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## HIGH SCHOOL SENIORS PERCEPTION OF GRADUATION: A STUDY OF SEPARATION

By

Margaret Rose Connolly

### A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

**DOCTOR OF PHILOSOPHY** 

Department of Psychology

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#### **ABSTRACT**

# HIGH SCHOOL SENIORS PERCEPTION OF GRADUATION: A STUDY OF SEPARATION

By

### Margaret Rose Connolly

John Bowlby (1969) extended his theory of attachment into adolescence and adulthood suggesting that early separations affect the formation of later attachments as well as one's reactions to later separations. He suggested that negative affect associated with early separations from attachment figures could re-surface at later separation experiences. High school graduation often is a separation from family and friends as well as from a school system and from childhood.

In the current study high school juniors and seniors were given questionnaires two to three weeks prior to graduation. Contrary to the hypothesis, the seniors' scores on the Center for Epidemiologic Studies

Depression inventory (CES-D) were not as high as were the scores of the control group of juniors. Females' scores were higher than males' scores.

Supporting the hypotheses were significant correlations between lower CES-D scores (for seniors) and positive opinion of self, higher family relatedness, and

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higher relatedness to peers. Failing to support the hypothesis was a correlation between lower CES-D scores and a larger number of separation experiences. As predicted seniors' expectations that the year following graduation would be very different from the senior year was significantly correlated with higher CES-D scores. A step-wise, multiple regression analysis indicates that opinion of self contributes the most to the variance in CES-D scores with sex of subject, family relatedness and number of previous separations contributing less than 5% each. The expectation that the next year would be very different correlated significantly with plans to live away from home. Also, subjects expressing relatively more positive self opinions tended to report plans to live away from home the next year. It appears that previous separations do not necessarily have a negative impact on current separations. A possible explanation for the more positive effect of previous separations that takes into consideration the self esteem factor also, is that successfully dealing with previous separations provides one with a sense of competence for handling new separation situations. It is suggested that several factors interact to affect one's response to separation.

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#### INTRODUCTION

Throughout life we face many separations that change or disrupt attachments we have made. High school graduation is one of these separations. The purpose of this research is to identify important variables in adolescents' reactions to high school graduation. High school graduation often is the prelude to leaving home and family as well as school, classmates, teachers and friends.

John Bowlby proposed a theory of attachment and separation (1969, 1973, 1980, 1982, 1988). Other psychologists have studied the responses of children of different ages to separation. It is the separation experiences of children under school age that have been studied in depth. Ainsworth, Blehar, and Waters (1978) and Mahler, Pine, and Bergman (1975) studied children's responses to separation from parents. Field (1984) investigated preschoolers' responses to separation from peers. Fewer studies have examined responses of school age children to separation. College students' perceptions of leaving home have been studied by several individuals (Moore and Hotch, 1981, 1983; Moore, 1987; Sullivan and Sullivan, 1980). But, other than reactions to death

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and divorce, high school students' responses to separations have received little attention.

#### **Definitions**

On the basis of the writing of John Bowlby (1969, 1973, 1980, 1982, and 1988) it is apparent that the kinds of relationships that exist between individuals affect the response to separation. Bowlby (1982b) defines attachment as a strong disposition "to seek proximity to and contact with [a specific] individual and to do so especially in certain specified conditions" (p. 669). Attachment relationships are ongoing relationships in which one individual perceives another as stronger and wiser and seeks closeness to that individual in certain situations. Infants and toddlers often protest separating from parents, especially from mother. Toddlers begin to anticipate their parents' leaving and protest before the parents leave. Protest can take many forms but all are attachment behaviors. Bowlby (1982b) defined attachment behavior as "...any of the various forms of behavior that the person engages in from time to time to obtain or maintain a desired proximity" (p. 670). The child's protests appear to be an attempt to control the parent's behavior.

## Importance of Attachment Relationships

Attachment relationships are important to humankind both for individual and for species survival. The adult-infant bond has long been recognized as important for infant survival among all species of mammals, yet even as an

infant the individual begins to separate from the parent or primary caregiver. The response to separation is different if the child is the initiator, is in control, and moves away from the parent to explore. Thus there are two categories of separation. Bowlby (1988), Bretherton (1985), and Main, Kaplan, and Cassidy (1985), among others, believe that attachment theory can explain both the tendency to seek proximity to a specific individual when feeling threatened and to explore when the environment is non-threatening.

As the child grows, attachments begin to be directed toward persons outside the family and to groups and institutions such as church or school (Bowlby, 1969). Bowlby suggests that the attachments that develop during adolescence and adulthood should be seen as a natural continuation of the attachment behavior of childhood. In adolescence the individual develops attachments to friends and perhaps to school. Therefore, we would expect to see proximity seeking behaviors as responses to the separation or the anticipated separation signaled by graduation. We can expect to see responses associated with loss also. With the ability that develops for abstract thinking and anticipating future events there is reason to expect responses in anticipation of graduation. Again because of expanded cognitive capacities, we can expect that the responses to separation and loss may take various forms.

#### Separation Experiences

According to attachment theory a variety of factors affect one's ability to deal with separations (and loss). One of these is one's history of separations. Perhaps the most influential experiences are the separation experiences that occur between six months and three years. However, later separation experiences can be important also. Among later separation experiences there are some that are predictable such as starting school, the ending of a school year, going to camp, moving, and graduating. Some separation experiences are not predictable, for example, the death of a close family member, parent divorce, or the death of a close friend or long-time classmate. Some separations are relatively brief and expected; when starting school a child must separate from the parent/caregiver. Experience shows that brief and expected separations, such as starting school, are seldom accompanied by strong emotion. On the other hand, unexpected or permanent separations such as death of a family member often result in anxiety, depressed mood, and sadness. Relatively prolonged separations such as may occur with parental divorce may cause sadness, depressed mood, or anxiety also. High school graduation is a relatively permanent albeit expected separation for most adolescents.

Other important factors in dealing with separation include one's perception of resources, both personal and interpersonal, self-esteem and the sex of the individual. If one has dealt with other crises successfully and has a

strategy for doing so, the separation may not be as traumatic as if one has no strategy. If one has experienced appropriate support and assistance when needed there is probably an expectation that resources will be available again when needed. Adolescent and adult women seem more concerned with the establishment and maintenance of interpersonal relationships than are men (Douvan and Adelson, 1966; Miller, 1976; Gilligan, 1982); for women the breaking of important relationship bonds is related to depressive disorders (Rutter, 1986b). Self-esteem, as reflected in opinions about one's self, has been identified as an important factor in studies dealing with separation and studies of depressive behavior (Moore, 1987; Kandell and Davis, 1982; Allgood-Merten, Lewinsohn and Hops, 1990). It seems reasonable that one's expectations about life following a separation would influence one's reactions too.

The current study is designed to identify the variables related to high school seniors' reactions to graduation. Teachers and parents of high school seniors frequently refer to "senioritis". When asked to specify behaviors related to senioritis in an informal survey, six local teachers mentioned inability to concentrate, to finish assignments, or to maintain the same quality of work; reports of feeling depressed, tired and sad; being concerned about not being able to see their friends everyday; increased impulsivness or irritability. I am suggesting that these changes are a reaction to the anticipated separations that

will accompany and follow graduation and that the emotions underlying these reactions are anxiety, sadness, and depressed mood.

I am going to study this issue by comparing high school juniors' and seniors' responses on the Center for Epidemiological Studies-Depression Inventory (CES-D) and by doing a step-wise multiple regression analysis to determine the relative importance of 1) attachment to parents, 2) previous separation experiences, 3) attachment to friends, 4) extent of expected change, 5) self esteem, and 6) sex. The literature on separation suggests that these factors are important in one's reaction to separation.

#### Literature Review

#### **Attachment Theory**

John Bowlby became interested in children's reactions to separation from parents in 1927 when he worked in a home for emotionally disturbed boys.

After becoming a child psychiatrist and psychoanalyst he established a special research unit at the Tavistock Clinic in London to study children's responses to separation from their mothers. The study of separation led to the study of the development of attachment. He proposed a theory of attachment in 1969; subsequent works (1973, 1980, 1988) have dealt with separation and loss.

Others (Mahler et al., 1975; Sroufe and Waters, 1977; Ainsworth et al., 1978; Bretherton, 1985; and Main et al., 1985) have studied the nature of attachment and the factors involved in its development and maintenance.

According to Bowlby (1969), attachment is based on an internal control system characterized by setting, set-goal, and feedback. Set-goal is a goal determined by the kind of environment in which the animal has been operating during its evolution. In mammals some of these systems have unvarying set-goals; blood sugar and temperature regulation are two examples of such systems. The set-goal of temperature regulation for most humans is 98.6 degrees Fahrenheit. Bowlby suggests that a type of control system called a servo-mechanism is applicable to attachment. Servo-mechanisms involve repeatedly or continuously changing set goals to which the system must adjust. The ability to kick a moving soccer ball or hit a moving baseball or the ability of a child to keep a moving parent in view is taken as an indication that this kind of system occurs in humans.

According to Bowlby, proximity is the set-goal of the attachment system. The biological function of proximity is protection from predators (harm). The young child seeks closeness to the attachment figure when alarmed. Although proximity seeking is activated by isolation or alarm, activation is not automatic and does not invariably occur when a given distance from the attachment figure is surpassed or a stranger arrives. For example, a strange child may be greeted with curiosity by a toddler whereas a strange adult elicits anxiety and proximity seeking.

Stimulated by Bowlby's work, Sroufe and Waters (1977) suggested that the goal of the system may be better identified as "felt security" (p. 1186). As the term implies, felt security is a subjective experience based on individual evaluation of the situation; it must be inferred from observable behavior.

Labeling the set goal 'felt security' rather than proximity makes it clearer that a variety of internal and external variables are involved. (Important parameters include setting, familiarity, preceding events, individual's mood and developmental level.)

Attachment behaviors are those that facilitate proximity to the attachment figure but they are not unique to the attachment situation. According to Bowlby attachment behaviors form a class or category. Sroufe and Waters (1977) remind us that behaviors within a class or category can substitute for each other at different times and at different developmental levels. Thus it is that the crying, crawling, clinging behaviors of the infant later give way to speech, letters and telephone calls. The latter may temporarily replace face to face interaction for adults.

In modern western society where individuals frequently move away from home, devising means of maintaining closeness to attachment figures becomes important and has become a big business. The economic status of companies that enable people to communicate over distances indicates that humans place importance on maintaining contact with attachment figures. The mobility of

individuals in our world makes us aware, also, of the value of forming new attachments. The ability to maintain existing attachments and to form new ones makes moving to a new community less frightening.

There are strong parallels between the attachment behaviors of children and those of adults. Adults, too, may be demanding of others and in conditions of danger or disaster seek the proximity of a special person. A secure partner relationship can provide security for personal risk-taking or exploration in adulthood just as it does in childhood.

When a child becomes capable of cognitive perspective taking he or she is able to understand something of parent motives and plans and is able to manipulate parents to bring their plans into closer agreement with his/her own.

This is an example of what is meant by a goal correction mechanism.

Attachment is directed toward specific individuals. Individual recognition (discrimination) and highly differentiated behavior are involved. As Lorenz dramatically demonstrated, this is as true in the parent-young relations of birds and mammals as it is in humans. Ainsworth (1989) describes the attachment figure as an individual who "is important as a unique individual and is interchangeable with none other" (p. 711).

The growth of attachment to a specific individual during the first 3-12 months is well documented; subsequent development is less well documented, yet evidence indicates that it persists until puberty in many species and past

puberty in some (Douvan and Adelson, 1966; Blos, 1967; Bowlby, 1969; Main et al., 1985). Between infancy and adulthood attachments develop to family members other than the primary caregiver, to regular baby-sitters and to peers (Ainsworth, 1989; Bowlby, 1969; Weiss, 1982; Marris, 1982; Freud and Dann, 1951 [cited in Bowlby, 1982a] and Field, 1984). During early school years many children grasp the parent's hand while out and usually seek the parent, or substitute, if something goes wrong while playing or if frightened. According to Bowlby (1969) adolescents' attachment to parents changes as attachments form to peers and other adults. (Ainsworth, 1989, suggests this phenomenon may be mediated by "hormonal, neurophysiological and cognitive changes" p. 710.) Bowlby (1969) suggests that adolescents and adults may develop attachments to groups and institutions as well as people. (Such attachments may be mediated by a person within the group.) In old age attachment behavior, out of necessity, may be directed toward younger persons.

