not find a statistically significant difference between CBT and no-treatment control groups. Perhaps the passage of time decreased depression for these children or perhaps there are methodological differences in these studies that may help explain these findings. Both studies, which did not find statistically significant findings, examined small samples, used a very brief intervention (10 sessions or less), and examined specific components of CBT for treatment rather than a multi-component approach. Additionally, Butler et al. used an unusual assessment process, in which participants did not need to report elevated scores on a measure of depression to participate. Perhaps a combination of these methodological issues may help account for the lack of difference found in these CBT treatments and no-treatment controls.

41

A few studies examined the efficacy of CBT compared to an attention-control condition in depressed children, whereas no adolescent studies have examined the role of an attention control. In the Butler et al. (1980) study, children in the active treatment conditions had decreased levels of depression compared to children in the attention-control condition. In the Liddle and Spence (1990) study, no statistically significant differences were found between the active CBT treatment and the attention-control condition, yet the trend was for children in the active CBT treatment to have lower mean CDI depression scores than children in the attention-control condition. These studies suggest that the active components of CBT are more effective than attention; nevertheless, methodological concerns with these studies insist that more research be conducted to determine how group CBT therapy compares to an attention-control condition.

Lastly, research examined the relative efficacy of various components of CBT with children (e.g., Stark et al., 1994) and adolescents (Reynolds & Coates, 1986) with depression. In the majority of studies, no significant differences were found between any of the CBT components. In one study (Kahn et al., 1990), CBT and relaxation therapy were found to decrease depression significantly more than self-modeling in the long-term. In Butler et al. (1980), the role-play component was found to decrease depression more than the cognitive-restructuring component of CBT. This suggests that for children, CBT and relaxation therapy may be more effective than self-modeling in the long-term, and that role-play may be more effective than cognitive-restructuring. Perhaps for younger children, behavioral techniques such as role-play are more effective than

cognitive components such as cognitive restructuring. In studies with depressed adolescents, no differences were found in various components of CBT.

Overall, group CBT treatments have been found to be more effective than no-treatment in multiple studies, while a couple of studies suggest that group CBT treatment is more effective than an attention-control group. More research needs to examine the individual components of CBT to determine if, in fact, behavioral components are more effective than cognitive components with children and adolescents. In summary, it appears that group CBT with children and adolescents is an effective form of treatment for depression, yet more research is needed to fully understand how, why, with whom, and under what conditions this treatment is most effective.

Child and Adolescent Individual CBT

Vostanis, Feehan, and Grattan (1998) conducted a treatment outcome study, along with follow-up studies, examining treatment outcomes for both children and adolescents who met DSM-III-R criteria for depression. Their 1996 study (Vostanis, Feehan, Grattan, & Bickerton) examined the effectiveness of individual cognitive-behavioral therapy (CBT) by randomly assigning 56 children and adolescents (aged 8-17 years) to one of two treatment groups: (a) CBT or (b) non-focused treatment intervention (NFI). CBT consisted of 3 components: (1) recognizing and labeling emotions, (2) social skills training, and (3) influencing negative cognitive attributions. The NFI controlled for the therapists time and attention, but was unstructured with no suggestions or interpretations by the therapist. Measures assessing social adjustment (Social Adjustment Inventory for Children and Adolescents; John, Gammon, Prusoff, & Warner, 1987), depression (Mood

and Feelings Questionnaire; MFQ; Angold, Costello, Pickles, & Winder, 1987), anxiety (RCMAS), self-esteem (Self-esteem Inventory; Warr & Jackson, 1983), and aggression (Aggression Scale; Olweus, 1978) were given at pre-treatment, post-treatment, and 9-month and 2-year follow-up. The K-SADS was also given at pre-treatment, post-treatment, and 9-month and 2-year follow-up. Improvements in all psychosocial outcome measures (except aggression) were found at post-treatment and were maintained at 9-month and 2-year follow-up. However, at post-treatment and 9-month and 2-year follow-up, no differences were found between the psychosocial outcome scores of children in the CBT group and children in the NFI group. This study recruited a clinical sample of children; consequently, the results may be more generalizable to clinical settings, compared to many of the other studies that were conducted in schools. The use of individual therapy in this study is also perhaps more generalizable to clinical settings, compared to other studies that focused on group interventions held in a school setting. The extended follow-up of this study is another one of its strengths. Limitations of this study included the lack of a no-treatment control group, a detailed manual, and a structured measure of treatment integrity. Another limitation in this study was the wide age range of children and adolescents in the study. Individuals at different ages may be influenced differently by this treatment modality, potentially masking outcomes. However, due to the small sample size, response to treatment was not examined based on age differences. This study found that both CBT and NFI improved children's and adolescents' mood and functioning in the short-term and at consequent follow-ups. No

44

differences were found between the active treatment group (CBT) and the non-specific treatment control group (NFI).

Wood and colleagues (Wood, Harrington, & Moore, 1996) conducted a study that examined the efficacy of cognitive behavioral therapy (CBT) and relaxation training (RT) with 48 outpatient adolescents (aged 9-17 years) with depressive disorders. Subjects were included in the study if they met DSM-III-R criteria for major depressive disorder or if they reported six or more symptoms of depression on the K-SADS and received a score of 15 or higher on the MFQ (Angold, et al., 1987). Subjects were randomly assigned to one of two individual treatment conditions: (a) CBT or (b) RT. The CBT intervention consisted of cognitive, social problem-solving, and behavioral components. The RT intervention was chosen as the comparison control treatment, because the authors believed its treatment effects were unrelated to depression. Subjects in both treatment conditions attended an average of six individual sessions. Adolescents' level of depression, anxiety, self-esteem, conduct problems, expectancy of treatment, social adjustment, and global functioning were assessed at pre-treatment, post-treatment, 3- and 6-month follow-up. Depression was assessed with the MFQ. Results indicated that at post-treatment the CBT group had less depressive symptoms, more improvements in clinical functioning, and more satisfaction with treatment than the RT group. At the 3-month follow-up, the CBT group continued to have more improvements in clinical functioning and self-esteem compared to the RT group; nonetheless, differences disappeared by the 6-month follow-up. Improvement in the CBT group stabilized after treatment ended, while the RT group gradually improved over the 6-month period up to

the follow-up. This study utilized a regular clinic setting and individual therapy, increasing the generalizability of findings to a clinical setting. A limitation of this study may have been the use of RT as a control comparison, as other studies have found this to be an effective active treatment (e.g., Kahn et al., 1990). In this study, CBT was found to be an effective therapy that led to significant short-term improvements in depressed children and adolescents. This study also demonstrated that over time children and adolescents with depression tend to improve with only minimal RT intervention.

In summary, individual CBT was evaluated in two studies (Vostanis et al., 1996; Wood et al., 1996), each of which examined a broad age range of children and adolescents with diagnosable depressive disorders in a clinical setting. Although neither study compared CBT treatments to a no-treatment condition, both studies utilized attention-control groups. Wood et al. (1996) found that the active treatment decreased depression in children and adolescents more than the attention-control group at post-treatment, but not at the 6-month follow-up. Vostanis et al. (1996) found no differences in the active CBT treatment and the attention-control group from post-treatment up to a 2-year follow-up time. This research suggests that over time, non-specific therapy components found in attention-control groups may be sufficient to decrease depression in children and adolescents. Since individually administered CBT is one of the primary modalities used in clinical practice, it is essential to further understand the active components of CBT in this context.

Adolescent Interpersonal Psychotherapy

IPT was originally developed as a brief, focused treatment for adults with depression (Klerman, Weissman, Rounsaville, & Chevron, 1984). This adult treatment was modified by Mufson and colleagues to be an appropriate individualized treatment for adolescents (IPT-A) with depression (Mufson et al., 1994). The efficacy of IPT-A was examined with 14 adolescents (aged 12-18 years) who met DSM-III-R criteria for a depressive disorder. Adolescents entered a 12-week treatment program and were assessed on psychiatric diagnosis, level of depression, social functioning, and global functioning at 2 weeks pre-treatment and at weeks 0, 2, 4, 8, 12, and 1-year follow-up. Psychiatric diagnosis was assessed using the K-SADS, and level of depression was assessed with the BDI and the Hamilton Rating Scale for Depression (HRSD; Carroll, Fielding, & Blashki, 1973). Adolescents had significant decreases in depressive symptoms from pre- to post-treatment and a significant overall improvement in social adjustment. A significant increase in overall functioning was also found by week 12 of treatment. At the 1-year follow-up (Mufson & Fairbanks, 1996), 10 of the original 14 adolescents had maintained their treatment gains. This study was the first to examine the effectiveness of IPT-A. Strengths of this study include its use of a standardized manual for IPT-A as well as the extended follow-up assessments. In addition, the use of clinically depressed adolescents increases the generalizability of findings to other clinical settings. This pre-post study was an important first step in establishing the effectiveness of IPT.

The efficacy of a 12-week IPT-A treatment intervention was examined by Mufson et al. (1999) with 48 primarily Latino adolescents (aged 12-18 years) with major depressive disorder. Adolescents were randomly assigned to one of two treatment conditions: (a) IPT-A and (b) clinical monitoring (control condition). IPT-A was held on a weekly basis and consisted of the manualized treatment of IPT originally developed by Klerman et al. (1984) for adults and adapted for adolescents by Mufson, Moreau, Weissman, & Klerman (1993). Clinical monitoring consisted of monthly meetings with a therapist to discuss general symptoms and functioning in which general support was given. No advice giving or skills training was done during the clinical monitoring sessions. Adolescents were assessed on psychiatric symptoms, social functioning, and social problem-solving skills at weeks 0, 2, 4, 6, 8, and 12. Depression throughout the treatment was assessed by the HRSD. Adolescents in the IPT-A condition had significantly less depressive symptoms at week 12 as compared to those in the control condition according to the HRDS. In addition, significantly more adolescents in the IPT-A group than in the control group recovered from the depressive episode at post-treatment. The IPT-A group also had higher levels of overall functioning, specifically with their friends and dating relationships, compared to the control group. The addition of an attention-control condition was a strength of this study. Also, the use of a standardized manual, checks for treatment integrity, and the use of a clinical population of adolescents are strengths that make these findings more generalizable. A lack of follow-up assessments is a weakness of this study. These findings suggest that in the

short-term, IPT-A may be more effective than an attention-placebo at decreasing

depressive symptoms in adolescents with major depressive disorder.

Santor and Kusumakar (2001) examined the effectiveness of an open trial of IPT

with 25 adolescents (aged 12-19 years) with a diagnosis of major depression as

determined by the K-SADS. Adolescents were treated weekly by novice therapists under

direct supervision for a 12-week treatment of IPT. The treatment protocol followed IPT-

A (Mufson et al., 1993), with the addition of short parental meetings at sessions 1, 6, and

12. Adolescents were assessed on psychiatric diagnosis, depressive severity, and global

functioning at pre- and post-treatment. Psychiatric diagnosis was assessed with the K-

SADS, and depressive severity was assessed with the BDI and the HRSD. Adolescents

reported a significant decrease in the severity of depression from pre- to post-treatment.

In addition, global functioning increased significantly from pre- to post-treatment.

Results also indicated that significantly greater change in depressive symptoms was

found among adolescents who reported initially higher severity levels of depression.

This study utilized a standardized manual and had checks for treatment integrity.

However, conclusions are limited due to the exclusion of a control group. This study

suggests that therapists without previous experience with IPT can effectively administer

IPT when well supervised.

In summary, research on IPT-A, designed for adolescents, has focused

exclusively on an individual treatment modality. IPT-A, modified for adolescents, is a

new treatment approach and is in the beginning stages of research. Pre-post studies have

found that depressive symptoms are significantly reduced at post-treatment after a 12-

49

week IPT-A treatment (Mufson et al., 1994; Santor & Kusumakar, 2001). One study

(Mufson et al., 1999) compared IPT-A with a clinical–monitoring condition and found

IPT-A to be more effective than a clinical-monitoring condition at post-treatment,

supporting the effectiveness of IPT-A as compared to an attention-control condition in

the short term. Overall, IPT may be a promising form of individual treatment for

adolescents with depression, but more research replications need to be completed, with

follow-up studies and comparisons to no-treatment control conditions.

Child Psychodynamic Psychotherapy

Muratori, Picchi, Bruni, Patarnello, and Romagnoli (2003) evaluated the

effectiveness of an 11-week psychodynamic psychotherapy for 58 children (aged 6-10

years) diagnosed with depression or anxiety (classified as internalizing disorders).

Participants were assigned to one of two treatment conditions: a) individual and parent-

child psychodynamic psychotherapy or b) usual care control condition (i.e., referred to

other community mental health services). Assignment was non-random with participants

assigned to the treatment condition if there was availability and to the usual-care control

condition if services in the clinic were not available. Treatment was held on a weekly

basis and was based on the protocol *La Pratique des Psychothérapies Mères-Bébés*

(Cramer and Palacio Espana, 1993), a psychotherapy protocol developed for young

children that focused on the representation world of parents and consisted of parent-child

sessions. The current treatment was adapted for children and included the addition of

child-only sessions as well as child-parent sessions. The treatment consisted of 5 parent-

child sessions, followed by 5 child-only sessions, and then ended with 1 parent-child

50

session. Participants in the usual-care control condition were given no limitations and 51.7% of participants did not seek treatment, whereas 48.3% did seek some form of treatment intervention. Children were assessed on global functioning and psychological functioning at baseline, 6-months, and 2-years follow-up. Global functioning was assessed by the Children's Global Assessment Scale (Shaffer, et al., 1983). Psychological symptomatology was assessed by the Child Behavior Checklist (Achenbach & Edelbrock, 1983).

Children in both groups had significantly higher global functioning scores at 6-month follow-up, which was maintained until 2-year follow-up, but only children in the psychodynamic psychotherapy group moved into the non-clinical range at 6-month and 2-year follow-ups. On the CBCL, no differences were found at 6-month follow-up; however, at 2-year follow-up, children in the psychodynamic psychotherapy condition had a significant decrease in emotional/behavioral problems. No differences were noted in the usual-care condition on the CBCL at either assessment. This is one of the first studies to rigorously examine brief psychodynamic psychotherapy. The use of a control condition is a particular strength of this study. The large number of participants, the use of videotaping and weekly supervision, and the use of a clinical population of children are strengths that make these findings more generalizable. The lack of randomization and lack of control over the "usual care" treatment condition are weakness of this study. These findings suggest that in the long-term, psychodynamic psychotherapy may be more effective than other usual-care community treatments at decreasing emotional/behavioral problems and increasing global functioning in children with internalizing disorders (i.e.,

51

anxiety, depression). More research on psychodynamic psychotherapy needs to be done to determine if these findings are replicable and to further elucidate the effective elements of treatment. With the exception of this study only a few single-case studies described in the literature find small to moderate success rates for psychodynamic psychotherapy (Giancotti & Vinci, 1986; Petti, Bornstein, Delamatar, & Connor, 1980; Schachter, 1984).

Adolescent Family Therapy

No controlled studies have focused solely on examining the efficacy of family therapy modalities. However, one controlled study (Brent et al., 1997) examined the efficacy of systemic behavioral family therapy (SBFT), CBT, and nondirective supportive therapy with 107 adolescent outpatients diagnosed with MDD. This study found SBFT to be less effective than CBT at decreasing depression in the short-term, but equally effective to CBT and nonsupportive therapy in terms of recovery and recurrence from depression at a 2-year follow-up (Birmaher et al., 2000). This study is discussed in more detail in the section on comparative outcome studies, but is mentioned here since there are no other controlled studies exclusively examining the effectiveness of family therapy for children and and/or adolescents with depression. More research needs to be done in this area to determine the role that families, and parents in particular, should play in the treatment of children and adolescents with depression.

Child and Adolescent Group Comparative Studies

The effectiveness of two forms of short-term group therapy was examined by Fine and colleagues (Fine, Forth, Gilbert, & Haley, 1991). Ninety-one adolescents (aged 13-

52

17 years) who met DSM-III-R criteria for a depressive disorder were assigned to one of

two therapy groups: (a) Therapeutic Support Group (TSG) or (b) Social Skills Group

(SSG). Adolescents received five sessions over a 12-week period of time. The TSG

group provided a supportive and secure setting for adolescents to share their concerns,

discuss problems, and provide mutual support for one another. The SSG taught a series

of skills including recognizing feelings, assertiveness, conversation skills, problem

solving, and conflict resolution. Adolescents were assessed on depressive symptoms,

self-concept, and cognitive distortions at pre-treatment, post-treatment, and 9-month

follow-up. Depression was assessed with the K-SADS and the CDI. Adolescents in both

groups had significantly lower levels of depression, as assessed by K-SADS, from pre- to

post-treatment. On the CDI, adolescents in the TSG has significantly lower levels of

depression at post-treatment as compared to pre-treatment levels, yet no significant

decrease was found for adolescents in the SSG. At 9-month follow-up, no significant

differences were found between adolescents' scores on either measure of depression.

Adolescents in both groups had continued to improve. Strengths of this study included

the large number of adolescents per group condition and the comparison of two treatment

modalities. Conclusions are limited because no control groups were examined. In

addition, standardized manuals were not available for both groups, and the number of

sessions that were held were significantly less than in similar treatment studies. Perhaps

the limited number of sessions was not sufficient in the SSG in order for the adolescents

to gain skills prior to the conclusion of therapy. These results indicated that adolescents

in the TSG improved more than adolescents in the SSG in the short-term, but that in the long-term groups were about equivalent.

