WALKER STUDENT'S ATTITUDE SURVEY: AN ASSESSMENT OF VALIDITY AND RELIABILITY

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CHAPTER I

WALKER STUDENT'S ATTITUDE SURVEY: AN ASSESSMENT OF VALIDITY AND RELIABILITY

To date, there appears to be increasing interest in the area of children's fears and methods of measuring these fears. This interest is directed toward therapeutic intervention for excessive fears and in understanding normal versus abnormal fears in relation to developmental stages. In addition the focus appears to be on the development of a standardized catalogue and measure of normal fears at specific age categories as well as the normal intensities. Abnormal fears and intensities may then be detected and targeted for treatment with this information.

According to developmental stages identification of normal fears may then benefit the treatment of adults by providing new understanding of the emotional adjustment of adults. The normative data obtained from children may help therapists trace back with their adult clients to the origin or developmental stage in life when trauma was experienced, which interrupted the successful experience and resolution of normal fears ordinarily facilitating emotional maturation. This area of study abounds with potential uses

in both psychiatric clinics and educational systems.

Definition of Fear

In order to clarify the meaning of fear for the purposes of this paper, a definition of "fear" will be briefly discussed. The word fear is derived from the old English word FAER which meant sudden calamity or danger. Later, it was used to describe the emotion that followed (Oxford English Dictionary [OED 1956] cited in Marks, 1987). Several researchers have found it necessary to distinguish the definition of "fear" from the definitions of "phobias" and "anxiety" (Croake & Knox, 1973; Marks, 1987). Yet others find no distinction necessary, stating that "distinctions [between the terms fear and anxiety] have not played any important role in existing behavioral approaches to assessing anxiety or fear" (Neitzel, Bernstein, & Russell, 1988, p. 280). For the purpose of this paper "fear" is defined as a normal reaction to specific threatening stimuli, which is manifest by behavioral expression, subjective feelings and thoughts (occasionally expressed verbally), and physiological activity (Lang, 1987; Marks, 1987; Moracco & Camilleri, 1983; Murphy, 1985). These reactions possess survival value as well (Marks, 1987).

Global History of Fear Assessment Methods

The progression of research and assessment of

children's fears began with behavioral observations of children in natural settings, mothers' reports of their children's fears, and experimental settings in which the children were stimulated with fearful situations. These methods have persisted and are used in addition to more standardized self-report methods in the form of interviews and questionnaires.

The serious study of children's fears began around the 1900's with researchers such as the behaviorist John B. Watson. Dr. Watson is most famous for his study of "The Case of Little Albert" in which he attempted to demonstrate how fears and phobias result from learning. It was a challenge to the traditional thinking that fears were instinctive (Crider, Goethals, Kavanaugh, & Solomon, 1986). In this study Watson and Rayner (1920) paired the presentation of a white rat with a loud noise to an 11 month old boy named Albert. Albert had an aversive reaction to the noise alone, but no fear of the rat alone. When the noise was paired with the rat seven times, Albert generalized the aversive reaction to the rat, then to the presentation of the rat without the noise. This aversive reaction was labeled fear and considered learned. Watson and Rayner also discovered that Albert's fear generalized to other objects that resembled the rat, such as a rabbit, fur coat, and white Santa Claus beard. They had hoped to reduce this fear experimentally as well, but Albert left the hospital earlier than planned. Three years later, Jones

(1924) discovered a case similar to Albert in a two year old boy, named Peter, who was afraid of rabbits and rats prior to treatment. Jones picked up where Watson left off and successfully, through what Jones called "unconditioning" (more recently termed "extinction" or "counterconditioning") helped Peter become less frightened around rats and rabbits, eventually extinguishing his fear. Her counterconditioning technique included pairing the feared object, i.e. the rabbit, with a pleasant experience, i.e. Peter's favorite food. She also employed a modeling technique, whereby Peter was encouraged to observe other children who did not fear the rabbit.

The assessment of children's fears which began as part-time curiosity for some, turned into serious documentation leading to more scientific approaches. Early researchers used parents reports and observation methods to assess the fear response of children. For example, Valentine (1930) launched a longitudinal study of his own children observing their fear reactions. This was in response to Watson's challenge of the traditional thinking that fears were instinctive. Valentine assessed the fear response by stimulating and observing the reactions of his own five children, three boys and two girls. The study followed each child from birth to approximately the age of two years. He postulated that the startled reaction of the infants (at a few months of age) to unexpected stimuli (e.g. noise) closely simulated the fear reactions adults display.

Therefore, he concluded the young subjects did experience fear and argued that though fears are not always apparent at birth, the fear emotion is still likely to be present at birth. However, this requires maturation before it is manifest behaviorally, thus supporting the "instinct" theory.

Hagman (1932) employed the method of interviewing the mother's of 70 children, ages two to six years. He also obtained information about the mothers fears in the interview for comparison with children's fears and additional information about the children's fears from a questionnaire. Hagman employed a third method in which he elicited fears through experimental stimulation, (e.g. pictures and sounds) to observe the behavioral response. Hagman concluded that the number of fears children experienced increased with age from birth through age five, with regard to the stimuli used in the experimental condition. He also reasoned that the types of fears experienced changed according to cognitive development and may also be due to opportunity for exposure. Finally, Hagman concluded that the types of fears the children experienced were closely related to the types of fears their mothers experienced, thus suggesting modeling to be a strong influence.

Jersild and Holmes (1933) requested that the parents of 54 children, aged six months to four years provide extensive written reports of the fears they observed in their children

during a 21 day period. Their population was taken from New York City, its suburbs, and small towns and communities in near proximity. Later in the laboratory, they provided experimental situations such as presenting an animal or darkening a room to assess the child's willingness to venture. If the child refused to participate even after urging, their response was considered a fear response and thus recorded. Jersild and Holmes concluded that the types of fears children experience change with age due to the opportunity for exposure. They postulated that increased familiarity with old stimuli decreased the fear response, while unfamiliarity generates more fear. In addition, situations associated with, or that potentially induced pain contributed to a greater fear response. They also observed that children ages three and four had fewer number of fears on the average than younger children disagreeing with Hagman, but again, the actual number and types of fears they were exposed to experimentally must be considered when judging this conclusion.

Assessment of fears by method of inducement has ethical controversy involved. Additionally, mother's reports of their children's fears were found in one study to be an underestimate by approximately 41% compared to the fears the children reported themselves (Lapouse & Monk, 1959). Less controversial and more accurate methods were pursued as the interest in fears expanded. In the 1950's researchers began to develop questionnaires to gather

information on children's fears. Lapouse and Monk (1959) administered a 200 item questionnaire they developed to the mothers of 482 children, ages 6 to 12, in Buffalo City, Louisiana. Croake (1969) developed a 69 item questionnaire by first interviewing 53 subjects, ages 9 and 12 regarding their fears. Using these responses he developed a questionnaire which he administered to 213 subjects, ages 9 and 12, asking them to indicate their fears of the past, present, and future. Walker, Elliott, Thurber, and Buck (unpublished manuscript) developed a 107 item questionnaire using a review of existing fear surveys and the clinical experience of the pediatric psychology faculty at the University of Oklahoma Health Sciences Center. Walker Student's Attitude Survey (WSAS) was administered to 2196 students in the Southeast region of Oklahoma. These subjects ranged in age from six to eighteen years. Factor analysis produced three factors, Factor I - Family and Personal Disorganization, Factor II - Social Rejection, and Factor III - Personal Safety.

Other researchers revised adult fear surveys to assess children's fears. Scherer and Nakamura (1969) developed an 80 item survey using some items from the adult FSS III developed by Wolpe and Lang (1964, cited in Scherer & Nakamura, 1969) and added some items of their own.

Interviews, behavioral observation, and physiological techniques persist as measures of fear. The Louisville Survey Schedule was developed by Miller, Barrett, Hampe, &

Noble, (1972) and is an example of a checklist used in behavioral observation methods. Lentz (1985) has experimented with contextual play techniques along with interviewing her subjects. The contextual play technique involved requesting the subjects to act out their reaction to a fear provoking hypothetical situation and then report their fears.