Bowlby (1969) refers to the common observation that preschool children continue to show intense attachment behavior through their second and third years. During the eleventh or twelfth month the child begins to anticipate mother's departure and to protest anticipated separation. According to Bowlby, the conditions necessary for a child of three or older to tolerate separation from mother include availability of familiar, subordinate attachment figures, good health, knowledge of mother's whereabouts, confidence that mother will return

soon and a feeling of safety (i.e., the child is not alarmed). The increasing ability to tolerate separation from mother has been documented by Murphy et al. (1962) and others.

Between their third and fourth birthdays most children become capable of understanding something of the parent's motives and plans and of manipulating parents' plans to bring them into closer agreement with their own. "Conceptual perspective taking" (Bowlby, 1982a, p. 368) is responsible for the ability to manipulate parents. White (1966) suggests that success in manipulating the environment, including people, leads to a feeling of competence.

Cognitive abilities play an important role in developing attachment relationships. Initially there is discrimination of the attachment figure; this is followed by evidence of object permanence as the child attempts to re-establish contact with the absent attachment figure or as he anticipates the mother leaving. Bowlby (1973) employs the concept internal "working model," (p. 203) or mental representation, to help explain discrimination, separation anxiety, seeking the absent mother and manipulating parents to achieve his own goals. Bretherton (1985) conceives of a working model as a mental representation of an aspect of the environment, the self, others, or relationships to others that are important to the individual. The data for the model come from the individual's experiences and once the data are incorporated into the model they are used to evaluate experiences and guide behavior. Internal

working models can be reorganized to take account of new and even contradictory experiences. The child compares his current perception of a person or situation with his internal working model. A discrepancy between the model and the perception may cause the child distress. The model is modified and the feelings of distress are included in the revised model along with other information about the situation or person.

Internal working models of the self-in-attachment-relationships are formed from experiences in attachment relevant events, especially those in which there is an intention to seek caregiver proximity. The internal working models contain both affective and cognitive components (Bretherton, 1985). Once formed the internal working models tend to be stable, operate automatically, and exist outside consciousness. The self-in-separation models continue to be influenced, however, by experience and by information received from parents (caregivers) and from others about them. Internal working models influence later relationships and experiences.

In infancy and childhood attempts to gain proximity that are consistently accepted lead to a different internal working model than do attempts which are consistently blocked or are accepted unpredictably. Children who see themselves as loveable and valuable have grown up in stable homes. They have been encouraged to become autonomous. There is frank communication from parents whose working models of themselves, the child, and others are

valid and are open to question and revision. These children are able to form attachment bonds with people outside of their own families (Bowlby, 1973). Bowlby says it is important for an individual, of any age, to feel "confident that an attachment figure will be available to him whenever he desires it" (p. 202). This feeling of confidence or trust makes the person less prone to fear or anxiety than he/she would be without it.

Very young children do not have the capacity for planning and reflection that adolescents have. However, the mental representation of an attachment figure may help children cope with separation. An internal representation provides a sense of security and enables the child to venture further and further from the secure base provided by the attachment figure (Sroufe and Waters, 1977; Bowlby, 1988). Although the period between six months and five years is said to be the most sensitive for development of expectations of attachment figure availability, the expectations, or mental representations, continue to be modified by experiences throughout adolescence.

Although internal working models continue to influence relationships and experiences, adolescents' ability for formal thought enables them to think about their own thinking, to step outside a relationship and see it operating. This is very important because it makes it possible for adolescents to understand the influence of past events on current relationships and to evaluate their responses within relationships. They are able to report on their own attachment

relationships. Adolescents are capable, also, of planning ways to bridge distances to maintain attachment relationships.

Bowlby (1973) places individual differences in adolescent and adult attachment on a continuum. At the extremes are those who cut themselves completely off from family and those who are so strongly attached that they cannot or will not direct their attachment to others. Bowlby (1969) suggests that most adolescents fall in the middle with enduring family bonds and strong attachment bonds to others also.

In summary, attachments occur first to one's primary caregiver. This is usually the mother. Some time later attachments develop to others, usually the father, siblings, others who live in the home or people with whom the child associates frequently. Internal working models are formed of these relationships. These models change as the individual has new experiences with attachment figures. The models influence later relationships. The most enduring attachments are the attachments to the mother and father.

The internal working models of family relationships contain an expectation of security and support or the expectation of insecurity. The expectation is built on the individual's personal history of separation and reunion experiences. All internal working models include the affective aspects of separation and reunion experiences, namely the grief and anxiety associated with separation as well as the joy of reunion. They include, also, a sense of

security which allows the child to venture further and further from the parent.

As the child grows and spends more and more time with peers and adults outside the home, attachments may develop to friends, teachers, or the school.

The attachment will be indicated by the individual's desire to spend time with these people or at the school.

Since family attachments are usually the most enduring, it is expected that they will have the most influence on seniors' reaction to graduation and those seniors who have positive relatedness to their parents will have lower scores on the Center for Epidemiological Studies-Depression inventory (CES-D). However, an individual who is strongly attached to parents but has no peer attachments may not feel secure enough to venture beyond the family. Bowlby (1969) suggests that some individuals have had traumatic or numerous separation experiences that make their development of attachment relationships difficult. Graduation would, therefore, pose a greater threat. For the individuals who have had numerous separation experiences the CES-D score is expected to be higher than the CES-D scores of individuals with fewer separation experiences.

## <u>Separation</u>

Bowlby (1973), Mahler et al. (1975), and Bretherton (1985) suggest that early separation experiences affect later experiences through the internal working models. In the discussion of attachment, it was suggested that early

experiences can provide an internal model that includes feelings of security and allows the growing child to move into the world and form attachments to others. Bretherton (1985) suggests that the affective component of the separation and loss model includes sadness and anxiety. This has been supported by the work of Ainsworth et al. (1978), Mahler et al. (1975) and was discussed by Bowlby (1969, 1973). However, separations that result in satisfactory adjustment and positive experiences become part of the mental representation also.

Main et al. (1985) expanded Bowlby's theory by proposing a theory of separation based on mental representation of the attachment relationship and suggesting that reunion responses following short and long-term separations could be seen as indicative of the child's view or "internal working model of the relationship" (p. 68). They suggest that working models are organized schematically by action and action outcomes (including attempts to regain parent in parent's absence); hence, each person's internal working model of an attachment relationship is unique. Each person's working model of separation is unique also. However, the essential differences between representations of attachment and separation are presumed to be limited in number.

Internal working models influence behavior and are influenced by events throughout life. Experiences such as a change of nursery school (Fields, 1984)

or transition from junior high to high school (Blyth, Simmons and Carlton-Ford, 1983) influence the models.

Separations that occur during childhood usually lead to what psychoanalytically oriented psychologists call individuation or a sense of self as an individual, separate from those around him/her. A number of these psychologists (e.g., Blos, 1967; Josselson, 1980; Laufer, 1966; Stierlin, 1974) suggest that adolescence is a time of further individuation. There are two significant contributions to this new sense of self. First is an increased ability to physically separate, for example the ability to drive a car enables the adolescent to go further and more often without parent accompaniment.

Second, the cognitive ability of formal or abstract thought allows adolescents to think about their own thinking and to think about themselves. As individuation and autonomy develop, so does a sense of identity; a part of that sense of identity is what one thinks about one's self.

Individuation and identity. Adolescents are usually seen as moving away from the family. However, for an individual of any age to feel confident enough to move away from current attachments he/she must have a sense of separateness from and relatedness to the world, i.e., a sense of self. Marcia (1980) referred to it as an awareness of one's "own uniqueness and similarity to others" (p.159).

Mahler et al. (1975) referred to the development of individual identity as individuation and suggested that later separations (such as those experienced in adolescence) may re-activate unresolved individuation issues and anxiety through a mechanism similar to Bowlby's internal working model. Laufer (1966), Blos (1967), Stierlin (1974), and Josselson (1980) agree that work on individuation is resumed in adolescence. Josselson states that "there is an interdependent sequence of: individuation/autonomy/identity formation" (p.192). Identity formation involves integrating the various "aspects of the self that have become individuated and autonomous" (p. 192) into a coherent whole. When "good enough individuation" (p.191) is achieved there is the feeling of making one's own choices and being responsible for what happens.

Laufer (1966) and Blos (1967) discuss the importance of adolescents separating (detaching or disengaging) from internalized objects (parents) in order to form extrafamilial attachments. Stierlin (1974) describes separation in adolescence as "a transactional process between. . .parents and children" (p. 3). Ideally this process is a "gradually expanding spiral of mutual individuation and differentiation occurring on various emotional, cognitive, and moral levels" (p. 3).

Although individuation and identity formation are important aspects of adolescent development and may play a role in ability to separate from family, they are not the focus of this study. However, further research on the

interaction between level of individuation and feelings about graduation could prove interesting.

#### Related research

Interestingly, most of the work on attachment has focused on behaviors that occur while the individual is separated from the attachment figure or upon reunion after separation. This has been true of research on adolescence too.

This includes the various studies of home leaving done by Moore and Hotch (1981, 1983), Moore, (1987) and Sullivan and Sullivan (1980) and the research on adolescents' responses to parent divorce or to death (Moore and Hotch, 1982; Proulx and Koulack, 1987; Irion, Coon, and Blanchard-Fields, 1988; Wallerstein and Kelly, 1980). Little research has dealt with anticipated separation.

Bowlby (1973) suggests that early separation experiences affect later experiences. Empirical support is found in a study by Stein, Levy, and Glasberg (1974) who found significantly more early childhood and antecedent separations among both black and white, male and female suicide attempters than in control groups. Early childhood was defined as between birth and age 7 years; antecedent separations were disruptions of close interpersonal relationships within one year of the attempted suicide. Barnes and Prosen (1985) reported that adults whose fathers had died in the 0 to 6 and 10 to 15 age ranges had the highest depression scores on the CES-D (Center for

Epidemiological Studies Depression Scale.) Bloom (1977/1978) found that past separation experiences, the quality of parent-child relationships and the ability to care for one's self affected the adolescent-parent separation process. Podell (1989) found that some adolescent survivors of peer death were struggling with reconciliation of earlier losses, the memory of which was reactivated by the traumatic deaths of their peers.

Family stability. A study by Hansburg (1972) suggests that all children have histories that can result in concern over separation. Hansburg (1972) gave children and young adolescents (ages 10 to 15 years) the Separation Anxiety Test. He found that those who had grown up in stable families responded to pictures of separation with distress and concern two to three times more often than with anger and blame. Children from rejecting families gave nearly equal distress/concern and anger/blame responses. To pictures representing a major disruption, children from disrupted homes gave responses indicating that the child would do his best to get along or that he'd be happier following the major disruption. Bowlby (1973) suggests that the latter responses indicate inadequate attachments and that the underlying unconscious models may create difficulty in later relationships.

Moore and Hotch (1982) investigated the impact of divorce and ordinal position on college students' perceptions of having left home, feelings about leaving home, conflict associated with home leaving, the importance of personal

control factors and emotional separation. Parental divorce was associated with emotional separation factors for males. Studies by Kelly and Wallerstein (1976) and Wallerstein and Kelly (1980) found that boys of all ages experience more adjustment problems after parental divorce than do girls. The results of McCombs and Forehand (1989) support Wallerstein and Kelly's finding (1980) that amount of conflict between ex-spouses and mother-adolescent conflict are significant factors in adolescents' adjustment following divorce. Although the results were not statistically significant there was a tendency for first born females to report that feelings of having left home were related to feelings of personal control (Moore and Hotch, 1982).

Proulx and Koulack (1987) found that college students from separated families did not experience more conflict when leaving home than did students from intact families. Furthermore the type and amount of divorce-related conflict was not related to higher emotional separation or locus of control. When divorce-related conflict was openly expressed, feelings of personal control increased and feelings about leaving home became more positive. Again, emotional separation was significantly higher for males and for students from separated families.

Irion, Coon and Blanchard-Fields (1988) compared adolescents 14-17 years old from divorced and intact families and concluded that "adolescents of divorced parents were more vulnerable and appraised situations less favorably

the more stressful they were" (p. 143). The adolescents from intact families reacted to greater stress by using more active, adaptive strategies, planned problem solving and positive reappraisal. Children from intact families tended to see stressful situations as an opportunity. In challenging situations the intact family group felt more in control. This suggests that children of divorced families might react with more negative feelings to a later separation experience such as graduation.

Adolescent's reaction to death of others. There is relatively little written that specifically speaks to adolescents' reactions to the death of others.

However, Garmezy (1986) reports that loss events such as parental death or divorce are marked by grief and bereavement although reactions vary in severity from individual to individual.

For adolescent survivors of another's suicide the questions of guilt over not being able to prevent the death and concern regarding one's own potential for suicide are very potent and add to the adolescent's feelings of vulnerability and grief (Valente and Sellers, 1986). Podell (1989) refers to "survivor guilt" (p.71). Survivor guilt is characterized by feelings of excessive responsibility and magical thinking. The magical thinking may involve "regression to an earlier developmental state of organization around prior childhood losses of significant objects" (p. 72). These include losses other than those of family members.

