Childhood depression and resiliency: an evaluation of the Devereux Early Childhood Assessment Program

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CHILDHOOD DEPRESSION AND RESILIENCY:

AN EVALUATION OF THE

DEVEREUX EARLY CHILDHOOD ASSESSMENT PROGRAM

An Abstract of a Thesis

Submitted

in Partial Fulfillment

of the Requirements for the Degree

Education Specialist

Sarah Carroll Jones

University of Northern Iowa

December 2003
ABSTRACT

Some researchers have investigated the use of resiliency-building programs to prevent childhood depression in at risk populations (Comer, 1985; Gladstone & Beardslee, 2000; Seligman, 1995). The following study investigates the Devereux Early Childhood Assessment Program (DECA). The DECA Program is designed to build resiliency in preschool children by increasing factors that have been found to be related to resiliency: initiative, self-control, and attachment.

The study evaluated the short-term effectiveness of the DECA Program. Two Head Start Centers participated in the study. Pretest DECA rating scales were completed by the classroom teachers. For the next three months the experimental classrooms used the DECA Program and the control classrooms did not. Teachers then filled out the posttest DECA rating scales. Pretest scores were analyzed in order to identify any significant differences between the control and experimental groups in their DECA rating scale scores prior to treatment. Only one significant pretest score difference was found, on the attachment subscale scores, thus direct comparison of posttest scores was deemed appropriate. Differences between centers were analyzed using a two-tailed t-test.

Results indicated that the DECA Program was not effective at increasing factors related to resiliency in a three-month period when compared to a control group that was not exposed to the DECA Program. The program was also not effective at decreasing behavior concerns.
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A Thesis
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Education Specialist

Sarah Carroll Jones
University of Northern Iowa
December 2003
This Study by: Sarah C. Jones

Entitled: Childhood Depression and Resiliency: An Evaluation of the Devereux Early Childhood Assessment Program

has been approved as meeting the thesis requirement for the Degree of Education Specialist.

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July 14, 2003

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11/12/03

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CHAPTER 1
INTRODUCTION

Statement of Problem

Childhood depression affects a large number of children (Stark, 1990). Prevalence rates between 5 and 15% are commonly reported. This means that 2,576,950 to 7,726,350 children in the United States suffer from depression (United States Census Bureau, 2001). These numbers are cause for concern because depression can negatively impact child development (Angold, 1989). Children often suffer socially and academically, are at increased risk for suicide, and have a greater chance of developing depression in the future. Accordingly, researchers have focused on factors that put a child at risk for depression. Factors that appear to have the most influence include family variables such as a parent with depression, history of prior depressive symptoms, significant life events, poverty, and the presence of a disability (Cytryn & McKnew, 1998; Fassler & Dumas, 1997; Magnussen, 1991; Stark, 1990). Knowledge of risk factors has allowed researchers to shift from an emphasis on intervention to prevention. Prevention is important because of the negative effects that a child with depression may experience.

Some researchers have investigated the use of resiliency-building programs to prevent childhood depression in at risk populations (Comer, 1985; Gladstone & Beardslee, 2000; Seligman, 1995). The Yale-New Haven Primary Prevention Project, Penn Prevention Program, and Prevention Intervention Project were all successful in reducing depressive symptoms and strengthening factors that made children more
resilient to depression, such as increased social competence, problem solving skills, and effective communication. These promising results must lead to further investigation.

More studies are needed to address the impact of resiliency building programs. Further studies also must examine the effectiveness of resiliency programs for children at various ages in order to determine when resiliency programming is most effective. The current study addressed both of these needs by examining a resiliency program designed for preschool-aged children.

This study investigated the Devereux Early Childhood Assessment Program (DECA) developed by the Devereux Foundation between 1996 and 1998. The DECA Program is designed to build resiliency in preschool children ages 2-5 years by increasing the protective factors of initiative ("ability to use independent thought and action to meet his or her needs"), self-control ("ability to experience a wide range of feelings and express them using the words and actions that society considers appropriate"), and attachment ("mutual, strong, and long-lasting relationships between a child and significant adults such as parents, family members, and teachers"; LeBuffe & Naglieri, 1999b, p. 4). Researchers have identified these factors as being related to resiliency (Cytryn & McKnew, 1998; Kimchi & Schaffner, 1990). Teachers assess the children in these three areas and develop individual and classroom profiles that are used when planning strategies to foster resilience.

This study looked at the effectiveness of the program by examining the presence of the protective factors of initiative, self-control, and attachment in children exposed to
the DECA Program for three months in comparison to children who were not exposed to the DECA Program.

**Purpose**

The purpose of this study was to examine the effects of a program designed to promote resiliency in preschool children. The results of a limited number of studies have indicated that increasing resiliency reduces the chances of a child developing depression (Comer, 1985; Gladstone & Beardslee, 2000; Seligman, 1995). Early childhood programs that promote resiliency should help to reduce the number of children suffering from childhood depression in later years. This study investigated the short-term effectiveness of the Devereux Early Childhood Assessment (DECA) Program at increasing childhood protective factors related to resiliency (initiative, self-control, and attachment) in a population considered to be at risk of depression due to poverty.

The study evaluated the short-term effectiveness of the DECA Program. Classroom teachers began by completing pretest DECA rating scales that examine the protective factors of initiative, self-control, and attachment. For the next three months the experimental classrooms used the DECA Program and the control classrooms do not. Teachers then filled out the posttest DECA Rating Scales. Differences between centers are analyzed using a two-tailed t-test.

**Overview**

Chapter two provides a review of the current literature on childhood depression and resiliency. A summary of research on the classification and prevalence of childhood depression is presented and theoretical perspectives on depression are described. Factors
that put a child at risk for depression are explored, as well as the various effects of depression on a child's life. Emotional regulation and the role of resiliency in depression are described. Research on how childhood depression can be prevented, in particular through building resiliency in children, is presented, and three longitudinal primary prevention studies are critiqued.

The methodology used in the current study is then described in chapter three. Information on the DECA Program is presented as well as information about the participants in the study and the measurement tool that was used. Procedures and data analysis are described. Results of the study are reported in chapter four and discussed in chapter five.

**Research Questions**

The following research questions were posed:

1. Do children exposed to the DECA Program show more gains in total protective factors (combined initiative, self-control, and attachment) in a three-month period than children not exposed to the DECA Program?

2. Do children exposed to the DECA Program show more gains in the specific protective factors of initiative, self-control, and attachment than children not exposed to the DECA Program?

3. Do children exposed to the DECA Program show greater decreases in behavior problems than children not exposed to the DECA Program?
Limitations of the Study

This study has several limitations. First, the results may be difficult to generalize. The study consisted of only a small sample of children who shared several characteristics. All were in poverty and lived in the Midwest. The experimental group was made up of children who all attended the same preschool program and the control group was made up entirely of children who attended another program. Further research is needed to determine if the program is successful with children of different socioeconomic backgrounds, of other geographical locations, and who attend a variety of preschool programs.

A second limitation is that teacher ratings were used as the data for the study. While teacher ratings have been shown to be reliable, other objective methods of measurement would strengthen the study. A final limitation of the study is that it is short-term in nature. More long-term studies are needed in order to determine whether or not the DECA Program is effective at reducing childhood depression throughout childhood and adolescence.

Important Terms

Attachment: “A mutual, strong, and long-lasting relationship between a child and significant adults such as parents, family members, and teachers” (LeBuffe & Naglieri, 1999b, p. 4).

Attributions: “A person’s beliefs about causes of outcomes and how these beliefs influence expectations and behavior” (Alderman, 1999, p. 23).
Childhood Depression: An episode of depression meeting American Psychological Association criteria that takes place prior to the age of 18 years.

Emotional Regulation: An attempt to influence which emotions one has and how these emotions are expressed (Gross & Muñoz, 1995).

Initiative: “A child’s ability to use independent thought and action to meet his or her needs” (LeBuffe & Naglieri, 1999b, p. 4).

Optimism: A positive explanatory style (“the way you think about causes”) (Seligman, 1995, p. 52).

Resilience Education: “The development of decision making and affective skills within each person and connectedness between people in the context of a healthy democratic learning community” (Brown, D’Emidio, & Benard, 2001, p. 28).

Resiliency: “A child’s inner strength to deal competently and successfully, day after day, with the demands he or she encounters” (Brooks & Goldstein, 2001, p. 1).

Self-Control: “A child’s ability to experience a wide range of feelings and express them using the words and actions that society considers appropriate” (LeBuffe & Naglieri, 1999b, p. 4).
CHAPTER 2
REVIEW OF THE LITERATURE

Childhood depression was not recognized as a distinct illness until approximately 1970 (Cytryn & McKnew, 1998). Prior to this time childhood depression was often ignored or treated as a behavior disorder. The 1970s brought greater attention to psychiatric disorders in children and childhood depression began to be examined (Kazdin, 1990). Childhood depression is a relatively new disorder and research is needed to better understand its causes and treatment. More research is also needed to examine the connection between resiliency and childhood depression.

The following sections contain information on the research that has already been completed regarding childhood depression and resiliency. A summary of research on the classification and prevalence of childhood depression, theoretical perspectives, risk factors, and the effects of depression on a child’s life are presented. Emotional regulation and the role of resilience in depression are described as well as research on how childhood depression can be prevented by building resilience in children. Programs designed to build resilience are examined.

Classification

The American Psychological Association (APA) does not have separate diagnostic criteria for childhood depression. Instead, the adult criteria for depression are applied to children. There are three types of depression that can be present: (a) Major Depressive Disorder, single episode; (b) Major Depressive Disorder, recurrent; and (c) Dysthymic Disorder (APA, 1994). The Diagnostic and Statistical Manual IV (DSM IV)
lists several indicators of depressive illness in children. These indicators are unhappiness, sadness, hopelessness, loss of appetite, sleep disturbance, slowness of movement or agitation, loss of pleasure, loss of energy, low self-esteem, decreased concentration, and suicidal thoughts and actions (APA, 1994). At least five of these characteristics must be present for at least 2 weeks for a child to be diagnosed with major depression (Cytryn & McKnew, 1998).

Cytryn and McKnew (1998) developed an alternative classification process for childhood depression because they believe that childhood depression is uniquely different from adult depression. Their classification system identifies depression as acute, chronic, or masked. Acute and chronic depression are similar in that they both include symptoms such as impairment of scholastic and social adjustment; disturbances of sleep and eating; feelings of despair, helplessness, and hopelessness; retardation of movement, and occasional suicidal thoughts or attempts. The distinction between the two is that the chronic form does not have a known precipitating cause, lasts for a longer period of time, involves a history of marginal social and emotional adjustment, and often occurs when the child has experienced previous depressive episodes or has a family member with a depressive illness. Children with acute depression become depressed following a traumatic event in their lives, do not have a prior history of depression, and have shorter depressive episodes.

Masked depression is a form of depression characterized by acting out behaviors, often antisocial acts (Cytryn & McKnew, 1998). This form of depression is not well
supported by research. It is controversial, although many practitioners claim to see instances of masked depression in their work with children.

Prevalence

Childhood depression is affecting a large number of children (Stark, 1990). Seligman (1995) reported that the age of the onset is earlier than it has been in the past. Growing prevalence may be due to increased recognition of depressive symptoms in children and increased reporting of those symptoms. Estimates of the prevalence of childhood depression in school-age children differ due to the variety of instruments used to assess depression, the age of the children studied, and the different populations studied (e.g., general school, students with academic/behavioral problems; Stark, 1990).

Lefkowitz and Tesiny (1980) assessed 3000 children ages 8-11 years without disabilities and found a prevalence rate of 5.2%. Another study of 3000 children ages 12 to 14 years found a 9% prevalence rate (Seligman, 1995). Based on 26 studies of the prevalence of depression in children Angold (1989) found rates of between 5 and 15% to be the most common.

In adolescence, the rates of depression increase and change from approximately equal numbers of boys and girls who are depressed to a greater incidence of depression in girls (Cytryn & McKnew, 1998; Kazdin, 1990). The rates for both genders move closer to equal following adolescence. A study by Cohen et al. (1993) illustrated some of these trends. Prevalence rates of depression in 776 children were 2.3% female and 1.8% male for ages 10 to 13 years, 7.6% female and 1.6% male for ages 14 to 16 years, and 2.7%
both for males and females aged 17 to 20 years. These results illustrate the increase of depression in females during this period of development.