As methods of assessment have changed, the age ranges being assessed have also changed. The observational methods used on younger subjects in early studies were found to be less reliable than newly developed self-report methods, moreover, younger subjects were less able to communicate their fears on the self-report methods. Therefore, older children have become more of the target of investigation.

Influences of Fear

The experience of fear is influenced by numerous variables. Among the many that researchers have suggested and demonstrated, the most significant variables include age (development), gender, and fear stimuli.

Age

Age has been identified as the most significant influence of fear in children (Graziano, DeGiovanni, & Garcia, 1979). Fears change with age (development, maturation) in intensity, frequency, type, and duration despite the chosen form of measurement. Though no one study

has demonstrated a compendium of information, each study to date has supported this finding and has made a significant contribution to its understanding.

Jean Piaget, in his child development research, identified cognitive development as a process involving four consecutive periods (Hanson & Reynolds, 1980). This process epitomizes human development lending a basis for understanding the amount of influence age has on fear experiences. Piaget suggested that as children mature physiologically, their cognitive abilities become increasingly abstract. Therefore, cognitions change influencing perceptions of potentially fear provoking stimuli.

While age is a steady growth, cognitive maturation appears to be more of a stage progression resulting in the appearance that fears fluctuate sporadically throughout development. Researchers have identified that the number and intensity of fears in combination peak around the age of eleven (Derevensky, 1979; Moracco & Camilleri, 1983; Ollendick, 1983; Ryall & Dietiker, 1979; Staley & O'Donnell, 1984). Walker et al. (1989) supports this finding with their research using the 107 item fear survey. The steady increase and peak at age 10 and yet another peak at age 15, though not as high, was found on Factors I (Family and Personal Disorganization) and II (Social Rejection). Fears were observed to decrease steadily on Factor III (Personal Safety). Walker's results also showed age to correlate

linearly with fear from age 7 to 10 (Becker, unpublished manuscript).

Gender Differences

Gender differences in number and intensity of fears are evident throughout the literature. It was concluded that females report more fears than males at all ages (Bamber, 1974; Bauer, 1976; Bondy, Sheslow, & Garcia, 1985; Croake, 1969; Graziano et al., 1979; Lentz, 1985; Moracco & Camilleri, 1983; Rose & Ditto, 1983; Russell, 1967; Ryall & Dietiker, 1979; Staley & O'Donnell, 1984; Scherer & Nakamura, 1968), and that females report a greater intensity of fear than males (Bamber, 1974; Bondy, Sheslow, & Garcia, 1985; Graziano et al., 1979; Russell, 1967; Scherer & Nakamura, 1968). One study found no such differences in a population of fifth and sixth graders (Astin, 1977). Three other studies report sex differences except at certain ages. Ryall & Dietiker (1979) report that fourth grade males report more fears than fourth grade females and Bauer (1976) reports no sex differences in four through eight year olds. Moracco and Camilleri (1983) report no gender differences in the categories of future and school among eight to ten year olds.

Three major explanations for these gender differences are summarized from the literature: 1) females are more ready to acknowledge fears, perhaps more honest or socialized to verbally express fears, or may be considered

part of sex role expectations, therefore the stereotype that fears are feminine; 2) females may have greater potential for reactivity, or possibly are less stable emotionally; and 3) females are actually more fearful than males and to a greater extent. Graziano et al. (1979) speculated that as our culture changes its stereotypes for men and women there should be less evidence of sex differences in fear research. Further investigation is warranted to clarify the reason for this difference.

Fear Stimuli

The assessment of fears using surveys or questionnaire offers the advantage of inquiry of a wide variety of stimuli. With so many stimuli to report on, fears are often summarized in categories or factors. Comparison of different studies becomes difficult due to lack of consistent terminology. The following is a summary of recent studies identifying fear stimuli at specified ages.

Croake (1969) and Croake and Knox (1973) explored the fears of nine and twelve year olds with a checklist questionnaire developed by Croake (1969). The first investigation in 1969 revealed sex differences at each age. Croake requested the 213 subjects to identify their fears of the past, present, and future. Nine year old males were found to have feared natural phenomena, such as tornados, thunder, and lightning; supernatural phenomena, such as ghosts and the dark; and political, e.g. war and communists

taking over. The present fears they reported included political, natural phenomena, and safety, such as getting hurt or lost. Future fears for nine year old males were political, natural phenomena, and home, including the fear of parents getting hurt or punishing the child. Nine year old females reported past fears of natural phenomena, supernatural phenomena, and safety; present fears of natural phenomena, political, and safety; and future fears of natural phenomena, political, and school, such as school tests and getting bad grades. Twelve year old males reported past fears of supernatural phenomena, natural phenomena, and school/safety; present fears of political, school, and home; and future fears of political, school, and future. Twelve year old females reported past fears of animals and natural phenomena as well as supernatural phenomena; present fears of political, school, and animals; and future fears of political, school, and personal appearance.

In a follow up study, Croake and Knox (1973), using the same questionnaire and age groups, found a different order to the reported fears of the present. Nine year old males reported political, school, and future fears, while nine year old females reported political, school, and safety fears. Twelve year old males were found to fear political, school, and safety while 12 year old females feared political, school, and home. Croake's two studies show a difference over time, indicating possible environmental and

generational differences in influence.

Astin (1977) compared fear responses of hospitalized and nonhospitalized (normal) children. The hospitalized children were from a general hospital specializing in acute care. The age range of the sample of 51 children was 10-12 years. She used the check list questionnaire developed by Croake (1969) to investigate the number, type, and intensity of fears these children were experiencing. The categories of fears most frequently reported by hospitalized children included first political, then natural phenomena, ecological, and home. These first three suggested the children feared situations where there was no control or where there was the possibility of death. Nonhospitalized children reported natural phenomena first, then ecological, political, and safety categories. The most intense fears reported by hospitalized children were drugs, natural phenomena, and safety/home categories, while nonhospitalized children reported natural phenomena, safety, political, and ecological as the most intense categories to elicit fears. Astin's research is unique in that she compared two populations (hospitalized and nonhospitalized) not compared before.

Moracco and Camilleri (1983) also employed the questionnaire developed by Croak (1969) using 20 of the items from his questionnaire and adding five of their own. They administered the questionnaire to 121 eight to ten year old children. The results indicate the following fears:

fear of loss of parents (separation), political, safety, animals, natural phenomena, supernatural phenomena, personal relationships, home, and personal appearance.

Investigating four to eight and ten to twelve year olds, Bauer (1976) employed a three question interview asking the children the following questions: (1) All of us are afraid of something, but we are afraid of some things more than others. What are you afraid of most? Draw a picture and tell me about it; (2) Sometimes we are afraid when we go to bed at night. Are you afraid when you go to bed at night? What are you afraid of? Tell me about it; (3) Sometimes after we go to bed at night and have fallen asleep we have dreams. Sometimes dreams scare me. Did a dream ever scare you? Draw a picture and tell me about it. Bauer found that the younger (4 to 6 year olds) subject's fears included monsters, ghosts, frightening dreams, bedtime fears, and animals. The six to eight year old's fears included frightening dreams, bedtime fears, bodily injury, and monsters and ghosts. The ten to twelve year olds feared bodily injury and frightening dreams.

Scherer and Nakamura (1969) developed a children's fear scale (Fear Survey Schedule for Children (FSS-FC)) based on the Fear Survey Schedule (FSS-III) for adults provided by Wolpe and Lang (1964, cited in Scherer & Nakamura, 1969). Sample items include "My Parents criticizing me", "Earthquakes", and "Ghosts or Spooky things" to which the subject was to respond on a scale of 1 to 5 with 1 being no

fear and 5 being very much. They tested the scales reliability on ten year olds and found high internal consistency at .94. The factors that resulted included fear of failure or criticism, medical fears, fear of death, fear of the dark, home-school fears, and some major, minor and miscellaneous fears (for details see Scherer & Nakamura, 1969).