Individual or Family Comparative Studies

The effectiveness of cognitive-behavioral, family, and supportive therapy was examined by Brent et al. (1997). One hundred seven adolescents (aged 13-18 years) diagnosed with MDD were randomly assigned to one of three treatment conditions: (a) individual cognitive-behavioral therapy (CBT), (b) systemic behavior family therapy (SBFT), or (c) individual nondirective supportive therapy (NST). CBT focused on recognizing automatic thoughts, assumptions, and beliefs, and improving problem-solving and social skills. SBFT focused on clarifying family concerns and taught communication and problem-solving skills. NST focused on providing support and encouragement, without giving advice, setting boundaries, or teaching any specific skills. Adolescents received 12 to 16 weeks of treatment in their assigned condition. Adolescents were assessed at pre-treatment, post-treatment, and 2-year follow-up. Depression was assessed with the BDI and the K-SADS. At post-treatment, adolescents in all treatment conditions had significant reductions in suicidality and functional impairment compared to pre-treatment. At post-treatment, adolescents in the CBT condition demonstrated a significant increase in mood compared to adolescents in the NST and SBFT conditions. In addition, at post-treatment adolescents in the CBT condition demonstrated a more rapid response to treatment compared to adolescents in the NST and SBFT conditions. However, at 2-year follow-up no treatment differences were found in the level of depression among the adolescents and all treatment groups

54

maintained gains or improved during the follow-up period (Birmaher et al., 2000).

Therefore, over time, no significant differences were found between CBT, SBFT, and

NST. This study was a well-controlled outcome study with a large number of

participants. Strengths of this study include the use of standardized treatment manuals

and extended follow-up. A weakness of this study is that conditions following the

treatment termination were uncontrolled. Therefore, other factors may play a role in the

follow-up outcome findings. This study suggests that for adolescents with MDD, CBT is

a more effective treatment than SBFT or NST in the short term. However, at 2-year

follow-up, no differences were found between the three treatment modalities.

Rossello and Bernal (1999) examined the relative efficacy of cognitive-

behavioral therapy (CBT) and interpersonal psychotherapy (IPT) with 71 adolescents

(aged 13-18 years) from Puerto Rico who met DSM-III-R criteria for a diagnosis of

depression. Adolescents were randomly assigned to one of three individual treatment

conditions: (a) CBT, (b) IPT; or (c) wait-list control (WL). CBT focused on how

thoughts influence mood, how pleasant events influence mood, and how relationships

with others influence mood. IPT was adapted based on the manual by Klerman et al.

(1984). CBT and IPT consisted of 12 1-hour individual therapy sessions held weekly

over a period of 12 weeks. Adolescents were assessed on depressive symptoms, self-

esteem, social adjustment, family variables, and behavioral problems at pre-treatment,

post-treatment and 3-month follow-up. The wait-list group was not assessed at follow-

up. Depression was assessed with the CDI. At post-treatment, both IPT and CBT

decreased depressive symptoms significantly more than the control condition. At post-

treatment and again at 3-month follow-up, no significant differences were found between the two active treatments (CBT and IPT). Strengths of this study include its use of detailed treatment manuals for both treatment conditions and checks for treatment integrity. The use of a no-treatment control condition enables this study to suggest that IPT and CBT were more effective than the passage of time. This study also examines the efficacy of CBT and IPT among a Puerto Rican population of adolescents. This study is limited in conclusions regarding the role of non-specific therapeutic effects due the exclusion of an attention-control condition. Overall, this study suggests that in the short-term, IPT and CBT are more efficacious than no treatment for adolescents with depression. This study also suggests that no differentiation regarding the relative efficacy of these two active treatments for adolescents with depression can be made in the short-term.

In summary, these comparative studies examined the relative efficacy of several treatment modalities in reducing depressive symptoms in adolescents with diagnosable disorders of depression. Group treatment approaches were utilized in Fine et al. (1991) with individual treatment approaches being used in the other studies, with the exception of the SBFT condition (Brent et al., 1997). Each study included one condition of CBT and additional conditions. In the short-term, CBT has been shown to be more efficacious than a no-treatment control condition, and two other active treatments (SBFT and NST). However, it has not shown these effects in the long-term. Fine et al. (1991) found that the SSG, which is often considered a component of CBT, was less effective than the TSG in the short-term. Although this finding seems to be contradictory to the other studies,

56

methodological issues help explain why it may not be contradictory. The Fine et al. (1991) study consisted of only five treatment sessions, less than half of the treatment sessions found in other studies. It is reasonable to expect that five sessions was an insufficient number to teach and see results from a skill-based training. The long-term finding (Fine et al., 1991) that the SSG continued to improve up to the 9-month follow-up supports this notion. Overall, these studies suggest that CBT may be an efficacious active treatment in the short-term, but that in the long-term its effects cannot be differentiated from non-specific treatment components or the passage of time. IPT was found to be more efficacious than a no-treatment control condition in the short-term, and equally efficacious compared to another active treatment (CBT) in the short-term, suggesting that IPT may be an efficacious active treatment in the short-term. The short-term effect of supportive therapies is mixed. Fine et al. (1991) found a TSG to be more effective than a SSG, while Brent et al. (1997) found CBT to be more effective than the NST. In the long-term, both the TSG and the NST were found to be equal to the other treatment conditions. Therefore, there is some support for the use of these therapies in the short- and long-term. SBFT did significantly less to alleviate depression than CBT and was found to be no different than the NST. On the other hand, SBFT was found to be no different than CBT and NST in the long-term; therefore, SBFT may be equally effective in the long run. Although many challenges exist and need to be taken into account when examining comparative studies, they continue to be an important way to examine the effectiveness of psychotherapy in children and adolescents with depression.

Summary of Psychotherapy Outcome Research

CBT was found to be the most efficacious treatment for both children and adolescents with depression in the short- and long-term and has proved to be a successful treatment modality within Native American communities. Both group and individual treatment modalities found CBT to be effective in the short-term, particularly when interventions were longer than 10 sessions. Long-term benefits of CBT are less certain, particularly in the individual treatment modality, with minimal differences being found at 2-year follow-ups. One challenge when examining CBT is the variety of components that can be included in an intervention. Some studies examined a multi-component approach, whereas others examined only one component of CBT. Multi-component approaches were consistently more effective. When examining the individual components of CBT, it is clear that more research needs to be done to learn about the relative efficacy of these different components. For example, additional research needs to examine whether, in fact, behavioral components are more effective than cognitive components with children and adolescents. Within CBT treatments, differing levels of cultural relevance and sensitivity can also lead to treatment outcome differences that are hard to differentiate. Research on culturally sensitive and relevant treatment materials for Native Americans needs to be further examined in order to determine what factors lead to the greatest treatment effectiveness. Another question would be to determine how modifying an established CBT treatment versus developing a new CBT treatment impacts treatment effectiveness.

IPT-A was also found to be an effective treatment modality in the short-term, when delivered individually. Although initial studies support IPT-A, further studies need to be conducted to test the robustness of this treatment modality in the short- and long-term. Although supportive therapies have not shown to be effective in the short-term, studies suggest that supportive therapies may be effective treatments in the long-term. Determining the active components of these therapies remains to be studied. Psychodynamic psychotherapy also demonstrated effectiveness in the long-term and needs to be studied further. Family therapy modalities and the participation of parents in child and adolescent interventions have received limited support. Unfortunately, only minimal research has been done in this area, making any conclusions premature. In addition, there is no current research on the effectiveness of traditional Native American therapies, making it impossible to consider their relative efficacy.

The current literature on Native Americans at risk for depression and suicide indicates that group skills-based trainings, consistent with a CBT modality, and modified for cultural relevance and sensitivity, appear to be the most efficacious treatment available in the short-term. The current literature on child and adolescent depression indicates that group CBT for both children and adolescents appears to be the most efficacious form of treatment available when considering the short- and long-term effects of treatment on depression compared to no-treatment, attention-placebos, and other active treatments. Group CBT has received the most attention in the literature, with more studies than any other treatment modality. Although CBT delivered individually, IPT-A,

59

supportive therapies, and psychodynamic psychotherapy have also received some support, these interventions need to be evaluated in more detail in further studies.

The Current Study

The current study modified, implemented, and evaluated a cognitive-behavioral intervention for depression among Native American middle-school students. A modification of the CWD-A course (Clarke et al., 1990) for middle-school students (Kahn, et al., 1990) was administered to a small group of students, in a Midwestern reservation school, who were identified as having moderate to severe depressive symptoms based on the CDI. The CWD-A course is a skills-based cognitive-behavioral intervention taught in a class format, similar to other interventions that have been found to be effective with Native Americans at-risk for depression and suicidality. The class was also modified for cultural relevance and sensitivity, as well as school scheduling issues. Additionally, the literature on child and adolescent depression interventions has supported this type (CBT) and format (group) for a depression intervention. Group cognitive-behavioral therapy has repeatedly demonstrated effectiveness among Caucasian children and adolescents; however, its effectiveness has never been examined with Native American youth experiencing depressive symptoms.

Participating students were assigned to the intervention or wait-list control group, using a randomized block design assignment with grade and sex as the blocking variables. Students in the intervention group attended the class in the Fall Semester, while students in the wait-list control group attended the class in the Spring Semester. At pre-intervention, post-intervention, and 3-month follow-up students' depressive and

60

anxiety symptoms were measured. At post-intervention, students in the intervention group were interviewed to elicit information about class acceptability and the usefulness of class materials. This study examined the effectiveness of a modified version of the CWD-A course in Native American middle-school students and subsequently provided school personnel with outcome data, so as to inform future decisions about use of this course.

Hypotheses

The current study tested the following hypotheses:

1) A significant between group by within subject factors interaction effect will be found, such that students in the intervention group will have a significant decrease in depressive symptoms, as measured with the CDI, as compared to students in the wait-list group at post-intervention and at 3-month follow-up.

2) A significant between group by within subject factors interaction effect will be found, such that students in the intervention group will have a significant decrease in depressive symptoms, as measured with the CES-D, as compared to students in the wait-list group at post-intervention and at 3-month follow-up.

3) A significant between group by within subject factors interaction effect will be found, such that students in the intervention group will have a significant decrease in anxiety symptoms, as measured with The Multidimensional Anxiety Scale for Children (MASC), as compared to

61

students in the wait-list group at post-intervention and at 3-month follow-up.

4) The intervention will lead to clinically significant changes, such that a higher percentage of students in the intervention group, as compared to students in the wait-list group, will move from outside the normal range to within the normal range on the CDI from pre-intervention to post-intervention and 3-month follow-up.

CHAPTER II

METHOD

Participants

Participant selection included a two-step procedure. First, all students attending middle school on a rural Midwestern reservation, serving a low socioeconomic community, were screened for depressive symptoms. Screening consisted of the administration of the Children's Depression Inventory (CDI; Kovacs, 1992). The screening measure was given as part of a regular school program (i.e., screenings given three times per year) with students completing the CDI in their regular classroom setting. The middle school had a total of 154 students enrolled in the sixth, seventh, and eighth grades at the time of the screening. This first step included screening 131 students in the sixth, seventh, and eighth grades, who attended school on the screening day, for inclusion in the study. All eligible students participated in the screening, regardless of educational status (i.e., special education, past history of grade retention). In order to meet inclusion criteria, students had to report scores of 15 or higher on the CDI. Thirty-six students (27% of students screened) met inclusion criteria after step one.

Next, parents of all 36 students who met inclusion criteria in step one were contacted regarding their child's possible participation in the study. Although not all legal guardians were biological parents, the term parent will be used throughout to refer to parents/guardians/ caregivers of students involved in this study. Of those contacted,

parental consent and student assent were completed for 19 (53%) students. Participating

students were then randomly assigned, using a block design to ensure equal numbers of

boys and girls and grade levels, to one of two conditions: (a) intervention (CWD-A

class) or (b) wait-list control, using a randomized block design assignment with grade and

sex as the blocking variables. Ten students were assigned to the intervention group and 9

students were assigned to the wait-list control group. One student in the intervention

group chose to withdraw from the class and 1 student in the wait-list control group

dropped out of the study due to school absenteeism. Neither of these students completed

post-intervention or follow-up measures and they were not included in the analyses. A

total of 17 students were included in the final analyses, including 10 sixth graders, 4

seventh graders, and 3 eighth graders. All students were of Native American ethnicity.

Participants in the intervention group ($n = 9$) had a mean age of 12.34 years and

participants in the wait-list control group ($n = 8$) had a mean age of 12.50 years. There

were 3 girls and 6 boys in the intervention group and 3 girls and 5 boys in the wait-list

control group.

<center>Therapists</center>

Classes were team-taught by two therapists, one Native American and one

Caucasian. The regular therapists consisted of an Indian Health Services (IHS) mental

health professional with a master's degree in social work and a master's degree level

clinical psychology graduate student. The IHS professional led the class. Both therapists

had previous experience working with adolescents. Both professionals received

additional training in the Skills Development Class, as well as on-going weekly

<center>64</center>

supervision, by the primary investigator and a Ph.D. level clinical psychologist, who

consulted with the school. The primary investigator or the school's consulting clinical

psychologist would often attend classes to provide additional classroom support (i.e.,

helping individual students with reading/writing, taking students to the office, copying

classroom materials) and would occasionally substitute as a therapist when needed.

Measures

The Children's Depression Inventory (CDI; Kovacs, 1992), presented in Appendix

A, is a 27-item self-rated depressive symptom measure. The child responds to each item

by placing a checkmark next to the statement that best describes him/her in the past two

weeks. Each item is then scored on a scale from 0 to 2 (*0 = Absence of symptom, 1*

=Mild symptom, 2 = Definite symptom) indicating the level of symptom severity. The

inventory consists of the following subscales: Negative Mood, Interpersonal Problems,

Ineffectiveness, Anhedonia, and Negative Self-Esteem. Subscale scores are summed to

compose the Total CDI raw score. Due to the standard use of CDI raw scores in the

child/adolescent depression outcome literature (e.g., Kahn et al., 1990) and the

discrepancy between the study sample (Native Americans) and the primary normative

sample of the CDI (primarily Caucasian), the study will primarily utilize raw scores.

However, T-scores can also be computed for CDI scores, which allow an individual's

score to be compared with scores of other children of a similar age and gender. T-scores

were used in this study, to help determine the cut-off scores for moderate to severe

depressive symptoms, creating the inclusion criteria. In addition, T-scores were used to

help examine the "clinical significance" of the findings, with scores above 60 being out

of the range of normal depressive symptoms and scores above 65 being considered

"clinically significant." The test was developed for use with children aged 7 to 17 years

and can be self-administered. A study examining the test-retest reliability of the CDI

found adequate reliability over 2 weeks ($r = .82$) and over 6 weeks ($r = .67$) (Finch,

Saylor, Edwards, & McIntosh, 1987). Researchers have examined the concurrent validity

of the CDI (e.g., Weissman, Orvaschel, & Padian, 1980) and have found significant

correlations between the CDI and other scales purporting to measure child depressive

symptoms, such as Green's (1980) measure of self-esteem ($r = -.72$ for girls; $r = -.67$ for

boys).

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977),

a measure of depression for adults and adolescents, was given in a format adapted by

Clarke et al. (1990) for the CWD-A course (see appendix B; The Mood Questionnaire).

The 20-item self-report measure utilizes a four-point scale and can be self-administered.

The adolescent responds to each item by circling the option that best describes how often

he/she has felt this way during the past week: *rarely or none of the time (less than 1*

day); some or a little of the time (1-2 days); occasionally or a moderate amount of time

(3-4 days); or *most or all of the time (5-7 days).* Each item has a possible score ranging

from 0-3. All scores are summed to reach the total depression score, which ranges from

0-60. Higher scores indicate higher levels of depressive symptoms with scores above 16

indicating significant levels of depression. The internal consistency (Chronbach's alpha =

.90) of the CES-D has been acceptable in adolescent studies (Allison, Roeger, Martin, &

Keeves, 2001), including studies with Native American adolescents (Cronbach's alpha =

66

.82; Manson, Ackerson, Dick, Baron, & Fleming, 1990). The CES-D has demonstrated

adequate reliability and validity in the general adolescent population (Roberts,

Lewinsohn, & Seeley, 1991) including comparable criterion validity in a sample of

Native American adults (Somervell et al., 1993).

The Multidimensional Anxiety Scale for Children (MASC; March, 1997) is a 39-

item self-report measure of anxiety in children and adolescents and is presented in

Appendix C. The measure utilizes a four-point scale. The child responds to each item by

circling the option that best describes his/her own experiences: *0 = never true about me;*

1 = rarely true about me; 2 = sometimes true about me; 3 = often true about me. The

measure consists of the following scales: Physical Symptoms, Harm Avoidance, Social

Anxiety, and Separation/Panic. The composite of all four scales forms the Total Anxiety

Scale. The MASC is appropriate for individuals aged 8 to 19 years and can be self-

administered. The subscale test-retest reliability coefficients over a 3-month period for

individuals aged 8 to 16 years were found to range from $r = .70$ to $r = .93$, and the test-

retest reliability for the Total Anxiety score was found to be $r = .93$ (March, 1997). The

MASC has been found to discriminate between children with anxiety and normal

children, indicating appropriate discriminative validity. The MASC has a moderate

correlation ($r = .63$) with the RCMAS, indicating adequate concurrent validity (March,

1997).