Some researchers argue that the reported gender difference in prevalence rates during adolescence may not be an accurate depiction of the actual situation (Fassler & Dumas, 1997). Adolescent boys with depression often exhibit aggressive, acting out behavior. Fassler and Dumas (1997) suggest that this behavior is a symptom of depression that is not identified and the boys are disciplined for their behavior. Since the boys are not identified as depressed, the prevalence rates are skewed and indicate fewer depressed adolescent boys than actually exist.

Rates of depression in children with learning disabilities have been found to be between 20% and 50% (Stark, 1990). Rates up to 60% have been reported for children in psychiatric hospitals (Stark, 1990).

These high prevalence rates indicate a need for more research on childhood depression. School psychologists, counselors, teachers, and special educators are likely to encounter children who are depressed. In fact, in a survey of school psychologists, 82% indicated that referrals for childhood depression were “not a rare occurrence” (Clarizio & Payette, 1990, p. 59). Educators are encountering depression in children and must understand the disorder. One way to develop an increased understanding of childhood depression is to study the theoretical models that have been used to explain its development.
Theoretical Models

Several theoretical models have been used to explain childhood depression. It is important to understand these models because different treatment and preventative approaches are based on them. Kazdin (1990) identified two general theoretical models, biological and psychosocial. Biological models are based on an understanding of genetic influences and neurotransmitter levels as causes for depression (Kazdin, 1990). For example, the individual who is depressed may have a deficit or excess of one or more neurotransmitters or the relative proportion of different neurotransmitters may be out of balance. Psychosocial theories emphasize intrapsychic processes, cognitive processes, and interpersonal relations as causes of depression (Kazdin, 1990).

James (1992) described several psychosocial theories that can be used to explain depression including psychoanalytic theory, cognitive theory, learning theory, and social cognitive theory. The central principles of each theory are described briefly below. Psychoanalytic theory believes that a fixation in the oral or anal phase of psychosocial development causes an individual to feel sexually inadequate (James, 1992). These feelings of inadequacy then become anger. The anger is directed inward and leads to the manifestation of depressive symptoms.

Cognitive theory assumes "depression is due to illogical and distorted thinking which causes the patient to look at the world, himself, and his future in negative terms" (James, 1992, p. 18). There are three main components of cognitive theory: cognitive triad, cognitive errors, and cognitive schemata (Harrington, Wood, & Verduyn, 1998). The cognitive triad consists of the individual's view of the self, the future, and the world.
Cognitive errors are cognitive distortions that a depressed individual makes. Depressed individuals may believe that they are the cause of anything bad that occurs in their life. While all of us make cognitive errors, a depressed individual makes even more. Lastly, cognitive schemata are the patterns of thinking that govern how a situation is interpreted. For example, depressed individuals tend to “draw unjustified and self-deprecating conclusions from an essentially minor event” (James, 1992, p. 19).

Researchers such as Lewinshon and Seligman have used learning theory to explain childhood depression. Lewinshon (1974) suggested that depression is due to the inability to behave in ways that will lead to positive reinforcement. Without positive reinforcement the individual’s positive behaviors are extinguished and depression results because of a lack of pleasant experiences.

Seligman (1975) believed that individuals develop a sense of “learned helplessness” when they feel they do not have the ability to exert control in their environment. Learned helplessness can then lead to depression. Seligman later revised his position to include the role of the negative attributions for positive and negative events as causes of depression (Reinechk, Daltilio, & Freeman, 1996). For example, individuals may become depressed if they attribute events as global, permanent, and internal.

The assumptions of social cognitive theory yield yet another explanation of why children become depressed. Specifically, depression develops when social relationships are disrupted at a severe level and if the individual is particularly vulnerable (James, 1992). For example, an individual may become depressed if he or she changes schools
and has a weak support system. This theory base also considers the difficulties that individuals who are depressed often have with social skills and problem solving (Rehm & Sharp, 1996). Each theory offers a slightly different perspective on the development of depression and should be considered as educators identify the risk factors for depression in children. For example, educators following a cognitive theory may design interventions that focus on challenging cognitive distortions while educators following social cognitive theory may work on helping children build quality relationships.

Risk Factors

Researchers have determined several factors that increase a child's risk of developing childhood depression. Risk factors that appear to have the most influence include specific family factors, prior history of depression, significant life events, poverty, presence of a disability, and inability to regulate emotions. The presence of risk factors does not determine that a child will develop depression. Rather, the knowledge of risk factors can prompt educators to provide prevention programs for children who may be especially at risk.

Family Factors

Family factors appear to place children at the greatest risk for depression. Cytryn and McKnew (1998) found that children who had a close relative who experienced depression had a 25 to 30% occurrence rate for childhood depression. The incidence increased to 70% when both parents had an affective disorder. Another study of 26 families, half of whom had a parent with depression and half of whom did not, yielded similar results (Cytryn & McKnew, 1998). Of the 13 families in which one of the parents
was depressed, 11 had one or more children who suffered from depression. This differed significantly from families without parental depression in which only three were dealing with a child who had depression. Fassler and Dumas (1997) found that when parents experienced depression prior to puberty their children were 13 times more likely to suffer from depression. Reasons for increased prevalence appear to be both genetic and environmental.

Fassler and Dumas (1997) investigated a genetic link and found that children whose birth parents suffered from depression were still at greater risk even if they were adopted at birth by nondepressed parents. This study suggested that depression, or at least a predisposition for depression, is genetically based.

A depressed parent may also increase environmental risks. Research by Jaenicke et al. (1987) indicated that children of mothers who had major affective disorders had more negative self-concepts, less positive self-schemas, and a more negative attributional style than children whose mothers were not depressed. Kovacs (1997) described behavior of depressed parents as less responsive and affectionate, and more contingent, hostile, and critical. Children in these homes became self-critical and had problems with emotional regulation. Radke-Yarrow, Belmont, Nottelmann, and Bottomly (1990) found depressed mothers displayed significantly more negatively toned affect in their attributions of their toddler's behavior, especially regarding their children's emotions, than parents who were not depressed. A follow-up study four years later showed that this behavior by the mothers with depression predicted psychopathology, including depression, and difficulties with social competence for their children (Radke-Yarrow,
Richards, & Wilson, 1988). Results suggest parental characteristics increase a child's risk for depression.

Magnussen also looked into the topic of children whose parents were depressed. His research examined 186 children of depressed parents and found that their parents were more overprotective, had communication problems, and were more likely to undermine their children's learning (Magnussen, 1991). Examination of mother-child dyads found that mothers who were depressed responded to their children's negative affect with more directiveness, fewer supportive statements, and less on-task problem solving behavior (Garber, Braafladt, & Zeman, 1991). Children who have a parent who is depressed also have been found to have an increased risk for developing insecure attachments, similar to children who were maltreated (Cicchetti, Ganiban, & Barnett, 1991). Research results highlight the importance of including parents in efforts aimed at preventing childhood depression. Changes in parenting could greatly reduce the child's risk of developing depression.

Family factors are an issue in childhood depression even if a child's parent has not experienced a depressive episode. Stark (1990) studied families who had children that were depressed. He found that these families allowed children minimal input in childrearing. The children who were depressed characterized their families as less cohesive, more conflictual, and less open to any form of expression. Stark found that families of children who were depressed had lower levels of social, recreational and intellectual/cultural activity. Depreciation or rejection by parents or loved ones also has been found to put children at an increased risk for childhood depression (Cytryn &
McKnew, 1998). Examination of these characteristics helps us to understand family situations that may put a child at risk for depression. However, more investigation is needed. Since many of the studies have been done in families in which the child was already depressed, it is not known if depression arose from the family situation or if the family situation arose from the depression.

**Life Events**

Stressful life events also can increase children’s risk for developing depression. The sudden loss of something a child was attached to has been found to trigger depression (Cytryn & McKnew, 1998; Fassler & Dumas, 1997). The loss can occur through a death, divorce, or a move. Fassler and Dumas identified several life events that put a child at increased risk for depression (1997). These events include death of a parent; losses linked to parental divorce; death of a sibling; changes in neighborhood, school, and finances; and natural disasters. Illness in the family also can increase the risk of depression because it often consumes a great deal of the family’s time and attention. An accumulation of several stressors is especially likely to cause problems (Mrazek & Haggerty, 1994).

Child abuse also puts a child at risk for depression. Children who are abused are faced with high tension levels, their needs are neglected, and they often blame themselves for the abuse (Fassler & Dumas, 1997). Parental drug and alcohol abuse leads to problems because there is an increased chance of child abuse and the expectations that parents have for children often are not consistent (Fassler & Dumas, 1997).
Poverty

Poverty has been found to be a significant risk factor for depression (Bruce, Takenchi, & Leaf, 1991). Almost one in six children in the United States lives in poverty (United States Census Bureau, 2000). The United States Census Bureau reported that 13% of White children, 30.9% of Black children, and 28% of Hispanic children live in poverty. Nearly 40% of children living in homes headed by single women are poor. In addition, children under the age of five are more likely to be in poverty (18%) than older children (15%) and adults (9.4%).

While there is no direct evidence that poverty causes childhood depression, poverty does lead to many risk factors for childhood depression. Children living in poverty are twice as likely to have stunted growth or lead poisoning, and be kept back in school (Children’s Defense Fund, 2001). They also score significantly lower in reading, math, and vocabulary when compared with similar children who are not poor. Children in families on welfare are 33% more likely to have either serious emotional or behavioral problems or learning disabilities than children who are not on welfare (Bullough, 2001). A study of 90 African American children ages 9-12 years and their married parents was conducted to determine the effects of financial resources on children (Brody et al., 1994). Results indicated that lack of family resources led to increased depression and less optimism in parents leading to co-caregiving conflict (decreased communication and support, childrearing conflict, and a poor marital relationship). Difficulties with co-caregiving were related to difficulties with self-regulation in children. Difficulties with
self-regulation were associated with lower academic competence and socioemotional competence.

There are several possible reasons for the increased risks children of poverty are faced with. Families may have difficulty obtaining adequate medical care, impacting both the child’s physical and mental health (Cytryn & McKnew, 1998). Children living in poverty also are often subject to frequent moves as their caregiver looks for affordable housing resulting in a lack of a stable environment in which to grow (Bullough, 2001). Families living in poverty also experience increased stress due to the daily struggle to meet their needs (Cytryn & McKnew, 1998). This stress can affect how well a parent is able to care and provide emotional support for their child (Toomey & Christie, 1990). A study of 1,364 children from various economic backgrounds found that children in poverty or near poverty are more likely to have mothers with less sensitivity, increased depression, and less education (NICHD, 2001). These living conditions can lead to numerous concerns, including depression.

Disabilities

Yet another risk factor for childhood depression is the presence of a disability. Cytryn and McKnew (1998) reported an increased risk of depression when a child has a physical disability. In addition, they found attention deficit hyperactivity disorder could put children at risk for depression because they often feel worthless, helpless, isolated, and unable to exert control in their lives. Learning disabilities that are not detected may lead to depression (Fassler & Dumas, 1997). Disorders such as anxiety disorders, eating
disorders, and learning disabilities often coexist with childhood depression (Fassler & Dumas, 1997).

Another factor that has been linked to increased risk of childhood depression is a previous episode of depression. Lewinshon followed 1,500 children for 10 years who experienced an episode of depression prior to age 18 years (as cited in Fassler & Dumas, 1997). He found that 44% experienced another depressive episode before the age of 24 years. This rate of depression is much higher than the prevalence rates of 5 to 15% that have been reported in general population prevalence studies (Angold, 1989). This high reoccurrence percentage urges educators to pay close attention to children who have previously suffered from depression.

In addition to the above risk factors, there are additional factors that increase a child’s risk for developing childhood depression. Robinson, Garber, and Hilsman (1995) studied 371 sixth grade students transitioning into the seventh grade. They found that maladaptive attributional style and perceived low self-worth predicted depressive symptoms in the students. Others have found that poor social skills put children at a greater risk for childhood depression (Fassler & Dumas, 1997).

Nolen-Hoeksema, Seligman, and Girgus (1992) identified a connection between age and specific risk factors. They found, in early childhood, negative events significantly predicted depressive symptoms; in later childhood, both pessimistic explanatory style and negative events were significant predictors. Knowledge of the factors that put a child at risk for depression is valuable to educators and parents who
hope to prevent it from developing. Prevention efforts should also consider the use of emotional regulation strategies.

**Emotional Regulation**

Emotional regulation has been found to play an important role in childhood depression. Many believe that helping children to better regulate their emotions is key to preventing childhood depression. Therefore, it is important to understand what emotional regulation is, how it is related to depression, and how it develops.