Ollendick (1983) revised Scherer and Nakamura's FSS-FC to consider the developmental and cognitive limitations of young children as well as mentally-retarded and psychiatrically-impaired children. This revision included changing the 5-point response scale to a 3-point response scale. His sample populations consisted of 99 normal children, ages 8 to 11 in a Midwest community in Indiana, 118 normal children, ages 8 to 11 in a southeast community in Virginia, and 25 school phobic children, ages 7 to 12 from both communities. His schedule (Fear Survey Schedule for Children -Revised (FSSC-R)) was compared to three other scales, the State-Trait Anxiety Inventory for children (STAIC; Spielberger, 1970 cited in Ollendick, 1983), the Piers-Harris Children's Self-Concept Scale (SCS; Piers & Harris, 1969, cited in Ollendick, 1983) and the Nowicki-Strickland Locus-of-Control Scale (NSLOC; Nowicki & Strickland, 1973, cited in Ollendick, 1983) and found to be valid in the comparison. Factor analysis resulted in five factors: 1) fear of failure and criticism; 2) fear of the unknown; 3) fear of injury and small animals; 4) fear of

danger and death; and 5) medical fears.

Several researchers used questionnaires not identified or described. Beale and Baskin (1983) administered a 95 item questionnaire to 27 adolescents 13 to 18 years old. The most common fears reported by males were going to jail, not being promoted in school, and rejection by a female. For females, the most common fears were of parents dying, getting pregnant, and failing in school.

Derevensky (1979) simply asked subjects of his sample, "What are the things to be afraid of?" and "What else?" until the child stopped reporting fears. His sample consisted of 133, 7 to 19 year old educable mentally retarded (EMR), trainable mentally retarded (TMR), and specific learning disabled (SLD), and 106, 6 to 12 year old normal children. The fears most commonly reported by the normals were animals, people, and machinery; EMRs reported animals, death and injury, and people; TMRs reported animals, death and injury, spooks, and machinery; and SLDs reported animals and spooks. Derevensky suggested the mental age of the retarded subjects could be compared to the equivalent chronological age of the normal subjects when identifying and recognizing age appropriate fears.

Russell (1967) used a 44 item questionnaire to assess the fears of 1211, 11 and 17 year olds and senior citizens. He found sex differences in reported fears at all three ages. Eleven year old females reported fears of disability and cold war, macabre, and social alienation, while eleven

year old males reported fears of disability and cold war, macabre, and helplessness. Seventeen year old females reported fears of disability and cold war, macabre, and social helplessness, while 17 year old males feared disability and cold war, macabre, and rational dangers. Senior citizen females feared dependency, macabre, and rational dangers and males reported fears of cold war, macabre and religion.

Lentz (1985) assessed the fears of 100, five and six year olds by engaging them in a contextual play technique as well as asking them about their worries and fears. She found that females feared bodily injury more than males at home and at school, that all were afraid of monsters and ghosts mainly at home (as well as in the dark), separation at home and being at a baby sitter's house, and school and punishment mainly at school and at a baby sitter's house.

The Louisville Fear Survey was used in two studies reviewed. This survey employs the participation of parents and teachers to rate the behaviors of children in feared situations. Such items include, "War", "Dark", and "Strangers". The raters were asked to use a three point scale, including "no fear", "normal or reasonable fear", or "unrealistic fear (excessive)". Miller et al. (1972) asked the parents of 179 children, ages 6 to 16, to rate their children's behavior within the home and family. Out of these children, 101 phobic and 78 were from the general population. The purpose of this study was to assess the

instruments reliability. Using the split-half technique they found the test to be reliable at .96. Three categories factored out fear of physical injury, natural events, and psychic stress.

Staley and O'Donnell (1984) employed the Louisville Fear Survey asking the parents of 868 children to rate their behaviors. The first group consisted of 205, 6 to 9 years olds, group two included 240, 9 to 12 years olds, and group three was comprised of 420, 12 to 16 year olds. They found that of the five factors reported, females reported more fears than males on the fears of physical injury, animals, public places, and night fears. Also revealed was that the fear of animals, public places, night fears, and school-related fears decreased as age increased.

Bamber (1974) used three methods to assess the fears of 1112, 12 to 18 year olds in Ireland. The methods were direct observation, listing of fears, and two questionnaires, the FSS and the Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1964, cited in Bamber, 1974) which seeks to measure the personality dimensions of extraversion and neuroticism. The results of this study showed these subjects to report fears in the categories of animals, classical phobias, social stimuli, and tissue damage.

Walker et al. (unpublished manuscript) administered the 107 item Walker Student's Attitude Survey to 2196 subjects between the ages of six and eighteen. The factor analysis

revealed three factors: Factor I - Family and Personal Disorganization, Factor II - Social Rejection, and Factor III - Personal Safety. Walker found that fears generally increased with age on factors I and II up to age 10, decreased slightly in fears to about age 12, and then increased to age 15, but not as high as scores at age 10. Factor three showed a steady decline with the increase of age.

Of the fifteen studies reviewed, two studies investigated the fears of children as young as four and five years, four studies included six and seven year olds, with the majority of studies (fourteen) assessing the fears of children around the ages of eight to twelve. Seven studies included adolescence through the ages of sixteen to eighteen in their investigation.

Few researchers have attempted to measure the fears of very young children, ages birth to five years. Those who have, agreed that the fears were limited in number and type. It was necessary for the researchers to rely on observation, the mothers' reports of what the children feared, or both of these to gain an understanding of early childhood fears. Stranger and separation anxiety represent two notable responses in infants studied by researchers using behavioral observation. Shaffer's (1985) summation of the literature addressing stranger anxiety revealed that though most infants (age 6-12 months), displayed wary or fretful reaction when approached by an unfamiliar person, not all

infants reacted so negatively.

Stranger anxiety is relatively nonexistent prior to six months of age in most infants. It peaks at 8 to 10 months, then gradually declines for most infants over the second year of life and, for some, continued into the fourth year of life (Shaffer, 1985). Heightened intensity of stranger anxiety in the infants response resulted when a familiar companion was not within the immediate area of contact, the setting in which the stranger approached was also unfamiliar, the stranger approached too quickly and intrusively, and the stranger possessed adult like facial features. Therefore, unfamiliar children were less anxiety provoking than unfamiliar adults, or midget adults. Even unfamiliar children become the subject of wary responses as the infants progress to 10 to 14.5 months (Shaffer, 1985).

Separation anxiety becomes more evident in infants between 14 to 18 months of age, then dissipates as the child reaches school age. The amount of contact with the mother appears to have a direct bearing on the age at which the child begins to display separation anxiety. The more contact the infant has with the mother the earlier the infant displays separation anxiety. The amount of contact with the mother varies with each culture, thus age of onset and duration of separation anxiety varies between cultures.

Influence of Administration Circumstance

Fear is a controversial emotion and admitting to fear

may be seen as admitting to weakness (Graziano et al. 1979; Lentz, 1985; Moracco & Camilleri, 1983). Obtaining an honest disclosure, therefore, is difficult to measure. Perhaps the circumstances of the inquiry will influence the probability of an honest disclosure. Circumstances involving one on one inquiry is compared to responding to a questionnaire confidentially in a group setting.

Group vs Individual Assessment

The present pool of literature is void of studies addressing the possible influence group settings compared to one on one interactions may have on the honesty of fear disclosures. The topic of group influence on individual responding is of some interest, however. Epperson and Peck (1977) found that anonymity was not a motivator for candor. They assumed candor would be displayed through negative comments on a questionnaire where the respondents were to review a program they had recently participated in. Anonymity was insured by requesting no names appear on the forms. They also compared the influence of a group setting to individual responding. Their subjects answered questionnaires while in a group, and privately recorded their own responses on a form. They found a trend in which individual respondents were more positive in their feedback, while the group setting lent to more neutral comments allowing subjects to express their review in their own words. When the subjects were requested to complete a form

which only offered multiple choice items, the respondents in the group setting were significantly more negative than the individual respondents. Epperson and Peck (1977) found no interaction significance between anonymity and group vs individual responding.