An additional measure, developed by the primary investigator, further evaluates

the effectiveness of the intervention and its level of acceptance and satisfaction among

students (see Appendix D). This measure was given as part of an exit interview and was

only given after the student had completed the intervention. The measure included one

question, using a 10-point likert scale, which quantitatively examined the student's

attribution of her/his improvement in mood to the Skills Development Class. Higher

scores indicated that the student believed the class helped improve his/her mood very

much and lower scores indicated that the student believed the class didn't help improve

her/his mood. The measure also consisted of a list of 20 skills that were discussed in the

class. The student was asked to place a check by each skill that she/he remembered

learning about and then rate how helpful it was to learn that skill. The student was asked

to respond by circling 1 of 3 levels of helpfulness (*not helpful, somewhat helpful, or

really helpful*). The student was also asked to comment on which of the skills learned in

the class was the most helpful for him/her to learn. As a part of this measure, the student

was also asked to discuss qualitative aspects of the course. The investigator interviewed

each student asking him/her to respond to three primary questions including: (1) What

did you think of the Skills Development Class?, (2) What did you think about how the

class was taught?, and (3) What did others think about you being in this class? Several

standard prompts were provided to the student if he/she had difficulty with the general

questions (i.e., what would you change about the class, what did you think of the

workbook, what did your teachers think about you taking this class). All prompts were

delivered in an open-ended fashion, to encourage diversity of responses. In addition, at

post-intervention each student in the intervention group as well as each student in the

wait-list control group was asked if she/he had participated in a treatment program or if

he/she had seen a counselor/therapist during the time of the intervention. If so, they were

asked how often this had occurred and if she/he had covered any of the same skills that had been taught during the intervention.

Intervention Materials

The Coping with Depression Course for Adolescents (CWD-A; Clarke et al., 1990) was modified to be used with Native American middle-school students. Modifications were made for cultural relevance and sensitivity, number of sessions, and grade level. The CWD-A course is a cognitive-behavioral intervention, therefore it is structured and time limited. The course is based on cognitive (Rush, Beck, Kovacs, & Hollon, 1977), self-control (Rehm, 1977), behavioral (Lewinsohn, Youngren, & Grosscup, 1979), interpersonal (Weissman et al., 1979), and social skills (Bellack, Hersen, & Himmelhoch, 1981) treatment approaches. A particular focus of this intervention is skills development, therefore, the course is grounded in the guiding principle that depressed persons have maladaptive patterns that have been learned and that therefore can be unlearned. The CWD-A course was developed for groups of six to eight students to be taught in 16 2-hour sessions. The course materials include a detailed treatment manual and a student workbook. This course has been found to be effective with high-school students (Lewinsohn et al., 1990), and an adapted version of the CWD-A course was found to be effective with middle-school students (Kahn et al., 1990).

Many of the modifications made for the current study were based on Kahn's modifications for middle-school students. Kahn's primary modifications included a simplification of terms, examples, role-plays, practice assignments, and removal of the relaxation and parent training components. Kahn's modified course was taught in 12 50-

minute sessions. Modifications in the current study are based on Kahn's study; however, the current course is based on the most recent revision of the CWD-A course and reflects modifications for cultural sensitivity and relevance in addition to educational level. In order to reduce stigma, the name of the class was changed to the Skills Development Class and the class was offered as part of the regular school schedule. The skill-based focus, group format, and structured class set-up of the Skills Development Class was believed to be generally consistent with Native American cultural values and a good fit for a depression intervention for Native American adolescents. Skill-based classes have been found to be an effective and non-stigmatizing format when conducted within Native American schools (LaFromboise & Rowe, 1983). In addition, a modification of the CWD course that was found to be effective with Native American adults (Manson & Brenneman, 1995) noted the importance of the non-stigmatizing, skill-based, and group-oriented nature of the course. Although the basic class structure and materials are believed to be culturally appropriate, some additional modifications were made to the class. Additional modifications for cultural sensitivity and relevance included changing examples and role-play situations to reflect culturally appropriate activities relevant to adolescents in this school, and adding discussions about the cultural impact of skills such as assertiveness, eye-contact, constructive criticism, and self-disclosure. The section on negotiation and problem solving was modified to discuss problems between students and teachers, instead of between students and their parents. This was done to ensure that positive practice experiences would occur in the school setting. Modifications were

made in consultation with school and community mental health professionals as well as an expert in Native American mental health issues.

The current Skills Development Class focused on the following areas: (a) social skills development, (b) mood monitoring, (c) pleasant events scheduling and monitoring, (d) increasing positive thinking, (e) communication training, (f) negotiation and problem solving, (g) goal setting, and (h) developing a plan for maintaining gains. Although the material that was prepared for the class was prepared for 14 45-minutes classes, due to unexpected time constraints at the school, the class in the current study was taught in 13 35- to 40-minute sessions. Session 14 was omitted due to time constraints and 5 to 10 minutes was omitted from each of the previous sessions. Below is a list of each session and the material that was omitted (O) or shortened (S), along with the amount of time that was removed from sessions that were shortened (e.g., shortened by 5 minutes = S5):

Session 1:   Pleasant Events Schedule (S5), Homework Assignment (S5)

Session 2:   Pleasant Events Schedule (S5), Monitoring How You Feel (S5)

Session 3:   Workbook 3.1 (O), Starting a Conversation - Demonstration
              Exercise (O)

Session 4:   Baseline Study of Pleasant Events (S5), Homework Assignment
              (S5)

Session 5:   Setting Goals for Pleasant Activities (S5), Homework Assignment
              (S5)

Session 6:   Homework Oral Review (O), Looking at Baseline Information
              (S5)

71

Session 7:   How to Make a Plan Work- Group Sharing (O), Workbook 7.3 (O)

Session 8:   Controlling Your Thinking (S5)

Session 9:   Homework Oral Review (O), Workbook 9.3 (O)

Session 10:   Self-Disclosure (O), Changing Upsetting Activating Events (S5)

Session 11:   Homework Assignment (S5)

Session 12:   Homework Oral Review (O)

Session 13:   Guided Problem Solving and Negotiation (S5), Workbook 13.3 (O)

In addition to the above changes, the session goal records and other take home assignments were often not completed by the students. Students were concerned about forgetting their workbooks at home or having other students take them and look at them if they brought them back and forth to their lockers. In addition, students who attended the class, in general, had a poor history of homework completion in their other classes. Although completion of the homework assignments outside of class was encouraged, most students did not follow-through with the homework assignments and instead completed the assignments at the beginning of each class period, using memory to report on the previous 3 days. One exception to this was the mood diary, which most students took with them and completed outside of class. Although this intervention is provided in a manualized and structured format aimed at reducing depressive symptoms, course instructors had sufficient time to assess individual student needs and work on idiosyncratic student goals (i.e., difficulty speaking out in class, difficulty awaiting his/her turn). Two booster sessions were provided between the end of the intervention and the 3-month follow-up. They occurred in the first month following the end of the

72

intervention. A copy of the instructors' manual and student workbook are available upon request by the author.

Procedure

Parents of the 36 students identified as moderately to severely depressed (CDI of 15 or higher) through the annual Fall Depression Screening process were contacted via letter, mailed by school counseling staff to parents. The parent was asked to return a letter in a self-enclosed stamped envelope, informing the school if she/he consented for his/her child to participate in the class. If the parent did not contact the school within 10 days, a follow-up contact was made (i.e., phone, letter).

If a parent consented to their child's participation in the class, the child was contacted by the primary investigator and given information about the class and asked if he/she assented to participate in the class. After assent had been obtained, the student was asked to complete two pre-intervention measures, the CES-D and the MASC (The CDI had already been administered as part of the screening process). All students (n = 19), completed pre-intervention measures.

Each student was then randomly assigned to a treatment condition, using a block design to ensure equal numbers of boys and girls and grade levels across the two conditions. Students in the intervention group (n = 10) attended the Skills Development Class during the second quarter of the Fall Semester. The class was considered an elective on the school schedule and was held in a middle-school classroom. Students in the intervention group attended 13 40-minute classes, held twice each week for 7 weeks, and 2 booster sessions, held within 1-month following post-intervention. One student

chose to withdraw after 5 classes, and therefore was not included in the analyses. The student reported that he "did not like" the class. Another student reported that he liked the class material, but did not like the group format and requested to take the class individually mid-way through treatment. This was allowed and the student continued to follow the class material presented individually by one of the class instructors and attended a total of 9 regular sessions and 2 booster sessions. This student's data was included in the analyses. Due to 2 students opting out of the regular classroom setting, the class consisted of a total of 8 students when all students were attending. Average attendance for these 8 students was 11.4 out of 13 regular sessions and 1.6 out of 2 booster sessions. On average, each student missed approximately 2 sessions. Moreover, if a student missed a class, one of the instructors met with him/her briefly before the next session (approximately 15 min.) to review the material that she/he had missed.

Students in the wait-list control group ($n = 9$) were offered the Skills Development Class during the fourth quarter, in the Spring Semester, immediately following the 3-month follow-up assessment. The wait-list control condition was included to account for changes in mood/depressive symptoms that may have resulted from time alone. Students in the wait-list group were told that they could take the class in the Spring Semester, as the current class was already full. Due to school absenteeism, 1 student in the wait-list control group could not be contacted after the initial pre-intervention measures were administered and was removed from the wait-list control group. The remaining students in the wait-list control group ($n = 8$) were not asked to refrain from counseling services during the intervention and follow-up time and may

have received services as usual at the school or elsewhere. In fact, at follow-up assessment 5 out of the 8 students in the wait-list control group reported receiving some therapeutic services during the intervention period. By the 4th Quarter, only 6 out of the 8 students in the wait-list control group remained in the school system and were able to attend the class. Four out of the 6 students who remained in school at the Fourth Quarter reported receiving some therapeutic services; whereas, 1 out of the 2 students who left the school district reported receiving therapeutic services during the intervention period.

To ensure that the CWD-A course would be provided appropriately, both therapists received training in the Skills Development Class by the primary investigator and the school's consulting clinical psychologist. A training manual is available upon request from the author. In addition, the primary investigator and the school's consulting clinical psychologist provided on-going weekly supervision for the therapists. To further examine the therapists' adherence to the treatment protocol, the primary investigator and the school's consulting clinical psychologist observed 25% of the classes to measure therapists' adherence. The CWD-A Course Therapist Compliance Measure (Clarke et al., 1990) was used to measure compliance ratings. This measure was designed to evaluate therapist compliance based on a three-point scale (*2 = perfect adherence, 1 = partial adherence,* or *0 = no adherence*). For example, the first item, "Leader reviews agenda at the beginning of the session," was rated in the following way: 2 points for "Leader thoroughly reviews agenda at beginning of the session," 1 point for "Leader states only part of agenda," and 0 points for "Leader fails to review agenda for the session." Other items addressed included areas such as review of homework material, practice for skills

presented, clear expression of ideas, and organization by the leader. Four sessions (approximately 25%) were randomly selected for compliance ratings. The primary investigator and the school's consulting clinical psychologist each rated 2 sessions. The raters followed detailed outlines of the treatment protocol while observing the sessions in person. For rater one, who rated 2 sessions, 80% of the items were given a rating of 2, 20% of the items were given a rating of 1, and no items were given a rating of 0. For rater two, who also rated 2 sessions, 80% of the items were given a rating of 2, 20% of the items were given a rating of 1, and no items were given a rating of 0.

At the end of the Skills Development Class, post-intervention measures (i.e., CDI, CES-D, & MASC) were administered to all student participants (intervention and wait-list control). Students in the intervention group also had an exit interview at this time. Nine out of 10 students in the intervention group and 8 out of 9 students in the wait-list control group, who were administered the pre-intervention measures, completed the post-intervention measures. Three months after the conclusion of the intervention class, all student participants (intervention and wait-list control) were administered 3-month follow-up measures (i.e., CDI, CES-D, & MASC). Nine out of 10 students in the intervention group and 8 out of 9 students in the wait-list control group, who were administered the pre- and post-intervention measures, also completed the follow-up measures. Students who had elevated depression scores at this time (T-score of 65 or higher on the CDI) were contacted regarding their score, as were their parents, and appropriate referrals were made. One student in the wait-list control group refused to complete the CES-D or MASC at any of the assessment times (pre-, post- intervention,

and follow-up); however, the student did complete the CDI measures and the exit interview. In the Spring Semester, all parents who had a child participate in the study were contacted via letter and encouraged to come meet, ask questions, or share feedback with the primary investigator at a Parent Fair that was being held at the school. The Parent Fair was an all day community event where school and community programs were highlighted and in which parents had the opportunity to learn about different school and community programs. All students and a few parents of students in the Skills Development Class attended the fair, but minimal questions or comments were directed toward the primary investigator. Intervention materials and a complete report of findings and recommendations for future implementation were distributed to school administrators, the community school board, school counseling staff, and IHS counseling staff upon completion of this study.

CHAPTER III

RESULTS

Equity Among Groups

Analyses were first conducted on pre-intervention data to examine if any significant differences existed between the intervention and wait-list groups on age, gender, grade, or pre-intervention measures (i.e., CDI, CES-D, MASC). An independent t-test revealed no significant differences in the students' ages between the two groups. The mean ages for students are presented in Table 1.

Table 1. Means for Students' Ages and Numbers of Students by Gender and by Grade in School.

	Intervention Group (n = 9)	Wait-List Group (n = 8)
Mean Age	12.33 years	12.50 years
Gender		
Male	6	5
Female	3	3
Grade in School		
6th	6	4
7th	2	2
8th	1	2

A Chi-square test revealed no significant differences between the groups in terms of gender, while a Mann-Whitney U test revealed no significant differences between the groups in terms of grade in school. The number of students by group and gender, as well as by group and school grade are also presented in Table 1. One-way analysis of variances (ANOVAS) were performed on all pre-intervention data including the CDI, CES-D, and MASC indicating no significant group differences on any of the measures. Means and standard deviations for students' scores on the CDI, CES-D, and MASC are presented in Table 2, Table 3, and Table 4, respectively.

Depressive Symptoms

Children's Depression Inventory

The next analyses examined the hypotheses that students in the intervention group would have a significant decrease in depressive symptoms compared to students in the wait-list control group at post-intervention and at 3-month follow-up. Separate mixed ANOVAS were conducted to examine the between group (intervention and wait-list) by within subject factors (pre-intervention, post-intervention, and 3-month follow-up) interaction effect of the students' self-reported measures of depressive symptoms. The Total Depression raw score and the five raw scale scores of the CDI were calculated and analyzed to examine hypothesis 1. Although no interaction effects were found, there was a significant main effect of time on the Total Depression scores of the CDI, $F(2, 14) =$ 11.44, $p < .05$, with a large effect size ($eta^2 = .433$) demonstrated. Partial eta squared univariate effect sizes are characterized by Cohen (1977) as small ($eta^2 = .01$), moderate ($eta^2 = .06$), and large ($eta^2 = .14$). Follow-up tests found a significant difference

79

between the pre-intervention and post-intervention scores, $t(16) = 2.944, p < .05$, as well as a significant difference between the pre-intervention and 3-month follow-up scores, $t(16) = 5.676, p < .05$, indicating a decrease from pre- to post-intervention that was maintained at follow-up for both groups of students.

Next, separate ANOVAS were used to examine the scales of the CDI. In order to decrease the Type I error rate when examining the 5 scale scores of the CDI, an adjusted Bonferroni family-wise error rate of .01 was used. Although no significant interaction effects were found on the Anhedonia scale, a significant main effect of time, $F(2, 14) = 9.578, p < .01$, was found, with a large effect size ($eta^2 = .390$) demonstrated. Follow-up tests found a significant difference between the pre-intervention and post-intervention scores, $t(16) = 3.035, p < .05$, as well as a significant difference between the pre-intervention and 3-month follow-up scores, $t(16) = 3.574, p < .05$, indicating a decrease from pre- to post-intervention that was maintained at follow-up for both groups of students. In addition, a moderate effect size ($eta^2 = .074$) was demonstrated for the interaction effect of group by time with average scores of students in the intervention group decreasing at a slower rate than scores of students in the wait-list control group (see Figure 1).