Emotional regulation has been defined many ways. One simple definition by Gross and Muñoz (1995) is that emotional regulation is an attempt to influence which emotions we have and how these emotions are expressed. Kovacs (1997) offers a more formal definition. "Emotional regulation is the process whereby emotional arousal is redirected, controlled or modified to enable adaptive functioning and some balance is maintained between negative, positive, and neutral emotions" (p. 292). We have all observed differences in how children handle emotional experiences. Some children may cry or become angry but soon move on to other things. Other children have a great deal of difficulty moving beyond the crying or anger stages. Researchers believe that the inability to regulate emotions effectively may put children at a greater risk for depression (Gross & Muñoz, 1995; Kovacs, 1997; Stark, Sander, Yancy, Bronik, & Hoke, 2000). Characteristics of individuals who have problems with emotional regulation include having difficulty altering a negative mood once they are in it, using fewer pleasant activities to deal with emotions, and not expecting emotional regulation strategies to work (Stark et al., 2000). These individuals also may use strategies that
increase their amount of distress. For example, Garber et al. (1991) found that girls with poor regulatory behavior avoided direct problem solving. Boys with poor regulatory behavior acted in aggressive ways.

Gross and Muñoz (1995) theorized that major depressive disorder involves "a dysregulation of emotions in which the frequency, intensity, and duration of negative emotions, especially sadness, are increased, and those of positive emotions, such as interest and enjoyment, are decreased" (p. 157). This continued and significant sadness indicates that the child has not been able to regulate his or her emotions effectively (Kovacs, 1997). Currently, it is not known if difficulties with emotional regulation precede depression or are caused by its symptoms (Stark et al., 2000). It may be that children who experience depression had difficulties with emotional regulation prior to the depressive episode and the depression increased the emotional dysregulation. The importance of emotional regulation in depression urges us to closely examine the development of emotional regulation.

Stark et al. (2000) synthesized current research on the typical development of emotional regulation into four major steps. First, the child progresses from other-regulation to self-regulation. Infants move from relying on others to control their level of arousal to behaviors, such as eye closing or distraction, which they do on their own. Second, the child's emotional regulation repertoire expands as he or she grows older. Language development in early childhood allows the child to ask a caregiver for help with emotional regulation and they slowly begin to add emotional regulation strategies. Third, there is a shift from behavioral emotional regulation strategies to cognitive
regulation strategies. School-age children increasingly use cognitive strategies such as “thinking happy thoughts.” Lastly, there is an increased emphasis on situational characteristics. Older children are able to match the appropriate emotional regulation strategy with a particular situation.

By being aware and responsive to their child’s needs, parents show children they can turn to them as a strategy for emotional regulation (Kovacs, 1997). Children whose parents suffer from an affective disorder are less likely to display this responsive behavior. Therefore, their children may be at greater risk for problems with emotional regulation. Kovacs (1997) reported that mothers with affective disorders also may disrupt the development of emotional regulation by showing more negative affect, responding less sensitively, criticizing the child, and providing less encouragement. Identification of an inability to regulate emotions, as well as other risk factors, becomes important when we hope to reduce the likelihood of childhood depression.

Effects of Childhood Depression

Childhood depression negatively affects the lives of children who experience it in many ways. The disorder affects the child both socially and academically. It also can lead to suicide. It is important to understand these effects on children and why prevention programs, in addition to interventions, are critically important.

Social Impact

Childhood depression is linked to numerous social problems. Kovacs (1997) stated that children suffering from depression often have impaired functioning in both peer and family relationships. Psychosocial deficits and significant interpersonal
problems are of great concern because they can continue for years, even after the child no longer exhibits symptoms of depression. The disruption in the child’s social development due to the depressive episode often causes the child to fall behind his or her peers socially. Consider the following example given by Kovacs (1997), “If a 10-year-old child has a 1-year episode of depression, upon recovery at the age of 11 this child will have missed a significant interval of peer relationships during which social skills are modeled, tested, and consolidated” (p. 289).

Social problems also occur within the child’s family. Childhood depression can disrupt the attachment bond between parent and child (Kovacs, 1997). This is thought to occur because children who are depressed are less likely to give positive feedback to their parents. Lack of feedback leads to parents giving less positive feedback to their child and soon a negative cycle has begun.

**Academic Impact**

Childhood depression can have a strong negative impact on a child’s academic performance. Stark, Livingston, Laurent, and Cardenas (1990) found that children with depression scored significantly lower on the math and social studies sections of the California Achievement Test than did children who were not depressed. These children also had significantly lower overall grade point averages and lower grades in science, physical education, and language.

Many have questioned whether these achievement differences are due to children with depression having a lower IQ. Kovacs and Goldston (1982) found that during a major depressive episode children had lower nonverbal performance on an intelligence
test as compared to when they were not in the episode. However, most research has not found a link between childhood depression and changes in measured IQ (Stark, 1990). Children who are depressed also have increased behavior problems and may have difficulties with teachers. Fortunately, it appears that these difficulties are resolved after the child has recovered from the depression (Kovacs, 1997).

Suicide

A life threatening effect of childhood depression is suicidal ideation. Suicide is currently the third leading cause of death for 15 to 24 year-olds and the sixth leading cause of death for 5 to 14 year-olds (Dubuque, 1998). Risk factors for suicide overlap to a great extent with factors related to depression (Fassler & Dumas, 1997). The emotional risk factors for suicide include previous suicide attempts, hopelessness, eating disorders, substance abuse, and psychosis. Environmental risk factors for suicide include family history of suicide, stressful life events, significant loss or separation, physical abuse, poor academic performance, poor peer relationship/isolation, family conflict or discord, and hearing about other suicides. Environmental suicide risk factors are especially similar to those related to childhood depression. The similarities between risk factors for depression and suicide have led several researchers to investigate possible relationships.

Brent et al. (1993) conducted a study to determine the risk factors for adolescent suicide. They compared 67 suicide victims to 67 control participants who were demographically matched. Results showed that the most significant psychiatric risk factor was major affective disorder. Depression was present for 82% of the suicide victims and 69% of those who were depressed had been depressed for more than three
months. This study illustrates the relationship between lengthy depression and suicide and suggests that while suicide occurs more often when depression has been present for more than 3 months, it can also occur when depression was only present for a short time. Another study found that one third of children with major depression and/or dysthymia were at risk for a suicide attempt before the age of 17 years (Kovacs, 1997). These findings show that depression must be taken seriously.

**Future Depression**

Children who have a depressive episode are at risk for later depressive episodes. Kovacs (1997) reported that 80% of children with dysthymia and 50% with major depression experience at least one more depressive episode by the time they are 17 years old. A five-year longitudinal study investigated this phenomenon (Nolen-Hoeksema et al., 1992). Results showed that explanatory styles of children with depression remained pessimistic following remission of depression. Researchers believe that this puts children who have suffered from depression at increased risk for another episode. Fortunately, there are protective factors that can help reduce the chances of a child developing depression. These protective factors are often referred to as resilience.

**The Role of Resilience**

Resilience can play an important role in understanding and preventing childhood depression. Brooks and Goldstein (2001) define resilience as a child’s “inner strength to deal competently and successfully, day after day, with the demands he or she encounters” (p. 1). Resilience involves the ability to deal with stress and pressure; the capacity to cope and feel confident; the ability to handle disappointments, adversity, and trauma; and
the skill of developing goals. Resilience also includes coping with challenges, relating with others, and treating both the self and others with respect.

A landmark study conducted by Werner and Smith (1992) investigated the role of resiliency in children’s success as adults. Researchers followed 505 children in a small island community from their birth until their early thirties. One third of the children in the sample were identified as being at risk. These children were born into poverty and had exposure to moderate or severe perinatal stress or had family environments characterized by parental alcoholism, mental illness, discord, or divorce. Of those children one third grew to be competent adults who succeeded in school, managed their home and social life, and took advantage of opportunities afforded to them. Werner and Smith identified three main factors that these resilient children had in common. First, they had average or above average intelligence and a positive disposition as an infant. Second, they had relationships with parent substitutes that encouraged trust, autonomy, and initiative. Third, the children had access to a external support system. This research led to an increased focus on the role of resilience in children.

Characteristics of Resilient Children

Resilient children are hopeful, have high self-worth, feel special and appreciated, develop realistic goals and expectations, solve problems, and make decisions (Brooks & Goldstein, 2001). They have productive coping strategies, are aware of their weaknesses and talents, and have effective interpersonal skills. Resilient children are more likely to view their mistakes as challenges and focus their energy on parts of their lives that they
can control. Resilient children also seek out assistance and nurturance in an appropriate manner.

Cytryn and McKnew (1998) found that children who were resilient were able to function well even in the face of risk factors. They divided the protective factors that resilient children possessed into two groups, inherited characteristics and support systems. Inherited characteristics of the child included qualities such as above average intelligence, easy temperament, quality interpersonal relationships, a strong sense of self, and a clear understanding of their parent's affective disorder if one was present.

The second group of factors involved the child's support system. Resilient children had strong support systems both inside and outside of the family. Few studies have been done on the importance of support systems in the prevention of childhood depression. However, support systems and adult depression have been studied and offer insights on the topic. Brown and Harris (1989) studied inner city women in London who had lost a parent in childhood. They found that those women with a good supportive relationship did not develop depression while those without a strong relationship did develop the disorder. Resiliency information provides insight into factors that help protect a child from depression. This knowledge can be used to help develop resilience in children and prevent depression.

Optimism

Optimism is another characteristic that is closely related to resiliency and can help protect against childhood depression. Seligman (1995) followed 400 children, starting at the age of eight years, for a period of five years. He found that more than 25% were
depressed at any one time and approximately 25% experienced at least one severe major depressive episode. One of the most important findings of this longitudinal study was that children who were pessimistic were significantly more likely to develop depression than children who were optimistic. Also, once children experienced a depressive episode they became more pessimistic. These findings prompt a greater look at the role of optimism in depression.

Optimism is defined as a “positive explanatory style” and is very similar to attributions (Seligman, 1995, p. 27). Three important types of explanation must be examined: permanence, pervasiveness, and personal. Permanence involves whether children believe that the causes of bad events are temporary or permanent. Pervasiveness is whether children believe the event is specific or global. Lastly, personal involves whether the children place internal blame on themselves or external blame on other people or circumstances. We want children to avoid pessimistic general self-blame, which sees causes as permanent, pervasive, and internal, this kind of thinking is often present in childhood depression. Seligman (1995) believes children should have “healthy optimistic behavioral self-blame” which sees causes as temporary, specific, and internal. He believes that the development of “optimistic behavioral self-blame” should decrease a child’s risk of depression and should be included in prevention programs.

Prevention of Childhood Depression

Knowledge regarding symptoms of childhood depression, risk factors, and resilience can be used to develop prevention programs. Preventing childhood depression is an issue of national concern. Funding for research on the prevention of mental
disorders almost doubled between 1987 and 1994 (Cytryn & McKnew, 1998). Educating the public is very important and publications such as "The Prevention of Mental Disorders, Alcohol and Other Drug Use in Children and Adolescents" by the American Academy of Child Psychiatry can serve as important tools (Cytryn & McKnew, 1998).

The Role of Schools

Schools can play an important role in the prevention of childhood depression. Children spend a large part of their day in schools and school personnel have an influence on their lives. Schools can provide a network of people to foster healthy coping mechanisms in children and help children feel comfortable at school (Miezitis et al., 1992). Strong social support networks have been found to prevent depression for adults and are likely beneficial for children as well (Willis, 1996). Children who are at risk for depression need mentors, "adults who model appropriate behavior, coach it, and reinforce such behavior in others, and schools are one place where they should meet" (Bullough, 2001, p. 111). Mentors can help children think through problems, which improves the child's problem solving capabilities and competence. They also can provide children with challenging opportunities and support. Another benefit of schools is parents, especially in the younger grades, are often willing to participate in activities which they believe will help their child to be more successful, such as a depression prevention program (Miezitis et al., 1992). School is a central location where these activities can take place.

Unfortunately, there are factors that may make prevention efforts in schools difficult. Attitudes of educators may limit the school's ability to help children (Miezitis
et al., 1992). Many people blame mental illness on the child’s parents and do not feel that it is the school’s place to get involved. Research also has indicated that educators have a tendency to react more negatively to children who are depressed. This may influence their eagerness to help children at risk for depression. Schools may also build barriers to building resiliency by labeling students and setting them up to fail (Henderson & Milstein, 1996). For example, labeling a child with a particular disorder may leave both the child and educators feeling that the situation is hopeless. Other factors such as lack of time, size of schools, lack of awareness regarding the importance of resiliency, and the absence of specific programs and strategies may also lead to difficulties implementing preventative actions.