Wolfelt (1987, 1988), himself a survivor of adolescent peer suicide, stresses the importance of reconciliation rather than resolution in dealing with death. He suggests that this is a need for adolescents just as it is for adults. He makes the point that one never "gets over" a death and that sadness lingers with the memory.

Much of the literature that reports adolescents' reactions to another's death seems to focus on symptoms of depression or identification of (pre)suicidal behaviors. For example, Grollman (1987) cites the following behaviors and feelings as relevant: loneliness, isolation, worthlessness, hopelessness, depression, prolonged boredom, loss of appetite, insomnia or excessive sleeping, physical complaints, difficulty concentrating and angry outbursts. Fleming and Adolph (1986) reported the following cognitive responses to the death of a loved one: "I am marked"; "I am different . . . . I am bereaved" (p.105). "I can't handle this" (p. 106). "I am alone. . . no one can really understand me"; "I can't risk/trust because I could lose the 'other'" (p. 108). Behavioral responses include acting out, aggression, exaggerated independence, over investment in another or withdrawal from others. Affective responses include depression with either flat affect or agitation, anger and resentment, feeling unlovable. Although the authors suggest that adolescents may experience conflicts about asking for help, most adolescents talked to their

mothers or family about the death. Those who talked to someone had fewer problems following the death than those who had no one with whom to talk.

Adolescents understand the biology of death, i.e., it is final, universal, irreversible, and involves the cessation of biological functioning (Melear, 1973). There is a simultaneous awareness that a relationship has been disrupted. Adolescents go through the same grieving process as adults, if allowed to do so.

Mobility. Moving often results in the disruption of attachments to friends and home. Grief and symptoms of depressed mood have been associated with geographic mobility for adolescents and adults. Gibbs (1985) reported a significant relationship between geographic mobility and depression in urban adolescent females. Depression was significantly related to parental occupation, geographic mobility and number of self reported problems. Over 60% of the girls lived in single parent families, usually with the mother. Gibbs cited other studies, e.g., Shaw (1979), Tooley (1970), and Werkman (1979) indicating that frequent moves were disruptive for adolescents.

Examining the issue of mobility from a different perspective, Fried (1963) studied adults who had moved from their homes in Boston's West End because of urban renewal. Both women and men experienced grief, some for as long as two years. Grief was associated with being separated from their friends and relatives. Those who experienced the most grief were those whose

closest friends had lived in the same neighborhood whereas those whose closest friends had lived elsewhere were less likely to be sad or depressed. Fried suggested that the grieving associated with geographic mobility is related to the loss of "a sense of spatial identity (which) is fundamental to human functioning" and to disruption of a 'group identity' (p.156). Group identity refers to a sense of belonging to or being a part of "larger human or social entities" (p.157).

School. Csikszentmihalyi and Larson (1984) reported that adolescents spend thirty-two percent of their waking hours in school. (They spend fortyone percent of their time at home with at least thirteen percent of that time spent alone.) Those who are active in clubs and organizations may spend even more time at school. Those who participate in sports, band, etc. are often strongly identified by others as being part of the school. They are often referred to by the name of the school mascot, e.g., Huskies, Tigers, or Spartans. Barker and Gump (1964) found that students in small schools were more likely to be active in a wide range of activities. Students in small schools were more likely than those in large schools to report doing things that help them develop skills and the ability to work with others. Everyone in the small schools seemed to feel a sense of involvement and obligation. Perhaps this sense of involvement leads to a feeling of attachment. It may be that those students who are very active in their school, whether large or small, develop an attachment to the school. If so, they may respond to graduation with more negative feelings than those who have not identified strongly with the school.

In summary, grief and behaviors suggestive of depressed mood have been described as accompanying divorce, death, and moving or geographic relocation. I am suggesting that high school graduation is a separation experience that may re-activate the memories of previous separations and may account for the sadness that seniors experience along with the excitement and joy of graduation. Since nearly everyone has had some separation experiences and seniors have the cognitive ability to anticipate the loss, I expect high school seniors to report more depressive symptoms (have higher scores on the Center for Epidemiological Studies Depression Scale [CES-D]) than juniors who are not facing the separations. In addition, I expect that those seniors who have experienced more losses (of attachments) to have higher CES-D scores than those whose separations have been relatively brief, temporary, and have not led to loss. I expect that the number of separations will contribute less to the variance of the CES-D scores than will family relatedness.

It may be the case that, as Bowlby has suggested, students may have an attachment to their school. This could make up a small portion of the variance on the CES-D also.

<u>Depression and depressed mood in adolescence</u>. After reviewing the research on depression in adolescence we can make several generalizations.

First, adolescents do experience depression and often evidence the same symptoms as adults (Strober, 1983; Rutter, 1986). Second, Puig-Antich (1986), Carlson and Cantwell (1980) among others, have indicated that children over the age of 8 can give reliable and valid reports of their depressive symptoms. Although Rutter (1986b) and Angold, Weissman, John et al. (1987) found that parents and teachers failed to notice depression in young people who reported feeling severely depressed during an interview, Angold et al. reported that parents were sensitive to suicidal ideation. Third, since most symptoms of depression are internal and seldom discussed, adolescents and their families often fail to detect them (Emery, Bedrosian and Garber 1983). A questionnaire with statements indicative of depression or depressed mood or an interview asking similar questions may be necessary to elicit the admission of negative feelings.

Kovacs and Beck (1977) differentiate depressed mood which is a temporary, dysphoric mood state and depression which is a clinical syndrome of longer duration. They suggest that psychosomatic and behavioral complaints are age appropriate and culturally accepted expressions of depressive symptoms for adolescents. Thus a questionnaire that includes questions about changes in eating and sleeping habits, crying spells, etc., follows this line of thinking. The CES-D includes such questions.

In terms of Bowlby's theory of attachment, the number of stressful separations experienced (for example, death of attachment figures, abandonment by an attachment figure as a result of divorce, or loss of friends because of a move) is related to the feelings of grief or depressive responses to later separations by re-activation of the internal separation model.

Although some studies do not report significant sex differences in depression, Allgood-Merten, Lewinsohn and Hops (1990), Roberts, Andrews, Lewinsohn and Hops (1990), and Roberts, Lewinsohn and Seeley (1991) report that adolescent females score higher on the CES-D than do adolescent males.

Attachment to friends. Csikszentmihalyi and Larson (1984) reported that one fifth of an adolescent's waking hours is spent with the family but only a portion of that is with parents. Fifty-two percent of their time is spent with peers. Later research (Larson and Richards, 1991) supports the earlier work of Montemayor and Brownlee (1987), i.e., adolescents spend increasingly less time with the family from elementary school through high school. Larson and Richards compared pre-adolescents with older adolescents. The older subjects spend half the amount of time with family that younger subjects spend. Older adolescent boys spend more time at home alone whereas older adolescent girls divide the extra time between time alone and more time with friends. Older subjects were more positive about the time spent with friends than were younger subjects.

Douvan and Adelson (1966) suggested that adolescent girls were more concerned with establishment and maintenance of interpersonal relationships whereas boys were more concerned with occupation and ideology. Miller (1976) says that "women stay with, build on, and develop in a context of attachment and affiliation with others. . ., for many women the threat of disruption of an affiliation is perceived not just as a loss of a relationship but. .a loss of self" (p. 83). Youniss and Smoller (1985) reported 66% or more of the friendships of their female subjects were characterized by intimacy and trust while less than 45% of the male friendships were so characterized. Rutter (1986b) reported that there is evidence indicating that stress events such as those involved in the breaking of important relationships are related to depressive disorders (p.512). However, Rutter also suggests that anxieties about the future may increase during adolescence; this may have implications for males similar to the disruption of relationships for females. Although Greenberg, Siegel, and Leitch (1983) found attachment to parents to be greater than to peers it was suggested that it does not mean that peer relationships are unimportant. Youniss and Smoller (1985) reported that adolescents felt closer to their friends than their parents and 70% of them believed their friends understood them better than did their parents. It is unlikely that many adolescents would give up their friends without protest, suggesting that adolescent peer relationships are meaningful. However, the research of

Greenberg et al. (1983) and Youniss and Smoller (1985) suggest that adolescents are aware of the interest and concern of their parents.

Sex of subject. A number of the studies cited have identified sex differences in the importance of relationships and in response to separations. On the basis of Bowlby's model, it is not expected that the frequency or intensity of depressive symptoms (CES-D score) will be significantly related to sex of subject. The experiences in the self-in-separation model are individual specific but not related to sex of the individual. However, there are suggestions in the research literature that attachment relationships, including those to friends, are more important for females than for males and that disruption of these relationships is taken more seriously by females. Therefore, I am suggesting that high school senior females will have higher CES-D scores than high school senior males.

Opinion of self. The opinion one has about one's self or self-esteem, has been identified as a contributing variable in various studies of separation and relatedness to family and friends. Moore (1987) found that greater self-esteem was related to the self-governance factor and a feeling of having achieved separation from family. Self-governance refers to making one's own decisions without having to have those decisions affirmed by parents. For females, disengagement was important for feeling independent of (separated from) family and was associated with greater self-esteem. Disengagement

refers to being physically away from parents and being free of parental direction. Greenberg et al. (1983) looked at the association of self-esteem and affective quality of relationships with parents and peers among adolescents 12 to 19-years-old. They found that, on measures of self-esteem, quality of attachment to parents seemed to be a moderating factor in periods of high stress. Graduation could be considered a period of high stress because of the many changes associated with it. (Stress can occur with positive as well as negative events, Selye, 1974). Opinions about the self are measured in this study with the Rosenberg Self Esteem Scale (Rosenberg, 1965). It is expected that the Opinion of Self, or the RSE score, will contribute significantly to the CES-D score and that the RSE score will be positively related to the parent relatedness index.

College students and "leaving home". Moore and Hotch (1981) studied separation in terms of feelings about leaving home. They had college freshmen rate 22 adjectives "selected as being a fairly comprehensive sampling of important components of home-leaving" (p.4). A hierarchical cluster analysis resulted in the following clusters: personal control (make own decisions), economic independence, residence (live in a different place), physical separation, school affiliation (consider school to be home), dissociation (won't go back home in the summer), emotional separation (don't "belong" at home

anymore), and graduation. College freshman perceived personal control and economic independence as the most significant markers of home leaving.

Moore and Hotch (1983) had college students rate a random order of 20 definitions of home leaving in terms of personal importance. Personal control was again seen as very important; emotional separation and dissociation were seen as unimportant; the other factors were viewed neutrally.

Moore (1987) reports two further studies on these same issues. College freshman and sophomores completed a questionnaire on which they rated 34 statements on a seven point scale reflecting how important the issues within the statements were to them in deciding if they had left home or separated from parents. An oblique factor analysis found the following factors: self governance, emotional detachment, financial independence, separate residence, disengagement, school affiliation, starting a family and graduation.

Self governance was rated as most important, with females rating it more important than males. Graduation, starting a family and financial independence received high ratings also. Emotional detachment was rated as least important. Disengagement which was described as having some psychological and physical distance from parents was rated as moderately important. Sullivan and Sullivan (1980) compared male college students living at home to those living away at school. Those who go away to school exhibit "increased affection, communication, satisfaction, and independence in relation to their parents" (p.

93). Some high school students may have similar attitudes toward high school graduation, financial independence, and starting a family.

The second part of Moore's project was concerned with whether or not the students felt they had achieved separation. College freshman and sophomores rated the separation factors identified in study 1 in terms of the personal importance and attainment. Moore indicated that "correlates of achieving separation according to subjective definition are likely to depend on the extent to which the component is important to the individual" (p. 300). High rankings of school affiliation were associated with greater life satisfaction and less loneliness. When financial independence was rated as important, self-esteem was high.

Some sex differences were found. Importance and attainment of detachment were associated with perceived parental abandonment and feelings of loneliness, low self-esteem, low identity achievement and difficulty leaving home for males. High ratings of disengagement were related to perceiving their mothers as feeling abandoned and to loneliness in males. For females, however, high ratings of importance and attainment of disengagement were associated with increased self-esteem, life satisfaction, ego identity achievement and little loneliness.