Sells (1952) cited an unpublished study where aviation cadets were administered the Rorschach included in a battery of tests. The Rorschach was first administered in a group setting, then, several months later, individually to the same cadets. The comparison of the group versus individual administration responses revealed that the group situation yielded less inhibited responses.

Wilfe and Davis (1976) demonstrated that the height of the human figure drawing was significantly smaller in the group administration condition. They concluded that group administration reduced the differences between subjects with low and high self-esteem. These results may reflect the influence group situation may have on individual perceptions, thus possibly eliciting more fears.

Milgram and Milgram (1976) in their investigation of group versus individual assessment of creativity found no significant differences in gifted children's scores between group and individual assessment. However, they found nongifted children to score lower in creativity under the group administration.

Generalizability is cautious from the information gained in these studies to the question of anonymity in

group or individual administrations with regard to self disclosure about fear. Epperson and Peck (1977) focused on the honesty of subjects opinions on someone else's performance, there was no requirement to self-disclose. Sells (1952) reports on self-disclosure that is less obvious, the Rorschach, therefore not as threatening as admitting to fears. The last two studies reflect the influence of group situations on individual reactions rather than the degree to which the group setting enhances or inhibits anonymous responding.

Anastasi (1982) suggests the advantages of group administration to be the ability to complete large numbers of administrations under fairly consistent standardized conditions and generally better established norms due to the large numbers. Disadvantages included less opportunity to establish rapport which could increase cooperation and help maintain interest and less opportunity for direct observation in cases of atypical responding. Anastasi (1982) cites Bower (1969) and Willis (1970) as providing evidence that emotionally disturbed children may perform better under individual administration conditions.

The possibility that group administration may provide a positive influence on self-disclosure and increase the degree of anonymity warrants further investigation. Evidence of increased anonymity may offer new understanding into fear as well as other emotions not often reported honestly, and more desirable methods for measuring such

constructs.

Psychiatric Clinic Population

Fear is a motivator for survival (Marks, 1987), and excessive fear is a motivator for relief (Greenberg & Safran, 1987). Sigmund Freud suggested that to cope with severe threats to the Id and the associated anxiety, the Ego created protection called defense mechanisms, such as repression, denial, and projection (Ewen, 1980). Theorists postulate that anxiety is an essential part of emotional maturation, and when the anxiety is severe, that it creates dysfunctional defenses (Hauptman, 1980). Psychotherapy is an identified source of treatment for dysfunctional defenses (Ewen, 1980). Clinic children should therefore have more fears to report, but defense mechanisms may also inhibit admission of these fears. Admission is the very tool needed to help sufferers begin to face their fears leading to fear resolution (Hauptman, 1980). Methods for gaining access to this information is mandatory. As noted above, assessment methods which engender anonymity might allow this access.

Walker Student's Attitude Survey (WSAS)

Attempts to measure fear have taken four basic forms: behavioral observation, physiological measures, projective approaches, and self-report inventories (Winer, 1982). All four types of measures have their advantages as well as

their limitations.

Behavioral observation takes the form of raters watching the behavior of children in specific fear provoking situations, then rating their reactions. The Louisville Fear Survey Scales for Children (Miller et al., 1972) is a rating instrument for use by teachers and parents to rate children as young as four years of age on a five-point scale according to the fear intensity. The strength of this approach is in the direct observation of the child's reaction. The weaknesses lie in the inconsistency across raters judgments and interpretations, lack of standardized criteria, and the fact that only overt manifestations of fear are measured (Murphy, 1985; Winer, 1982).

Physiological techniques for measuring fear include measuring heart or pulse rate, basal skin response, galvanic skin response, muscle tension, skin temperature, and respiration rate. Each method provides valid evidence of physiological change to stimuli, but does not identify the emotion. This method of measure is also limited to actual exposure to the fear provoking stimuli, as well as being impractical due to the requirement of specialized equipment and interpretation (Murphy, 1985; Winer, 1982).

Projective techniques employ the use of pictures, play, and drawings. The children are asked to report their fears evoked by pictures, the fears of their peers, act out a feared situation, or draw a picture of what they fear. While projection is considered a useful therapeutic

technique for gaining information from a child about him/herself, this technique lacks reliability (Lentz, 1985; Murphy, 1985; Bauer, 1976; Winer, 1982).

Self-report inventories have been the most popular and productive method of measuring fears. However, they are limited to the age groups that understand the questions. An additional limitation is the length of the schedules. Younger children have limited attention spans, therefore, longer inventories may lose reliability and validity in the later items. Historically, self-report inventories have been targeted at adults. The majority of the current fear inventories for children are merely adapted from adult inventories, such as the Fear Survey Schedule for Children (FSS-FC) developed by Scherer and Nakamura (1969) from the Fear Survey Schedule (FSS) which was initially introduced by Akutagawa (1956, cited in Scherer and Nakamura, 1969).

The Walker Student's Attitude Survey (WSAS) is the newest survey available for assessment of children's fears. Walker et al. (1989) developed this survey by reviewing past fear surveys, literature reviews of children's fears, and the clinical experience of a pediatric psychology faculty. Walker's goal was to cover the full developmental range from age six to eighteen, not previously attempted and to reveal more information about common versus rare fears, developmental trends, and gender differences in fear reporting. His initial study narrowed the original item pool from 126 items to 107 items. Factor analysis revealed

three significant factors: Factor I - Family and Personal Disorganization, Factor II - Social Rejection, and Factor III - Personal Safety. A replication study supported these initial findings. To score the protocol, scores are obtained from each of the three subscales (factors) and the total score since not all 107 items are categorized under one of the three factors. Walker found his scale to be internally consistent on each of the three subscales using Coefficient Alpha, with the mean Alpha's for the total score, and factors one, two, and three, respectively, .862, .918, .763, and .793. Though no validity or reliability assessment has been performed on his instrument to date, the WSAS appears to provide information about the nature of more common fears and fear development. The gender differences revealed in this study only serve to provoke more questions as to the origin and/or influence of such discrepancies.

Becker (unpublished manuscript) employed the WSAS to compare clinic versus non-clinic children's fear responses, hypothesizing that the clinic population as a whole would generate a higher fear score than non-clinic children. She included ages seven to ten in her study as Walker's results showed age to correlate linearly with fear from age seven to age ten. Her hypothesis was supported on Factor III only, Personal Safety, while non-clinic children reported more fears on Factor II, Social Rejection. A logical assumption would be that clinic children entering an atmosphere of a pediatric psychology clinic which is similar to a medical

doctor's office often associated with physical discomfort would thus allow concern for physical safety precedence over social concerns at that time. While non-clinic children are faced with social decisions daily at school, and less concerned with physical safety, this is validated by the literature reporting on this age group. Her study also confirmed the trend of sex differences. Confounding Becker's study was the use of data from group administration to the normal population compared with one on one administration to the clinical population. Becker cites Sells (1952) findings that group administration allows for less inhibited responding than one on one. She suggests that both normal and clinic populations be compared under more consistent conditions.

Statement of the Problem

The present study is designed to provide reliability and validity assessment information on the Walker Student's Attitude Survey (WSAS). With this information, the survey may then be used as a clinical tool for assessment and subsequent supplemental information in the treatment of children's fears.

Related to the clinical utility of the WSAS is its ability to discriminate the fears of clinic versus non-clinic children. As revealed in Becker's (unpublished manuscript) study, clinic children report more fears in the areas of physical safety than non-clinic children. Under

more consistent comparable conditions than those in Becker's study, the present study should also demonstrate psychiatric clinic children to be more fearful overall than non-clinic children. Therefore, both populations would be tested under both group and individual administration conditions to allow a common basis for comparison.