Types of Prevention

Caplan developed three types of prevention: primary, secondary, and tertiary. Primary prevention involves services provided to the total staff and students and sharing of information about issues and resources (Miezitis et al., 1992). Secondary prevention involves early intervention with children who show some initial symptoms or proneness to childhood depression (Rehm & Sharp, 1996). Tertiary prevention includes crisis intervention services for staff and students who are experiencing difficulties in school (Miezitis et al., 1992).

Research on depression has shifted from tertiary treatment to primary prevention (Gladstone & Beardslee, 2000). Comer stated the aim of primary prevention is to “reduce the incidence of psychological disorders in the population thus reducing the need for more costly and labor intensive secondary and tertiary efforts such as psychotherapy,
hospitalizations, and residential treatment” (1985, p. 154). The prevention focus also has changed from the general unselected population to a target population of at-risk children. These changes are important to keep in mind as we examine programs to prevent childhood depression.

Prevention Through Emotional Regulation

As was discussed earlier, emotional regulation plays an important role in childhood depression. Children who learn to regulate their emotions are less likely to become depressed than children who cannot regulate their emotions (Gross & Muñoz, 1995). Therefore, one way to prevent childhood depression may be to help children learn to regulate their emotions.

Gross and Muñoz (1995) identified several skills children need to develop in order to have better emotional regulation. Children need to be able to identify which environments trigger their depressive states. They then need to understand that their interpretation of the event can change how they react. Children must then learn how they can regulate their emotions when they are aroused and what alternative ways to express emotions can be used. Explicit teaching and later prompting of these skills may be needed with some children in order to increase their resilience (Garber et al., 1991).

Fostering Resilience

Fostering Resilience In the Classroom

A survey of 66 certified school psychologists from two north central states found that only 14% of school psychologists’ recommendations for children with depression were directed at resiliency building activities such as changing classroom climate,
developing social skills, and teaching problem solving strategies (Clarizio & Payette, 1990). Knowledge appears to be needed on how depression can be prevented in children who are at risk. Brooks and Goldstein (2001) described eight recommendations for teachers to implement in their classrooms to prevent depression by building resilience in children.

The first recommendation is to practice empathy (Brooks & Goldstein, 2001). Dubuque (1998) encouraged teachers to demonstrate good listening skills and give children a “feeling vocabulary.” Teachers can be good role models and build children’s self-esteem by focusing on intrinsic goodness, efforts, and intentions. The second recommendation is to change the negative scripts of both teachers and students (Brooks & Goldstein, 2001). For example, instead of seeing a student as lazy, a teacher looks deeper for alternative explanation that is more helpful for both the student and the teacher. Seligman (1995) offers a detailed plan for changing negative scripts.

The third recommendation is educators make all students feel welcome and appreciated (Brooks & Goldstein, 2001). Educators must “create an environment of caring personal relationships” (Henderson & Milstein, 1996, p. 17). Children with depression report less friendship and connectedness with classmates and teachers, less participation in school and academic activities, and less involvement in classroom social relationships (Russell & Russell, 1996). Connectedness and the depth and consistency of relationships are key factors in building resilience (Brown et al., 2001; Bullough, 2001). Children who lack a sense of belonging often experience many difficulties and teachers
can find ways to help students become more involved in classroom projects, activities, and relationships (Russell & Russell, 1996).

The fourth recommendation is that teachers develop realistic expectations and make accommodations for students when needed (Brooks & Goldstein, 2001). Unrealistic expectations only add to the sense of inadequacy that is already present in children with depression. Discussing the role of mistakes in the learning process is the fifth recommendation of Brooks and Goldstein (2001). Teachers can use classroom discussions to talk about coping skills related to academic and social issues (Miezitis et al., 1992).

The sixth recommendation is to develop responsibility and compassion in the classroom and the seventh is to teach students how to solve problems and make decisions (Brooks & Goldstein, 2001). Seligman (1995) encourages educators to teach students strategies for handling interpersonal conflicts and solving social problems. These skills will be beneficial for all students regardless of whether or not they are at risk for depression.

The final recommendation of Brooks and Goldstein (2001) is to use discipline to promote self-discipline. Self-discipline is the “realistic ability to reason about one’s behavior and its impact on others and then change it if necessary” (Brooks, 1994, p. 557). Teachers can let students be involved in developing classroom rules and consequences, thus giving the students a sense of ownership and responsibility. Another way to approach this task is by offering self-control sessions on topics including self-monitoring,
self-evaluation, and self-reinforcement (Russell & Russell, 1996). Those lessons can then be referred to later when discipline is needed.

**Resilience Education**

The concept of “resilience education” has come about through increased knowledge of the role of resilience in children who are at risk for school difficulties. Resilience education is the “development of decision making and affective skills within each person and connectedness between people in the context of a healthy democratic learning community” (Brown et al., 2001, p. 28). There are five key principles of resilience education. First, educators use strategies that engage students’ intrinsic motivations. Second, educators allow young people to safely experiment with decision-making. Third, educators help to create life goals that the child believes in. Fourth, educators create a “healthy, democratic educational community.” And lastly, educators encourage the exploration of emotions related to the adversity that young people face.

**Head Start**

Some programs, such as Head Start, have realized the importance of building resiliency in young children and are implementing programming to build resiliency. Head Start is a “child-focused” national program that offers comprehensive services intended to promote healthy development and academic readiness in low-income children ages 3-5 years (U.S. Department of Health and Human Services, 1999). Social services also are provided for the children’s families. In order to qualify for Head Start a child’s family income must fall below the federal poverty line (NICHD, 2001). Started in 1965, the program is run by the Head Start Bureau, the Administration on Children, Youth, and
Families (ACYF), Administration for Children and Families (ACF), and the Department of Health and Human Services (DHHS). Head Start has served over 15.3 million children and their families.

Services are provided to meet the objectives of the following four components: education, health, parent involvement, and social services (U.S. Department of Health and Human Services, 1999). Learning experiences are provided based on the child's needs. Comprehensive health services including nutritional programs, immunizations, and dental, medical, and mental health services are available. Parents are included in program planning, operating activities, and parent education and services such as referrals, family needs assessments, community outreach programs, and emergency aid and/or crisis intervention are also provided.

In response to a memorandum from the Head Start Bureau requiring programs to include outcomes related to language development, literacy, mathematics, science, creative arts, social and emotional development, approaches toward learning, and physical health and development many Head Start programs began using the Devereux Early Childhood Assessment (DECA) Program (Devereux Foundation, 2002). The DECA Program addresses the areas of social and emotional development and approaches toward learning.

Devereux Early Childhood Assessment Program

The DECA Program is a "strength-based system designed to promote resilience in children ages 2-5 years" (Devereux Foundation, 2002, p. 1). There are two main goals of the DECA Program. First, the program seeks to identify and strengthen children's
protective factors and thereby increase resilience. Second, the program strives to support teachers, families and communities in their efforts to minimize the impact of risk factors that hinder healthy social and emotional development. Prior to beginning the program children are assessed for the protective factors of attachment, imitative and self-control, as well as specific behavior concerns, using the Devereux Early Childhood Assessment (DECA). Classroom strategies are then developed to strengthen protective factors using the information from the assessment. A family component of the program also involves providing information to families on building resilience in their children.

The three major protective factors addressed in the program include, attachment, initiative, and self-control were developed using resilience literature (LeBuffe & Naglieri, 1999b). Attachment is defined as “a mutual, strong, and long-lasting relationship between a child and significant adults such as parents, family members, and teachers” (LeBuffe & Naglieri, 1999b, p. 4). Karen (1998) explains that a caregiver who is sensitive to the needs of the child can allow a secure attachment to form even if the child had not developed a secure attachment previously. This is most easily accomplished during the early years of a child’s life, prior to adolescence.

Initiative is defined as “a child’s ability to use independent thought and action to meet his or her needs” (LeBuffe & Naglieri, 1999b, p. 4). Kimchi and Schaffner (1990) characterized resilient preschoolers as self-confident, independent, and taking realistic risks. They also “manifest adaptability and self-initiative” (p. 494).

Self-control is defined as “a child’s ability to experience a wide range of feelings and express them using the works and actions that society considers appropriate”
(LeBuffe & Naglieri, 1999b, p. 4). Resilient preschoolers are able to tolerate frustration and handle anxiety (Kimchi & Schaffner, 1990).

Preliminary results indicate that the DECA Program has had some effectiveness at increasing children’s protective factors and therefore increasing their resiliency. The Devereux Early Childhood Initiative (2001) conducted a study on 203 children, divided into control and target groups. The target group received the DECA Program and control group did not. Parents and teachers filled out the DECA in both the fall and the spring. Results of teachers’ ratings showed that there was an increase in both the target and the control group in protective factors and that the target group had significantly fewer behavior concerns. Parents rated children in the target group as having significantly higher protective factors and significantly lower behavior concerns.

A similar study conducted by (LeBuffe & Likins, 2001) examined 342 children. Results showed significant increases in ratings of total protective factors by teachers for both the target group and the control group. Parents and teachers also rated children in the control group as having significant increases in behavior concerns while teachers rated children in the target group as having significantly fewer behavior concerns. These results are promising however the increases in both the control and target groups in terms of protective factors indicate that more research is needed to determine the effectiveness of the program.
Fostering Resilience at Home

An important component of fostering resilience is to teach parents the strategies that can be used to build resilience in their children. This information can be given by classroom teachers or through workshops designed for parents and presented by school psychologists and counselors. There are several strategies that parents can use to foster resiliency. Jazen and Saklofske (1991) recommended that parents give frequent genuine praise, maintain stability, keep routines, teach their child to relax, be supportive and reassuring, encourage discussion of angry feelings, urge children to participate in activities, and be aware of suicidal warning signs.

Fassler and Dumas (1997) suggest that parents follow six essential principles when striving to raise resilient children. They are to provide love and support for the child and encourage self-awareness. Parents are to establish predictability, availability, and security through clear guidelines and a unified message. They can foster open and honest communication and have a constructive and balanced approach to discipline. Parents are instructed to let their children experience life and nurture their talents. Lastly, parents are to enhance self-esteem through such actions as celebrating successes, not making approval contingent on success, modeling good coping strategies, and interpreting experiences positively. Educators can help to bring this information to all parents, especially those with children at risk for depression. Building resilience at home can help to prevent childhood depression.
Prevention Programs

The following sections will examine three unique primary prevention programs that are based on current information about childhood depression. Each of the programs has some research support, including longitudinal data. Longitudinal programs were chosen in order to determine if prevention efforts has long-term effectiveness.

Yale-New Haven Primary Prevention Project

An early study conducted at Martin Luther King Jr. Elementary School in New Haven sought to improve the outcomes of children who were judged to be at risk for difficulties in school (Comer, 1985). The program “focused on creating a desirable climate or social environment in schools through the application of mental health principles in a way that effects a coordinated management, curriculum and staff development program, and teaching learning process” (p. 155). Participants in the study were from an elementary school that was 99% Black. Half of the children in the school received Aid for Families with Dependent Children. At baseline children were 19 and 18 months below grade level in reading and math, respectively. Frequent and severe behavior problems occurred in the school. These factors put the students at risk for problems in school and mental illness, including childhood depression.

There were four key elements of the project (Comer, 1985). First, there was a representative governance and management group who met regularly to identify problems and opportunities relating to the school’s climate and academic program. Second, parent participation on several levels was used. Third, a mental health program was carried out by a team of mental health professionals who provided direct services to
the students. Lastly, there was an academic program that focused on curriculum and staff development. Teachers were taught how to facilitate the social, psychological, cognitive, speech, and language development of their students. Results of the study indicated the program was effective (Comer, 1985). In follow-up three years later, researchers found that the school had excellent attendance, no serious behavior problems, low staff turnover, high parent participation, and appropriate grade level scores in reading and math.

Researchers also followed 16 school students who had attended King Elementary to their receiving middle school (Comer, 1985). The 16 students were compared to matched students who attended other elementary schools. Students who participated in the prevention program outperformed the matched students in all nine subtests of the Iowa Test of Basic Skills. The 16 King students also rated themselves as having significantly better overall social competence. These increased capabilities, especially social competence, made the children more resilient and therefore less likely to experience depression.