As we grow we experience many separations; some separations are temporary and we return to the attachment figures, others result in change of attachment figures or the context of the attachment relationship. Bowlby (1969). Ainsworth et al., (1978), Mahler et al., (1975) among others suggest that the child moves further from the home base at his or her own pace. Graduation may mean moving away from the "home base" but often the distance is determined by the adolescent. A greater anticipated distance may be seen as a greater separation. I am suggesting that those seniors who are planning to move away from their hometown, thus anticipating more breaks in attachment relationships, will have higher CES-D scores than those who are moving away from home but not out of town. These individuals will have higher CES-D scores than those who plan to continue to live at home. However, it is expected that extent of anticipated change will contribute less to the overall variance of the CES- than will relatedness to parents, friends, or number of previous separations.

In summary, the purpose of this research is to identify important variables in adolescents' reactions to high school graduation. The proposed study is designed to identify the nature of a high school phenomenon frequently referred to by teachers and parents as senioritis. I am suggesting that the changes in behavior are a reaction to the anticipated separations that will accompany and follow graduation and that the emotions underlying these reactions are anxiety, sadness, and depressed mood. The factors that will be investigated are relatedness to parents, number of previous separations from

attachment figures, relatedness to friends, self-esteem, sex of subject, extent of expected change, anticipated distance from home, and relatedness to school.

### <u>Hypotheses</u>

Separation often results in sadness and anxiety (Bowlby, 1980; Mahler et al., 1975; Hansburg, 1972, 1980). The anticipation of separation can result in depressive symptoms or depressed mood also (Field, 1984). Graduation signifies a separation with a way of life that students have been experiencing for twelve years. Most of them will have spent much of that time with the same peers and will have made many friends (Csikszentmihalyi and Larson, 1984). In addition, as high school students many will have developed an identification with the school. Graduation also signals a soon to be realized independence/separation from family as many of the seniors will be leaving home. Even though most seniors will have talked about looking forward to this independence, it is a separation and it is expected that they will experience sadness and depressed mood as graduation approaches.

Hypothesis 1: High school seniors will have higher scores on a depression index known as the Center for Epidemiological Studies Depression inventory (CES-D) than will high school juniors.

Previous research (Bowlby, 1980; Stein et al. 1974; Ainsworth et al. 1978; Mahler et al. 1975; Greenberg et al. 1983) suggests that early separation

and attachment experiences are important factors in determining one's reaction to current separations. Some common separations include moving, preschool, parental separation or divorce, traveling without family; a less common but relevant experience would be the death of a family member or close friend.

According to Bowlby (1969), a number of separations such as these may make the individual more vulnerable to experiencing symptoms of depression.

Hypothesis 2: The number of separations a high school senior has had (Biographical Information) will be positively related to his/her CES-D score.

Hypothesis 3: Seniors' CES-D scores will be positively related to having experienced the death of a family member or close friend prior to age seven (General Information question 8).

Friedrich, Reams, and Jacob (1981) found the highest incidence of depression in the 18 to 24-year-old group. This age group is the one that usually deals with the separations and life style changes that follow graduation. The seniors in this study who expect their lives to be quite different in the next year from the past several years are more likely to report symptoms of depressed mood than are the seniors expecting little or no change.

Hypothesis 4: High school seniors' scores on the CES-D will be positively related to the anticipation of substantive changes in their lives in the coming year (Future Plans question 7).

High school seniors who see themselves as making their own choices seem to have strong relationships with their parents (Hotch, 1980) and a stronger sense of who they are (Josselson, 1980). Self-esteem has been related to the ability to handle stress situations. Graduation is a major turning point in the lives of high school seniors but it is one they have been anticipating and preparing for. Those students whose personal history includes strong family relatedness should show relatively fewer symptoms of depressed mood.

Hypothesis 5: High school seniors' parent relatedness scores (Family Relatedness Index) will be negatively related to their CES-D scores.

Adolescent females tend to score higher than adolescent males on depression measures (Allgood-Merten et al., 1990; Roberts et al., 1990; Roberts et al., 1991).

Hypothesis 6: Female high school seniors will have higher CES-D scores than male high school seniors.

Students often identify with their school because of their involvement in its activities and because the community identifies them with the school. Group identity is considered a part of adolescent identity. Bowlby (1969) suggests that attachments can form toward groups and institutions such as schools.

Graduation, in a sense, means relinquishing that identity without providing a ready substitute. Even those students going on to college are not yet identified with that college to the extent that they have been with their high school. Fried (1963) found that individuals who were identified with their neighborhood and whose closest friends lived in that neighborhood experienced the most grief when forced to relocate due to urban renewal. Graduation occurs whether or not one is ready for it and it often means leaving familiar territory and friends for unfamiliar territory and new friends.

Hypothesis 7: Seniors' CES-D scores will be positively related to their report that they will miss their high school (Graduation and Future Plans question 11).

#### **METHOD**

### **Subjects**

The subjects were juniors and seniors from a public and a private high school in southern Indiana. There were 180 seniors in the private school and 360 seniors in the public school. The entire questionnaire was completed by 281 seniors; 84 were from the private school and 197 were from the public school. The sample represents 47% of the seniors in the private school and 55% of the seniors in the public school. There were 148 juniors in the private school and 374 juniors in the public school. The 55 juniors from the private school completed the entire questionnaire and provided gender information; 236 juniors from the public school completed the questionnaires but data on gender were not available. The sample represents 37% of the juniors in the private school and 63% of all the juniors in the public school.

More females than males volunteered to participate in this study. There were 168 senior females and 113 senior males. There were 22 junior males and 33 junior females for whom sex of subject information was obtained.

These subjects were from the private school. The 3:2 ratio obtained for the

seniors is consistent with other studies using high school volunteer subjects (Fischer, 1981; Yanchyshyn and Robbins, 1983). (The male-female ratio in the schools from which the sample for this study was drawn was almost 1:1 for each school.)

The students in both schools are primarily white. The public school student body is 97.5% white, 1.0% black, and 1.0% Hispanic, Asian/Pacific Islander, and 0.5% American Indian, Eskimo, or Aleut. The most recent data tabulated indicates that the private school student body is 93.5% white, 2.5% black, 3.0% Hispanic, and 1.0% Asian/Pacific Islander.

Families of the private school students were described by school officials as being predominantly middle and upper middle class. It is primarily a commuter school and draws many students from three counties as well as a couple of students from each of three or four more nearby counties. Families of the public school students were predominantly middle class also. According to the U.S. Bureau of Census median income in the county in which these students live was \$21,379 (1988 figures). Eighty-two percent of the homes were owner occupied. Another indication that the majority of students in the sample are from the middle class is that three-fourths of them are going on to school or college.

The scale for measuring depressed mood (CES-D) is influenced by current situations. To rule out a general influence, other than graduation, the

school counselors were contacted. The counselors indicated that nothing unusual had occurred in the schools during the two weeks preceding or the week of testing. However, it is unknown if anything unusual had occurred at home or within relationships.

#### **Materials**

The senior's questionnaire is made up of the following parts: General Information, Graduation and Future Plans, Opinion of Self, the Center for Epidemiological Studies Depression Scale (CES-D), Family Relatedness Index, and a Relatedness to Friends Index. Choice of questions was influenced by John Bowlby's work on attachment, separation, and loss (1969, 1973, 1980) and the work of Hansburg (1972 and 1980). The juniors' questionnaire includes the CES-D and the Relatedness to Friends Index. Copies of the instructions for the juniors and seniors, the General Information questions, the Graduation and Future Plans questions and the Friends questions are provided in Appendix A.

The Center for Epidemiological Studies Depression Scale (CES-D) was used as the measure of depressed mood. The CES-D was "designed to measure the current level of depressive symptomatology, with emphasis on the affective component, depressed mood" (Radloff, 1977, p.385). It is used to gather information about feelings, thoughts and behavior "during the past week."

Current situations influence individual responses. Because this study is

concerned with depressed mood rather than the clinical syndrome of depression, the CES-D is considered an appropriate measure. Moreover, choice of the CES-D was based, in part, on the sensitivity of local school officials to the mention of the word 'suicide' or a reference to killing oneself in materials given to students.

The CES-D is suitable for group use, takes approximately 5 minutes to administer and is hand scored (Sweetland and Keyser, 1966). The scale is considered suitable for use with African-Americans and whites as well as with males and females over a wide age range (Radloff, 1977). Weissman, Sholomskas, Pottenger, Pursoff and Locke (1977) found no significant correlations of CES-D score with age, social class or sex except for schizophrenic patients of higher social class and female drug addicts who had significantly higher CES-D scores (p<.05) than the average individual.

Roberts, Andrews, Lewinsohn and Hops (1990) reported internal consistencies of .87 to .92 in a sample of over 2000 ninth through twelfth-grade students. Test-retest correlations ranged from .49 to .60 on follow up ranging from one week to one month. Radloff (1977) compared the CES-D with other scales designed to measure symptoms of depression, i.e., the Lubin, the Bradburn Negative Affect and the Bradburn Balance. Discriminant validity ranged from .43 to .63 with these scales. Roberts, Lewinsohn and Seeley (1991) report a CES-D sensitivity of 85.70 and a specificity of 69.40. That is,

the CES-D will detect a number of false positives and may miss screening out some true negatives. It more accurately detects current episodes of depression than past episodes.

Roberts, Lewinsohn and Seeley (1991), Allgood-Merten, Lewinsohn and Hops (1990), Roberts, Andrews, Lewinsohn, and Hops (1990) and Doerfler, Felner, Rowlison, Evans and Raley (1988) investigated the use of the CES-D with high school students. High school students have higher CES-D means than do adults. In the studies cited 12% to 50% or more of the subjects scored one standard deviation or more above the adult mean on the CES-D. Achieving a score one standard deviation above the mean involves reporting many symptoms of depression occurring at a lower frequency or several symptoms occurring almost daily. Roberts et al. (1991) evaluated the sensitivity and specificity of the CES-D using a receiver operating characteristics (ROC) analysis. A CES-D score of 24 or more was optimal for determining clinical depression in adolescent populations.

The Rosenberg Self-Esteem scale (1965) is a 10-item Guttman scale designed to measure adolescents' self acceptance. The Guttman scale reproducibility coefficient is .92. Test-retest reliability has been reported at r=.85 and r=.88 (Rosenberg, 1979, p.292). Construct validity was based on the significant relationship between scores on the self-esteem scale and scores on a depressive affect measure of anxiety developed by the Research Branch of

the U.S. Army in World War II, and by peer group reputation. Crandall (cited in Rosenberg, 1979) reported that the RSE correlated .60 with the Coopersmith Self-esteem Inventory. The ten items are answered on a four point scale from strongly agree to strongly disagree. The items are scored only as agreement or disagreement with agreement indicating a lower opinion of self.

The Family Relatedness Index, based on the work of Murphey, Silber, Coelho, Hamburg and Greenburg (1963) has a reliability of .90 (Hotch, 1980). The Family Relatedness Index was used to measure seniors' feelings about their families.

The 10-item Relatedness to Friends index was developed for this study and is based on Hotch, 1980. Split half reliability computed on the current data was .82.

General Information question number 8 provides the separation history index. The separation history index is a sample of separation experiences and is not a comprehensive list. Item content was based on the writing of Bowlby (1969, 1973) and Hansburg (1972, 1980). Experiences ranged from having "vacationed" out of one's home state, to death of an immediate family member. (See Appendix B.) The list of experiences was sent to eight child psychologists who teach and/or have clinical practices in Southern Indiana. Five of the eight replied; all who replied said the list appeared to be a good sample of childhood separation experiences. Separations occasioned by accident or illness were

suggested; loss of appearance or limbs as the result of accidents or illnesses were suggested also. Because these are rare (as indicated by those who mentioned them) the list was not amended to include them. The separation score is the sum of the items checked by the respondent to question number 8. If there is more than one death in a category, each death is counted. For this study the mean number of separations was 4.75 (s.d.=1.53). The number of years since the death was ignored in determining the score. Number of separations due to death was entered into the analysis separately as well as being included in the total separation score.

The Graduation and Future Plans section and the General Information section of the questionnaire were developed using Hotch's questionnaire as a model. Individual questions of interest for this study make up the items.

Included are questions based on the work of Bowlby (1969), Fried (1963) and Sullivan and Sullivan (1980).

Questions 5, 6, and 7 from the General Information section of the questionnaire were included for information about plans for the coming year and were worded as follows:

- 5. Next year I plan to (1) live with my family, (2) have my own place, (3) live in another town.
- 6. If you will be away from home, how far away will you be? (1) up to 50 miles, (2) 50-100 miles, (3) 100-200 miles, (4) over 200 miles.

7. Next year I plan to be (1) working full time and supporting myself, (2) in the military service, (3) going to college or technical school, (4) other.

Numbers in parenthesis indicated coding for statistical analyses. In addition, a score of 0 was assigned to question 5 for those few who indicated some other option. For those living at home, item 6 was coded 0 (no data).