On the Negative Self-Esteem scale, no interaction effect was found; however, a significant main effect of time, $F(2, 14) = 5.991, p < .01$, was found, with a large effect size ($eta^2 = .285$) demonstrated. Follow-up tests again found a significant difference between the pre-intervention and post-intervention scores, $t(16) = 2.263, p < .05$, as well as a significant difference between the pre-intervention and 3-month follow-up scores,

$t(16) = 3.436$, $p < .05$, indicating a decrease from pre- to post-intervention that was maintained at follow-up for both groups of students.
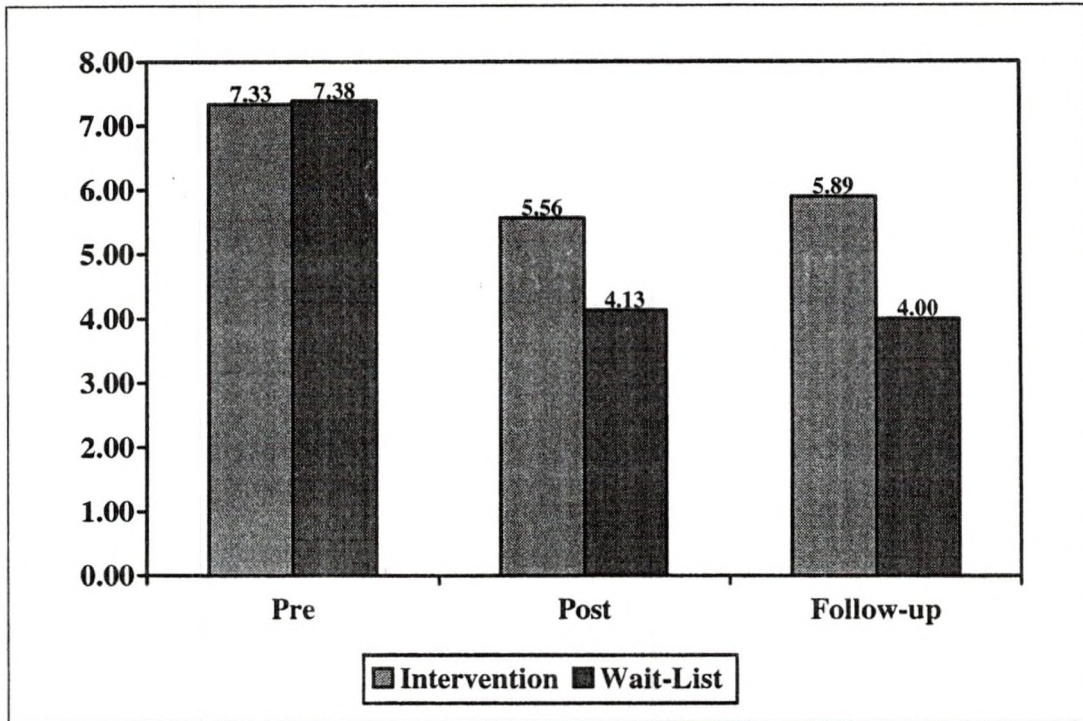

Figure 1. Mean Children's Depression Inventory Anhedonia Scale Scores.

Although no significant interaction or main effects were indicated on the Interpersonal Problem scale, a large effect size ($eta^2 = .257$) was demonstrated for a main effect of time and a moderate effect size ($eta^2 = .067$) was demonstrated for the interaction effect of group by time with the average scores of students in the intervention group continuing to decrease from post-intervention to follow-up, whereas scores of students in the wait-list control group increased at follow-up (see Figure 2).
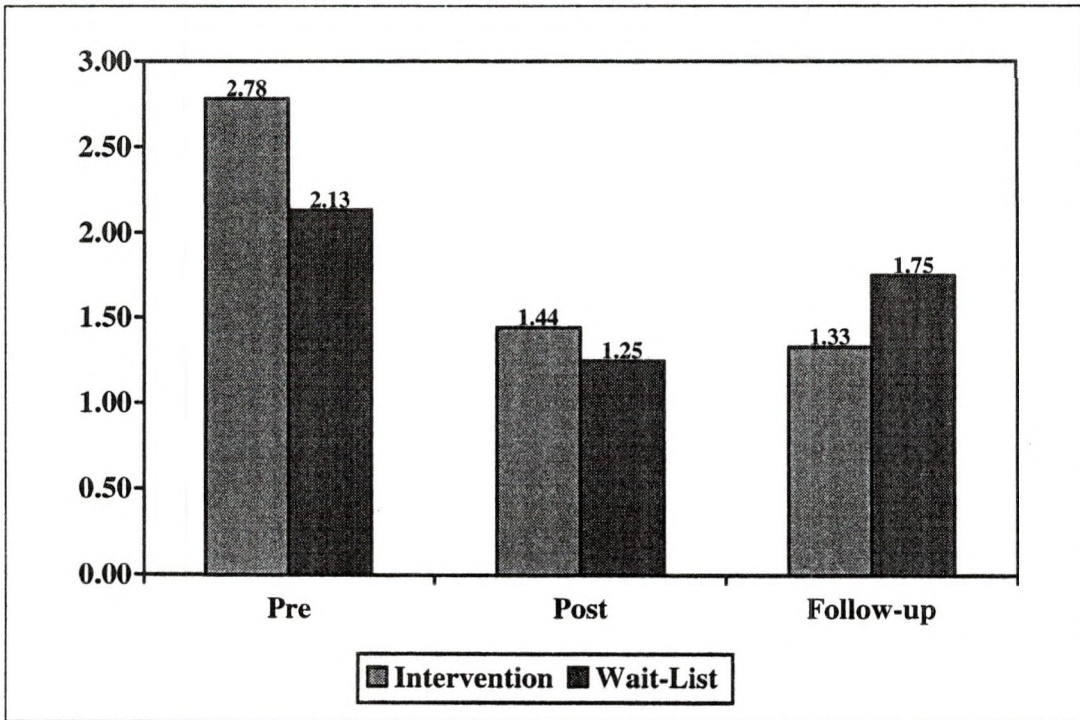
Figure 2. Mean Children's Depression Inventory Interpersonal Problems Scale Scores.

Although no significant interaction or main effects were indicated on either the Negative

Mood or Ineffectiveness scales of the CDI, large effect sizes for a main effect of time

were demonstrated on both, respectively, $eta^2 = .273$ and $eta^2 = .204$. Means and

standard deviations for the Total Depression score and the individual scale scores of the

CDI are presented in Table 2.

Item analysis was conducted on item 9 of the CDI, due to the serious nature of

suicidal ideation and suicidality. Students checked one of the following three choices, a)

I do not think about killing myself, b) *I think about killing myself but I would not do it*, or

c) *I want to kill myself*. The highest frequency answer was *I think about killing myself but

I would not do it*, averaging 54.4 % of responses across groups and assessment times. At

pre-intervention, 5 of 8 students in the wait-list group and 5 of 9 students in the intervention group reported some suicidal ideation (checking either b or c above). At 3-month follow-up, 5 of 8 students in the wait-list group continued to report some suicidal ideation, whereas, in the intervention group only 4 of 9 students continued to report some suicidal ideation, representing a small but important decrease in suicidal ideation.

Table 2. Means and Standard Deviations for the Children's Depression Inventory by Group and Assessment Time.

	Intervention Group (n = 9)			Wait-List Group (n = 8)		
	Pre	Post	Follow-up	Pre	Post	Follow-up
Mean Total Depression Score	21.00	14.67	13.67	20.38	13.25	11.25
(SD)	(4.95)	(9.33)	(7.71)	(4.10)	(9.87)	(6.41)
Mean Scale Scores						
Negative Mood	4.00	2.78	2.00	3.75	3.00	2.13
(SD)	(1.94)	(1.99)	(1.50)	(2.31)	(3.42)	(1.96)
Interpersonal Problems	2.78	1.44	1.33	2.13	1.25	1.75
(SD)	(1.99)	(1.13)	(1.73)	(0.99)	(1.04)	(1.49)
Ineffectiveness	3.67	2.67	2.56	3.38	2.63	1.50
(SD)	(1.66)	(1.87)	(1.42)	(2.13)	(2.07)	(1.31)
Anhedonia	7.33	5.56	5.89	7.38	4.13	4.00
(SD)	(2.00)	(3.61)	(2.62)	(1.19)	(2.53)	(1.69)
Negative Self-esteem	3.22	2.22	1.89	3.75	2.25	1.88
(SD)	(1.64)	(2.22)	(2.26)	(2.12)	(2.38)	(0.83)

Note. SD = Standard deviation.

Center for Epidemiologic Studies Depression Scale

In order to examine hypothesis 2, depressive symptoms were also measured

through the CES-D. A mixed ANOVA was conducted to examine the between group

(intervention and wait-list) by within subject factors (pre-intervention, post-intervention,

and 3-month follow-up) interaction effect of the students' self-report measures of

depression on the CES-D. No significant findings were indicated on the CES-D. Means

and standard deviations for the Total Depression scores of the CES-D are presented in

Table 3.

Table 3. Means and Standard Deviations for the Center for Epidemiologic Studies
Depression Scale by Group and Assessment Time.

	Intervention Group (*n* = 8)			Wait-List Group (*n* = 8)		
	Pre	Post	Follow-up	Pre	Post	Follow-up
Mean Total Depression Score	22.25	20.38	17.25	25.26	20.69	18.50
(*SD*)	(8.51)	(9.10)	(11.73)	(11.72)	(11.68)	(9.50)

Note. *SD* = Standard deviation.

Anxiety Symptoms

The next analyses examined the hypothesis that students in the intervention group

would have a significant decrease in anxiety compared to students in the wait-list control

group at post-intervention and at 3-month follow-up. Separate mixed ANOVAS were

conducted to examine the between group (intervention and wait-list) by within subject

factors (pre-intervention, post-intervention, and 3-month follow-up) interaction effect of

the students' self-report measures of anxiety on the MASC. Although no significant

interaction or main effects were indicated on the Total Anxiety score of the MASC, a

moderate effect size (eta^2 = .094) was demonstrated for a main effect of time and a

small effect size (eta^2 = .045) was demonstrated for an interaction effect. On average,

Total Anxiety scores for students in the intervention group decreased at post-intervention

and were maintained at follow-up, while scores for students in the wait-list control group

decreased at post-intervention but then increased at follow-up to a level higher than pre-
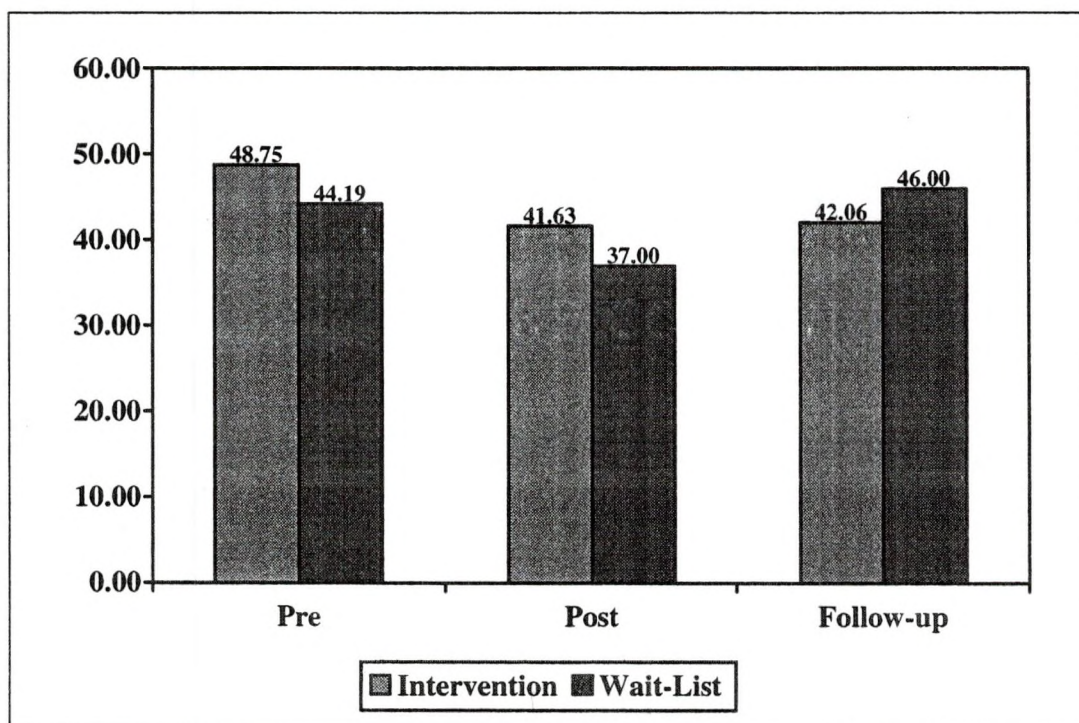
intervention scores (see Figure 3).

Figure 3. Mean Multidimensional Anxiety Scale for Children Total Anxiety Scores.

The Social Anxiety scale of the MASC was also examined, since it was thought that this scale would be impacted by the group skill-based intervention. The Social Anxiety scale contains items relevant to anxieties in social situations (i.e., I have trouble asking other kids to play with me), and the school environment (i.e., I worry about getting called on in class). Although no significant interaction or main effects were indicated on the Social Anxiety scale and effect sizes for time (eta^2 = .03) and interaction (eta^2 = .02) were small, it is interesting to note the pattern of scores on this scale.
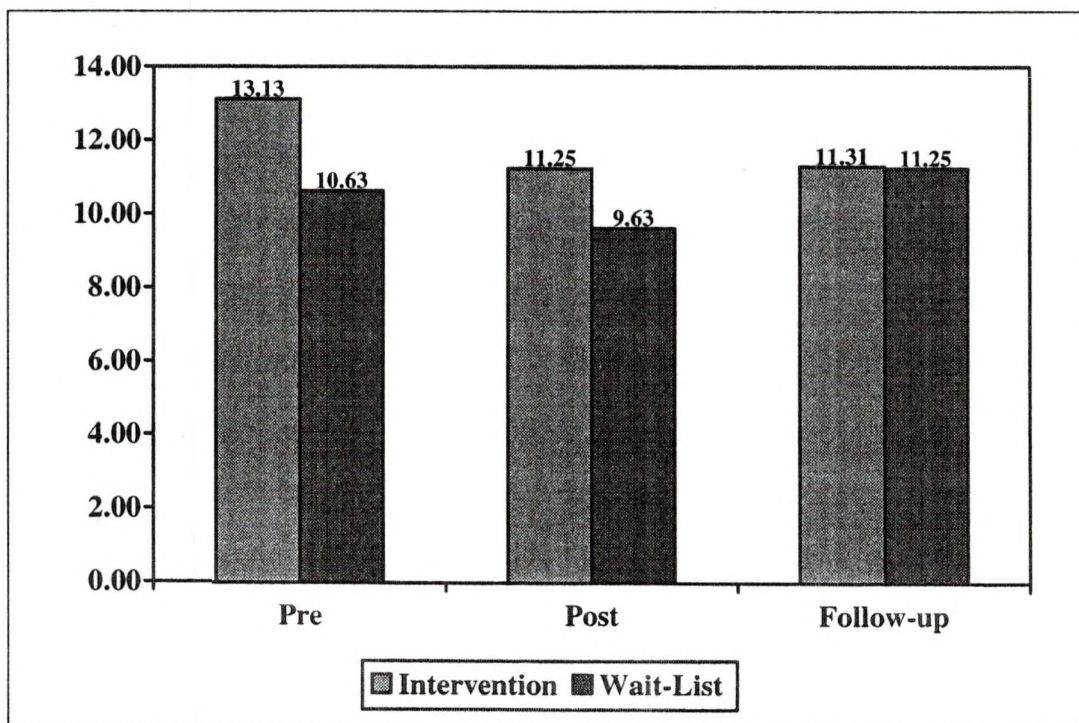

Figure 4. Mean Multidimensional Anxiety Scale for Children Social Anxiety Scale Scores.

The average Social Anxiety score for students in the intervention group decreased at post-intervention and was maintained at follow-up. In contrast, the average Social

Anxiety score for students in the wait-list control group decreased at post-intervention,
but then increased at follow-up to a level higher than pre-intervention scores (see Figure
4). The means and standard deviations of the Total Anxiety score, as well as the Social
Anxiety scale are presented in Table 4.

Table 4. Means and Standard Deviations for the Multidimensional Anxiety Scale for
Children by Group and Assessment Time.

	Intervention Group (n = 8)			Wait-List Group (n = 8)		
	Pre	Post	Follow-up	Pre	Post	Follow-up
Mean Total Anxiety Score	48.75	41.63	42.06	44.19	37.00	46.00
(SD)	(15.57)	(21.82)	(23.07)	(23.83)	(23.34)	(16.94)
Mean Scale Score						
Social Anxiety	13.13	11.25	11.31	10.63	9.63	11.25
(SD)	(5.41)	(8.10)	(8.84)	(7.09)	(8.40)	(5.70)

Note. SD = Standard deviation.

Clinical Significance

Next, the hypothesis that the intervention would lead to clinically significant
changes, such that a higher percentage of students in the intervention group, as compared
to students in the wait-list control group, would move from outside the normal range to
within the normal range on the CDI from pre-intervention to post-intervention and 3-
month follow-up was examined. Normal range can be defined as a T-score within 1
standard deviation of the mean on a standardized test. On the CDI, the mean T-score is
50, hence any T-score 60 or below would be considered to be in the normal range. Five
students or 55% of students in the intervention group and 4 students or 50% of students in

87

the wait-list control group had scores outside the normal range at pre-intervention. When examining the T-scores for the Total Depression Score of the CDI, 1 student in the intervention group and 2 students in the wait-list control group moved from outside to within the normal range at post-intervention. By 3-month follow-up, 2 students in each group moved from outside to within the normal range.

Another measure of clinical significance was also examined. On the CDI, T-scores above 65 represent clinically significant symptoms of depression (Kovacs, 1992). Three students or 33.3% of students in the intervention group and 3 students or 37.5% of students in the wait-list control group had scores in the clinically significant range (>65) at pre-intervention. At post-intervention, 2 students in each group continued to have clinically significant score, but by 3-month follow-up, only 1 student in each group continued to have clinically significant scores.