Penn Prevention Project

Jaycox et al. (1994) developed the Penn Prevention Program. Unlike the Yale-New Haven Primary Prevention Program, this program was specifically designed to prevent childhood depression. Fifth and sixth grade students were identified as at risk for depression using the Children’s Depression Inventory and the Child’s Perception Questionnaire. Children who were either experiencing parental conflict or depressive symptoms (sum of z-scores on Children’s Depression Inventory and Child’s Perception
Questionnaire > 0.50) were included in the study and divided into two groups. The first group was the coping skills group \((n = 69)\) and the second was the control wait-list group \((n = 23)\) who would receive the coping skills classes in one year (Seligman, 1995). There was also a second control group \((n = 50)\) in a neighboring district matched on income, educational level, and racial profile.

The coping skills group received direct training on coping with family conflict and other stressors from an advanced doctoral clinical psychology student (Jaycox, Reivich, Gillham, & Seligman, 1994). Students participated in a 12 week, 24 hour program designed not to feel or sound like school (Seligman, 1995). This was important because many of the children had negative school experiences. The program used comic strips, role-playing, games, discussions, and videos to teach the important concepts that researchers believed would facilitate the development of resilience. Characters such as Hopeful Holly, Gloomy Greg, Say-It-Straight Samantha, Bully Brenda, and Pushover Pete were used to teach the children about changing negative thoughts, coping with problems, and building assertiveness skills.

The program had two main components, cognitive and social problem solving (Seligman, 1995). Cognitive therapy techniques were used to teach the children the four basic skills of optimism. First, the children learned to recognize their thoughts when they felt the worst. Second, they learned to evaluate those thoughts. Third, the students generated more accurate explanations and used them to challenge their automatic thoughts. Lastly, students learned the skill of decatastrophizing, not always thinking in terms of the worst-case scenario.
The Penn Prevention Program used Ellis’ ABC Model to teach children to examine their explanations to see if they are permanent or temporary, pervasive or specific, and personal or impersonal (Seligman, 1995). Researchers expanded the model to include the letters D and E as well. In this model A stands for the adversity or negative event, B stands for the child’s beliefs and interpretations about the adversity, and C stands for the consequences based on those beliefs. D stands for disputation and is the stage in which the child makes an argument to counter their initial beliefs. E stands for energization, which is the emotional and behavioral consequence of the disputation. Through fun interactive activities students played the role of detectives and investigated the accuracy of their thoughts.

The social problem-solving component of the program sought to teach the children how to handle interpersonal conflicts and solve social problems (Seligman, 1995). This is especially important because children who are depressed often fall into the role of bully or victim. The children were taught problem solving in five steps. Steps included slowing down, perspective taking, goal setting, choosing a path, and evaluating using the question “how did it go?”

Initial effects showed a significant decrease in depressive symptoms. Prior to the coping skills class (treatment condition), 24% of the students in both the prevention and the control group had moderate to severe depressive symptoms (score above 15 on Children’s Depression Inventory; Seligman, 1995). Immediately after the coping skills class, the prevention group symptoms were reduced to 13%. The control group remained constant at 24%.
Long-term results were investigated two years later. Seligman (1995) found that 22% of the children in the coping skills class (treatment condition) reported moderate to severe depressive symptoms and 44% of the control group reported the symptoms. Results reflected predicted natural increase in symptoms during adolescence. Children in the prevention group also were less likely to explain bad events pessimistically. Some particularly interesting results were that the treatment effects were stronger for children experiencing more parental conflict at home and more depressive symptoms (Jaycox et al., 1994). One drawback of the study was that there was not a placebo group.

This study is exciting because it suggests that teaching children skills that will make them more resilient and optimistic can prevent childhood depression, not only immediately following treatment but in the future as well. Since it typically is not feasible to have clinical psychologists lead sessions, Seligman (1995) expressed the need to train school psychologists, counselors, teachers, and parents to teach these skills to children.

Prevention Intervention Project

Gladstone and Beardslee (2000) developed the Prevention Intervention Project to decrease the incidence of childhood depression. Goals were to decrease the impact of family and marital risk factors, increase resilience related behaviors and attitudes through enhanced parental and family functioning, and prevent the onset of depression or related psychopathology. The project also sought to be developmentally appropriate, use a family-centered perspective, develop interventions that could be used by a variety of
disciplines, and strengthen the role of parents to better deal with challenges and avoid depression.

The Prevention Intervention Project used two conditions with 100 middle class families. Each included at least one parent who had recently suffered from an affective disorder episode (Gladstone & Beardslee, 2000). The clinician-facilitated condition consisted of six to ten sessions of separate meetings for parents and children, family meetings, and telephone contacts. Refresher sessions at six and nine month intervals were conducted. Lecture conditions involved two meetings in a group format without the children present.

Both of the interventions focused on helping parents deal with misunderstanding, guilt, and blame (Gladstone & Beardslee, 2000). Both provided information on resilient characteristics and strengths and how to encourage the development of resilience. Interventions encouraged parents to discuss their affective disorder with their child and gave them information on childhood depression.

Results showed both initial and sustained effects three years later (Gladstone & Beardslee, 2000). Parents in both of the conditions reported improved communication about depression between the children, spouses, and family. Parents also reported less feelings of guilt and children's increased understanding of the illness. The clinician-facilitated group reported a greater number of overall changes than the lecture group including improved communication and increased illness understanding (Beardslee et al., 1997).
Gladstone and Beardslee (2000) developed the Family Communication, Openness, Resiliency, and Empowerment (FamilyCORE) Program. FamilyCORE followed a similar format to the Prevention Intervention Project. However, changes were made in order to better identify with the 16 families with diverse backgrounds from an urban neighborhood in Boston. Results showed once again that both interventions were helpful and there was less of a difference between the groups than in the Prevention Intervention Project. Participants reported increased focus on their children and fewer depressive symptoms. One concern with both of these studies was that there was not a control group.

**Critique of Research**

Currently, there is very limited research on the prevention of childhood depression. Prevention programming for depression is relatively new. Past research focused more on intervention than prevention. There is very little information on building resiliency in children in order to prevent childhood depression. The topic of resiliency is gaining popularity among educators and psychologists and more research on this issue would be beneficial.

There are weaknesses in research on the prevention of childhood depression. First, few of the studies involve control groups that allow us to see how children would have turned out without the prevention efforts. Instead of denying at-risk children access to the prevention program, random sampling could be used in order to compare the two groups. A placebo group, which was not present in any of the studies, would also provide needed information regarding the success of the programs. Placebo groups could
show whether the actual prevention program was successful or if students were simply benefiting from increased attention. Second, the majority of the studies appear to be targeted at approximately the same age group, upper elementary and middle school. It would be interesting to find out if prevention programs showed similar results with lower elementary or high school children. Third, a majority of the studies use parental reporting, which is not always a reliable form of measurement, especially when the reporting parent has an affective disorder (Beardslee et al., 2000). More objective assessment tools are needed. Lastly, research must be conducted on prevention programs that could realistically be used in schools. This means that programs should be researched that would be feasible in terms of time, funding, and trained personnel available in school districts.

Currently, the number of longitudinal studies is very limited. Aside from the three that were discussed; many programs are only evaluated in terms of short-term prevention. Research also needs to be conducted on students from all cultural and economic groups in order to find out what efforts are successful for all students. These changes improve the validity of the research base.

The current study addresses several of these weaknesses. The effectiveness of the Devereux Early Childhood Program, a program designed to build resiliency in young children, is evaluated. Difficulties with prior research are addressed through the use of a control group with characteristics similar to the experimental group, teacher reporting as opposed to parent reporting, and the use of a sample of children who have diverse cultural backgrounds and low socio-economic status. The study also looks at preschool
aged children as opposed to adolescence where most previous research has focused.

Lastly, the current research examines a program that has been adopted by many Head Start programs. The DECA Program has been deemed feasible in terms of time, funding, and training needed.
CHAPTER 3

METHODOLOGY

This chapter describes the methodology used in this study. Information about participants is given as well as a description of the program that is being evaluated. Instrumentation, procedures, and data analysis techniques are also described.

Participants

Children

Participants included 60 children between 3 and 5 years of age (3.10 – 5.0). Children were from two preschool programs in Eastern Iowa. Both programs consisted primarily of children whose family income was below the poverty line. Students in the experimental group (n = 31) were in a Head Start program that used the Devereux Early Childhood Assessment (DECA) Program. Children were between 3 and 4 years of age (3.10 – 4.11). The experimental group was 42% male and 58% female, 55% Caucasian, 35% African American, and 10% Hispanic.

Students in the control group (n = 29) were in a Head Start program that was not using the DECA Program. Children were between 3 and 5 years of age (3.10 - 5.0). The control group was 66% male and 34% female, 45% Caucasian, 52% African American, and 3% Hispanic.

Teachers

Six teachers participated in the study. See Table 1. The teachers in the experimental group (n = 3) had between 2 and 5 years of teaching experience. All of the teachers in the experimental group were Caucasian females. All teachers had four-year
degrees in early childhood education, elementary education, or both. Teachers in the experimental group received two three-hour training sessions on the DECA Program. The training focused on completing and scoring DECAs, completing environmental checklists, developing classroom profiles, and implementing specific strategies based on children’s needs.

The teachers in the control group (n = 3) had between 3 and 15 years of teaching experience. The teachers in the control group were two Caucasian females and one African American female. Educational attainment among these teachers ranged from an associate of arts degree in early childhood education to a bachelors degree in early childhood. Teachers in the control group received training on how to fill out the DECA forms but did not receive any training on the DECA Program.

Table 1

<table>
<thead>
<tr>
<th>Classroom</th>
<th>Ethnicity</th>
<th>Years of Experience</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>2</td>
<td>BA</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>5</td>
<td>BA</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>2</td>
<td>BA</td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>15</td>
<td>BA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>8</td>
<td>AA</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>3</td>
<td>BA</td>
</tr>
</tbody>
</table>
The Devereux Early Childhood Assessment (DECA) Program is a “strength-based system designed to promote resilience in children ages 2-5 years” developed from 1996-1998 (Devereux Foundation, 2002, p. 1). There are two main goals of the DECA Program. First, the program seeks to identify and strengthen children’s protective factors and thereby increase resilience. Second, the program strives to support teachers, families and communities in their efforts to minimize the impact of risk factors that hinder healthy social and emotional development.

The DECA Program is divided into four major components and begins with assessment (Koralek, 1999). Teachers observe each student in their classroom for the protective factors of attachment, initiative, and self-control. They also use the Devereux Early Childhood Assessment (DECA) to identify children’s social and emotional strengths. The DECA focuses on attachment, initiative, self-control, and specific behavior concerns. The results of the DECA are then used to develop individual and classroom profiles that teachers use when planning strategies to foster resilience. At this point in the program teachers also complete several checklists regarding their classroom practices. Checklists will later be used to help teachers monitor their progress toward improving their classroom practices.

Classroom strategies are the second component of the DECA Program (Koralek, 1999). Teachers plan and implement strategies that serve to increase protective factors in individual children who score in the concern category on the DECA. For example, in order to help a child build self-control, the DECA Program suggests setting realistic
expectations for behavior that match the child's individual and developmental characteristics. Teachers also develop classroom strategies to benefit all children, such as promoting attachment by providing opportunities for children to work in cooperative groups and teaching children how to work and play together. The DECA Program provides teachers with specific developmentally appropriate strategies concerning the classroom environment, daily programming, activities and experiences, supportive interactions, and partnerships with families.

The third component of the DECA Program is working with families (Koralek, 1999). A booklet entitled “For Now and Forever, A Guide for Families on Promoting Social and Emotional Development,” is to be given to the families involved in the program. The booklet includes specific information on strategies that can be used to promote social and emotional growth at home. For example, in order to build initiative the DECA Program suggests that parents encourage pretend play with statements such as, “Let’s pretend we’re . . .”

Continuous follow-up is the final component of the DECA Program (Koralek, 1999). Educators are encouraged to increase their knowledge about strategies, protective factors, and resiliency theory. Communication between teachers and between teachers and experts in specific areas of education is also recommended regarding questions, concerns, advice, and successes. This can be done through additional training opportunities and on-line discussions. Teachers also evaluate their progress by comparing checklists completed throughout the DECA Program. Together these four components make up the DECA Program.
Instrumentation

The Devereux Early Childhood Assessment (DECA) is a nationally normed behavior rating scale that evaluates protective factors in preschool children ages 2-5 years (LeBuffe & Nagleiri, 1999a). The DECA can be completed by both caregivers and educators. Teachers rate the frequency of 27 positive behaviors and 10 concern behaviors. Sample items include “show patience,” “trust familiar adults and believe what they say,” and “start or organize play with other children” (see Appendix A). The DECA has three main purposes. The first purpose is to identify children who score low on protective factors so that classroom and home-based strategies can be generated to increase these skills. The second purpose is to develop classroom profiles that represent the strengths of the entire classroom so that classroom design and instructional strategies can build on healthy social emotional development. The final purpose is to screen for behavior concerns so that they can be addressed before they manifest into behavior disorders.