Questions 7 and 11 of the graduation and Future Plans questionnaire were of interest for hypotheses 4 and 7 respectively. Question 7 is the respondent's subjective expectation about his/her life after graduation (next year). Item 11 reflects the respondent's attachment to school. The questions were worded as follows:

- 7. I think next year my life will be very different from this year. Strongly agree/Agree/Disagree/Strongly disagree.
- 11. I think I am going to miss this school very much. Strongly agree/Agree/Disagree/Strongly disagree.

Responses to items 7 and 11 were coded as follows: Strongly agree=4,

Agree=3, Disagree=2, Strongly disagree=1.

#### **Procedure**

All students in the junior and senior classes were given the opportunity to respond to the questionnaire. Those who did not wish to participate were not

given the packet. All responses were completely anonymous; students wrote neither their names nor any student numbers on the questionnaire booklets. All students taking the questionnaire were told that they could stop any time they wished and that it was not mandatory to complete the questionnaire once started.

After obtaining the permission of the school principal, students in the private school were contacted by a letter that explained the purpose of the study. Letters were distributed to all the students in the junior and senior classes. Copies of the letters to the juniors and seniors are found in Appendix B. Students whose parents signed the letter and returned it to the school participated in the study. The students who had parental permission were given copies of the appropriate questionnaires by their homeroom teachers to be completed during homeroom period. Completed questionnaires were taken to the office by the teachers and were picked up by the author the next day.

The author introduced the study to the seniors in the public school during a senior assembly. (For introduction to the study see Appendix C).

Participation was taken as student assent per agreement with the school principal. Questionnaires were distributed to the seniors wishing to participate and they completed the questionnaires during the period. Those who were not finished returned their packets to the author at the end of the next period.

The study was explained to the juniors in their home rooms by the home room teachers. Again, participation was taken as student assent. In addition to the instructions on the questionnaire, the juniors were told who was doing the study and the purpose. Due to a change in procedure for distributing the questionnaires to the juniors, they were not instructed to write their sex on the booklet. Teachers distributed the questionnaires and collected them as soon as the respondents were finished. The author picked up the packets from the school as arranged with the principal.

All questionnaires were distributed and completed within the last three weeks of the school year. For the public school it was 2 1/2 weeks prior to graduation; for the private school it was two weeks prior to graduation. The end of the school year was chosen because the focus of all the seniors is on graduation and bringing their high school days to an end at that time. Also, it seemed to be a time when the other students in the school would be aware of it being "the end" for the seniors. According to the high school teachers and counselors with whom I talked, students realize that their high school days are coming to an end at different times during the year (e.g., at the last football or basketball game, the last play, the last band competition, or the last choir concert), but graduation brings this back into focus for them as well as for those students who did not participate in extra-curricular activities.

Less than one percent of the questionnaires given to the seniors were not completed; none of the questionnaires given to juniors had to be discarded because they were not finished. Questionnaires that were not used in the analyses were those in which questions were not responded to item by item.

This involved 37% of the questionnaires that were given to the seniors and 13% of the questionnaires given to the juniors.

#### RESULTS

As is often the case with questionnaire research, some respondents chose not to respond to all items. There were 281 seniors who responded to all items and were included in the regression analysis, correlations and t-tests. There were 291 juniors in the study; 55 responded to all items and provided necessary information.

### Year in School

Hypothesis 1 stated that high school seniors will have higher scores on a depression index (CES-D) than will high school juniors. The data appropriate for testing hypothesis 1 consist of the subject's CES-D scores. Each score is an indication of the number and frequency of depressive symptoms experienced by the individual. The mean CES-D score for high school juniors was 21.46 (s.d. = 9.89). Seniors had a mean CES-D score of 18.96 (s.d. = 10.83). The difference between these means was significant [F(1,570)=4.82, p<.05]. Since the mean score of the juniors was significantly higher than that of the seniors, the original hypothesis was not confirmed. In fact it is counterindicated.

# **Separation**

Hypotheses 2 and 3 focus on the impact of previous separations on depression. Hypothesis 2 states that the more separations a high school senior has had the higher will be his/her CES-D score. (Recall that the separation history index is the sum of separations the respondent marked on a checklist.) The number of separations checked ranges from 0 (one subject) to 9 (three subjects). As seen in Table 1, there was a significant, negative correlation between separation history and CES-D, or depression score, (r=-.12, p<.05). Although the correlation was weak, it suggested that the more separations a subject had experienced the lower the depression score was likely to be.

Hypothesis 3 states that seniors who had experienced the death of a family member or close friend before the age of seven will have higher CES-D scores. The prediction was not supported. The observed relationship between death of a family member or close friend before the age of seven and depression score was r=.06, p=.16. Because the sample provided too few cases (just one senior reported the death of an immediate family member before the age of seven and three more reported the death of a significant other during their pre-school years) no conclusions can be drawn. Including the entire life span (0-18 years) did not increase the number of instances significantly.

A step-wise multiple regression analysis (Table 2) indicated that total number of separations contributed 1% to the variance (p < .05). When total

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Correlation Matrix	Matrix			
Variables	Sex	SEP	SF	SFR
Depression: CES-D	16**	12*	21***	16**
Sex	ŀ	11*	16**	14**
Separation History: SEP	ı	;	03	8.
Family Relatedness: FR	1	ı	ŀ	.12*
Relatedness to Friends:	ı	1	1	1

			53	*	
OI			.03	30***	ı
			.02	1	i
GFT	***08	.22***	i	ł	ı
DS	.22***		;	i	l
ATTSCH LV	ı	1	;	;	ı
AT	1	I	I	1	:
O	I	ŀ	1	I	1
SFR	ı	ı	ı	ı	1
SF	I	ŀ	ı	;	1
SEP	I	I	I	ı	ı
Sex	ಕ ಕ	ject -	year 	lue -	1
Variables	Where subject plans to live next year:	How far subject plans to live from home:	Expect next year to be very different:	Separations due to death:	Other separations: 0

Note: Correlations not performed are blank.  $^*p < .05$ .  $^{**}p < .01$ .  $^{***}p < .001$ 

Table 2

Results of Step-wise Multiple Regression Analyses for Seniors

Variable	$\overline{\mathbf{R}^2}$	R <sup>2</sup> Change	B	Beta	뙤	Overall F
Analysis I: Opinion of Self	.25	.25	1.81	.46	104.13**	92.97
Sex	.28	.03	-5.14	-0.23	13.96**	54.97
Family Relatedness	.31	.02	-0.27	-0.15	09.46**	40.73
Separation History	.32	.01	-0.80	-0.11	5.58*	32.40
Relatedness to Friends	.33	10.	-0.25	-0.11	4.96*	27.26
Attachment to School	.33	00:	-0.17	-0.02	0.08	22.66
Analysis II: Opinion of Self	.25	.25	1.80	0.46	89.29**	92.97
Sex	.28	.03	-5.18	-0.23	8.33**	54.97
						(table continues)

Variable	$\overline{\mathbf{R}^2}$	R <sup>2</sup> Change	<b>B</b> i	Beta	뙤	Overall F
Relatedness to Family	.31	.02	-0.21	-0.12	8.33**	40.73
Anticipated Life Change	.32	.02	3.00	0.16	2.70*	33.14
Relatedness to Friends	.34	.02	-0.30	-0.13	5.56*	22.84
Separation History	.36	.01	-2.65	-0.37	5.56*	25.35
School	.36	8.	1.63	0.07	0.00	21.91
Separation Excluding Death	.36	8.	2.10	0.26	0.00	19.31
Death of Significant Other	.37	8.	1.64	0.19	2.70	17.35
Attachment to School	.37	00.	-0.42	-0.04	0.00	15.64

Note: Durbin Watson for Analysis I = 1.92; for Analysis II = 1.95. \* $\mathbf{p}$ < .05. \*\* $\mathbf{p}$ < .01.

number of separations was broken down into death of significant others and separations excluding death, neither alone accounted for a meaningful portion of the CES-D variance.

Table 3 presents each item from the separation history question and the percent of senior subjects who checked that item as true. In addition to the data presented, one subject had experienced the divorce of parents followed by death of a stepparent.

Table 3
Senior's Responses to Separation History Items

<u>Item</u>	Percent	
Lived in another town before living here	52%	
Spent a week or longer away from family	90%	
Attended nursery school or day care before kindergarten  Living with one natural parent due to divorce, separation, etc. (other than death)	51 % 26 %	
Had experienced death of a parent	4%	
Had traveled out of home state	98%	
Had experienced death of a close friend	4%	

### **Anticipated Changes**

Hypothesis 4, the prediction of a significant positive relationship between high school seniors' indicating anticipation of more substantive changes next year (Future Plans question 7) and the CES-D score, was supported (r=.19, p<.001). Ninety-six percent said that next year their lives would be very different from this (their senior) year. An expanded step-wise multiple regression analysis indicates that the expectation that the year following graduation would be very different from the senior year contributes 2% to the CES-D variance, p<.05, (Table 2).

# Family Relatedness

It was predicted in hypothesis 5 that high school seniors with higher Family Relatedness scores would have lower CES-D scores. Family relatedness was negatively correlated with CES-D score (r=-.21, p<.001) suggesting that a stronger relationship with family was associated with fewer depressive symptoms. This supported hypothesis 5. The mean Family Relatedness score was 25.56 (s.d.=6.01). As seen in Table 4, senior women scored significantly higher than did senior men. A step-wise multiple regression analysis (Table 2) indicated that family relatedness contributed significantly (p<.01) to the CES-D variance.

# Sex Differences

Hypothesis 6 states that females will have higher CES-D scores than males. The data appropriate for testing hypothesis 6 consist of the subject's CES-D scores. Each score is an indication of the number and frequency of depressive symptoms experienced by the individual. Since there was no

Table 4

Means, Standard Deviations, and t-values for Seniors' Relatedness Variables

<u>Variables</u>	<u>Sex</u>	<u>N</u>	<u>M</u> <u>s.d.</u>	t-value
Family Relatedness	Male	112	24.41 5.98	
				2.63**
	Female	169	26.32 5.93	
	Total	281	25.60 6.01	
Relatedness to Friends	Male	112	32.02 5.74	
				2.13*
	Female	169	33.34 3.97	
	Total	281	32.91 4.79	

<sup>\*</sup>p<.05. \*\*p<.01.

significant difference in (CES-D scores) between schools [F(1,570)=0.07, NS], further analyses were based on data from the two schools combined. (Due to an oversight, gender information on the public school juniors was not obtained and they were not included in the analysis.) The ANOVA revealed a significant main effect for sex [F(1,330)=19.58, p<.001] and a significant sex by year interaction [F(1, 330) = 5.17, p < .05]. Post hoc t-tests indicate that senior women scored significantly higher on the CES-D than did senior men, t(279) = 2.60, p < .01, and junior women scored significantly higher on the CES-D than did junior men, t(53) = 2.18, p < .05. These findings support much of the previous work showing more depressive symptoms among women than men. (Table 5 presents the means.) The interaction suggests the difference between CES-D scores of junior and senior women was greater than the difference between the CES-D scores of the junior and senior men. This sex by grade interaction was not predicted and may reflect the fact that there were significantly more senior men and women in the sample than junior men and women. Because of the large difference in sample size between years, the results should be interpreted with caution.

Although school was not a significant variable it is interesting to note that the female students in both the public and private schools scored higher on the CES-D than did the male students.

Table 5

Means of the Depression Scores (CES-D) by Sex and Year

Year	<u>Sex</u>	<u>Mean</u>	<u>N</u>	
Junior	Male	18.40	22	
	Female	24.91	33	
Senior	Male	16.88	113	
	Female	20.33	168	

### Attachment to School

Hypothesis 7 states that seniors' CES-D scores will be positively related to their reporting that they will miss their high school (question 11 of the Graduation and Future Plans questionnaire). The relationship between seniors' tendency to agree with the statement "I think I'm going to miss this school very much" and their CES-D scores was not significant (r=-.06). Hypothesis 7 was not supported. Thirty-seven percent of the respondents said that they would miss their high school very much. Table 6 presents this information. It is interesting to note that 56% of the private school students agreed or strongly agreed with question 11 but just 28% of the public school students agreed or

Table 6

Percent of Response to Selected Graduation and Future Plans Questions

			<del></del>
Question		Agree	<u>Disagree</u>
1.	I am happy to be graduating.	98%	2%
2.	I am sad about graduating.	40%	60%
4.	I know what I am going to do next year.	87%	13%
5.	I am happy with the plans that I have made for next year.	90%	10%
6.	I know what career I am going to have.	96%	4%
7.	I think next year my life will be very different from this year.	96%	4%
9.	I have made plans to see my friends every other week next year.	58%	42%
10.	I have been active in school clubs and organizations.	48%	52%
11.	I think I am going to miss this school very much.	37%	63%

Note. Breakdown by public and private school for questions 10 and 11 is as follows: 10. Public 45% Agree; Private 57% Agree. 11. Public 28% Agree; Private 56% Agree.

strongly agreed. A post hoc Chi square analysis indicates the public/private school difference is significant,  $X^2(1, N=281)=19.76$ , p<.001. There were no significant sex differences with respect to student's anticipation of missing their school.