<center>Counseling Services</center>

At post-intervention, students in both groups were asked if they had received treatment or counseling services during the intervention time period and if so, for how long and with what kind of services. No student in either group reported participating in a treatment program; however, 1 student in the intervention group and 6 students in the wait-list control group reported participating in counseling services. Of those that reported receiving services, almost all students reported receiving individual counseling services for about 20-30 minutes on a weekly or bi-weekly basis.

Post-Intervention Interview

Quantitative analyses

The next analyses examined the quantitative aspects of the post-intervention

interview, given to students in the intervention group who completed the class ($n = 9$).

On average, students reported that they thought the Skills Development Class helped

them to improve their mood somewhat. On a scale from 1 (didn't help) to 10 (helped

very much), the average student response was 6.89. Out of 9 students, 1 student gave a

ranking of 2, 1 student gave a ranking of 10, and the remaining 7 students gave rankings

between 6 and 8. Next, students were asked which skills, out of a list of 20 skills, they

remembered learning about in the class and were asked to rate the skills as being either

"not helpful," "somewhat helpful," or "really helpful." Fourteen skills were remembered

by over 50% of students in the class and were ranked as being at least "somewhat

helpful," and of these, 6 skills were listed by the majority of students in the class as being

"really helpful." When students were asked which 1 of the 20 skills was the most helpful

for them to learn, 3 students chose skills related to learning about goals and rewards, 2

students chose skills related to friendly skills or social skills, 2 students chose skills

related to active listening, 1 student chose a skill related to starting conversations, and 1

student didn't know what skill was most helpful. Means and standard deviations for

students' perceptions of how helpful selected class skills were at improving their moods

are presented in Table 5.

Table 5. Means and Standard Deviations for Students' Perceptions of How Helpful Selected Class Skills were at Improving Their Moods.

	Mean	SD
Skill		
Friendly skills (e.g. smiling, sharing about yourself)	2.22	0.97
Starting conversations with others*	2.44	0.73
Increasing pleasant activities	1.44	1.24
Keeping track of your mood (mood diary)*	2.33	1.12
Keeping track of your pleasant activities	1.67	1.32
Setting goals	2.11	0.60
Setting rewards	1.56	1.33
Graphing your mood and pleasant activities	0.89	.93
Changing negative thoughts to positive thoughts	1.89	1.17
Hearing positive things about yourself*	2.11	1.17
Using "active" or good listening skills*	2.56	0.53
Defining a problem	1.11	1.17
Brainstorming*	2.44	0.73
Learning about long-term versus short-term goals*	2.33	1.00

Note. Means and standard deviations are based on the following scale: 0 = skill not remembered, 1 = skill not helpful, 2 = skill somewhat helpful, 3 = skill really helpful; Selected skills = 14 out of 20 skills that were remembered by more than 50% of students in the intervention group; SD = Standard deviation.

* Skills rated "really helpful" by over 50% of the students.

Although most skills were remembered, the following 6 skills, not included in Table 5, were remembered by less than 50% of students in the class: "Constructive feedback," "Looking for things that make you think negatively," "Challenging/Questioning your negative thoughts," "Stating your positive and negative feelings," "Choosing a solution or compromise," and "Preparing for Daily Hassles and planning ways to overcome them."

Qualitative analyses

The next analyses examined the qualitative interview questions posed to the students at the post-intervention interview. Three general questions were posed to each student, along with several standard probes if students had difficulties understanding or coming up with a response to the initial question. A list of each question, as well as the probes are presented in Appendix D.

The initial question was to find out what students thought about the class in general. One student responded by saying "It was cool. I liked brainstorming, getting time out of class, getting rewards (i.e., candy). It was fun, nothing bothered me. If I was in it again, I'd learn more skills and change my mood more. When will it be again? I'd like to take it again." This student did not require probing; however, most students responded with "It was fun", or "It was good" and probes were needed to gain additional information. With probing, students in general reported that they liked the rewards (i.e., treats) that were provided in class and they didn't know what they disliked about the class. Some students reported that they would have preferred different students in the class (i.e., more students from their grade). Some students reported they would have

91

preferred different types of class activities (i.e., add T.V.), but most didn't know what they would change about the class. In general, students reported that most things about the class were pretty easy (i.e., paying attention, answering questions). However, some students reported that answering questions, particularly when it was in front of others, was hard. In terms of the acceptability of the class, students reported that they thought the class would work well for other students, including Native American students.

The next question was to find out how students felt about the way the class was taught. Most students reported that the class was "O.K," "Easy," or "Nice." However, one of the students reported, "The teachers need to talk to the students more, providing more individual time." When probed, students reported that they enjoyed having two teachers in the class and that the teachers helped the students to learn by helping students with the workbook, reminding students to get back on track, asking students questions, encouraging students to talk, and writing information on the board. They also reported that to improve the class, teachers could continue to help and encourage students even more. Most students reported that they preferred the small group activities compared to the full class lessons, reporting that small group activities made it easier to learn. In general, students enjoyed the workbook and reported that it made it easier to learn. Most reported that they liked having the class during the regular school day, although a couple students reported that it was hard to miss other classes.

The last question was to find out students' perceptions of what other people thought about the class. One student said, "Some kids thought we were in special ed. and laughed. They said 'where did you go' and 'what did you do.' I said 'I worked on skills

92

and moods.' They saw some candy and asked why they weren't in it." However, for most students probes were needed on this question. When probed, about half of the class said that they didn't talk to anyone about the class, but that if asked, they would have said it was "Pretty good." The other half of the class reported talking to both friends and family about the class. A few students reported talking to their parents about the class, finding out that their parents were glad that they were in the class. However, the majority of students did not report talking with their parents about the class. A few students mentioned that their teachers thought the class was good, but most reported that they didn't know what their teachers thought about the class. All but one of the students said that they would recommend the class to their friends, and the majority of students reported that they would like to take the class again if it was offered.

CHAPTER IV

DISCUSSION

The current study contributes to the literature by providing the first outcome study

of an intervention aimed at reducing depressive symptoms in Native American middle-

school students experiencing moderate to severe depressive symptoms. This study

developed out of a local need for mental health services for students experiencing high

rates of depressive symptoms in a Midwestern reservation middle school. This study was

conducted by the primary investigator in collaboration with school administrators, the

school's consulting clinical psychologist, and the local IHS Mental Health counselor.

The planning and implementation stages of this study will be discussed briefly, followed

by detailed discussion of the evaluation component of this study and recommendations

for future research in this emerging area of clinical study.

Planning and Implementation

No intervention aimed at reducing depressive symptoms in Native American

middle-school students experiencing moderate to severe depressive symptoms has been

previously evaluated. Therefore, a depression intervention (i.e., CWD-A) found to be

effective with Caucasian adolescents (e.g., Kahn et al., 1990) and Native American adults

at risk for depression (Manson & Brenneman, 1995) was modified for the current study.

In addition, this intervention is similar to a suicide prevention program found effective

with Native American adolescents (e.g., LaFromboise & Rowe, 1983). For a more

detailed description of the intervention materials and subsequent modifications, please refer to the Intervention Materials section.

The current study was implemented with strong support from school administrators, the school's consulting clinical psychologist, and the local IHS Mental Health counselor. Participation of eligible students was higher than anticipated, including participation by students who had refused other counseling services in the past. Implementation, however, presented some challenges which are noteworthy. One challenge was allowing for sufficient flexibility, while maintaining adequate standardization of the intervention protocol. For example, due to lower than expected student reading levels, some workbook assignments were shortened or eliminated. Another challenge, resulting in more cursory coverage of class material, was coordinating class schedules so that students arrived at the Skills Development Class at the appropriate time. Please refer to the Intervention Materials section for a review of changes made during implementation. The lack of continued attendance by students in the wait-list control group also presented a challenge, since 3 out of 8 students were no longer attending the participating school by the fourth quarter. In contrast, all students in the intervention group continued to attend the participating school in the fourth quarter. Although speculative, this may suggest that an early school-based intervention related to the students' depressive symptoms may increase the likelihood of continued attendance within the school. Recommendations for course implementation changes based on student interviews and therapist observations can be found in Appendix E.

Treatment Outcome Findings

Depression

The current study hypothesized that students in the intervention group would have

a significant decrease in depressive symptoms as compared to students in the wait-list

control group at post-intervention and 3-month follow-up. As expected, students in the

intervention group had a significant decrease in depressive symptoms at post-

intervention, which was maintained at follow-up; however, students in the wait-list

control group also had a significant decrease in depressive symptoms at post-intervention,

which was maintained at follow-up. This finding was generally unexpected, as previous

studies (Kahn et al., 1990; Lewinsohn et al., 1990) had found this intervention (i.e.,

CWD-A) to decrease depressive symptoms in the intervention group, while adolescents

in the control conditions had not demonstrated a similar decrease. Although these

findings appear inconsistent with many preceding studies that utilized control groups

(e.g., Kahn et al., 1990), a study by Liddle and Spence (1990), which also had small

numbers of participants and a shortened intervention time, found similar results. In

addition, it is unknown whether the findings in this study are inconsistent with previous

studies that failed to utilize control conditions (e.g., Buhs, 2000).

Due to ethical obligations, students in the wait-list control group were allowed to

receive counseling services as usual within the school and community during the course

of the study. In fact, almost 70% of students in the wait-list control group received some

form of individual counseling during the study, suggesting that the wait-list group in the

current study may have more accurately been a treatment-as-usual group.

Participation in this study, regardless of group status, may have also affected depressive symptoms. All students who participated were contacted by the investigator regarding their elevated pre-intervention scores and of their parents' consent for them to participate in the Skills Development Class. Students' parents were also contacted and informed of their child's elevated depressive symptoms. In addition, students completed self-report forms on their depressive and anxiety symptoms at pre- and post-intervention, as well as at 3-month follow-up and were made aware of a plan to address these symptoms in the future. Given all of these factors, it is possible that participation in this study, regardless of group status, could be considered a brief intervention in and of itself. In fact, the school found that the depressive symptoms of students who participated in the study decreased at a faster rate than students who met inclusion criteria (high scores during the fall screening) for the study but did not choose to participate (J. Collins, personal communication, July 3, 2003). Although no differences in depressive symptoms were found between these groups of students at the end of the school year, the differences noted by the school mid-way through the year suggest that participation in the group affected depressive symptoms by leading to a faster rate of change among students who participated in the study. In other studies, something as short as an assessment has even been found to lead to symptom change (Rosen & Wiens, 1979). According to Muratori et al (2003), an assessment leads to a patient therapist interaction which leads to a "therapeutic relationship" and "provides feedback to children and their parents" (Muratori, pg. 336). Providing children and their parents with a plan for symptom

change in the future may also lead to positive changes in emotional and behavioral functioning by enhancing self-efficacy (Bandura & Cervane, 1983).

In considering these findings, it is also important to examine them within the context of cultural constructs (Sue, 2003). For example, individualism-collectivism is an important social psychological dimension of culture. This dimension refers to the "degree to which a culture promotes individual needs, wishes, desires, and values over group and collective ones" (Matsumoto, 2000, p. 407). In collective cultures, the need for group membership is stressed and people are identified by their group affiliation rather than by individual attributes. In addition, members are also known to share information among themselves far more frequently than do members of individualistic cultures. There are many collectivistic cultures around the world and Native American cultures are among these (Brislin, 2000). Further, given the rural location and strong family relations of members within this Native American community, collectivism may have led to increased communication and awareness about this depression intervention. The result may have been increased support for these students and others throughout the community, contributing to the findings that all students in the study improved over the course of the year. In this way, an intervention with a small group of people can have a far-reaching impact within this community.

In addition to cultural factors, other "resiliency" factors may also have played a role, although it is unclear what specific factors may be impacting findings. Students within this community have survived relocation, extreme poverty, loss of land, flooding, lack of resources, and alienation in the broader society (Northwest Area Foundation,

Reservations for North Dakota, n.d.; Yates, 1987). Through these many traumas and hardships they may have developed a resiliency that allows them to "bounce back" unlike what is normally seen in adolescent populations.

In addition to overall depressive symptoms, specific symptom areas were examined, with a few trends noted on the CDI scales. First, there was a trend for students in the intervention group to decrease their symptoms of Interpersonal Problems at a faster rate than students in the wait-list control group This finding is likely due to the continuing focus on social skills in the class. Both groups of students had similar decreases in Negative Mood, Ineffectiveness, and Negative Self-Esteem symptom areas. In regard to Anhedonia, symptoms decreased at a faster rate for students in wait-list control group. These trends suggest that the Skills Development Class had the greatest impact on symptoms related to interpersonal skills and the least impact on symptoms of anhedonia. These trends need to be examined in more detail in future studies.

Item 9 on the CDI, which assesses suicidal ideation and intent was scrutinized. Prevention of suicide is a major concern within the local school and community, indicated by 2 students' reports of suicidal intent and 14 students' reports of suicidal ideation on the CDI on at least one occasion during the study. Hence, a notable finding was that although more students in the intervention group reported suicidal ideation or intent at pre-intervention, at follow-up the finding was reversed with less students in the intervention group reporting suicidal ideation or intent as compared to students in the wait-list control group. Future research may further delineate the impact of this depression intervention on suicidal ideations.

Anxiety

This study also hypothesized that students in the intervention group would have a significant decrease in anxiety compared to students in the wait-list control group at post-intervention and at 3-month follow-up. It was expected that the CWD-A course would address symptoms of anxiety as well as symptoms of depression, due to their high co-occurence (American Psychiatric Association, 1994). Effect size findings indicated that students in the intervention group had a decrease in anxiety symptoms from pre-intervention to post-intervention, which was maintained at follow-up. This finding was consistent with other studies (e.g., Stark et al., 1987) that found a decrease in anxiety symptoms after a class focused on decreasing depressive symptoms.

Unlike the depression findings, anxiety scores for students in the wait-list control group did not mirror the intervention group. Students in the wait-list control group demonstrated a decrease in anxiety symptoms from pre- to post-intervention, but then demonstrated an increase at follow-up. A further examination of the Social Anxiety scale of the MASC reveals a similar finding, supported by small effect sizes. Students in the intervention group demonstrated a decrease in social anxiety symptoms, which was maintained at follow-up. Whereas, students in the wait-list control group demonstrated a decrease in social anxiety symptoms from pre- to post-intervention, but then demonstrated an increase at follow-up. These trends suggest that the Skills Development Class may have led to a continued decrease in anxiety scores, social anxiety scores in particular, not accounted for by the simple passage of time or other factors that may have influenced the depressive symptoms of students in the wait-list control group.

100

Unlike depressive symptoms, anxiety symptoms were not specifically discussed with students in the wait-list control group, nor were parents contacted regarding concerns about students' anxiety. Furthermore, the class was conducted so as to challenge students to be active participants in class. The small class size provided the opportunity for individual instruction as well as several opportunities for students to practice skills in front of other classmates in a supportive and non-threatening environment. All students were expected and encouraged to participate and equal opportunity for class participation was given to students. This was very challenging for some students. Nonetheless, significant improvement in students' abilities to answer questions in front of the class and participate in group discussions was observed. Rewards were also given for class participation and socially appropriate behaviors within the classroom setting. The class began with a lesson in social skills, which was remembered by students throughout the class. Through observations and students' reports, it seems reasonable that the class led to lowered anxiety in social situations and the school environment.

Clinical significance

This study also hypothesized that the Skills Development Class intervention would lead to clinically significant changes in depressive symptoms such that a higher percentage of students in the intervention group, as compared to students in the wait-list control group, would move from outside the normal range to within the normal range on the CDI. Findings indicated that approximately the same number of students in the intervention group moved from outside to within the normal range of depressive

101

symptoms on the CDI from pre-treatment to follow-up as did students in the wait-list control group. Upon further examination, it was found that the number of students in both groups that had clinically elevated scores (T-score > 65) decreased from pre-intervention to follow-up, with only 1 student in each group continuing to have clinically elevated depression scores on the CDI at follow-up. The improvements in the wait-list control group were not expected. Although findings are inconclusive, factors such as the availability of school counseling services, brief interactions with the investigator, or cultural and/or community influences, may have led to the improvements demonstrated by students in the wait-list control group.

Attendance

As one "real life" indicator of functioning within the school system, attendance was briefly examined by school personnel. School personnel reported that school absence rates for all students who participated in the study, including the wait-list control group, were at their lowest level during the quarter when they attended the Skills Development Class (i.e., intervention students in the 2nd quarter during the Fall Semester, wait-list students in the 4th quarter during the Spring Semester) (see Figure 5; J. Collins, personal communication, July 3, 2003). This suggests that the class may have acted as a reinforcer for the students, engaging them to the extent that school attendance improved. Students received extra individual attention during the class and were encouraged to attend class regularly. Perhaps the individual attention provided in this class format may have been sufficient to encourage students to maintain a good attendance record.