Scale items were developed through a two-step process (LeBuffe & Nagleiri, 1999a). The first step involved a review of the literature on resilience. During the second step, researchers conducted focus groups with parents of preschoolers and preschool teachers. The focus groups yielded positive and negative behavioral descriptors related to social and emotional health. Following a pilot study and separate standardization study, a factor analysis was conducted on the items. A three-factor solution consisting of attachment, self-control, and initiative was developed. Initiative was defined as “the child’s ability to use independent thought and action to meet his or
her needs” (LeBuffe & Naglieri, 1999b, p. 4). Self-control was defined as “the child's ability to experience a range of feelings and express them using the words and actions that society considers appropriate” (LeBuffe & Naglieri, 1999b, p. 4). Attachment was defined as “a measure of a mutual, strong, and long-lasting relationship between a child and significant adult(s)” (LeBuffe & Naglieri, 1999b, p. 4). A fourth scale involving behavior concerns was also constructed. Specific information about its development was not provided.

Ratings on the DECA range from 0 (never displays the behavior) to 4 (very frequently displays the behavior) (LeBuffe & Naglieri, 1999b). Scoring the DECA generates a scale raw score, t-score, percentile score, and a category assignment of strength, typical, or concern for each subscale: attachment, initiative, self-control, and behavior concerns. Adding the scores for the subscales of attachment, initiative, and self-control yield a Total Protective Factors score. The category assignment cut-off scores for areas of strength (above the 83rd percentile), typical (between the 17th and 83rd percentile), and concern (below the 17th percentile) were set based on the normal curve using the standardization sample of the DECA.

The DECA was standardized from the fall of 1997 to the spring of 1998 (LeBuffe & Naglieri, 1999a). The standardization sample consisted of 2,000 children ages 2 years 0 months to 5 years 11 months, 30 days. Half of the children sampled were rated by a family caregiver and the remaining half were rated by a preschool teacher or childcare provider. Approximately 51% of the children were males and 49% were females. One quarter of the children were from families receiving public assistance or subsidized
childcare, matching the prevalence of poverty among young children. The sample was stratified on race and geographic region based on 1997 United States Census information.

The DECA’s internal consistency, test-retest, and interrater reliability were assessed (LeBuffe & Nagleiri, 1999a). Internal consistency for the Total Protective Factors (TPF) for teachers exceeded Cronbach alpha of .90. Internal consistency on the subscales of attachment (.85), initiative (.90), self-control (.90), and behavior concerns (.80) ranged from .80 to .90. Test-retest reliability for the Total Protective Factors over a 24-hour to 72-hour period was .94. Test-retest reliability on the subscales of attachment (.87), initiative (.91), self-control (.91), and behavior concerns (.68) ranged from .68 to .91. These correlations were significant that the .01 level. Interrater reliability on the various scales was found by comparing ratings from teachers and teacher’s aides. Interrater reliability for the Total Protective Factors (TPF) for teachers was .69. Interrater reliability on the subscales of attachment (.59), initiative (.77), self-control (.57), and behavior concerns (.62) ranged from .57 to .77. These correlations also were significant that the .01 level.

Content, criterion and construct validities have been examined. Because no other measure is currently available that measures protective factors, content-related validity is based on an extensive review of resiliency literature and the results of focus groups. Criterion validity was established by examining the DECA’s ability to correctly predict whether a child was part of a clinical (n = 95) or a matched non-referred (n = 86) sample. The clinical sample included any child who had been given a psychiatric diagnosis, was being seen by a mental health professional, had been asked to leave a child care program.
because of behavior programs, or had an individualized behavior management plan. Children not meeting these criteria were placed in the non-referred sample. The DECA was able to accurately classify 69% of the children in the study. Construct validity was examined by correlating the scores on the TPF scale and the Behavior Concerns scale. A correlation of -.65 indicates an inverse relationship.

Procedures

Human Subjects Review Committee Application

Prior to beginning the study a Human Subjects Review Committee Application from the University of Northern Iowa was completed. The purpose of the study as well as experimental procedures were described in detail. The University of Northern Iowa Graduate College reviewed the procedures for ethical considerations. The study’s procedures were approved on September 19, 2002 (see Appendix B). Letters of Cooperation were obtained from the agencies involved in the study (see Appendix C).

Consent Forms

Consent forms (see Appendix D) were completed by classroom teachers. Consent forms (see Appendix E) were also distributed to all parents and guardians of all children in the classrooms of interest. The consent form explained to the parents the purpose of the research and how the data would be collected. Parents were also informed that all results would be confidential and were given the opportunity to choose not to have their children participate in the study. All consent forms were collected during October 2002. Consent forms were returned at a rate of 71% with 98% of caregivers giving permission for their children to participate in the study.
Data Collection

The study evaluated the short-term effectiveness of the DECA Program. Changes in the Total Protective Factors scores and subscales were examined. Data was collected on two occasions. In October 2002, the classroom teachers in the control group and the experimental group completed the DECA for each child whose parent/guardian gave consent for him or her to participate in the study. Parents did not complete the DECA because of reliability concerns on several of the scales. For the next three months the experimental classroom used the DECA Program and the control classroom did not.

Teachers in the experimental and control classrooms filled out the DECA for each student again in January 2003. These results were compared to the October results. Differences between centers were analyzed.

Data Analysis

Two-tailed independent t-tests were used to examine the differences in posttest scores between the experimental and the control group. Pretest DECA scores were first compared to determine if there were significant differences between the two groups. When no significant differences were identified, the posttest scores of the experimental and control group were analyzed. Posttest scores for initiative, attachment, self-control, total protective factors and behavior concerns were compared. Significant t values were noted.
CHAPTER 4

RESULTS

This chapter reports the statistical results of the study. Descriptive characteristics are presented. Each research question is then stated followed by a table that presents the relevant t-score means and standard deviations. Each research question is then answered based on information gathered from conducting a two-tailed independent \( t \)-test using posttest scores.

Prior to conducting the \( t \)-tests, the normality of the sample was explored. The total protective factors scale was found to be normally distributed. Analysis of normality indicated three outliers in the experimental group in the total protective factors scale. The three outliers were removed prior to the analysis of the data using \( t \)-tests.

**Descriptive Report**

Teachers in the experimental and control groups used the DECA scale to rate their students on two occasions. Raw DECA scores were converted into t-scores. Based on the standardization sample for the DECA, each scale has a mean of 50 and a standard deviation of 10. Scales with t-scores of 60 and above are considered areas of strength and t-scores of 40 and below are areas of concern. In the current study, the pretest means for the DECA scales ranged from 47.38 to 52.93, and the posttest means ranged from 45.68 to 54.25.
Figures 1, 2, 3, and 4 are histograms that represent the distribution of the total protective factors scores for the present study. Figures 1 and 2 show the distribution of the pretest and posttest total protective factors scores for the experimental group. Figures 3 and 4 show the distribution of the pretest and posttest total protective factors scores for the control group.

Figure 1. Total Protective Factors Experimental Group Pretest Scores

Note: Each bar represents the score ± 1.25 points
Figure 2. Total Protective Factors Experimental Group Posttest Scores

Note: Each bar represents the score ± 2.5 points
Figure 3. Total Protective Factors Control Group Pretest Scores

Note: Each bar represents the score ± 2.5 points
Figure 4. Total Protective Factors Control Group Posttest Scores

Note: Each bar represents the score ± 2.5 points
Table 2 displays the pretest and posttest total protective factors score means and standard deviations for both the experimental and control group. Pretest and posttest means and standard deviations for both groups are also provided for each of the DECA subscales (initiative, self-control, attachment, and behavior concerns).

**Table 2**

*Pretest and Posttest Means and Standard Deviations for DECA Subscales*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td></td>
</tr>
<tr>
<td>Total Protective Factors</td>
<td>47.35</td>
<td>46.48</td>
</tr>
<tr>
<td>(SD = 5.660)</td>
<td>(SD = 7.545)</td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>47.71</td>
<td>46.42</td>
</tr>
<tr>
<td>(SD = 6.045)</td>
<td>(SD = 7.936)</td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>49.26</td>
<td>50.87</td>
</tr>
<tr>
<td>(SD = 9.977)</td>
<td>(SD = 11.153)</td>
<td></td>
</tr>
<tr>
<td>Attachment</td>
<td>48.13</td>
<td>45.68</td>
</tr>
<tr>
<td>(SD = 4.631)</td>
<td>(SD = 6.150)</td>
<td></td>
</tr>
<tr>
<td>Behavior Concerns</td>
<td>57.10</td>
<td>57.19</td>
</tr>
<tr>
<td>(SD = 7.250)</td>
<td>(SD = 10.094)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>Total Protective Factors</td>
<td>47.70</td>
<td>51.18</td>
</tr>
<tr>
<td>(SD = 7.258)</td>
<td>(SD = 8.192)</td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>47.41</td>
<td>51.61</td>
</tr>
<tr>
<td>(SD = 8.044)</td>
<td>(SD = 8.904)</td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>47.15</td>
<td>50.46</td>
</tr>
<tr>
<td>(SD = 8.023)</td>
<td>(SD = 8.311)</td>
<td></td>
</tr>
<tr>
<td>Attachment</td>
<td>52.93</td>
<td>54.25</td>
</tr>
<tr>
<td>(SD = 9.081)</td>
<td>(SD = 9.438)</td>
<td></td>
</tr>
<tr>
<td>Behavior Concerns</td>
<td>56.93</td>
<td>56.83</td>
</tr>
<tr>
<td>(SD = 9.153)</td>
<td>(SD = 6.709)</td>
<td></td>
</tr>
</tbody>
</table>
Question #1 – Total Protective Factors

Do children exposed to the DECA Program show more gains in total protective factors (combined initiative, self-control, and attachment) in a three-month period than children not exposed to the DECA Program? See Table 3.

Table 3

Total Protective Factors Means and Standard Deviations

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>47.35 (SD = 5.660)</td>
<td>46.48 (SD = 7.545)</td>
</tr>
<tr>
<td>Control</td>
<td>47.70 (SD = 7.258)</td>
<td>51.18 ** (SD = 8.192)</td>
</tr>
</tbody>
</table>

** t(57) = -2.291, p < .05

An independent-samples t-test was first conducted to determine whether there was a significant difference between the experimental and control total protective factors pretest scores. There was no significant difference between experimental total protective factors pretest scores ($M = 47.35, SD = 5.660$) and control total protective factors pretest scores ($M = 47.70, SD = 7.258$, $t(56) = -.205, p = .838$). Since no significant difference was found, posttest scores were compared.

An independent-samples t-test was conducted to compare the total protective factors posttest scores for the experimental and control group. There was a statistically significant difference between experimental total protective factors posttest scores ($M =$
46.48, \( SD = 7.545 \) and control total protective factors posttest scores (\( M = 51.18, SD = 8.192, t(57) = -2.291, p < .05 \)). The control group had significantly higher scores. Therefore, children exposed to the DECA Program did not show more gains in total protective factors in a three-month period than children who were not exposed to the DECA Program.

**Question #2 – Initiative**

Do children exposed to the DECA Program show more gains in initiative than children not exposed to the DECA Program? See Table 4.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean (SD)</th>
<th>Posttest Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>47.71 (6.045)</td>
<td>46.42 (7.936)</td>
</tr>
<tr>
<td>Control</td>
<td>47.41 (8.044)</td>
<td>51.61** (8.904)</td>
</tr>
</tbody>
</table>

**\( t(57) = -2.366, p < .05 \)**

An independent-samples \( t \)-test was first conducted to determine whether there was a significant difference between the experimental and control pretest initiative scores. There was no significant difference between experimental pretest initiative scores (\( M = 47.71, SD = 6.045 \)) and control pretest initiative scores (\( M = 47.41, SD = 8.044, t(56) = \))
.160, \( p = .874 \). Since no significant difference was found, posttest scores were compared.

An independent-samples \( t \)-test was conducted to compare the initiative posttest scores for the experimental and control group. There was a statistically significant difference between experimental initiative posttest scores (\( M = 46.42, SD = 7.936 \)) and control initiative posttest scores (\( M = 51.61, SD = 8.904, t(57) = -2.366, p < .05 \)). The control group had significantly higher scores. Therefore, children exposed to the DECA Program did not show more gains in initiative in a three-month period than children who were not exposed to the DECA Program.