Forty-eight percent of the seniors saw themselves as having been active in school clubs or organizations (question 10), although 57% of the respondents of the private school agreed as compared to 45% of those from the large consolidated public school.

# Additional Analyses

Opinion of self. Because self-esteem has been a significant factor in previous studies of depression, the Rosenberg Self-Esteem Scale was used as the Opinion of Self index. It was given to all seniors. Low scores indicate a better opinion and high scores indicate a lower opinion of self. The CES-D scores of the current subjects correlated significantly with Opinion of Self (r=.50, p<.001). This is consistent with previous research. A step-wise multiple regression analysis revealed that, of the six predictors, opinion of self emerged as the variable making the most crucial contribution to the variance  $(R^2=.25, R^2 \text{ change}=.25)$  or 25% (Table 2). Inspection of the data indicates that males in the private school had the most positive self opinion (M=1.73) whereas males in the public school had the most negative opinion of themselves

(M=2.61); females from both schools fall in between. After controlling for self-esteem, the remaining variables accounted for 8% of the CES-D variance.

Relatedness to friends. The Relatedness to Friends index was given to all subjects. The mean for seniors was 32.91, (s.d. = 4.99). (The mean for juniors was 31.12, s.d. = 5.20.) The senior women scored significantly higher than did senior men, t(279)=2.29, p<.05. (See Table 4.) There was a significant negative correlation (r=-.16, p<.01) between CES-D scores and Relatedness to Friends.

Depression scores. In this study 50.1% of the seniors scored 16 or more on the CES-D, a score that indicates clinical depression. However, Roberts et al. (1991) suggest a CES-D score of 24 is optimal for determining clinical depression in adolescent populations. Using this criterion at least 27.1% of the seniors and 34% of all subjects in this study reported depressive symptoms at a frequency or intensity to suggest clinical depression. Roberts et al. (1991) did not report adjusted percentages using 24 as the criterion for clinical depression. Therefore, a comparison of percentages between studies is not possible.

Future plans. The percentages of the responses to the question about where the students plan to live next year are presented in Table 7. Given the large percentage of students planning to go to college it is not surprising that so many will be in other towns. The nearby state university is a commuter campus but some of those students get apartments near campus and some of the

Table 7

Projected Living Arrangements

<u>Item</u>	Percent	
Plans to live at home	22.6%	
Plans to have own apartment	14.2%	
Plans to live in another town	61.9%	
Unknown	1.1%	

seniors had indicated this option. The correlation between choice of residence next year and family relatedness was not significant. Plans to live away from home correlated significantly with perception of next year as very different (r=.80, p<.001).

As indicated above, the subjects in the current study had a variety of options. If the choice was to move away from home there was some ability to control how far away from home one moved; thus a question was included to find out how far away from home the seniors planned to go. Table 8 summarizes these results indicating the percent of the seniors choosing each option. The correlation between number of miles away from home and family relatedness was not significant (r=.05).

Table 9 shows seniors' plans for the next year. Given the overwhelming majority of middle class students in both schools the high number planning on college is not surprising. Also, participation in the project was voluntary. Therefore, caution is needed in generalizing the results to other socio-economic groups.

Table 6 presents the percent of students who agreed and disagreed with selected questions from the Graduation and Future Plans section of the questionnaire. It is interesting that some subjects agreed that they were happy about graduating and sad also.

Table 8

Distance Seniors Plan to Live from Home

<u>Item</u>	Percent
Live at home	23 %
1-50 miles	12.6%
50-100 miles	19%
100 or more miles	45.4%

Table 9

Plans for the Next Year

<u>Item</u>	Percent
None indicated	3%
Military Service	5%
Working (full or part time with no	
other plans	12%
Continuing Education	79%

Note. Marriage was indicated by one individual who listed no other plans.

#### DISCUSSION

Several interesting findings emerge from the present study. It is apparent that at the end of the school year many high school juniors and seniors report a variety of depressive symptoms occurring more often than once or twice a week. Several of the predictors suggested by the hypotheses of the current study contribute to the variance in respondents' reports of depression related symptoms. The most significant contribution to depression related symptoms is opinion of self. This finding supports the results of previous research. Separation history contributed slightly to the variance of reported symptomatology also. Although the data do not support all of the original hypotheses the results are suggestive for further research. In this chapter relationships among the CES-D score, Opinion of Self, Family Relatedness, Relatedness to Friends, Separation History, sex, year in school, feelings about high school and plans for next year are explored. The nature of these findings as well as some possible interpretations and implications are considered.

#### Year in School

Contrary to what was predicted in hypothesis 1, high school juniors report significantly more depressive symptoms on the CES-D than do the high

school seniors. Although most previous research (Allgood-Merten, Lewinsohn and Hops, 1990; Roberts, Lewinsohn and Seeley, 1991; Roberts, Andrews, Lewinsohn and Hops, 1990) had not found significant CES-D score differences between high school age groups, Doerfler, Felner, Rowlison, Raley and Evans (1988) reported CES-D means from a sample of fourth through twelfth grade students and found the mean CES-D increased through the eighth grade and then began to decrease with a statistically insignificant increase noted for eleventh grade students. R.D. Felner (Personal Communication July 31, 1991) reported that the CES-D was given during the spring term of the school year. The current study, also done during the spring, supports the finding of Doerfler et al., 1988, i.e., the mean junior CES-D score was higher than the mean senior CES-D score. Perhaps something happens during the junior year that results in a relatively higher frequency of depressive symptoms.

The assumption in hypothesis 1 is that the period of time immediately preceding graduation will be more traumatic for seniors than juniors because seniors will experience multiple separation. They will be separating from their younger friends, their senior friends, teachers, school and often from their families. It is consistent with Bowlby's, theory (1969) that the nature of the attachment to family changes during adolescence and throughout life. He suggests that the majority of adolescents develop attachments to friends, teachers, groups and institutions (such as schools) as well as to their families.

The strength of non-family attachment is realized when relationships end or a friend is not readily available. Weiss (1982) reports that adolescents often seem surprised by the strength of loneliness and distress they feel when experiencing separation. He suggests that adolescents are surprised by their negative feelings because there is an implicit understanding that the relationships of adolescence are transitory. The implication is that the relationships are not as serious as their feelings ultimately indicate they are. According to Bowlby (1969), if an attachment has developed separation from individuals, groups or institutions will activate the self-in-separation model and trigger the feelings therein.

Although activating the model would not lead to depression in all seniors, the multiple separations make it seem likely that whatever negative feelings are associated with separation would be triggered.

One possible explanation for the higher CES-D scores of juniors may be that the juniors will be losing their senior friends and, although this kind of separation is not new (it occurred in elementary school and middle school), this time it is a permanent separation for most of them. Some support for this position may come from an unusual study by Field (1984). Field studied children who were to be "left behind" as some of their friends and classmates were being transferred to another nursery school. The pre-school subjects in her study who were going to remain in their current school showed symptoms of depression prior to the separation whereas those who were moving showed

few symptoms before and more symptoms after the move. Granted there is a large age difference between Field's pre-school subjects and the juniors in the current study, yet their responses could be seen as similar. In fact, it would seem that the juniors in the current study are more capable of anticipating their loss than the pre-schoolers. Cognitions such as those involved in anticipation can trigger emotional reactions (Ellis, 1968; Maultsby, 1980).

A second possible explanation of the juniors higher CES-D scores is that the juniors begin to realize that they will have to assume leadership roles. Concern about competence may be activated by those confronted with the responsibility of leadership. They may be concerned, too, that they will not be as competent as the seniors are. On the other hand, the juniors may look forward to the prestige associated with leadership and the explanation for their higher CES-D scores may lie elsewhere.

Another explanation is that the juniors are experiencing stress that exacerbates a depressed mood resulting in CES-D scores that are higher than the seniors' CES-D scores. It is generally accepted that taking tests and being interviewed are stressful situations. If we assume that most of the juniors in the study, like most of the seniors, are college bound they may be experiencing anxiety over SAT and ACT test performance and about being accepted by the college of their choice. Allgood-Merten et al. (1990) found that stressful recent events were associated with higher CES-D scores. There is no independent

measure of anxiety, stress, or of juniors' feelings about their senior year. This suggests an area for further research.

Several factors may moderate the reaction to graduation for seniors.

Seniors' plans for the coming year are complete (97%) and 90% of the seniors in this study report "I am happy with the plans I have made for next year."

Focusing on the future and the advantages of graduation may moderate the negative aspects of loss associated with graduation and account for the grade difference in depressive symptomatology. The fact that the seniors are happy with the plans they've made for the coming year may be related to the fact that 98% of them said they were happy to be graduating. However, happiness is not the only emotion the seniors are feeling because 40% of the seniors said they were sad (about graduating) also.

# Separation History

Rather than the positive relationship between the number of previous separations and CES-D score that was predicted in hypothesis 2, there is a negative relationship. The results indicate that students who have experienced more separations report fewer depressive symptoms.

Bowlby (1969) suggested that current separation experiences might reactivate the internal self-in-separation model. The content of the model can be unconscious. When the model is activated, individuals who have experienced a number of stressful separations in childhood (e.g., parental death, parental

divorce, loss of friends and/or loss of home due to a move) experience the negative emotions again. Studies by Bloom (1977/1978), Podell (1989) and Stein, Levy and Glasberg (1974) seem to support Bowlby. Some of the seniors in this study reported feeling both happy and sad. The sadness they feel may be a result of the activation of the negative feelings in the separation model.

Another possibility is that the separation model is modified by subsequent experiences in which separations are dealt with successfully. The result would be an internal working model of self-as-competent-in-separation situations. Those seniors who have coped successfully with previous separations may have integrated these experiences into their self-in-separation model. The revised model includes a competent, coping self, i.e., one that finds opportunities or expects positive outcomes from separations. Some of the experiences marked most frequently by the subjects, e.g., vacationing away from home, spending a week or more away from family, moving and nursery school attendance may modify the original separation model positively. Divorce or separation of the parents could work either way. In a study by Proulx and Koulack (1987) adolescents reported feeling more control in situations where the divorce related conflict was in the open than in those situations in which conflict was not open. Moore and Hotch (1982) found a significant personal control variable in their studies of the effect of divorce on older adolescents' perception of having left home. Feeling in control can

support feelings of competence and expectations of positive outcomes. The more separations one has mastered the more confidence there is to handle new separations. This is a positive, growth-oriented perspective and not contraindicated by Bowlby's work. A practical application that is supported by the negative relationship between number of separations and depressive symptoms is that children and adolescents do not need to be shielded from separation experiences. What is needed is research of the self-as-competent-in-separations model.

A third explanation is that more recent events have a greater impact on depression than past events such as separations. That is, the correlation may be due to graduation or to a factor not evaluated in the current study. Allgood-Merten et al., (1990) found that "more distant, low base-rate major events" correlate less strongly with depression than do recent life events. It is possible that the negative relationship found here is due to the immediacy of graduation and that concerns and issues relating to graduation and plans for the future override past events.

Hypothesis 3 stated that seniors who had experienced the death of a family member or close friend before the age of 7 would have higher CES-D scores. Just one student had experienced such a loss. This student had lost a parent. There were ten seniors who had experienced the death of a parent and two who had lost a sibling. To determine the long-term impact of stressful or

traumatic losses such as death within the family, a larger sample or a study with matched controls is needed.

## **Anticipated Changes**

Hypothesis 4 stated that scores on the CES-D would be positively related to the anticipation that the coming year will be substantially different from the senior year. The hypothesis was supported. Ninety-six percent of the seniors expect that the coming year will be very different from their senior year. Plans to live away from home were significantly correlated with seniors' perception that the coming year would be different from their senior year in high school. The anticipated difference between years must be based on factors other than the role of student since many of them will continue to be students. The anticipation that their lives would be very different suggests that graduation may be of psychological importance as a marker of separation from the past. It appears that moving away from the family is a major factor. The relationship between adolescent individuation and physical distance from parents is suggested by the work of Sullivan and Sullivan (1980).

## Family Relatedness

The results of this study supported the negative relationship between family relatedness and CES-D score predicted in hypothesis 5. These data tend to support the work of Kandel and Davies (1982) who found that parent closeness was associated with lower depression score among older adolescents.