102

Note. Quarterly Period = 8 week period; 1st Quarter = August -October; 2nd Quarter = October - January; 3rd Quarter = January - March; 4th Quarter = March - May.
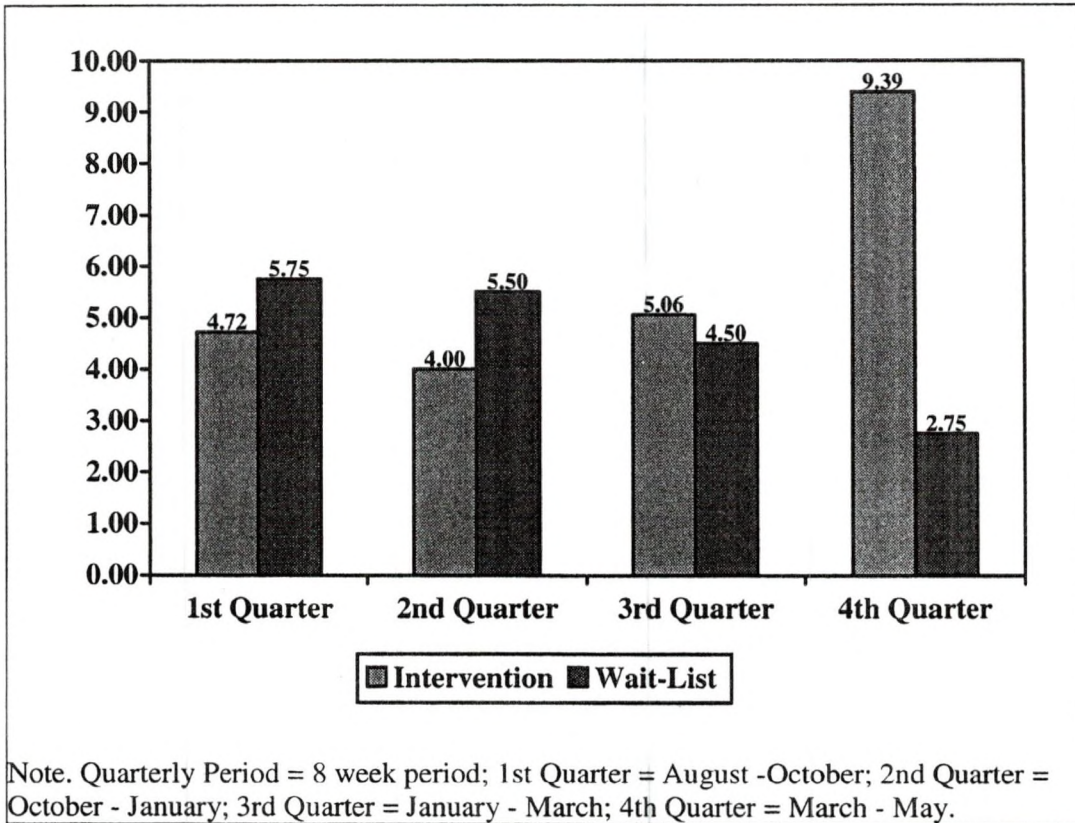
Figure 5. Mean School Absences for Each Quarterly Period.

Although the standardized protocol for course implementation was followed, there was sufficient opportunity to focus on individual student goals in addition to the overall course goals. For example, some students had difficulty speaking in a group, while others had difficulties waiting their turn to speak. Throughout the course, instructors were able to focus on the idiosyncratic needs of the students, while at the same time focusing on the shared goal of decreasing depressive symptoms through the standardized use of the course. Given some of the difficulties with absenteeism and its relationship to incomplete work and school difficulties, this is an important consequence

103

of the class. Beauvais and La Boueff (1985) discuss the increased role of the school in the socialization process on reservations, suggesting that this consequence may be of particular importance in reservation school systems.

Post-intervention interview

In the post-intervention interview, students provided information on their perceptions of how helpful the class was at improving their moods and their general impressions of the class. In addition, the interview provided qualitative data on students' levels of class satisfaction and acceptability. On average, students reported that they perceived the class as helpful at improving their moods. They reported, on average, recalling 75% of the class topics, indicating that approximately 50% of the class topics were "somewhat helpful," and 25% of the topics were "really helpful." Students' favorite class topics dealt with learning new ways to interact with others (interpersonal/social skills), such as "friendly skills" and "starting conversations with others." This may explain the trend for decreases in interpersonal problems and social anxiousness among students in the intervention group. Other skills taught in the class that students perceived as helpful consisted of skills that were presented multiple times (i.e., mood diary, active listening, goal setting) and skills presented in particularly fun class exercises (brainstorming, hearing positive things about yourself). Perhaps the number of class sessions should be increased or the amount of class materials limited to provide for more repetition of materials. During the post-intervention interview, several students asked when they could take the class again, reporting that they felt they could learn additional skills and further improve their mood with additional class sessions. This suggests that

104

offering the class multiple times would be acceptable to students and would potentially lead to better outcomes.

Students who reported talking to others about the class reported generally positive feedback from both family and friends. Students were generally pleased with how the class was run, stating a preference for small group activities. Although most students thought the class had challenging aspects (i.e., talking in front of the group), overall they found it relatively easy. However, a couple of students with deficits in reading and writing found completing the workbook and homework more difficult and appeared to find the class less enjoyable. Although some accommodations were provide, in future interventions, it may be important to provide additional accommodations for students with difficulties in reading and writing.

Limitations

This study has much to add to the literature; however, it also has several limitations. One limitation is related to the nature of the wait-list control group. Since almost 70% of the students in the wait-list control group received some form of individual counseling, the wait-list control group in this study was more like a treatment-as-usual group. Due to the unexpectedness of this finding, counseling services received by the wait-list control group were not examined in detail and no significant information regarding the therapeutic components of these services was gathered.

Another limitation in the current study is the sole dependence on students' self-reports of symptoms. Future research may benefit from parent and teacher reports of students' symptoms to evaluate consistency of symptoms across contexts and ensure more

105

accurate reporting of symptoms. Including parents, teachers, or other community members in treatment may also help generalize the skills learned in the class to other areas of the students' lives.

Another limitation was the lack of "real life" indicators of symptom change. Although attendance was examined briefly by the school's consulting clinical psychologist and provided in summary to the author, a more detailed examination of factors such as attendance, grades, work completion, and school attitude may be helpful to further determine how school behavior and functioning are affected. Further, in the future it may be helpful to set goals based on individual student needs and assess gains in specific areas identified by the instructors. Although no data was gathered on idiosyncratic goals in the current study, instructors clearly focused on individual student needs and noted significant improvement in specific areas (i.e., talking in front of the class, talking to other classmates, awaiting his/her turn to speak). It may be beneficial for future research to examine these goals in addition to general levels of anxiety and depression.

Given the cross-cultural nature of this study, a limitation is the lack of an acculturation measure. Beauvais and LaBoueff (1985) discuss the role of acculturation and its importance in understanding and working with diverse groups of people. Future research may benefit from examining how an individual's identification with his/her own culture as well as the majority culture impacts the effectiveness of cognitive-behavioral interventions.

Finally, the small sample size of the current study is another limitation, restricting the use of statistical tests of significance. It is important to ensure that differences found in the current study are not artifacts of a particular group of students; therefore, exposing a larger group of students, as well as other Native American communities to the intervention would help examine these issues and add to this literature.

Strengths

The current study has many strengths and is a significant contribution to the literature. One strength is the use of the CWD-A course, a structured intervention previously found to be effective among middle-school students. This study expanded the literature base on the effectiveness of the CWD-A course by examining its effectiveness among a group of Native American middle-school students, of whom all students with elevated depressive symptoms were included (i.e., no exclusion criteria based on educational status). This group skills-based course may have demonstrated other advantages as well. The course demonstrated timesavings, as therapist time is more efficiently utilized in the group setting than in individual counseling sessions. Furthermore, some students who had refused individual counseling in the past agreed to attend the class and parents who had not previously consented to individual counseling services for their child, agreed to their child's participation in the Skills Development Class. This suggests that at least for some students and their parents the Skills Development Class may be a less stigmatizing approach than individual counseling services. The CWD-A course intervention was further modified for this study and is now

available for other researchers and therapists to utilize. Copies of the instructors' manual and student workbook are available upon request by the author.

Furthermore, the inclusion of an anxiety measure was a strength of this study and led to interesting findings. The trend for the intervention to have an effect on anxiety symptoms needs to be examined in more detail in future studies. Perhaps the CWD-A course, or other skills-based cognitive-behavioral group interventions, are more amenable to changing anxiety symptoms in certain populations. Research examining the phenomenological aspects of anxiety and depression among Native American children and adolescents may shed light on these findings and is an important area of future research.

A final strength of this study was the existing collaboration between the school professionals and local mental health counselors. School administrators, school board members, teachers, and school counseling staff, including the school's consulting clinical psychologist, had a strong collaboration with community mental health counselors. The strength of this collaboration demonstrates the communities goal to nurture the educational and social needs of students in this community. This program further strengthened this collaboration and provided school administrators, the community school board, and school and local IHS counselors with intervention materials, feedback on the intervention, and recommendations for future school-based interventions. Programs such as this reflect a commitment to the students and the broader community and are a way of maintaining a strong and supportive school environment.

Summary

In summary, results suggest that this modification of the CWD-A was an acceptable intervention for Native American middle-school students with depressive symptoms in this particular Midwestern reservation community. Students in both groups demonstrated a significant decrease in depressive symptoms; however, there was a trend for students in the intervention group on average to improve in the areas of interpersonal skills more quickly than the students in the control group. There was also a trend for students in both groups to have a decrease in anxiety symptoms from pre-to post-intervention with students in the intervention group continuing to have lower anxiety symptoms at 3-month follow-up, while students in the wait-list control group had an increase in anxiety symptoms. Both groups of students were found to have a lower school absence rate during the quarter that they attended the Skills Development Class and students in the intervention group were more likely to remain in the school district throughout the year.

Overall, the current research findings suggest that students in the intervention group had greater improvements in developing new social skills and decreasing anxiety symptoms, as well as having improvement in school attendance. Additionally, it appears that students in both groups decreased their depressive symptoms more quickly than other students in the school with similar depressive symptoms who did not participate in the class. Findings from this study, as well as from previous studies, demonstrate that skill-based interventions are effective with adolescents in high-risk populations and suggest that an increase in skill-based interventions may be beneficial. Looking ahead, increased

attention on skill-based interventions with a focus on effective outcomes for high-risk adolescents is very important. In addition, it will be important to further elucidate essential therapy components and characteristics that are most vital to improved outcomes.

APPENDICES

Appendix A

Children's Depression Inventory

From each group of three sentences, pick one sentence that describes you best for the past two weeks. Put a mark next to the sentence that you pick as your answer.

___ I am sad once in a while
___ I am sad many times
___ I am sad all the time

___ All bad things are my fault
___ Many bad things are my fault
___ Bad things are not usually my fault

___ Nothing will ever work out for me
___ I am not sure if things will work out for me
___ Things will work out for me O.K.

___ I do not think about killing myself
___ I think about killing myself but I would not do it
___ I want to kill myself

___ I do most things O.K.
___ I do many things wrong
___ I do everything wrong

___ I feel like crying every day
___ I feel like crying many days
___ I feel like crying once in a while

___ I have fun in many things
___ I have fun in some things
___ Nothing is fun at all

___ Things bother me all the time
___ Things bother me many times
___ Things bother me once in a while

___ I am bad all the time
___ I am bad many times
___ I am bad once in a while

___ I like being with people
___ I do not like being with people many times
___ I do not want to be with people at all

___ I think about bad things happening to me once in a while
___ I worry that bad things will happen to me
___ I am sure that terrible things will happen to me

___ I cannot make up my mind about things
___ It is hard to make up my mind about things
___ I make up my mind about things easily

___ I hate myself
___ I do not like myself
___ I like myself

___ I look O.K.
___ There are some bad things about my looks
___ I look ugly

___ I have to push myself all the time to do my schoolwork
___ I have to push myself many times to do my schoolwork
___ Doing schoolwork is not a big problem

___ I never have fun at school

___ I have fun at school only once in a while

___ I have fun at school many times

__ I have trouble sleeping every night
__ I have trouble sleeping many nights
__ I sleep pretty well

__ I have plenty of friends
__ I have some friends but I wish I had more
__ I do not have any friends

__ I am tired once in a while
__ I am tired many days
__ I am tired all the time

__ My schoolwork is alright
__ My schoolwork is not as good as before
__ I do very badly in subjects I used to be good in

__ Most days I do not feel like eating
__ Many days I do not feel like eating
__ I eat pretty well

__ I can never be as good as other kids
__ I can be as good as other kids if I want to
__ I am just as good as other kids

__ I do not worry about aches and pains
__ I worry about aches and pains many times
__ I worry about aches and pains all the time

__ Nobody really loves me
__ I am not sure if anybody loves me
__ I am sure that somebody loves me

__ I do not feel alone
__ I feel alone many times
__ I feel alone all the time

__ I usually do what I am told
__ I do not do what I am told most times
__ I never do what I am told

__ I get along with people
__ I get into fights many times
__ I get into fights all the time

MOOD QUESTIONNAIRE
(adapted from CES-D; Radloff, 1977)*

Circle the number for each statement that best describes how often you felt this way *during the past week.*

DURING THE PAST WEEK	Rarely or None of the Time (less than 1 day)	Some or a Little of the Time (1-2 days)	Occasionally or a Moderate Amount of Time (3-4 days)	Most or All of the Time (5-7 days)
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I didn't feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I couldn't shake off the blues. even with help from my family or friends.	0	1	2	3
4. I felt that I was just as good as other people.	3	2	1	0
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	3	2	1	0
9. I thought life had been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3

*The authors wish to thank Lenore Radloff for granting permission to reprint this version of the CES-D.

		0	1	2	3
11.	My sleep was restless.	0	1	2	3
12.	I was happy.	3	2	1	0
13.	I talked less than usual.	0	1	2	3
14.	I felt lonely.	0	1	2	3
15.	People were unfriendly.	0	1	2	3
16.	I enjoyed life.	3	2	1	0
17.	I had crying spells.	0	1	2	3
18.	I felt sad.	0	1	2	3
19.	I felt that people disliked me.	0	1	2	3
20.	I could not "get going."	0	1	2	3

Appendix C

Multidimensional Anxiety Scale for Children

For each item, please circle the number that shows how often the statement is true for you. If a sentence is true about you a lot of the time, circle 3. If it is true about you some of the time, circle 2. If it is true about you once in a while, circle 1. If a sentence is hardly ever true about you, circle 0.

1)	0	1	2	3	I feel tense or uptight
2)	0	1	2	3	I usually ask permission
3)	0	1	2	3	I worry about other people laughing at me
4)	0	1	2	3	I get scared when my parents go away
5)	0	1	2	3	I have trouble getting my breath
6)	0	1	2	3	I keep my eyes open for danger
7)	0	1	2	3	The idea of going away to camp scares me
8)	0	1	2	3	I get shaky or jittery
9)	0	1	2	3	I try to stay near my mom or dad
10)	0	1	2	3	I'm afraid that other kids will make fun of me
11)	0	1	2	3	I try hard to obey my parents and teachers
12)	0	1	2	3	I get dizzy or faint feelings
13)	0	1	2	3	I check things out first
14)	0	1	2	3	I worry about getting called on in class
15)	0	1	2	3	I'm jumpy
16)	0	1	2	3	I'm afraid other people will think I'm stupid
17)	0	1	2	3	I keep the light on at night
18)	0	1	2	3	I have pains in my chest
19)	0	1	2	3	I avoid going to places without my family
20)	0	1	2	3	I feel strange, weird, or unreal
21)	0	1	2	3	I try to do things other people will like
22)	0	1	2	3	I worry about what other people think of me
23)	0	1	2	3	I avoid watching scary movies and TV shows
24)	0	1	2	3	My heart races or skips beats
25)	0	1	2	3	I stay away from things that upset me
26)	0	1	2	3	I sleep next to someone from my family
27)	0	1	2	3	I feel restless and on edge
28)	0	1	2	3	I try to do everything exactly right
29)	0	1	2	3	I worry about doing something stupid or embarrassing
30)	0	1	2	3	I get scared riding in the car or on the bus

31)	0	1	2	3	I feel sick to my stomach
32)	0	1	2	3	If I get upset or scared, I let someone know right away
33)	0	1	2	3	I get nervous if I have to perform in public
34)	0	1	2	3	Bad weather, the dark, heights, animals, or bugs scare me
35)	0	1	2	3	My hands shake
36)	0	1	2	3	I check to make sure things are safe
37)	0	1	2	3	I have trouble asking other kids to play with me
38)	0	1	2	3	My hands feel sweaty or cold
39)	0	1	2	3	I feel shy

Appendix D

Skills Development Class Post-Intervention Interview

Instructions: *You attended the skills development class last quarter. I wanted to take some time today to talk to you about the class. I am interested in what you thought about the class. I want to learn from each student about the class so that we can learn how to improve the class.*

1.   **What did you think of the skills development class?**

Probes:

What things did you like about the class?

What didn't you like about the class?

What would you change about the class?

What was easy about the class?

What was hard about the class?

How would this class work for other kids?

How about for other Native American kids?

2.   What did you think about how the class was taught?

Probes:

What did the teachers do that helped you to learn?

What could the teachers do different to help students learn more or enjoy the class more?

Do you think that it helped to have more than one teacher in the class?

What did you think of the small group activities/discussion?

What did you think of the large group discussions/activities?

What did you think of the workbook?

Did you like taking the class during the school day?

3.   What did others think about you being in this class?

Probes:

What did you tell others (family, friends, teachers) about this class? What would you?

What did your family and friends think about you taking this class?

What did your teachers think about you taking this class?