As the evidence of sex differences in fear reporting is repeatedly surfacing, one aim of this study is to allow, under the most anonymous circumstances available, children to honestly admit to fears. If under these conditions a difference in responding remains between males and females, a basis will be set to explore the reason for this difference in future research.

Therefore, the primary task of this project will be to assess the validity and reliability of the Walker Student's Attitude Survey (WSAS). It is expected that the WSAS will be found valid in both group and individual administrations. This will be assessed by correlating the WSAS with the State-Trait Anxiety Inventory for Children (STAIC). Specifically, the Trait score on the STAIC is expected to correlate positively and significantly with all three factor scores on the WSAS. It is also expected that the WSAS will be found reliable using test-retest reliability following a two week interval.

The second task of this project is to compare two populations of subjects. One population is a psychiatric clinic population of children being treated for

psychological and emotional difficulties on an outpatient basis at a children's psychiatric facility. The second population is non-clinic/normal children assumed to be a random sampling of a normal distribution. It is expected that the psychiatric clinic population will report a greater number of fears based on the theory that fears underlie dysfunctional defense mechanisms which motivate individuals to seek treatment. This is also expected to be reflected in the STAIC test results with the mean State and Trait scores being higher for the clinic population than the normal population.

Another task of this project is to compare group and individual administration in an effort to assess the anonymity of the group setting versus the individual condition. The assumption is that in a group setting the child will not feel pressured to deny fears due to the fear that admitting fear is a weakness. This would more likely be the case in individual administration. This information may then facilitate approaches to self-disclosure in psychotherapy. In a group setting, since the child is the only one aware of his/her response, he/she should feel free to answer most honestly versus the individual administration where the child must account directly to another individual (in this project, an authority figure) for his/her fears.

It is expected that the subjects in the group condition for both clinic and non-clinic populations will produce higher scores. In addition, noting the expectation that the

clinic population should report a greater number of fears than the non-clinic population, the clinic subjects in the group condition should produce the higher scores. Moreover, the mean STAIC scores on the State anxiety scale is expected to be lower for the subjects in the group condition than for the subjects in the individual condition.

Finally, because most research notes that females report more fears than males, it is expected that females in the clinic population, group condition will report the greatest number of fears in all three conditions on the WSAS. The scores on the STAIC will also reflect this difference with the mean score on the Trait anxiety scale consistently higher for females.

Summary

There is increasing interest in children's fears. The focus at present is to identify normal and excessive fears, provide information about fear and emotional development, and use this information to supplement treatment of fears. Fear is defined as a normal reaction to specific threatening stimuli, which is manifest by behavioral expression, subjective feelings and thoughts (occasionally expressed verbally), and physiological activity (Lang, 1987; Marks, 1987; Moracco & Camilleri, 1983; Murphy, 1985). These reactions possess survival value as well (Marks, 1987). The study of fear began as early as the early 1900s when researchers assessed fear by methods of inducement,

observation, and mother's reports. More recently the study of fear is through the use of self-report questionnaires. Significant influences of fear are reported to be age, gender, and stimuli. Exploration of administration circumstances, such as group vs individual conditions, may reveal clues to the most conducive atmosphere for encouraging honest self-disclosure. Subsequently, therapists may address the sources of dysfunctional defense mechanisms found in psychiatric clinic children. The Walker Student's Attitude Survey (WSAS) is a newly developed 107 item questionnaire. This study is designed to assess the validity and reliability of this questionnaire. In addition, this study will report the WSAS's ability to distinguish between clinic and normal populations, explore the anonymity of the group administration circumstances compared to individual administration, and report on the trend of sex differences expected based on previous research.

The following hypotheses were tested:

1) Test-retest reliability will be shown with positive and significant correlation coefficients when the first administration is correlated with the second administration which occurred two weeks after the first administration.

2) The Walker Student's Attitude Survey (WSAS) when correlated with the State-Trait Anxiety Inventory for Children (STAIC) will show evidence of construct validity with positive and significant correlation coefficients,

specifically on the Trait scale of the STAIC, in both group and individual administration conditions.

3) The psychiatric clinic population will obtain higher fears scores on the WSAS and on both the State and Trait scales of the STAIC.

4) Subjects in the group administration condition will obtain higher fear scores on the WSAS in both populations, and the clinic population will obtain significantly higher scores than the school population in this condition. All subjects in the group administration condition will produce lower State scale scores than subjects in the individual administration condition.

5) Female subjects will produce higher fear scores on the WSAS and higher STAIC scores than the male subjects. Particularly evident will be the higher scores of the females of the clinic population in the group administration condition.

CHAPTER II

METHOD

The purpose of this study was to assess the validity and reliability of the Walker Student Attitude Survey (WSAS). Additional objectives for this study were to investigate: 1) the effect of group administration conditions compared to individual administration conditions on the reports of fears; 2) the degree to which psychiatric clinic children might be more fearful than school children and their willingness to admit to fears; and 3) sex differences in reporting fears overall.

Subjects

This study employed 182 subjects (106 males & 76 females). These subjects ranged in age from 7 years to 10 years. One hundred eleven of the subjects, (53 males & 58 females) were recruited from a suburban school district in the Southwestern United States. The remaining 71 subjects (53 males & 18 females) were recruited from outpatient child psychiatric clinics within the same suburban region as the school population (see Tables 1 through 8 for a demographic summary, pp. 36-40). No diagnostic or demographic exclusionary criteria was

specified.

The subjects were offered a reward for their participation, that of either a cartoon sticker or a pencil. Their choice to participate was completely voluntary with expressed written consent of their parents. Fifty-three school children (26 males & 27 females) were randomly assigned to complete the questionnaire on an individual basis with the examiner; the remaining 58 (27 males & 31 females) completed the questionnaire in small groups ranging from 10 members to 24 members. Whenever possible, whole classes were tested as a group. Of the 71 psychiatric clinic children, 35 (24 males & 11 females) participated in the individual administration condition, and 36 (29 males & 7 females) responded to the questionnaire in small groups ranging in number from five to eight members. The children participating in the group condition were recruited from pre-existing ongoing psychotherapy groups and were administered the questionnaire in their group of origin. Treatment of the participants was according to ethical standards of the American Psychological Association (APA) (see Principle 9, Research With Human Participants, "Ethical Principles of Psychologists," APA, 1981).

Materials

The instrument employed in this study was the Walker Student's Attitude Survey (WSAS) (Walker et al., 1989) (see Appendix A). The WSAS is a 107 item questionnaire

TABLE 1

DEMOGRAPHIC SUMMARY: ETHNIC PERCENTAGES FOR THE ENTIRE SUBJECT POOL

Ethnicity	%
White	88.0
Black	3.1
Native American	5.5
Spanish/Mexican	1.2
Black/White	1.2
White/other	.6

TABLE 2

DEMOGRAPHIC SUMMARY: AGE PERCENTAGES FOR THE ENTIRE SUBJECT POOL

Age	%
7	14.4
8	42.5
9	29.8
10	13.3

TABLE 3

DEMOGRAPHIC SUMMARY: SOCIOECONOMIC PERCENTAGES FOR THE CLINIC POPULATION

SES	%
0 - 14,000	72.3
15,000 - 24,000	18.5
25,000 - 50,000	9.2

TABLE 4

DEMOGRAPHIC SUMMARY: ESTIMATION OF SCHOOL POPULATION SOCIOECONOMIC PERCENTAGES

Grade	% Subjects in Study	% Subjects Qualifying for free or reduced lunch
2nd	72%	28% of 2nd grade
3rd	50%	35% of 3rd grade

TABLE 5

DEMOGRAPHIC SUMMARY: SCHOOL POPULATION INTELLECTUAL ESTIMATE

Grade	Average Stanine
2nd	7
3rd	6

Note. Stanine scores obtained from Metropolitan Achievement Tests (MAT6) taken by the school population, Spring of 1989.