(Kandel and Davies measured depression with a six item depressive-mood scale.)

Feeling close to one's family may be experienced as positive or negative. The family can be experienced as supportive and as a "secure base." On the other hand, the family may be experienced as negative if the adolescent feels threatened with being smothered or enmeshed. It is possible that the depressive symptoms reported by adolescents reflect an ongoing struggle between the need for a secure base and a concern about being enmeshed and not being able to become independent.

Adolescents are seen as working toward separation from their families. Separation can be physical, psychological or both. Psychological separation is referred to in the literature as individuation (Blos, 1961; Josselson, 1980; Sabatelli and Mazor, 1985; Allison and Sabatelli, 1988 among others). It is linked to a sense of autonomy and personal identity. Individuation does not mean that there is lack of connectedness to the family. Rather, it involves an acceptance of the ways in which one is similar to and different from ones' family. It is a sense of belonging to but not feeling enmeshed in the family. Individuated adolescents feel close to and consult with their parents without feeling psychologically threatened. Greenberg et al. (1983), reported that the majority of adolescents in their study felt this way.

Seniors may feel individuated, having made some important decisions about their future. Montemayor (1982), Youniss and Smoller (1985), and Newman (1989) found that parents of 17 and 18-year-olds expect more independent decision making. Allison and Sabatelli (1988) reported that adolescents living in healthy, well differentiated families were likely to have freedom and opportunities to make their own decisions. Independent decision making gives seniors control over their own lives. Those who did not have as much say in the decisions made about the next year may see graduation as the beginning of an opportunity to make their own choices.

High school juniors, as a group, may be affected by graduation because they are very involved in the struggle toward individuation. Many juniors will have not made final decisions about their future. They may be in conflict with their families over options and feel the conflict more acutely at the end of the junior year. There was no measure of individuation in this study. Thus this explanation is speculative and suggests an area for further research.

Bowlby (1973) says that it is important for an individual of any age to feel "confident that an attachment figure will be available to him whenever he desires it" (p. 202). The attachment figures and family serve as a "secure base" from which the individual gradually leaves to explore the world (Bowlby, 1988, p.11). When attachment has been positive the individual ventures away, periodically checking back and returning if frightened or if something goes

wrong. In these situations the distance between the individual and the attachment person is controlled by the individual. Physical contact is necessary to relieve separation anxiety for most young children. With increased maturity visual and verbal contact can substitute for physical contact. Telephones enable individuals to maintain verbal contact with attachment figures. In addition to control over access to others by telephone, the high school seniors in this midwestern town have a variety of options for controlling the distance they wish to venture from home base. There are two universities (one state and one private) and several technical schools within 30 minutes of their high schools. There are numerous colleges, universities and technical schools within 50 to 180 miles. Having such choices may attenuate the perception of graduation as separation for those needing their secure base a little longer or needing to return to it more often. Adolescents who feel secure in their family relationships may venture further from home base after graduation whereas those with more conflicted relationships may stay closer to home. Of the 281 seniors, 76.5% planned to live some place other than with their parents and 61.9% planned to live in another town. Information relevant to the nature of relationships, secure or conflicted, is not available for the subjects in this study. This could be the subject of another study.

Being able to access the secure base is another way of perceiving the issue of control. It has surfaced in a variety of studies of separation.

According to Irion et al. (1988), children from intact families had greater feelings of control and viewed stressful situations as opportunities more often than did those from disrupted families. Proulx and Koulack (1987) also reported that feelings of control in stressful situations were more common among college students from intact families than from disrupted families. The observed negative relationship between CES-D scores and family relatedness may be a reflection of the fact that nearly three-fourths of the seniors in this study are from intact families.

Relatedness to friends. A positive correlation between family relatedness and relatedness to friends lends support to Bowlby's position that positive family relationships make possible the development of friendships and attachments to others as the child grows.

In the current study lower CES-D scores were associated with higher relatedness to friends scores. A possible explanation for students having higher relatedness to friends scores and fewer depressive symptoms may be that friends have become available attachment figures and provide a secure base similar to that provided by the family (Bowlby, 1973). The importance of maintaining contact with friends may be seen in their response to the statement "I have made plans to see my friends every other week next year"; fifty-eight percent of the seniors agreed or strongly agreed with the statement.

The statement "I have made plans. . . . " implies some control and some independence. There was a significant relationship between a more positive opinion of self and higher relatedness to friends score. The seniors may feel independent and confident (positive about themselves). They may believe that they can maintain current friendships and develop friendships in new settings.

# Sex Differences

Hypothesis 6 states that females will have higher CES-D scores than males. This sex difference was supported for both juniors and seniors. In this respect the results of the current study are consistent with the findings of Rutter (1986b), Allgood-Merten et al. (1990), Ehrenberg, Cox and Koopman (1990), Roberts et al. (1990) and Roberts et al. (1991). The sexual stereotype in this society is that women usually acknowledge their emotional reactions while men tend to suppress their emotional reactions to separation. It is more likely that men and women express their feelings differently. Bowlby (1980) discusses a possible basis of the inability to express feelings; he makes no distinction based on gender. He says that individuals who grow up in families that do not value attachment bonds and that consider the expression of feelings and attachment behaviors a weakness "grow up tough and hard" (p. 225). It is possible that the relatively lower male CES-D scores are a result of a cultural prohibition regarding the freedom of men to express their feelings related to attachment.

The difference between the sexes was more striking for the juniors than for the seniors and accounts for the significant sex by year interaction in the ANOVA of the depression scores. Few studies of depression in adolescence report sex by age interactions. Rutter (1986b) reported a sex by age interaction related to puberty. Allgood-Merten et al. (1990) and Ehrenberg, Cox and Koopman (1990) reported trends that suggested possible sex by year interactions.

The basis for the significant sex by year interaction is not entirely clear nor was it predicted. However, some of the research on the relative importance of relationships for men and women may shed some light on the issue of a sex difference that interacts with year in school. Douvan and Adelson (1966), Miller (1976), Fischer (1981), Gilligan (1982), and Frank, Avery and Laman (1988) report that women are more interested in and concerned about relationships than men. Rutter (1986a) indicated that the stress of disrupted relationships can lead to feelings of depression, or depressed mood. A possible explanation for females' higher CES-D scores especially in the senior year, is that females perceive graduation as disrupting relationships. There would be more relationships disrupted for senior women than for junior women.

Another possible explanation for the sex by year interaction might be that the senior males are more career oriented and confident about such decisions

than are the senior females. The data from this study, however are insufficient to draw any conclusions.

Roles may be another factor in the sex by year interaction. Being a senior usually implies leadership. Junior males may be delighted that they will finally have their chance to be leaders, a traditional male role. Females, on the other hand may experience more anxiety in assuming leadership roles. The females may perceive being leaders as a relationship issue. That is, leadership means being in competition with the males who will be available for dates.

Further research on sex differences in the nature and meaning of leadership among high school students may help clarify the role of the relationship variable in the sex by year interaction in depression scores.

#### Attachment to School

Feeling that one is a part of school, whether through taking part in clubs and activities or because of relationships with teachers or peers, could make graduation seem more traumatic. Hypothesis 7 predicted a positive correlation between attachment to school and CES-D. This was not supported. Fewer than half of the seniors reported feeling "attached" to their school in the sense that they think they will miss it once they graduate. Fewer than half reported having been very active in clubs or organizations. There is an interesting difference between public school and private school students. Over half of the seniors from the private school reported that they thought they would miss their

school and/or that they had been active in clubs. Slightly more than a quarter of the public school seniors thought that they would miss their high school and just under 50% of them had participated in clubs. Barker and Gump (1964) have reported that students from smaller schools are more actively involved in their schools. The current study lends support to their work.

#### Additional Issues

Definition of depression in adolescence. The CES-D means reported for the normal adolescent subjects in the studies of Allgood-Merten et al. (1990), Roberts et al. (1990), Doerfler et al. (1988) and in the current study (see Table 5) are higher than the reported mean CES-D scores in studies of normal adult samples. Using the adult caseness criterion, 12% to 50% of the subjects in these studies would be labeled clinically depressed. Of the high school seniors participating in this study nearly 50% would be labeled clinically depressed. It is not clear what the higher high school means indicate. One explanation is that adolescents are more depressed than adults. On the other hand, the fact that adolescents report more symptoms of depression on the CES-D than do adults does not necessarily mean they are clinically depressed. Breslau (1985), for example, found that mothers of children with chronic disabilities had CES-D scores indicative of depression but by other measures (of depression) no higher level of clinical depression than the normal population. A third possibility is that the higher prevalence of symptoms reflects normal adolescent turmoil.

Adolescents may exaggerate disappointments and react with more extreme affect and drastic cognitions than do adults. Perhaps the more extreme reactions to events makes the timing of assessment of depression or depressive symptoms critical in studies of adolescents.

Roberts et al. (1991) suggest that a CES-D score of 24 is optimal for determining "caseness" in adolescent populations. Using this criterion, fewer than 27% of the seniors and 34% of all the subjects in this study are reporting depressive symptoms at a frequency or intensity to suggest clinical depression. These percentages seem to be large enough to suggest a need to continue to investigate adolescent depression.

Since the CES-D is designed to reflect current feelings rather than an ongoing state, it is possible that different results would be obtained were it possible to give the questionnaire to both juniors and seniors the day of graduation. It would be interesting, too, to compare responses from the beginning of the senior year with responses at the end of the year. The difference score would be a more sensitive reflection of individual responses to graduation.

Opinion of self. The simple correlation between opinion of self and CES-D score indicates that fewer depressive symptoms are associated with a positive view of self. (The Opinion of Self scale was scored such that a low score reflected a more positive view of self.) These results were expected and

parallel those of Doerfler et al. (1988) and Allgood-Merten et al. (1990) among others. The opinion of self/self-esteem variable was included for that reason.

#### Conclusions

Although several of the hypotheses of the current study were not supported, some interesting findings did emerge. Perhaps the expected positive relationship between previous separation experiences and responses to current separation experiences would be found had the research been carried out differently. A number of limitations and implications for further research exist. Extent of Implications of the Current Study

There are several cautions regarding the generalization of the results of the current study. As described in the methods section the subjects in this study were primarily middle class, white, midwestern high school juniors and seniors. Further research with subjects of other socio-economic and racial backgrounds and with plans other than to attend college is needed.

Likert type scales, such as those used throughout the questionnaire, are subject to response bias. However, review of the individual questionnaires suggests response bias was not a factor in this research. Only on the Relatedness to Friends section of the questionnaire did there seem to be a tendency to respond strongly agree (or strongly disagree) to 70% or more of

some children parental divorce may be a relief and seen as positive. For some children of divorce arrangements may have been made so that separation of parent and child was minimal, whereas for others parental divorce or separation may have resulted in prolonged separation from an attachment figure.

Although this study is based on the assumption that graduation is a separation experience, an independent measure of the student's interpretation of graduation was not obtained. This, too, could be seen as a limitation.

# Suggestions for Future Research

A variety of further studies are suggested by the current research. One such study might involve assessing the presence and content of the internal models proposed by Bowlby to explain responses to separation.

Second, the higher CES-D scores for juniors was not predicted. It would be interesting to investigate what is happening in the lives of juniors at the end of the junior year that is related in depression. One version of this might compare CES-D scores of juniors applying to colleges and taking the SAT and ACT tests with those who are not. Another version might compare student's CES-D scores during the time they are applying to colleges and taking tests with the CES-D scores of the same students after college decisions are made.

Third, an alternative design for assessing senior's response to graduation might involve administering the CES-D or similar instrument in the fall of the

senior year and comparing those responses with answers to the same measure obtained in the late spring when graduation is imminent.

Another study that is suggested involves adolescents', both juniors' and seniors', perception of graduation. An open-ended questionnaire or interview in which they respond to questions such as: What does graduation mean to you? and How do you feel about graduating (graduation)? could be used.