**Question #3 – Self-Control**

Do children exposed to the DECA Program show more gains in self-control than children not exposed to the DECA Program? See Table 5.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>49.26 (( SD = 9.977 ))</td>
<td>50.78 (( SD = 11.153 ))</td>
</tr>
<tr>
<td>Control</td>
<td>47.15 (( SD = 8.023 ))</td>
<td>50.46 (( SD = 8.311 ))</td>
</tr>
</tbody>
</table>
An independent-samples $t$-test was first conducted to determine whether there was a significant difference between the experimental and control self-control pretest scores. There was no significant difference between experimental self-control pretest scores ($M = 49.23, SD = 9.977$) and control self-control pretest scores ($M = 47.15, SD = 8.023, t(56) = .879, p = .383$). Since no significant difference was found, posttest scores were compared.

An independent-samples $t$-test was conducted to compare the self-control posttest scores for the experimental and control group. There was no significant difference between experimental self-control posttest scores ($M = 50.78, SD = 11.153$) and control self-control posttest scores ($M = 50.46, SD = 8.311, t(57) = .157, p = .875$). Therefore, children exposed to the DECA Program did not show more gains in self-control than children who were not exposed to the DECA Program.
Question #4 – Attachment

Do children exposed to the DECA Program show more gains in attachment than children not exposed to the DECA Program? See Table 6.

Table 6
Attachment Means and Standard Deviations

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>48.13 (SD = 4.631)</td>
<td>45.68 (SD = 6.150)</td>
</tr>
<tr>
<td>Control</td>
<td>52.93** (SD = 9.081)</td>
<td>54.25 (SD = 9.438)</td>
</tr>
</tbody>
</table>

** $t(56) = -2.478, p < .05$

An independent-samples $t$-test was first conducted to determine whether there was a significant difference between the experimental and control attachment pretest scores. There was a statistically significant difference between experimental attachment pretest scores ($M = 48.13, SD = 4.631$) and control attachment pretest scores ($M = 52.93, SD = 9.081, t(56) = -2.478, p < .05$). The control group had significantly higher scores.

Examination of the data shows that the mean attachment score of the experimental group decreased from pretest ($M = 48.13, SD = 4.631$) to posttest ($M = 45.68, SD = 6.150$). However, the mean attachment score of the control group increased from pretest ($M = 52.93, SD = 9.081$) to posttest ($M = 54.25, SD = 9.438$). Therefore, children
exposed to the DECA Program did not show more gains in attachment than children who were not exposed to the DECA Program.

**Question #5 – Behavior Concerns**

Do children exposed to the DECA Program show greater decreases in behavior problems than children not exposed to the DECA Program? See Table 7.

Table 7

*Behavior Concerns Means and Standard Deviations*

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>57.10 (SD = 7.250)</td>
<td>57.19 (SD = 10.094)</td>
</tr>
<tr>
<td>Control</td>
<td>56.93 (SD = 9.153)</td>
<td>56.83 (SD = 9.709)</td>
</tr>
</tbody>
</table>

An independent-samples *t*-test was first conducted to determine whether there was a significant difference between the experimental and control behavior concerns pretest scores. There was no significant difference between experimental behavior concerns pretest scores (*M* = 57.10, *SD* = 7.250) and control behavior concerns pretest scores (*M* = 56.93, *SD* = 9.153, *t*(58) = .078, *p* = .938. Since no significant difference was found, posttest scores were compared.

An independent-samples *t*-test was conducted to compare the behavior concerns posttest scores for the experimental and control group. There was no significant
difference between experimental behavior concerns posttest scores ($M = 57.19, SD = 10.094$) and control behavior concerns posttest scores ($M = 56.83, SD = 9.709, t(58) = .166, p = .869$). Therefore, children exposed to the DECA Program did not greater decreases in behavior concerns than children who were not exposed to the DECA Program.
CHAPTER 5

DISCUSSION

The current study found that the Devereux Early Childhood Assessment Program was not effective at increasing factors related to resiliency in a three-month period when compared to a control group that was not exposed to the DECA Program. Those protective factors included initiative, self-control, and attachment. The program was also not effective at decreasing behavior concerns. In fact, in the areas of initiative, attachment, and total protective factors (combined initiative, self-control, and attachment) the control group made gains while the experimental group actually showed declines.

Possible Explanations

Previous research on the effectiveness of the DECA Program has identified increases in both the experimental and control groups, with the children exposed to the DECA Program being reported as having significantly larger decreases in behavior concerns over a one year period (Devereux Early Childhood Initiative, 2001; LeBuffe & Likins, 2001). The current study’s findings do not concur with those of previous studies. There are several possible reasons why the DECA Program was not found to be effective.

First, the duration of the study may have been too short to adequately determine whether or not the DECA Program was successful at building resiliency and decreasing behavior concerns. A three-month time period may not have allowed teachers in the experimental group to make significant changes in their classroom practices in order to build resiliency in their students. The short-term nature of the study may also not have allowed enough time for children to respond to classroom strategies designed to build
resiliency. Three months may also be too short of a period of time for children grow significantly in factors related to resiliency. A follow up study at the end of the school year would be beneficial to determine if the DECA Program had a positive effect over a longer time period.

Second, the sample examined in the study may have been too small to detect significant differences. A total of 60 students participated in the study. Previous studies included 203 and 342 children (Devereux Early Childhood Initiative, 2001; LeBuffe & Likins, 2001). This small number makes the study less sensitive to small changes in factors rated to resilience. This may have impacted the results of the study.

Third, it is important to note that teachers in the control group had more years of experience than teachers in the experimental group. This may have impacted classroom practices and influenced the results of the study. Experienced teachers may have used classroom practices that encouraged resiliency without being part of a specific program designed to build resiliency.

Fourth, both the experimental and the control group experienced changes in one classroom teacher during the course of the study. Both teachers left shortly after the pretest DECAs were completed. New teachers were immediately brought in, trained appropriately, and stayed the remainder of the study. This resulted in one classroom from each group having a different teacher complete the pretest and posttest measures. Having different teachers assess the children’s resiliency may have impacted the results of the study.
Fifth, teacher ratings were used as the data for the study. While teacher ratings have been shown to be reliable, other objective methods of measurement may have been more effective at determining whether or not the program was successful at building resiliency and decreasing behavior concerns. The DECA could be impacted by experiences that the teacher had with the child shortly before completing the checklist. For example, if a child hit another student shortly before the teacher filled out the DECA, it may lead the teacher to fill out the questions related to self-control more negatively even if this was not typical behavior for the child. Teachers may also have differed in the way they completed the DECAs. Some teachers may have rated the children in their classroom more stringently or more leniently. Also, the DECA Program may have sensitized teachers in the experimental group in ways that lead them to be more conservative in their posttest ratings than the control group teachers. Teacher completed DECAs may also not be sensitive enough to changes in the factors of initiative, self-control, attachment, and behavior concerns. Other measures may be necessary in order to evaluate gains.

Sixth, teachers in the experimental group may not have received adequate training in order to allow them to implement the DECA Program with integrity. Teachers received only six hours of training on the DECA Program. This limited amount of training may not have been effective in teaching the educators all aspects of the DECA Program. This is an especially important consideration because it was the first year that the teachers in the experimental group had implemented the DECA Program.
Finally, the components of the Deveruex Early Childhood Assessment Program may not be effective at increasing factors related to resiliency in children. Brooks and Goldstein (2001) recommend several strategies in order to build resiliency in the classroom. These strategies include practicing empathy, changing negative scripts, making sure that all students feel welcome and appreciated, developing realistic expectations and making accommodations, discussing the role of mistakes in the learning process, developing responsibility and compassion in the classroom, teaching students how to solve problems and make decisions, and using discipline to promote self-discipline. The DECA Program may not be effective at incorporating these strategies in order to build resiliency. The strategies that the DECA Program does suggest may not be successful at building resiliency in children. Another possibility is that the strategies suggested in the DECA Program are not significantly different from strategies that quality teachers are already using. This could explain the lack of significantly larger gains in the experimental group and the significantly higher scores in the control group where the teachers were more experienced.

**Implications for Resiliency Programming**

The results of this study provide important implications for resiliency programming. The most important implication is that it is very important to investigate the effectiveness of a program before it is implemented widely. This can be done through longitudinal studies with large sample sizes. Currently, there is very little research to support the use of the DECA Program. Despite this lack of research, preschool programs throughout the country have begun to use the program.
In order to use the preschool program’s resources most effectively, educators should ensure that there is proper research support behind a program that they are planning to implement. Implementing a new program uses not only money but also teacher and student time and energy. These valuable resources must be used carefully on programs that will have the maximum benefit. This is not to say that the DECA Program will not prove itself to be beneficial, only that further investigation of its effectiveness is necessary before extensive resources are committed.

Implications for Future Research

Overall, it is unclear whether the Devereux Early Childhood Assessment Program is ineffective at building factors related to resiliency or if the limitations of this research study impacted the DECA Program’s effectiveness. It is clear that more studies need to be conducted in order to evaluate the effectiveness of programs designed to build resiliency, particularly the DECA Program.

Studies need to include large samples with children from a variety of different backgrounds. Control groups and placebo groups (in which children are involved in activities that are not designed to build resiliency but provide similar amounts of attention) also are needed. Studies also should be long-term in nature and use a wider variety of measures to evaluate effectiveness. Teacher education and experience must be considered. Researchers should also investigate whether specific programs are needed in order to build resiliency or if good teaching practices are just as effective at increasing resiliency. Perhaps, additional training in developmentally appropriate teaching practices
and teaching those strategies that nurture children both academically and socialemotionally would be just as effective as resiliency programs.

Further studies need to investigate these issues and add to the limited research base that currently exists. Identifying successful programs and strategies could lead to increased resiliency in children. Increased resiliency could in turn lead to fewer difficulties for children, including a reduction in childhood depression.
REFERENCES


APPENDIX A

DEVEREUX EARLY CHILDHOOD ASSESSMENT
The Devereux Early Childhood Assessment
(for children ages 2 through 5 years)
Paul A. LeBuffle Jack A. Naglieri

Child's Name ___________________________ Gender ___________________________ DOB ___________________________ Age ___________________________
Site/Program ___________________________ Classroom ___________________________
Person Completing this Form ___________________________ Relationship to Child ___________________________ Date of Rating ___________________________

This form describes a number of behaviors seen in some young children. Read the statements that follow the phrase: During the past 4 weeks, how often did the child... and place a check mark in the box underneath the word that tells how often you saw the behavior. Please answer each question carefully. There are no right or wrong answers. If you wish to change your answer, put an X through it and fill in your new choice as shown to the right. Please do not skip any items.

Item # During the past 4 weeks, how often did the child...

1. Ask about a subject that interests him/herself?

2. Do things for himself/herself?

3. Choose things that are most interesting to him/her?

4. Listen in or respect others?

5. Complain bitterly about...

6. Respond positively to adult comforting when upset?

7. Participate actively in out-of-school play with others (shows up, etc.)?

8. Fail to show joy or gladness at a happy occasion?

9. Accept change of plans without reason?

10. Show affection for familiar adults?

11. Have respect for oneself?

12. Keep trying when unsuccessful (act persisting)?

13. Handle frustration well?

14. Have no reaction to children/adults?

15. Use obscene gestures or offensive language?

16. Use different ways to solve a problem?

17. Not happy or excited when parent/guardian returns?

18. Destroy or damage property?

19. By all means, try to get things (or people) you want?

20. Want to organize play with other children?

21. Shows patience?

22. Ask adults to play with or read to him/her?

23. Have a short attention span (lack of concentration)?

24. Focus his/her attention or concentrate on a task or activity?

25. Shares with other children?

26. Fight with other children?

27. Become upset or cry easily?

28. Be positive things about the future (act optimistic)?

29. Trust familiar adults and believe what they say?

30. Accept another choice when his/her first choice was unavailable?

31. Seek help from children/adults when necessary?

32. Ask other children to play with him/her?

33. Cooperate with others?

34. Calm himself/herself down when upset?

35. Get easily distracted?

36. Make decisions for himself/herself?

37. Show an interest in what children/adults are doing?

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APPENDIX B

HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL LETTER
Date: September 19, 2002

To: Sarah Carroll
School Psychology

From: Dr. Mary E. Losch, Chair
UNI Human Participants Review Committee
(Institutional Review Board)

Title: Childhood Depression and Resiliency: An Evaluation of the Devereux Early Childhood Assessment Program

Re: ID# 02-0039

Based on your clarifications and modifications, your project "Childhood Depression and Resiliency: An Evaluation of the Devereux Early Childhood Assessment Program," has received an expedited review and has been approved in accordance with the federal guidelines for human participant protections. You may begin enrolling human research participants in your project.