TABLE 6

DEMOGRAPHIC SUMMARY: IQ PERCENTAGES
FOR THE CLINIC POPULATION
WITH WISC-R COMPARISON
PERCENTAGES

IQ		Clinic %	WISC-R %
130 & up	Very Superior	1.8	2.3
120 - 129	Superior	1.8	7.4
110 - 119	High Average	23.6	16.5
90 - 109	Average	48.8	49.4
80 - 89	Low Average	18.1	16.2
70 - 79	Borderline	3.6	6.0
below 69	Mentally Deficient	1.8	2.2

Note. The figures, categories, and data in columns 1,2, and 4 are from Manual for the Wechsler Intelligence Scale for Children - Revised (p. 26) by D. Wechsler, 1974, New York: The Psychological Corporation. Copyright 1974 by The Psychological Corporation. Adapted by permission.

TABLE 7

DEMOGRAPHIC SUMMARY: GLOBAL ASSESSMENT
OF FUNCTIONING (DSM III-R, 1987)
FOR THE CLINIC POPULATION

Range	= 25 (serious impairment) to 80 (light inmpairment)
Mean	= 55.26 - moderate symptoms
Median	= 55 - moderate symptoms
Mode	= 65 - mild symptoms

TABLE 8

DEMOGRAPHIC SUMMARY: CLINIC POPULATION
SEX RATIOS AND PERCENTAGES FOR
AXIS I AND AXIS II DIAGNOSES
(DSM III-R, 1987)

%	Sex Ratio	Axis I	
7.5	3 - F; 1 - M	V61.20	Parent-child problem
1.9	0 - F; 1 - M	296.32	Major Depression recurrent
1.9	0 - F; 1 - M	300.02	Generalized anxiety disorder
9.4	2 - F; 3 - M	300.40	Dysthimia
1.9	1 - F; 0 - M	307.70	Functional encopresis
1.9	0 - F; 1 - M	309.00	Adjustment disorder with depressed mood
1.9	0 - F; 1 - M	309.21	Separation anxiety disorder
1.9	0 - F; 1 - M	309.28	Adjustment disorder with mixed emotional features
9.4	0 - F; 5 - M	309.40	Adjustment disorder with mixed disturbance of emotions and conduct
3.8	0 - F; 2 - M	309.89	Post-traumatic stress disorder
1.9	1 - F; 0 - M	309.90	Adjustment disorder - Not Otherwise Specified (NOS)
7.5	0 - F; 4 - M	312.00	Conduct disorder, solitary aggressive type
1.9	0 - F; 1 - M	313.00	Overanxious disorder
22.7	4 - F; 8 - M	313.81	Oppositional defiant disorder
22.7	1 - F; 11 - M	314.01	Attention-deficit hyperactivity disorder

TABLE 8 (cont)

%	Sex Ratio	Axis II	
3.8	0 - F; 2 - M	V40.00	Borderline IQ
67.9	8 - F; 28 - M	V71.09	No diagnosis
3.8	0 - F; 2 - M	315.39	Developmental articulation disorder
9.4	0 - F; 5 - M	315.90	Specific developmental disorder NOS
3.8	2 - F; 0 - M	317.00	Mild mental retardation
13.2	2 - F; 5 - M	799.90	Diagnosis or condition deferred on Axis II

which lists single objects and short sentence situations that are potentially fear provoking. Response to each item requires that the subjects select how fearful they are of the object or situation by indicating one of three answers: doesn't scare me at all; scares me a little; or scares me very much. Walker et al. (1989) obtained data from a large, normative population which included five to eighteen year olds. Factor analysis produced three subscale factors: Factor I - Family and Personal Disorganization, Factor II - Social Rejection, and Factor III - Personal Safety (see Tables B-1 and B-2 in Appendix B for the list of items included on each subscale). Each response is weighted as follows: "Doesn't scare me at all" = 0; "Scares me a little" = 1; and "Scares me very much" = 2. The weighted scores are totaled for the designated items of each subscale yielding a score for each factor. A total fear score includes the summed weights of all 107 items.

As an assessment of validity, a second survey, the State-Trait Anxiety Inventory for Children (STAIC) (also called the "How-I-Feel-Questionnaire") (Spielberger, 1970) was administered to the entire subject population. The STAIC is a 40 item inventory which measures two conditions. Form C-1 measures the immediate level of anxiety of the respondent, while form C-2 measures the general level of anxiety of the respondent. Each item is a statement beginning with "I feel.." or "I am.." followed by an emotion or condition. The respondent may choose from three

responses ranging from the extreme emotion to the absence of the emotion. The STAIC is a widely used inventory with concurrent validity reported at .75 when correlated with the Children's Manifest Anxiety Scale and .63 with the General Anxiety Scale for Children. Test-retest reliability after an eight week time interval is reported for males at .65 on the Trait scale and .31 on the State scale, and for the females at .71 on the Trait scale and .47 on the State scale (Spielberger, 1970). The low coefficient on the State scale is attributed to fluctuations in situational factors.

Procedure

Cover letters and consent forms (see Appendix C) were distributed to the parents of the children from the school populations by the teachers. They sent home with the children an envelope that contained a cover letter and two copies of the consent forms, one for the parent to keep, and the other to be returned by a specified date. Upon receipt of the approved and signed consent forms by the specified date, dates and times for administration were coordinated with the teachers. Parents of the clinic population were generally contacted personally during their visit to the clinic. A small portion of the parents were contacted by sending envelopes home with the children very similar to the school population procedures. Times and dates were coordinated with the therapists for the administration once parental consent was obtained.

The 111 children from the elementary school sample and the 71 children from the outpatient psychiatric clinic sample were each randomly assigned to one of two conditions with relatively equal numbers of subjects in each condition from each population. Under the individual administration condition in the school population, there were 26 males and 27 females. Under the group administration condition in the school population, there were 27 males and 31 females. The WSAS was administered a second time following a two week interval to 70 subjects of the school population, 24 from the individual administration condition (12 males and 12 females), and 46 from the group administration condition (22 males and 24 females). Under the individual administration condition in the clinic population, there were 24 males and 11 females, while under the group administration condition in the clinic population, there were 29 males and 7 females. The WSAS was administered a second time following a two week interval to 28 of the clinic children, 15 from the individual administration (10 males and 5 females) and 13 from the group administration (9 males and 4 females) (see Table 9, p. 44).

In the group administration condition, each group in the clinic population included no more than eight subjects and no less than five subjects. For the school population the examiner administered the survey to entire classrooms of children, excluding the small percentage which were not approved by their parents. The group sizes ranged from 10

TABLE 9

SUMMARY OF NUMBER OF SUBJECTS
UNDER EACH CONDITION

Administration		Population			
	School		(2 wk)	Clinic	(2 wk)
Individual	M	26	12	M 24	10
	F	27	12	F 11	5
Group	M	26	22	M 29	9
	F	31	23	F 7	4

to 24 members. A standard script (see appendix D) was read to the subjects as an introduction to the administration of the tests. The examiner then read the survey to the group. The subjects, however, anonymously recorded their own answers. To maintain motivation, a break was taken between the administration of the WSAS and the STAIC. During the breaks the subjects were asked to stand next to their seat and stretch. An inducement was offered to the subjects upon completion of the testing. This inducement was their choice of either a cartoon sticker or a pencil. Efforts were made to replicate the classroom arrangement for the clinic population in the group condition. The second condition was a one-on-one administration where the examiner read the survey to the child and recorded the child's responses. A break and inducements were also offered to the subjects in this condition.

As a measure of reliability, 59 subjects from the group condition and 39 from the one-on-one condition, were administered the WSAS a second time two weeks after the initial administration. As an assessment of validity, a second survey, the STAIC, was administered to the entire subject population. It was also read to the subjects, however, again the subjects in the group condition recorded their own responses and the examiner recorded the responses in the one-on-one condition.

The length of testing was twenty minutes for the individual administration which included the administration

of the WSAS, the STAIC, and one break. The length of testing for the group administration was thirty minutes, including the WSAS, the STAIC, and one break. The subjects asked to participate were free at any time to withdraw from participation in the study, but efforts were made to encourage continued participation. These efforts included verbal requests and encouragement, a break, and the offer of an inducement upon completion of the surveys. The therapist or teacher was present to witness the child or children's assent.