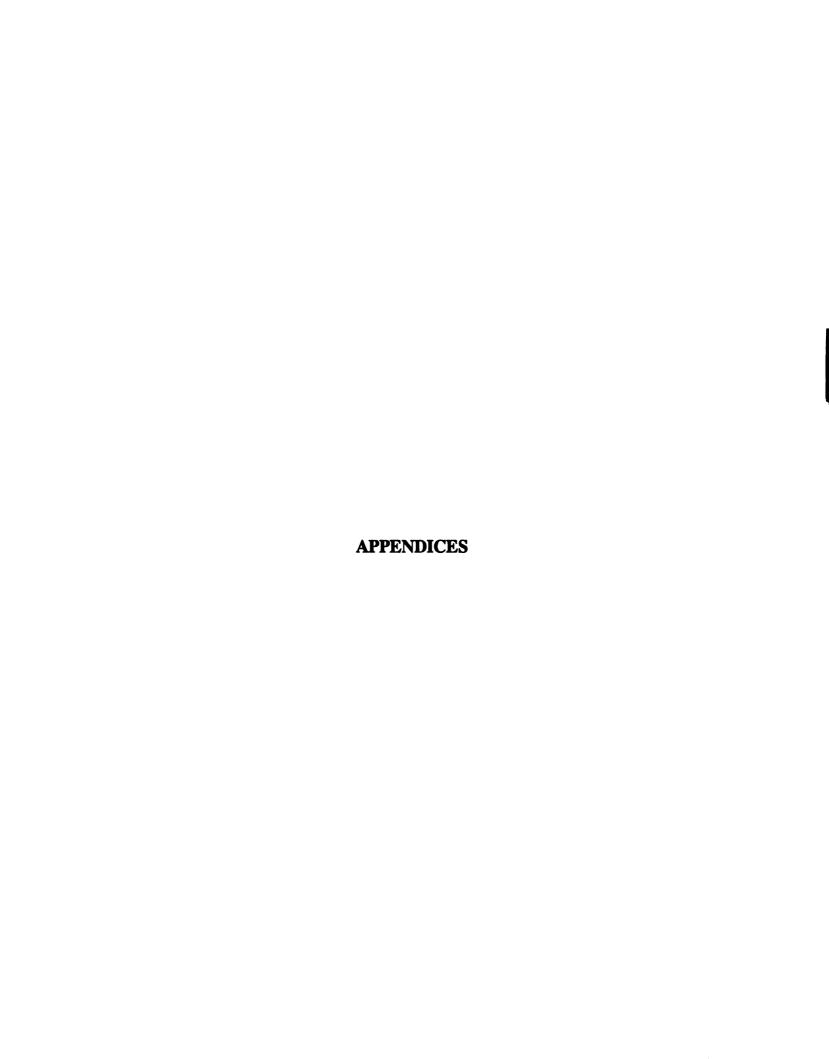
The nature of the adolescent-parent relationship and the adolescent's perception of graduation as well as future plans could be investigated in more detail. Groups of adolescents with secure vs. conflicted relationships (or relationships in which the adolescent has achieved individuation vs. relationships in which the adolescent has not) could be compared regarding responses to current separations such as graduation.

A study could compare the relative impact of various separations (recent and remote, mild and severe - as perceived by the individual) on adolescents' reactions to a current separation experience.

Early parental divorce or death may have a long-term impact on adolescents' reactions to separations. The sample of adolescents experiencing death of a significant other before the age of seven was too small, in this study, to do an analysis. Therefore, a study in which subjects are selected and matched on the basis of having or not having experienced a death before the age of seven is suggested. A similar study investigating variables relevant to

children who have experienced parental divorce is suggested as well. Variables of interest might include whether the child ended up living with the primary attachment figure or not, the age of the child at the time of the initial separation/divorce, whether or not the child was given understanding and assistance in learning to cope with the separation, and the accessibility of the non-custodial parent.

In summary, high school seniors report depressive symptoms within the last 2-3 weeks of the school year. High school junior females report even stronger feelings and behavioral symptoms of depression than do seniors (female or male). As has been true in other studies, self-esteem or a positive opinion of self is significantly related to fewer feelings associated with depression. Opinion of Self score accounted for 25% of the variance in the depression score. Other significant factors were sex, family relatedness and number of separations experienced from early childhood to the present. The data tend to support a higher rate of feelings of depression among females. Fewer symptoms of depression are reported when there is greater family and friend relatedness. Some seniors report feeling both happy and sad about graduating.



#### APPENDIX A

### JUNIORS' QUESTIONNAIRE INSTRUCTIONS

# STUDENT QUESTIONNAIRE (Juniors)

This is part of a study in which we are interested in what high school students think about themselves, their friends and family and the future. We are hoping to be able to better understand how they come to make their decisions and form their ideas. These questions will ask for your opinions about your friends and yourself.

There are no right or wrong answers to any questions. This is not a test at all. We will not know your name. Anything you write is completely private, so you should feel free to answer the questions as honestly as you can.

Please answer the questions in order. Try not to spend too long on any one question.

Thank you very much for helping in this research.

#### **DIRECTIONS**

For each question or part of a question mark one answer. Do not write your name on any of the materials. You may start immediately and continue through the parts of the questionnaire until you have finished. If at some point you decide that you do not wish to answer a question you may go on to the next one. If you do not wish to complete the questionnaire, stop and turn in the questionnaire to your teacher as it is.

# SENIORS' QUESTIONNAIRE INSTRUCTIONS

# STUDENT QUESTIONNAIRE (Seniors)

In this study we are interested in finding out about high school seniors and about their plans and thoughts about graduation and the future. We are hoping to be able to better understand how people come to make their decisions and form their ideas. Some of the questions will ask for your opinions, while others will ask for general information about yourself.

There are no right or wrong answers to any questions. This is not a test at all. We will not know your name. Anything you write is completely private, so you should feel free to answer the questions as honestly as you can. Participation is completely voluntary. If at some point you do not wish to answer any more questions, you may stop and return the questionnaire to your teacher.

Please answer the questions in order. Try not to spend too long on any one question.

Thank you very much for helping in this research

#### **DIRECTIONS**

For each question or part of a question, mark one answer, or write in the information that is asked for. Do not write your name on any of the materials. You may start immediately and continue through the parts of the questionnaire until you have finished. If at some point you decide that you do not wish to answer any more questions, you may stop and turn in the questionnaire to your teacher.

# GENERAL INFORMATION QUESTIONNAIRE

# Please mark an X next to the correct answer

1.	What is your sex?	Male	···	_Female	
2.	What year are you in sch	100l	Junior	Senior	
3.	Who lives at home with Mother				l who live with you _Grandmother
	Father	Stepfa	ther		_Grandfather
	Sister(s)	Stepsi	ster(s) o	r halfsister(s	s)
	Brothers	Stepb	rother(s)	or half bro	ther(s)
4.	Next year I plan toli	live wit ve in anotl	h my far ner town	nily,	have
5.	If you will be away from up to 50 miles over 200 miles.				
6.	Next year I plan to being my selfin college or a technical sch	the militar	ry servic	ego	oing to
				(Plea	se indicate)
7.	. Please check those of the	following	that app	oly to you.	
	I have lived in anot	her town b	efore liv	ving here.	
	I have spent a week on vacation, et		away fro	m my famil	y at camp,
	I have an older bro	ther or sist	er who	lives away f	rom home.

My parents are divorced or separated.	
I went to day care or nursery school before I entered school.	
A member of my immediate family has died.	
(Relationship:) mother, father, sister, brother, stepparent	
(Number of years ago:)	
Someone else to whom I felt close has died.	
(Relationship: friend, grandparent, neighbor, cousin, etc	
(Number of years ago:	_)
I have traveled out of my home state.	
I have traveled outside of the U.S.	

# **GRADUATION AND FUTURE PLANS QUESTIONNAIRE**

Circle one point on the scale that describes what your opinion.

SA:	=STRONGLY AGREE	A=AGREE	D=DISAGREE		STRO DISAG	NGLY REE	
1.	I am happy tha	t I will be gradua	ting soon	SA	A	D	SD
2.	The thought of	graduation makes	s me sad	SA	A	D	SD
3.	_	The thought of being on my own after graduation makes me nervous			A	D	SD
4.	I know what I	will be doing nex	t year	SA	A	D	SD
5.	I am happy wit next year	th the plans I have	e for	SA	A	D	SD
6.	I know what ca	areer I am going t	o have	SA	A	D	SD
7.	I think next yes	ar my life will be this year	very	SA	A	D	SD
8.	<u> </u>	ter graduation I we see most of my o		SA	A	D	SD
9.		wo good friends t t least every week		SA	A	D	SD
10.	I have been ver and organization	ry active in schoo	l clubs	SA	A	D	SD
11.	I think I'm goi	ng to miss this sc	hool	SA	A	D	SD

# FRIENDS QUESTIONNAIRE

Please circle one point on the scale that follows each statement.

	STRONGLY A=AGREE D=DISAGREE AGREE	-	STRO DISAC	NGLY GREE	
1.	My friends are interested in what I do.	SA	A	D	SD
2.	I feel sure my friends like me.	SA	A	D	SD
3.	I talk with my friends about things that are important to me.	SA	A	D	SD
4.	I think my relationship with my friends is very close.	SA	A	D	SD
5.	I get along well with my friends.	SA	A	D	SD
6.	I would go to my friends if I were feeling lonesome.	SA	A	D	SD
7.	I would go to my friend if I needed to find someone who understands how I feel.	SA	A	D	SD
8.	When I am away from my friends I miss their company very much.	SA	A	D	SD
9.	My friends are very important to me.	SA	A	D	SD
10.	Five years from now I expect most of my friends will be people I don't know now.	SA	A	D	SD

## APPENDIX B

# LETTER TO JUNIORS

Michigan State University E. Lansing, MI. 48824

# Dear Parents and Students:

My name is Margaret Connolly. I am a psychology graduate student at Michigan State University and am now living in Evansville. I am studying high school students responses to graduation. As part of this study I need to find out high school juniors ideas, opinions, and feelings at the end of their junior year. There is a short questionnaire about friends also. I would like to know if you would be interested in participating in the study during the last couple weeks of the school year. The study is conducted under the guidance of Dr. John McKinney and has been approved by Mr. Adams. It will require only 5 to 10 minutes of your time.

All that is asked is that you fill out a questionnaire. The questionnaire will be given to you during class with the instructions not to put your name or any identifying information on it. Participation is voluntary and if at some time while you are working on the questionnaire you wish to stop, you may. Just return the questionnaire packet to your teacher. I will pick up all questionnaires after school is out the day you do it.

Please consider whether or not you would be interested in participating. When you have decided to participate, please sign the attached form and return it to the teacher from whom you received this letter.

Thank you.

I	have voluntarily
	study that Margaret Connolly is conducting on high
understand that the question the study at any time. I understand	graduation. I understand what is expected of me. I maire is anonymous and that I may withdraw from derstand that I have the right to the general results available to me by request. Participation in the my beneficial results.
Parent	Date
Student	

# LETTER TO SENIORS

# Michigan State University

#### Dear Parents and Students:

My name is Margaret Connolly. I am a psychology graduate student at Michigan State University studying adolescents' responses to graduation. I am now living in Evansville. I am interested in what adolescents think about graduating, how they feel with graduation close at hand and what effect previous experiences of being away from or separated from their families has on how they respond to graduation. I would like to know if you would be interested in participating in the study during the last couple weeks of the school year. The study is conducted under the guidance of Dr. John McKinney and has been approved by Mr. Adams. It will require only 10 to 20 minutes of your time.

All that is asked is that you fill out a questionnaire. There are questions about your ideas and attitudes and feelings about your family, about friends, about you, and about graduation. The questionnaire will be given to you during class with the instructions not to put your name or any identifying information on it. Participation is voluntary and if at some time while you are working on the questionnaire you wish to stop, you may. Just return the questionnaire packet to your teacher. I will pick up all questionnaires after school is out the day you do it.

Please consider whether or not you would be interested in participating. When you have decided to participate, please sign the attached form and return it to the teacher from whom you received this letter.

Thank you.

I	have voluntarily decided to
participate in the study	that Margaret Connolly is conducting on high school
students ideas about gra	duation. I understand that everything in the study has
and that I may withdraw the right to the general:	understand that the questionnaires will be anonymous from the study at any time. I understand that I have results of the study which will be available to me by a the study does not guarantee any beneficial results.
Parent	Date
Student	

# APPENDIX C

# INSTRUCTIONS TO PUBLIC SCHOOL SENIORS

(Introduction provided public school seniors at their assembly.)

Good morning.

My name is Margaret Connolly. I am a psychology graduate student at Michigan State University studying adolescents' responses to graduation. I am now living in Evansville. I am interested in what adolescents think about graduating, how they feel with graduation close at hand and what effect previous experiences of being away from or separated from their families has on how they respond to graduation. The study is conducted under the guidance of Dr. John McKinney and has been approved by your school superintendent and principal. It will require about 10 to 20 minutes of your time.

All that is asked is that you fill out a questionnaire. There are questions about your ideas and attitudes and feelings about your family, about friends, about yourself, and about graduation. The questionnaire will be given to you in just a few minutes. Do not to put your name or any identifying information on it. Participation is voluntary and if at some time while you are working on the questionnaire you wish to stop, you may. Just return the questionnaire packet to me by noon today. I will be sitting just outside the cafeteria.

I hope you will be interested in participating.

Thank you.

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