If you modify your project in a way that increases the physical, emotional, social, or legal risk to the participants or you change the targeted participants, you should notify the Human Participants Review Committee in the Graduate College Office before continuing with the research. Additionally, your project must be reviewed annually. You will receive a notification and continuing review form approximately 10 months from now asking for an update on your project.

If you have any further questions about the Human Participants Review policies or procedures, please contact me at mary.losch@uni.edu or David Walker, the Human Participants Committee Administrator, at 319.273.6148 or email david.walker@uni.edu. Best wishes for your project success.

cc: Institutional Review Board
Dr. Melissa Heston, Advisor
APPENDIX C

LETTERS OF COOPERATION
October 7, 2002

Dear Ms. Carroll,

The Head Start program is pleased to assist you with your research work on the DECA program. I have read through your supporting documentation and information of this project and support your efforts.

The Center has three Head Start classrooms and will be the site at which you can conduct your work. The Classroom Services Coordinator can be reached to arrange the details of the project.

Head Start looks forward to working with you, Ms. Carroll. Please let me know if there is any way we can assist in your study.

Sincerely,

HS/EHS Operations Supervisor

Cc: HS/EHS Director
Control Group

Sarah Carroll and Angela Fry
UNI Research Request

The proposed research project, which extends a pilot project for the DECA Mental Health Assessment begun in the spring of 2002, received board approval at the September 17th meeting and may be implemented in classrooms during the current school year. Your interest in the Head Start Program is appreciated. Feel free to contact our Mental Health Specialist.

Associate Director/Education Services
APPENDIX D

TEACHER CONSENT FORMS
Experimental Group
Devereux Early Childhood Assessment Project

You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

This fall, Head Start will begin a new program that will focus on promoting social and emotional growth. In order to determine whether or not the program is effective, a study is being conducted to compare classrooms that are using the new program to classrooms that are not. Since your classroom is using the new program, it will be used as a comparison. If you decide to participate in the study, you will be asked to fill out a checklist that addresses the relationships, independence, and self-control of each child in your class whose parents give permission for him or her to participate. The checklists will be filled out in October and then again in January. Each checklist takes approximately 10 minutes to complete.

The results from these checklists will be used to compare the growth of children who experience the program with children who do not. Participation in the research only allows the results of the checklists to be used and there is only the minimal risk of the inconvenience of filling out the checklists. Each child in your classroom will receive a free book, regardless of his or her participation in the study. Information collected during this study that could identify you or the children will be kept strictly confidential. All completed checklists and materials used in the study will be kept on file at Head Start. The results of the study may be published in an academic journal or presented at a scholarly conference.

Thank you so much for your help and interest in improving the quality of education at Head Start.

Sincerely,

Sarah Carroll, MAE
UNI Graduate Student
Permission Slip

I have been told that if I agree to participate in this study, I will fill out a checklist that addresses growth of positive relationships, independence, and self-control of each child in my class whose parents give permission for him or her to participate in the study. I have been told that I will fill out the checklist at the beginning of the year and then again in January. Each of these checklists will take approximately 10 minutes for me to complete. I have been told that these results will be used by a graduate student at the University of Northern Iowa to determine the effectiveness of their new program to promote social and emotional growth.

I have been told that my participation is completely voluntary. I have been advised that I am free to withdrawal from participation at any time or to choose not to participate at all and that by doing that I will not be penalized or lose benefits to which I am otherwise entitled.

I have been told that the investigators will answer any questions I have about my participation. I have also been told that if I desire information in the future regarding participation in the study, I can contact Sarah Carroll at 234-9347 or the projects faculty advisor Melissa Heston at the Department of Educational Psychology, University of Northern Iowa, 273-2236. I can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 273-2748, for answers to questions about the rights of research participants and the participant review process.

I have been told the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I received a copy of this consent statement. I am 18 years of age or older.

________________________  ______________________
Signature of participant     Date

________________________
Printed name of participant

________________________  ______________________
Signature of investigator    Date

________________________  ______________________
Signature of investigator    Date
Control Group

Devereux Early Childhood Assessment Project

You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

This year, the Head Starts in the Tri County area will begin a new program that will focus on promoting social and emotional growth. In order to determine whether or not the program is effective, a study is being conducted to compare classrooms that are using the new program to classrooms that are not. Since your classroom is not using the new program until January, it will be used as a comparison. If you decide to participate in the study, you will be asked to fill out a checklist that addresses the relationships, independence, and self-control of each child in your class whose parents give permission for him or her to participate. The checklists will be filled out in October and then again in January. In October, you will also be asked to fill out a checklist that addresses advanced ability in creativity, academics, leadership, and the arts. Each checklist takes approximately 10 minutes to complete.

The results from these checklists will be used to compare the growth of children who experience the program with children who do not and to examine the link between resiliency and giftedness. Results may also be used by Head Start to examine the long-term effectiveness of the program. Participation in the research only allows the results of the checklists to be used and there is only the minimal risk of the inconvenience of filling out the checklists. Each child in your classroom will receive a free book, regardless of his or her participation in the study. Information collected during this study that could identify you or the children will be kept strictly confidential. All completed questionnaires, checklists, and materials used in the study will be kept on file at Head Start. The results of the study may be published in an academic journal or presented at a scholarly conference.

Thank you so much for your help and interest in improving the quality of education at Head Start.

Sincerely,

Charletta Sudduth, Angela R. Fry, MAE Sarah Carroll, MAE
DECA Coordinator UNI Graduate Student UNI Graduate Student
Tri-County Head Start
Permission Slip

I have been told that if I agree to participate in this study, I will fill out a checklist that addresses growth of positive relationships, independence, and self-control of each child in my class whose parents give permission for him or her to participate in the study. I have been told that I will fill out the checklist at the beginning of the year and then again in January. In October, I will also fill out a checklist that addresses advanced ability in creativity, academics, leadership, and the arts. Each of these checklists will take approximately 10 minutes for me to complete. I have been told that these results will be used by graduate students at the University of Northern Iowa and may also be used by Head Start to determine the effectiveness of their new program to promote social and emotional growth.

I have been told that my participation is completely voluntary. I have been advised that I am free to withdraw from participation at any time or to choose not to participate at all and that by doing that I will not be penalized or lose benefits to which I am otherwise entitled.

I have been told that the investigators will answer any questions I have about my participation. I have also been told that if I desire information in the future regarding participation in the study, I can contact Angela Fry at 433-0030 or Sarah Carroll at 234-9347 or the projects faculty advisor Melissa Heston at the Department of Educational Psychology, University of Northern Iowa, 273-2236. I can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 273-2748, for answers to questions about the rights of research participants and the participant review process.

I have been told the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I received a copy of this consent statement. I am 18 years of age or older.

______________________________  ________________________
Signature of participant               Date

______________________________
Printed name of participant

______________________________  ________________________
Signature of investigator               Date

______________________________  ________________________
Signature of investigator               Date

______________________________  ________________________
Signature of instructor/advisor               Date
APPENDIX E

PARENT/GUARDIAN CONSENT FORMS
Experimental Group

Devereux Early Childhood Assessment Project

October 2002

Dear Parents and Guardians,

Your child has been invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to allow your child to participate in this project. The following information is provided to help you make an informed decision about whether or not to participate.

This fall, Head Start will begin a new program that will focus on promoting social and emotional growth. The program will target the growth of positive relationships, independence, and self-control. To gain an accurate picture of your child's specific strengths and areas of concern, your child's teacher will fill out a checklist that addresses these areas at the beginning of the year and then again in January.

With your permission, the results will be used to evaluate whether the new program was effective at promoting social and emotional growth. The completed checklists will be kept on file at Head Start. Participation in the research only allows the results of the checklists to be used. Risks to participation are minimal. All information from the checklists will be kept confidential. Your child's name will not be used in reporting the results of the study. You can change your mind at any time and decide not to include your child in this project; participation is voluntary.

Every child will receive a free book, regardless of his or her participation in the study. Thank you so much for your help and interest in improving the quality of education at Head Start.

Sincerely,

Sarah Carroll, MAE
UNI Graduate Student
Permission Slip

I understand that if I agree to have my child participate in this study, his or her teacher will fill out a checklist that addresses growth of positive relationships, independence, and self-control at the beginning of the year and then again in January. I have been told that these results will be used by graduate students at the University of Northern Iowa to determine the effectiveness of the new social-emotional program. All completed checklists and materials used in the study will be kept on file at Head Start. The results of the study may be published in an academic journal or presented at a scholarly conference.

I have been told that my child’s participation is completely **voluntary**. He/She is free to withdraw from participation at any time or to choose not to participate at all and that by doing that he/she will not be penalized or lose benefits to which he/she is otherwise entitled.

I have been told that the investigators will answer any questions I have about my child’s participation. I have also been told that if I desire information in the future regarding participation in the study, I can contact Sarah Carroll at 234-9347 or the projects faculty advisor Melissa Heston at the Department of Educational Psychology, University of Northern Iowa, 273-2236. I can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 273-2748, for answers to questions about the rights of research participants and the participant review process.

_____ Yes, I understand the nature and extent of my child’s participation in this project as stated above and the possible risks arising from it. I hereby agree to allow my son/daughter to participate in this project.

_____ No, I do not want my son/daughter to participate in this project.

_________________________________________  ___________________________
Signature of parent/legal guardian              Date

______________________________
Printed name of legal guardian

______________________________
Printed name of child participant
Control Group

Devereux Early Childhood Assessment Project

September 2002
Dear Parents and Guardians,

Your child has been invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to allow your child to participate in this project. The following information is provided to help you make an informed decision about whether or not to participate.

This year, Head Starts in the Tri-County will begin a new program that will focus on promoting social and emotional growth. In order to determine whether or not the program is effective, a study is being conducted to compare classrooms that are using the new program to classrooms that are not. Since your child’s classroom is not using the new program until January, it will be used as a comparison. If you decide to allow your child to participate in the study, your child’s teacher will fill out a checklist that addresses your child’s relationships, independence, and self-control in October and then again in January. In addition, the teachers will also fill out a checklist that addresses advanced ability in creativity, academics, leadership, and the arts.

With your permission, the results will be used to examine the link between resiliency and giftedness and to evaluate whether the new program was effective at promoting social and emotional growth. The completed questionnaires and checklists will be kept on file at Head Start where the data will also be used to determine if the program has lasting effects. Participation in the research only allows the results of the checklists to be used. Risks to participation are minimal. All information from the checklists will be kept confidential. Your child’s name will not be used in reporting the results of the study. You can change your mind at any time and decide not to include your child in this project; participation is voluntary.

Every child will receive a free book, regardless of his or her participation in the study. Thank you so much for your help and interest in improving the quality of education at Head Start.

Sincerely,
Charletona Sudduth, DECA Coordinator
Angela R. Fry, MAE UNI Graduate Student
Sarah Carroll, MAE UNI Graduate Student
Permission Slip

I understand that if I agree to have my child participate in this study, his or her teacher will fill out a checklist that addresses growth of positive relationships, independence, and self-control at the beginning of the year and then again in January. In addition, the teacher will also fill out a checklist that addresses advanced ability in creativity, academics, leadership, and the arts. I have been told that these results will be used by graduate students at the University of Northern Iowa to determine the effectiveness of a new social-emotional program and to investigate the link between giftedness and resiliency. Head Start may also use the data to determine the effectiveness of their new program to promote social and emotional growth. All completed questionnaires and materials used in the study will be kept on file at Head Start. The results of the study may be published in an academic journal or presented at a scholarly conference.

I have been told that my child’s participation is completely voluntary. He/She is free to withdraw from participation at any time or to choose not to participate at all and that by doing that he/she will not be penalized or lose benefits to which he/she is otherwise entitled.

I have been told that the investigators will answer any questions I have about my child’s participation. I have also been told that if I desire information in the future regarding participation in the study, I can contact Angela Fry at 433-0030 or Sarah Carroll at 234-9347 or the projects faculty advisor Melissa Heston at the Department of Educational Psychology, University of Northern Iowa, 273-2236. I can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 273-2748, for answers to questions about the rights of research participants and the participant review process.

_____ Yes, I understand the nature and extent of my child’s participation in this project as stated above and the possible risks arising from it. I hereby agree to allow my son/daughter to participate in this project.

_____ No, I do not want my son/daughter to participate in this project.

________________________________________  ______________________________________
Signature of parent/legal guardian                                  Date

________________________________________
Printed name of legal guardian

________________________________________
Printed name of child participant