Skills Development Class Questions

1.   Do you think that the skills development class helped you to improve your mood?

1	2	3	4	5	6	7	8	9	10
didn't help				helped somewhat					helped very much

2.   Put a mark next to each of these skills that you remember learning about and - then mark how helpful that skill was for you to learn.

___Friendly skills (eye-contact, smiling, sharing about yourself, giving compliments)
      not helpful   somewhat helpful   really helpful

___Constructive feedback
      not helpful   somewhat helpful   really helpful

___Starting conversations with others
      not helpful   somewhat helpful   really helpful

___Increasing pleasant activities
      not helpful   somewhat helpful   really helpful

___Keeping track of your mood (mood diary)
      not helpful   somewhat helpful   really helpful

___Keeping track of your pleasant activities
      not helpful   somewhat helpful   really helpful

___Setting goals (realistic, small)
      not helpful   somewhat helpful   really helpful

___Setting rewards
      not helpful   somewhat helpful   really helpful

___Graphing your mood and your pleasant activities

       not helpful   somewhat helpful   really helpful

___Changing negative thoughts to positive thoughts
       not helpful   somewhat helpful   really helpful

___Looking for things that make you think negatively
       not helpful   somewhat helpful   really helpful

___Challenging/Questioning your negative thoughts
       not helpful   somewhat helpful   really helpful

___Hearing positive things about yourself
       not helpful   somewhat helpful   really helpful

___Using "Active" or good listening skills
       not helpful   somewhat helpful   really helpful

___Stating your positive and negative feelings
       not helpful   somewhat helpful   really helpful

___Defining a Problem, so people with listen
       not helpful   somewhat helpful   really helpful

___Brainstorming
       not helpful   somewhat helpful   really helpful

___Choosing a solution - a compromise
       not helpful   somewhat helpful   really helpful

___Preparing for Daily Hassles and planning ways to overcome them
       not helpful   somewhat helpful   really helpful

___Learning about long-term versus short-term goals
       not helpful   somewhat helpful   really helpful

3.   **Which of the above skills was the most helpful for you to learn?**

4.   **Did you see a counselor or participate in a treatment program during this class? (if yes, how often, and what did you learn)?**

Early Termination

What happened to make you decide to stop attending the class?

Interviewer's Observations/Comments

Appendix E

Recommendations for Implementing the Skills Development Class

The following recommendations or issues for consideration are based on therapist observations and student feedback. This material is in addition to other recommendations covered in the manuscript. These issues are not listed by level of importance; hence it is important to consider each of them when preparing to implement the Skills Development Class.

1)   More repetition of material as well as more in depth coverage of class materials would be beneficial. It may be best to increase the number of class sessions, perhaps extending the class to a full semester. On the other hand, if more time is not available, it may be best to reduce the current class material, based on class goals and previous student feedback, in order to enhance the ability of students retain the material. One topic area that could potentially be eliminated or scaled down is the use of the Pleasant Events Schedule (PES), currently covered in Sessions 1 and 2. Students found the PES very challenging, with particular difficulty experienced by students with significant reading or writing deficits.

2)   There may also be ways to enhance student interest and retention of material by modifying the presentation of materials. Students reported enjoying lessons that were presenting in a game format, such as brainstorming. In addition, the booster sessions, which utilized games to present material, were observed as highly enjoyable and effective

by therapist. In addition, presenting class material though teaching techniques that would play to strengths of children with stronger visual-spatial skills may be beneficial (i.e., visual aids). Research indicates that Native American youth have dominant visual-spatial skills and that the school environment, which is heavily verbally-based often plays to the weaknesses of Native American youth (Yates, 1987). An increase in nonverbal communication and visual presentation of materials may help enhance the CWD-A course, when provided to Native American children by focusing on visual rather than linguistic presentation of material.

3)   Changing the make-up of students in the class may also be beneficial. Having a more heterogeneous groups of students (i.e., all 7th graders) may help to increase the efficiency of the class along with the acceptability to the students. The wide range of reading levels was one of the greatest challenges during implementation and may be lessened by having students of the same age or reading levels in the same class. In addition, some students also reported that they wanted more students from their grade in the class.

4)   Including parents or community members in the intervention may be another adaptation to consider. Perhaps their inclusion would extend the generalizability of skills taught in the class. Also, it may be a way to maintain continued support for the Skills Development Class from the broader community.

5)   One final consideration is that this class could potentially be beneficial to all middle school students, not just hose that report high depressive symptoms. Given appropriate resources, this Skills Development Class could be used to teach positive coping strategies to all students.

REFERENCES

Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: A
theory-based subtype of depression. *Psychological Review, 96,* 358-372.

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in
humans: Critique and reformulation. *Journal of Abnormal Psychology, 87,* 49-74.

Achenbach, T. M. & Edelbrock, C. (1983). *Manual for the Child Behavior Checklist and
Revised Child Behavior Profile.* Burlington, VT: University of Vermont
Department of Psychiatry.

Alford, B. A., Lester, J. M., Patel, R., Buchanan, J. P., & Giunta, L. C. (1995).
Hopelessness predicts future depressive symptoms: A prospective analysis of
cognitive vulnerability and cognitive content specificity. *Journal of Clinical
Psychology, 51,* 331-339.

Allen, M. G. (1976). Twin studies of affective illness. *Archives of General Psychiatry,
33,* 1476-1478.

Allison, S., Roeger, L., Martin, G., & Keeves, J. (2001). Gender differences in the
relationship between depression and suicidal ideation in young adolescents.
Australian and New Zealand Journal of Psychiatry, 35, 498-503.

126

American Academy of Child and Adolescent Psychiatry. (1998). Practice parameters for
the assessment and treatment of children and adolescents with depressive
disorders. *Journal of the American Academy of Child and Adolescent Psychiatry,*
37(10suppl), 63S-83S.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental*
disorders (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1987). Diagnostic and statistical manual of mental
disorders (3rd ed., revised.). Washington, DC: Author.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental*
disorders (4th ed.). Washington, DC: Author.

Angold, A., & Costello, E. (1993). Depressive comorbidity in children and adolescents:
Empirical, theoretical, and methodological issues. *American Journal of*
Psychiatry, 150, 1779-1791.

Angold, A., Costello, E. J., Pickles, A., & Winder, F. (1987). *The development of a*
questionnaire for use in epidemiological studies of depression in children and
adolescents. London: Medical Research Council Child Psychiatry Unit.

Bandura, A., & Cervane, B. (1983). Self-evaluation and self-efficacy mechanisms
governing the motivational effects of goal systems. *Journal of Personality and*
Social Psychology, 45, 1017-1028.

Beals, J., Piasecki, J., Nelson, S., Jones, M., Keane, E., Dauphinais, P., Red Shirt, R., Sack, W. H., & Manson, S. M. (1997). Psychiatric disorder among American Indian adolescents: Prevalence in Northern Plains youth. *Journal of the American Academy of Child and Adolescent Psychiatry, 36* (9), 1252-1259.

Beauvais, F. & LaBoueff, S. (1985). Drug and alcohol intervention in American Indian communities. *The International Journal of the Addictions, 20*(1), 139-171.

Bechtold, D. W. (1994). Indian adolescent suicide: Clinical and developmental considerations. In C.W. Duclos & S.M. Manson (Eds.), Calling from the rim: Suicidal behavior among American Indian and Alaska Native adolescents (pp. 71-80). *American Indian and Alaska Native Mental Health Research, 4* (Monograph).

Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects. New York: Harper & Row.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: Guilford Press.

Beck, A. T., Ward, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). Alcohol abuse and eventual suicide: A 5- to 10-year prospective study of alcohol-abusing suicide attempters. *Journal of Studies on Alcohol, 50*, 202-209.

Bellack, A. S., Hersen, M., & Himmelhoch, J. (1981). Social skills training compared

    with pharmacotherapy and psychotherapy in the treatment of unipolar depression.

    American Journal of Psychiatry, 138, 1562-1567.

Berry, J.W. (1998). Acculturative stress. In P.B. Organista, K.M. Chun, & G. Marin

    (Eds.), *Readings in ethnic psychology* (pp. 117-122). New York: Routledge.

Birmaher, B., Brent, D. A., Kolko, D., Baugher, M., Bridge, J., Holder, D., Iyengar, S.,

    & Ulloa, R. E. (2000). Clinical outcome after short-term psychotherapy for

    adolescents with major depressive disorder. *Archives of General Psychiatry,*

    57(1), 29-36

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., & Kaufman, J. (1996).

    Childhood and adolescent depression: A review of the past 10 years. Part I.

    Journal of the American Academy of Child and Adolescent Psychiatry, 35(11),

    1427-39.

Boggs, S. (1956). An interactional study of Ojibwa socialization. *American Sociological*

    Review, 21, 191-198.

Brent, D. A., Holder, D., Kolko, D., Birmaher, B., Baugher, M., Roth, C., Iyengar, S., &

    Johnson, B. A. (1997). A clinical psychotherapy trial for adolescent depression

    comparing cognitive, family, and supportive therapy. *Archives of General*

    Psychiatry, 54, 877-885.

Brislin, R. (2000). *Understanding cultures influence on behavior* (2nd ed.). Orlando, FL:

    Harcourt College Publishers.

Buhs, L.M. (2000). Program evaluation of the American Indian Life Skills Development

 Curriculum with American Indian and Caucasian adolescents (Doctoral

 dissertation, University of South Dakota, 1999). *Dissertation Abstracts*

 International, 61(1-B), 523.

Bunney, W. E., Murphy, D. L., Goodwin, F. K., & Borge, G. F. (1970). The switch

 process from depression to mania: Relationship to drugs which alter brain amines.

 Lancet, 1, 1022.

Butler, L., Miezitis, A., Friedman, R., & Cole, E. (1980). The effect of two school-based

 intervention programs on depressive symptoms in preadolescents. *American*

 Educational Research Journal, 17(1), 111-119.

Carroll, B. J., Fielding, J. M., Blashki, T. G. (1973). Depression rating scale: A critical

 review. *Archives of General Psychiatry, 28,* 361-366.

Clarke, G. N., Lewinsohn, P. M., & Hops, H. (1990). *Adolescent Coping with Depression*

 Course. Eugene, OR: Castalia Press.

Clarke, G. N., Rohde, P., Lewinsohn, P. M., Hops, H., & Seeley, J. R. (1999). Cognitive-

 behavioral treatment of adolescent depression: Efficacy of acute group treatment

 and booster sessions. *Journal of the American Academy of Child and Adolescent*

 Psychiatry, 38(3), 272-280.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences. New York:

 Academic Pres.

Cohen-Sandler, R. & Berman, A.L. (1980). Diagnosis and treatment of childhood

 depression and self-destructive behavior. *Journal of Family Practice, 11,* 51-58.

Compas, B.R., & Oppedisano, G. (2000). Mixed anxiety/depression in childhood and adolescence. In A.J. Sameroff, M. Lewis, & S.M. Miller (Eds.), *Handbook of developmental psychopathology* (2nd ed., pp.531-548). New York, NY: Kluwer Academic/Plenum.

Coopersmith, S. (1975). *Self-Esteem Inventory- Form B.* Lafayette, CA: Self-Esteem Institute.

Cramer, B. Palacio Espana, F. (1993). *La pratique des psychothérapies mères-bébés.* Paris: PUF.

Cull, J. & Gill, W. (1988). *Suicide Probability Scale manual.* Los Angeles, CA: Western Psychological Services.

Devereux, G. (1951). Three technical problems in the psychotherapy of Plains Indian patient. *American Journal of Psychotherapy, 5*, 411-423.

Dohrenwend, B. P., Dohrenwend, B. S., Gould, M. S., Link, B., Neugebauer, R., & Wunsch-Hitzig, R. (1980). *Mental illness in the United States: Epidemiological estimates.* New York: Praeger.

Duman, R. S., Heninger, G. R., & Nestler, E. J. (1997). A molecular and cellular theory of depression. *Archives of General Psychiatry, 54,* 597-606.

Edwards, E. D., & Edwards, M. E. (1984). Group practice with American Indians. *Social Work With Groups, 7*, 7-21.

131

Elkin, I. (1994). The NIMH treatment of depression collaborative research program: Where we began and where we are. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change* (4th ed., pp.114-139). New York: Wiley.

Emery, G. (1983). Cognitive therapy with depressed children and adolescents. In Cantwell & Carlson (Eds.), *Affective disorders in children and adolescence.* Spectrum Publications.

Emslie, G. J., Weinberg, W. A., Kennard, B. D., & Kowatch, R. A. (1994). Neurobiological aspects of depression in children and adolescents. In W. M. Reynolds & H. F. Johnston (Eds.), *Handbook of depression in children and adolescents* (pp. 1430-165). New York: Plenum Press.

Erickson, E. (1968). *Identity: Youth and crisis.* New York: Norton.

Fergusson, D.M. & Woodward, L.J. (2002). Mental health, educational, and social role outcomes of adolescents with depression. *Archives of General Psychiatry, 59(3),* 225-231.

Finch, A. J., Saylor, C. F., Edwards, G. L., & McIntosh, J. A. (1987). Children's Depression Inventory: Reliability over repeated administrations. *Journal of Clinical Child Psychology, 16*(4), 339-341.

Fine, S., Forth, A., Gilbert, M., & Haley, G. (1991). Group therapy for adolescent depressive disorder: A comparison of social skills and therapeutic support. *Journal of the American Academy of Child and Adolescent Psychiatry, 30(1),* 79-85.

Fitts, W. H. (1965). *Tennessee Self-concept Scale: Manual.* Los Angeles, CA: Western

    Psychological Services.

Giancotti, A., & Vinci, G., (1986). A major depression of psychogenic origin in a five-

    year-old. *American Journal of Orthopsychiatry, 56,* 617-621.

Goldin, L. R. & Gershon, E. S. (1988). The genetic epidemiology of major depressive

    illness. In A. J. Frances & R. E. Hale (Eds.), *Review of psychiatry.* Washington,

    DC: American Psychiatric Press.

Gotlib, I. H., & Asarnow, R. F. (1979). Interpersonal and impersonal problem-solving

    skills in mildly and clinically depressed students. *Journal of Consulting and*

    Clinical Psychology, 47, 86-95.

Green, B. J. (1980). Depression in early adolescence: An exploratory investigation of its

    frequency, intensity, and correlates (Doctoral dissertation, Pennsylvania State

    University, 1980). *Dissertation Abstracts International, 41,* 3890-B.

Greer, L. (1988). *Adolescent Health Survey (American Indian Version).* Minneapolis,

    MN: University of Minnesota Adolescent Health Program.

Hammen, C. L. (1991). Generation of stress in the course of unipolar depression. *Journal*

    of Abnormal Psychology, 100, 555-561.

Hope, T.L., Adams, C., Reynolds, L., Powers, D., Perez, R.A., & Kelley, M.A. (1999).

    Parent vs. self-report: Contributions toward diagnosis of adolescent

    psychopathology. *Journal of Psychopathology and Behavioral Assessment,*

    21(4), 349-363.

Illfeld, F. W. (1977). Current social stressors and symptoms of depression. *American Journal of Psychiatry, 134,* 161-166.

Isen, A. M., Shaiken, T. F., Clark, M., & Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology, 36,* 1-12.

John, K., Gammon, D., Prusoff, B., & Warner, V. (1987). The Social Adjustment Inventory for Children and Adolescents (SAICA): Testing of a new semistructured interview. *Journal of the American Academy of Child and Adolescent Psychiatry, 26,* 898-911.

Joiner, T. E. (2000). A test of the hopelessness theory of depression in youth psychiatric inpatients. *Journal of Clinical Child Psychology, 29*(2), 167-176.

Kahn, J. S., Kehle, T. J., Jenson, W. R., & Clark, E. (1990). Comparison of cognitive-behavioral, relaxation, and self-modeling interventions for depression among middle-school students. *School Psychology Review, 19(2),* 196-211.

Kaslow, N. J., Croft, S. S., & Hatcher, C. A. (1999). Depression and bipolar disorder in children and adolescents. In S. D. Netherton, D. Holmes, & C. E. Walker (Eds.), *Child and adolescent psychological disorders: A comprehensive textbook* (pp. 264-281). New York: Oxford University Press.

Kazdin, A. E. (1989). Childhood Depression. In E. J. Mash & R. A. Barkley (Eds.), *Treatment of childhood disorders* (pp. 135-166). New York: The Guilford Press.

Kendall, P. C. & Hammen, C. (1995). *Abnormal psychology.* Boston, MA: Houghton Mifflin.

Klerman, G. L., Weissman, M. M., Rounsaville, B. J., & Chevron, E. S. (1984).

    Interpersonal psychotherapy of depression. New York: Basic Books.

Kovacs, M. (1992). *Children's Depression Inventory manual.* North Tonawanda, New

    York: Multi-Health Systems, Inc.

Kovacs, M. (1996). The course of childhood-onset depressive disorders. *Psychiatric*

    Annals, 26(6), 326-330.

LaDue, R.A. (1994). Coyote returns: Twenty sweats does not an Indian expert make.

    Women and Therapy, 15(1), 93-111.

LaFromboise, T. D. (1983). *Assertion Training with American Indians.* Las Cruces, NM:

    ERIC Clearinghouse on Rural Education and Small Schools.

LaFromboise, T. D. (1991). *Zuni Life Skills Development curriculum.* Palo Alto, CA:

    Stanford Health Promotion Resource Center.