Demographic information about the school population was gathered from the school's statistical summary of their students. The demographic information regarding the clinic population was obtained from the clients' records with expressed written consent of the parent(s) or legal guardian. Demographic information included ethnic background and approximate level of intellectual functioning of the subject and socioeconomic status of the subject's family. In addition, the range of scores on the current Global Assessment of Functioning (GAF) and diagnoses, both Axis I and Axis II, were gathered for the clinic population (see Tables 1 through 8 for a demographic summary, pp. 36-40).

Analysis of Data

A Pearson Product Moment Correlation Coefficient was used to analyze the Test-Retest Reliability of the WSAS.

Construct validity was measured by correlating the WSAS with the STAIC. This was a 2 X 2 X 2 design, population by administration condition by sex. The dependent variables were the three factors scores and the total score on the WSAS. Fully crossed 2 X 2 X 2 unbalanced multivariate analysis of variance was performed as the first step of the analysis as a means of detecting any overall significance. With significance, separate univariate analyses of variance were calculated for dependent measures.

CHAPTER III

RESULTS

Ten protocols (5.5%) had missing data and therefore were excluded from the analysis. This figure is compared to 13% in the original scale development data which employed a form of the WSAS which had an ambiguous answer space for the first item (Walker et al., 1989).

Tests for independence and comparison of sample distributions for all subjects with complete protocols were performed using Chi square calculations (N = 171). Table 10 is a summary table of the actual numbers of subjects at each age level for each variable.

A t test revealed a significant difference between the average age of the females ($\underline{M}$ = 8.2) and the males ($\underline{M}$ = 8.6) for the combined population. Chi spuare calculations further demonstrated a significant difference between the age and sex distributions ($X^2(3, \underline{N} = 171) = 10.42, \underline{p} < .05$). The seven year old age category contained approximately equal percentages of males and females. Increasing discrepancy between the percentages of males and females is observed in the eight and nine year old age categories. The largest difference is represented at the ten year old level with the females representing 13% compared to the males representing 87%.

TABLE 10

ACTUAL NUMBER OF SUBJECTS PER CELL AT EACH AGE LEVEL

Age	Clinic				School				Total
	Males		Females		Males		Females		
	Indiv	Group	Indiv	Group	Indiv	Group	Indiv	Group	
7	7	2	5	1	1	2	5	2	25
8	5	10	3	3	13	10	16	12	72
9	6	5	1	2	5	13	4	14	50
10	5	11	2	1	5	0	0	0	24
Total	51		18		49		53		171

Significant differences between the sex distribution and population distribution was also revealed (X^2 (1, N = 171) = 11.35, p < .01). Within the clinic population, females represented only 26% compared to the males in the clinic condition at 74%. The school population was more evenly distributed between the males and females.

The age and population distributions were also significantly different (X^2 (3, N = 171) = 25.94, p < .01). Across populations, the eight and nine year olds were underrepresented in the clinic population, while the seven and ten year olds were underrepresented in the school population.

A significant difference was found between the age distribution and the administration distribution (X^2 (3, N = 171) = 11.24, p < .05). Seven year olds in the group administration condition represented 28% compared to 72% seven year olds in the individual administration condition, and 32% nine year olds in the individual administration condition compared to 68% in the group administration condition. The eight and ten year olds were more evenly distributed between the individual and group administration conditions. Administration and sex distributions were not significantly different (X^2 (1, N = 171) = .23), nor were population and administration distributions (X^2 (1, N = 171) = .03).

Test-retest reliability of the WSAS over a two week interval was significant on all three factor scores and the

total score for the combined clinical and school populations. The correlation coefficients are reported in Table 11. Factor II's (Social Rejection) correlation coefficient demonstrates a trend of being lower than Factor I, Factor III, and the Total score in the overall combined sample, though is not significantly lower. Factor II's correlation is significantly lower than the total score correlation in the school population ($\underline{Z}$ = 2.41), and follows the same trend with males, females, in individual and group administration conditions. The clinic population, however, possesses a significantly higher Factor II correlation than the school population ($\underline{Z}$ = 2.17). This result and earlier identified patterns indicate less stability of Factor II over time in the school population, but increased relative stability of all factors over time in the clinic population. The indication of stability on Factor II in the clinic population may represent the chronicity of social rejection issues. Factors II and III show decreased stability over time for males and in the group administration condition, while Factors I and II show decreased stability over time for females. These latter correlations, however, are not significantly different. Individual administration condition correlations are significantly higher than group administration condition correlations on the Total score and Factor III ($\underline{Z}$ = 1.98 and $\underline{Z}$ =2.54 respectively) suggesting fearfulness to be reported more reliably in a one-on-one interaction than in a group interaction.

TABLE 11

TEST-RETEST RELIABILITY - WSAS FIRST ADMINISTRATION CORRELATIONS WITH SECOND ADMINISTRATION AFTER TWO WEEK INTERVAL (N = 91)

WSAS	Overall	Males	Females	Clinic	School	Individual	Group
df	91[a]	48	41[a]	25	64[a]	33	56[a]
Total	.79[b]	.72	.85[b]	.79	.79[b]	.88	.73[b]
Factor I	.76	.80	.71	.85	.73	.86	.70[c]
Factor II	.68[c]	.68	.69[c]	.82	.56[c]	.72	.65
Factor III	.76[d]	.71	.76[d]	.85	.72[d]	.86	.62[d]

Note. All correlation coeficients are significant at the $p < .01$ level.
[a] Three subjects in this column returned incomplete questionnaires from the second administration.
[b] Three questionnaires are absent from this calculation
[c] Two questionnaires are absent from this calculation
[d] One questionnaire is absent from this calculation

Construct validity is shown by the correlation with the State-Trait Anxiety Inventory for Children (STAIC). Overall combined populations' WSAS total and factor scores correlated significantly and positively with the STAIC Trait anxiety scale scores (see Table 12). Consistently low correlations suggest that fearfulness is associated with anxiety, particularly Trait anxiety, but is measuring something substantially different. Factor II consistently correlates with the State variable except with females and in the individual administration condition. Factor II's correlation with State is significantly higher than Factor III's correlation for males (Z = 2.31), higher than Factor I and Factor III in the group administration condition (Z = 2.03 and Z = 2.48 respectively), and higher than Factor III only in the clinic population (Z = 2.57). While Factor II includes only seven items it appears to be state dependent with males and in group administration and for both populations. The Total score revealed a positive and significant correlation with the State scale as well in the overall combined population correlation, but this may be accounted for by the stronger correlation obtained on the State scale in the group administration condition.

Despite the significantly different distributions between age and population, administration, and sex, a Multivariate Analysis of Variance (MANOVA) was nonsignificant for age (F approximation (12,434.19) = 1.42) with the factor and total scores as dependent variables.

TABLE 12

CONSTRUCT VALIDITY - WSAS CORRELATIONS WITH STAIC (N = 171)

	Overall		Clinic		School		Individual		Group		Male		Female	
WSAS	State	Trait	State	Trait	State	Trait	State	Trait	State	Trait	State	Trait	State	Trait
df	167[a]	167[a]	67	67	98[b]	98b	81	80[c]	84[b]	85[c]	97[c]	97[c]	68[c]	68[c]
Total	.16*	.49**	.17	.51**	.17	.50**	.11	.59**	.22*	.40**	.26	.56**	.01	.36**
Factor I	.04	.41**	.11	.43**	.03	.44**	-.02	.46**	.11	.36**	.14	.48**	-.07	.28*
Factor II	.28**	.42**	.35**	.48**	.23**	.38**	.16	.51**	.40**	.33**	.39**	.46**	.14	.37**
Factor III	.04	.31**	-.08	.25*	.16*	.39**	.08	.46**	.04	.16	.08	.31**	.002	.27*

Note. * $p < .05$, ** $p < .01$.