LaFromboise, T. D. (1992). *American Indian Life Skills Development Curriculum.*

    Madison, WI: The University of Wisconsin Press.

LaFromboise, T. D. & Howard-Pitney, B. (1995). The Zuni Life Skills Development

    curriculum: Description and evaluation of a suicide prevention program. *Journal*

    of Counseling Psychology, 42(4), 479-486.

LaFromboise, T. D. & Low, K. G. (1989). American Indian children and adolescents. In

    J. T. Gibbs & L. N. Huang (Eds.), *Children of color: Psychological interventions*

    with minority youth (pp. 114-147). San Francisco, CA: Jossey-Bass Publishers.

LaFromboise, T. D. & Rowe, W. (1983). Skills training for bicultural competence:

    Rationale and application. *Journal of Counseling Psychology, 30*(4), 589-595.

Lewinsohn, P. M. (1974). A behavioral approach to depression. In R. M. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research.* New York: John Wiley and Sons.

Lewinsohn, P. M., Biglan, A., & Zeiss, A. M. (1976). Behavioral treatment of depression. In P. O. Davidson (Ed.), *The behavioral management of anxiety, depression, and pain* (pp. 91-146). New York: Brunner/Mazel.

Lewinsohn, P., Clarke, G., Hops, H., & Andrews, J. (1990). Cognitive-behavioral treatment for depressed adolescents. *Behavior Therapy, 21,* 385-401.

Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology, 102,* 133-144.

Lewinsohn, P. M., Munoz, R. F., Youngren, M. A., & Zeiss, A. M. (1978). *Control your depression.* Englewood Cliffs, NJ: Prentice-Hall.

Lewinsohn, P. M., Youngren, M. A., & Grosscup, S. J. (1979). Reinforcement and depression. In R. A. Dupue (Ed.), *The psychobiology of depressive disorders: Implications for the effects of stress.* New York: Academic Press.

Liddle, B., & Spence, S. H. (1990). Cognitive-behavioral therapy with depressed primary school children: A cautionary note. *Behavioral Psychotherapy, 18,* 85-102.

Manson, S. M. (Ed). (1982). *Topics in American Indian mental health prevention.* Portland, OR: Oregon Health Sciences University Press.

Manson, S. M. (1992). Depression and related mental illnesses among American Indians: The current state of the art in treatment. In E. W. Haller & L. P. Aitkin (Eds.), *Mashkiki: Old medicine nourishing the new* (pp. 81-91). New York, NY: University Press of America, Inc.

Manson, S. M. (1995). Culture and major depression: Current challenges in the diagnosis of mood disorders. *Cultural Psychiatry, 18*(3), 487-501.

Manson, S. M. (2000). Mental health services for American Indians and Alaska Natives: Need, use, and barriers to effective care. *Canadian Journal of Psychiatry, 45,* 617-626.

Manson, S. M., Ackerson, L. M., Dick, R. W., Baron, A. E., & Fleming, C. M. (1990). Depressive symptoms among American Indian adolescents: Psychometric characteristics of the Center for Epidemiologic Studies Depression scale (CES-D). *Psychological Assessment, 2*(3), 231-237.

Manson, S. M. & Brenneman, (1995). Chronic disease among older American Indians: Preventing depressive symptoms and related problems of coping. In D.K. Padgett (Ed.), *Handbook on ethnicity, aging, and mental health* (pp. 284-303). Westport, CT: Greenwood Press.

March, J. (1997). *Multidimensional Anxiety Scale for Children.* North Tonawanda, New York: Multi-Health Systems, Inc.

Matsumoto, D. (2000). *Culture and psychology: People around the world* (2nd ed.). Stamford, CT: Wadsworth/Thomson Learning.

McShane, D. (1988). An analysis of mental health research with American Indian youth. *Journal of Adolescence, 11,* 87-116.

Morris, C. T. (1999). Characteristics of internalizing social-emotional behaviors of southwestern Native American children (Doctoral dissertation, Utah State University, 1999). *Dissertation Abstracts International, 60*(4-B), 1864.

Moyal, B. (1977). Self-esteem, locus of control, stimulus appraisal and depressive symptoms in children. *Journal of Consulting and Clinical Psychology, 45*(5), 951-952.

Mufson, L. & Fairbanks, J. (1996). Interpersonal psychotherapy for depressed adolescents: A one-year naturalistic follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 35(9),* 1145-1155.

Mufson, L., Moreau, D., Weissman, M. M., & Klerman, G. L. (1993). *Interpersonal psychotherapy for depressed adolescents.* New York: The Guilford Press.

Mufson, L., Moreau, D., Weissman, M. M., Wickramaratne, P., Martin, J., & Samoilov, A. (1994). Modification of interpersonal psychotherapy with depressed adolescents (IPT-A): Phase I and II studies. *Journal of the American Academy of Child and Adolescent Psychiatry, 33(5),* 695-705.

Mufson, L., Weissman, M. M., Moreau, D., & Garfinkel, R. (1999). Efficacy of interpersonal psychotherapy for depressed adolescents. *Archives of General Psychiatry, 56,* 573-579.

Muratori, F., Picchi, L., Bruni, G., Patarnello, M., & Romagnoli, G. (2003). A two-year follow-up of psychodynamic psychotherapy for internalizing disorders in children. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*(3), 331-339.

National Institute of Mental Health. (2000). *Depression research at the National Institute of Mental Health: Fact sheet.* (NIH Publication No. 00-4501). Bethesda, MD: Office of Communication and Public Liaison, National Institutes of Health.

North Dakota's First Citizens. (n.d.). Retrieved July 29, 2003, from: http://www.health.state.nd.us/ndiac/statistics.htm

Northwest Area Foundation, Reservations for North Dakota. (n.d.). Retrieved July 10, 2003, from the Northwest Area Foundation's website: http://indicators.nwaf.org/ShowOneRegion.asp?FIPS=38

Nowicki, S. & Strickland, B. R. (1973). A locus of control scale for children. *Journal of Clinical and Consulting Psychology, 40,* 148-155.

Office of Technology Assessment (1990). *Indian adolescent mental health.* (OTA-H-466). Washington, DC: U.S. Government Printing Office.

Olweus, D. (1978). *Aggression in the schools.* New York: Wiley.

Papolos, D., & Papolos, J. (1997). Overcoming depression: The definitive resource for patients and families who live with depression and manic-depression (3rd ed.). New York: HarperCollins.

Peterson, C. & Seligman, M. E. P. (1984). Causal explanations as a risk factor for depression: Theory and evidence. *Psychological Review, 91,* 347-374.

Petti, T. A. (1978). Depression in hospitalized child psychiatry patients: Approaches to measuring depression. *Journal of the American Academy of Child Psychiatry, 17,* 49-59.

Petti, T. A., Bornstein, M., Delamater, A., & Conner, C. K. (1980). Evaluation and multimodality treatment of a depressed prepubertal girl. *Journal of the American Academy of Child Psychiatry, 19,* 690-702.

Phinney, J. S., Lochner, R. M., & Murphy, R. (1990). Ethnic identity development and psychological adjustment in adolescence. In A. R. Stiffman & L. E. Davis (Eds.). *Ethnic issues in adolescent mental health* (pp. 53-72). Newbury Park, CA: Sage Publishing.

Piers, E. V. (1969). *Manual for the Piers-Harris children's self-concept scale.* Nashville, TN: Counselor Recordings & Tests, 1969.

Politano, .M., Nelson, W.N., Evans, H.E., Sorenson, S.B., & Zeman, D.J. (1986). Factor analytic evaluation of differences between Black and Caucasian emotionally disturbed children on the Children's Depression Inventory. *Journal of Psychopathology and Behavioral Assessment, 8,* 1-7.

Poznanski, E. O., Grossman, J., Buchsbaum, Y., Banegas, M., Freeman, L., & Gibbons, R. (1984). Preliminary studies of the reliability and validity of the Children's Depression Rating Scale. *Journal of the American Academy of Child Psychiatry, 23,* 191-197.

Poznanski, E. O. & Mokros, H. B. (1996). *Children's Depression Rating Scale, Revised (CDRS-R): Manual.* Los Angeles: Western Psychological Services.

140

Puig-Antich, J. (1987). Sleep and endocrine correlates of affective illness in childhood and adolescence. *Journal of Adolescent Health Care, 8*, 505-529.

Puig-Antich, J. & Chambers, W. (1978). *The schedule for affective disorders and schizophrenia for school-aged children.* Unpublished interview schedule, New York State Psychiatric Institute.

Puig-Antich, J., Lukens, E., Davies, M., Goetz, D., Brennan-Quattrock, J., & Todak, G. (1985). Psychosocial functioning in prepubertal major depressive disorders: Interpersonal relationships during the depressive episode. *Archives of General Psychiatry, 42*, 500-507.

Radloff, L. S., (1977). A CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.

Rehm, L. P. (1977). A self-control model of depression. *Behavior Therapy, 8*, 787-804.

Renfrey, G. S. (1992). Cognitive-behavioral therapy and the Native American client. *Behavior Therapy, 23*, 321-340.

Reynolds, C. R., & Richmond, B. O. (1978). What I Think and Feel: A revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology, 6*, 271-280.

Reynolds, W. M. (1987). *Reynolds Adolescent Depression Scale.* Odessa, FL: Psychological Assessment Resources, Inc.

Reynolds, W. M. (1989). *Child Depression Scale.* Odessa, FL: Psychological Assessment Resources.

Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology, 54(5),* 653-660.

Roberts, R. E., Lewinsohn, P. M., & Seeley, J. R. (1991). Screening for adolescent depression: A comparison of depression scales. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(1), 58-66.

Rosen, J., & Wiens, A. (1979). Changes in medical problems and use of medical services following psychological interventions. *American Psychologist, 34,* 420-431.

Rossello, J., & Bernal, G. (1999). The efficacy of cognitive-behavioral and interpersonal treatments for depression in Puerto Rican adolescents. *Journal of Consulting and Clinical Psychology, 67(5),* 734-745.

Rush, A. J., Beck, A. T., Kovacs, M., & Hollon, S. (1977). Comparative efficacy of cognitive therapy and pharmacotherapy in the treatment of depressed outpatients. *Cognitive Therapy and Research, 1(1),* 17-37.

Santor, D. A., & Kusumakar, V. (2001). Open trial of interpersonal therapy in adolescents with moderate to severe major depression: Effectiveness of novice IPT therapists. *Journal of the American Academy of Child and Adolescent Psychiatry, 40(2),* 236-240.

Schachter, R. S. (1984). Kinetic psychotherapy in the treatment of depression in latency age children. *International Journal of Group Psychotherapy, 33,* 83-91.

Seligman, M. E. P. (1974). Depression and learned helplessness. In R. J. Friedman & M.

    M. Katz (Eds.), *The psychology of depression: Contemporary theory and*

    research. Washington, DC: Winston-Wiley.

Shaffer, D., Gould, M., Brasic, J., Ambrosini, P., Fisher, P., Bird, H., & Aluwahlia, S.,

    (1983). A children's global assessment scale (CGAS). *Archives of General*

    Psychiatry, 40, 1228-1231.

Somervell, P. D., Beals, J., Kinzie, J. D., Boehnlein, J., Leung, P., & Manson, S. M.

    (1993). Criterion validity of the Center for Epidemiologic Studies Depression

    Scale in a population sample from an American Indian village. *Psychiatry*

    Research, 47, 255-266.

Spitzer, R. L., Endicott, J., & Robins, E. (1978). Research Diagnostic Criteria: Rationale

    and reliability. *Archives of General Psychiatry, 35*, 773-782.

Stader, S. R., & Hokanson, J. E. (1998). Psychosocial antecedents of depressive

    symptoms: An evaluation using daily experiences methodology. *Journal of*

    Abnormal Psychology, 107, 17-26.

Stark, K. D., Reynolds, W. M., & Kaslow, N. J. (1987). A comparison of the relative

    efficacy of self-control therapy and a behavioral problem-solving therapy for

    depression in children. *Journal of Abnormal Child Psychology, 15(1)*, 91-113.

Stark, K. D., Rouse, L. W., & Kurowski, C. (1994). Psychological treatment approaches

    for depression in children. In W. M. Reynolds & H. F. Johnston (Eds.), *Handbook*

    of depression in children and adolescents (pp. 275-307). New York: Plenum

    Press.

143

Stillion, J. M., McDowell, E. E., & Shamblin, J. B. (1984). The Suicide Attitude Vignette Experience: A method for measuring adolescent attitudes toward suicide. *Death Education, 8*(Suppl), 65-79.

Sue, S. (2003). In defense of cultural competency in psychotherapy and treatments. *American Psychologist, 58,* 964-970.

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* New York: Norton.

Szapocznik, J. & Truss, C. (1978). Intergenerational sources of role conflict in Cuban mothers. In M. Montiel (Ed.), *Hispanic families: Critical issues for policy and programs in human service.* Washington, D.C.: National Coalition of Hispanic Mental Health and Human Services Organizations.

Thase, M. E., Frank, E., & Kupfer, D. J. (1985). Biological processes in major depression. In E. E. Beckham & W. R. Leber (Eds.), *Depression: Basic mechanisms, diagnosis, and treatment* (pp. 816-913). New York: Dow Jones/Irwin.

U.S. Public Health Service. (1999). *The Surgeon General's call to action to prevent suicide.* Washington, DC: Author.

Vostanis, P., Feehan, C., & Grattan, E. (1998). Two-year outcome of children treated for depression. *European Child and Adolescent Psychiatry, 7,* 12-18.

Vostanis, P., Feehan, C., Grattan, E., & Bickerton, W. (1996). A randomised controlled out-patient trial of cognitive-behavioural treatment for children and adolescents with depression: 9-month follow-up. *Journal of Affective Disorders, 40,* 105-116.

Warr, P. & Jackson, P. (1983). Self-esteem and unemployment among young workers. *Le Travail Humain, 46*, 355-366.

Waterman, A. (1984). *The psychology of individualism.* New York: Praeger.

Weissman, M. & Boyd, J. H. (1985). Affective disorders: Epidemiology. In H. I. Kaplan & J. Sadock (Eds.). *Modern synopsis of comprehensive textbook psychiatry.* (4th ed.). Baltimore: Williams and Wilkins.

Weissman, M. M., Klerman, G. L., & Paykel, E. S. (1971). Clinical evaluation of hostility in depression. *American Journal of Psychiatry, 128,* 261-266.

Weissman, M. M., Orvaschel, H., & Padian, N. (1980). Children's symptom and social functioning self-report scales: Comparison of mothers' and childrens' reports. *The Journal of Nervous and Mental Disease, 168(*12), 736-740.

Weissman, M. M., & Paykel, E. S. (1974). *The depressed woman: A study of social relationships.* Chicago: University of Chicago Press.

Weissman, M. M., Prusoff, B. A., DiMascio, A., Neu, C., Goklaney, M., & Klerman, G. L. (1979). The efficacy of drugs and psychotherapy in the treatment of acute depressive episodes. *American Journal of Psychiatry, 136,* 555-558.

Weissman, M. M, Wolk, S., Goldstein, R. B., Morean, D., Adams, P., Greenwald, S., Klier, C. M., Ryan, N. D., Dahl, R. E., Wickramaratne, P. (1999). Depressed adolescents grown up. *Journal of the American Medical Association, 281(18),* 1707-13.

Weisz, J. R. Thurber, C. A., Sweeney, L., Proffitt, V. D., & LeGagnoux, G. L. (1997). Brief treatment of mild to moderate child depression using Primary and Secondary control Enhancement Training. *Journal of Consulting and Clinical Psychology, 65,* 703-707.

Weisz, J. R., Valeri, S. M., McCarty, C. A. & Moore, P. S. (1999). Interventions for depression: features, effects, and future directions. In C. A. Essau & F. Petermann (Eds.), *Depressive disorders in children and adolescents: Epidemiology, risk factors, and treatment* (pp. 383-435). Northvale, NJ: Jason Aronson Inc.

Wells, K. B., Stewart, A., Hays, R. D., Burnam, M. A., Rogers, W., Daniels, M., Berry, S., Greenfield, S., & Ware, J. (1989). The functioning and well-being of depressed patients: results from the Medical Outcomes Study. *Journal of the American Medical Association, 262,* 914-919.

Wender, P. H., Kety, S. S., Rosenthal, D., Schulsinger, F., Ortman, J., & Lunde, I. (1986). Psychiatric disorders in the biological and adoptive families of adopted individuals with affective disorders. *Archives of General Psychiatry, 43,* 923-929.

Wood, A., Harrington, R., & Moore, A. (1996). Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. *Journal of Child Psychology and Psychiatry, 37(6),* 737-746.

Yates, A. (1987). Current status and future directions of research on the American Indian child. *American Journal of Psychiatry, 144,* 1135-1142.

Yeager, M.C., Lokken, K.L., & Zevenbergen, A.A. (2002). *Depressive symptoms in American Indian adolescents.* Unpublished manuscript.

Young, J. E., Beck, A. T., & Weinberger, A. (1993). Depression. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders* (2nd ed., pp.240-277). New York: Guilford Press.

Zeiss, A. M., Lewinsohn, P. M., & Munoz, R. F. (1979). Nonspecific improvement effects in depression using interpersonal, cognitive, and pleasant events focused treatments. *Journal of Consulting and Clinical Psychology, 47,* 427-439.