[a] Three subjects in this column returned incomplete questionnaires.

[b] Two subjects in this column returned incomplete questionnaires.

[c] One subject in this column returned an incomplete questionnaires.

This finding is contrary to a previous study where age was shown to covary linearly with two of the three factors (Becker, unpublished manuscript).

Tables 13 and 14 provide a summary of the MANOVA F values and separate Analysis of Variance (ANOVA) F values for both the WSAS and STAIC respectively. The expected differences between the clinic and school populations failed to appear on the WSAS. Comparison of the STAIC scores between the populations also failed to demonstrate significant differences. The anticipated differences between group and individual administration conditions using the WSAS was not significant as was found with the STAIC.

As hypothesized for the WSAS, an overall sex main effect was found significant using a MANOVA ($F(4,160) = 1.92$, $p < .01$). Separate Analysis of Variance (ANOVA) calculations revealed the difference to be evident on Factor III ($F(1,163) = 9.93$, $p < .01$) and a strong trend on Factor I ($F(1,163) = 3.60$, $p = .59$). Closer inspection of the sex difference indicates that the significant difference occurs only in the School population ($F(4,95) = 6.88$, $p < .01$) with females obtaining a higher fear score than males (see Table 15, Table 16 provides the arithmetic means and standard deviations for this result). However, no sex difference was found in the STAIC for the school population ($F(2,167) = 1.52$).

It was predicted that the clinic population would report more fears on the WSAS than the school population in

TABLE 13

WSAS MANOVA AND ANOVA F VALUES FOR ALL VARIABLES

	MANOVA		ANOVA				
	df	F	df	Total F	Factor I F	Factor II F	Factor III F
Population	4,160	1.08	1,163	.02	1.07	.40	.01
Administration	4,160	.60	1,163	.79	.33	.20	2.27
Sex	4,160	3.43**	1,163	2.71	3.60***	.85	9.93**
Population by Administration	4,160	3.03*	1,163	12.17**	10.59**	6.00*	6.56*
Population by Sex	4,160	1.92	1,163	.62	.12	1.73	.06
Administration by Sex	4,160	.58	1,163	1.76	1.64	.27	1.59
Population by Administration by Sex	4,160	1.22	1,163	.00	1.14	.35	.03

Note. * $p < .05$, ** $p < .01$, *** $p < .06$.

TABLE 14

STAIC MANOVA AND ANOVA F VALUES FOR ALL VARIABLES

	MANOVA		ANOVA		
	df	F	df	State F	Trait F
Population	2,167	1.60	1,168	2.99	1.17
Administration	2,167	.38	1,168	.31	.18
Sex	2,167	1.52	1,168	.00	2.61
Population by Administration	2,167	.34	1,168	.47	.45
Population by Sex	2,167	.52	1,168	.08	1.03
Administration by Sex	2,167	.46	1,168	.01	.73
Population by Administration by Sex	2,167	1.47	1,168	2.93	.62

TABLE 15

SCHOOL POPULATION LEAST SQUARE MEANS FOR MALES AND FEMALES

WSAS	Males	Females
Total	74.88	80.04
Factor I	28.47***	32.82***
Factor II	3.08	2.89
Factor III	4.91**	6.87**

Note. ** $p < .01$, *** $p < .06$

TABLE 16

SCHOOL POPULATION ARITHMETIC MEANS AND STANDARD DEVIATIONS (S.D.) FOR MALES AND FEMALES

WSAS	Males		Females	
	mean	s.d.	mean	s.d.
Total	74.53	37.29	79.51	33.57
Factor I	28.39	11.57	32.62	11.73
Factor II	3.06	2.85	2.87	2.72
Factor III	4.88	3.30	6.83	3.20

the group administration condition. An interaction effect between population and administration was significant ($F(4,160) = 3.03$, $p < .05$). Closer inspection, however, revealed that the significant difference lies in the school population ($F(4,95) = 4.50$, $p < .01$) with the pattern of the means showing that the subjects in the individual administration condition obtained a higher total fear score (males $M = 91.88$ and females $M = 89.4$) than the subjects in the group administration condition (males $M = 57.88$ and females $M = 70.68$). This pattern is evident on the three factor scores as well (see Table 17, Table 18 provides the arithmetic mean and standard deviation for this result). Though the Clinic population showed no significant difference related to mode of administration, a trend is evident with the means showing the subjects in the group administration condition obtaining a higher total fear score (males $M = 73.00$ & females $M = 96.00$) than the subjects in the individual administration condition (males $M = 65.70$ & females $M = 72.00$). This pattern is also evident on the three factor scores as well (see Table 17). Factor III least square means indicate a leveling among the males only. Comparison of STAIC scores in this interaction failed to yield a significant difference ($F(2,167) = .34$).

It was predicted that females in the clinic population, particularly in the group administration condition, would obtain higher fear scores on the WSAS than males in the clinic population and either males or females in the school

TABLE 17

LEAST SQUARE MEANS FOR SCHOOL AND CLINIC POPULATION BY ADMINISTRATION

WSAS	Sex	Individual		Group	
		School	Clinic	School	Clinic
Total	males	91.88**	65.70	57.88**	73.00
	females	89.40**	72.00	70.68**	96.00
Factor I	males	32.38**	26.83	24.56**	27.43
	females	36.32**	25.27	29.32**	35.00
Factor II	males	4.04*	2.26	2.12*	3.25
	females	3.32*	3.36	2.46*	4.29
Factor III	males	6.50**	5.13	3.32**	5.11
	females	7.64**	6.18	6.11**	7.43

Note. * $p < .05$, ** $p < .01$

TABLE 18

ARITHMETIC MEANS AND STANDARD DEVIATIONS (S.D.) FOR THE SCHOOL AND CLINIC POPULATIONS BY ADMINISTRATION

WSAS	Sex	Individual				Group			
		School		Clinic		School		Clinic	
		mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Total	males	91.88	36.05	65.70	37.14	57.88	30.75	73.00	35.34
	females	89.40	25.90	72.00	49.04	70.68	37.45	96.00	32.51
Factor I	males	32.38	10.55	26.83	12.01	24.56	11.41	27.46	10.19
	females	36.32	8.75	25.27	15.10	29.32	13.14	35.00	7.12
Factor II	males	4.04	3.18	2.26	2.16	2.12	2.17	3.25	2.95
	females	3.32	2.72	3.36	4.08	2.46	2.71	4.29	2.69
Factor III	males	6.50	3.41	5.13	4.28	3.32	2.32	5.11	3.33
	females	7.64	2.68	6.18	4.85	6.11	3.50	7.43	1.99

population and in the individual administration condition. This prediction was not supported with the WSAS or the STAIC.

CHAPTER IV

DISCUSSION

This chapter is divided into three sections. The summary section will briefly summarizes the results found, the conclusion section will discuss the implications and interpretation of the results, and the recommendations section will provide suggestions for future research and discuss concerns of the present study.

Summary

This project assessed the validity and reliability of the Walker Student Attitude Survey (WSAS). Test-retest reliability coefficients overall were significant and relatively strong (see Table 11, p. 52). Construct validity was assessed by correlating each of the factor scores and the total score of the WSAS with the State and Trait scores on the State-Trait Anxiety Inventory for Children (STAIC). Overall, the WSAS was found to correlate significantly and positively on all three factors and the total score with the Trait scale of the STAIC. The WSAS correlated significantly and positively with the State scale only on the Total score and Factor II (see Table 12, p. 54). Contrary to a previous study (Becker, unpublished manuscript), a MANOVA for age was

nonsignificant.

This project also investigated the possibility that children of an outpatient psychiatric clinic, due to the vary nature of their reason for being outpatients, might report more fears than a random sampling of school children (normal population). This hypothesis was not supported. Also investigated was the possibility that group administration may foster a more anonymous atmosphere, therefore would yield higher fear scores than individual administration. The overall main effect of the administration condition was not significant. A significant population by administration interaction was found. It was hypothesized that both clinic and school populations under the group administration conditions would report higher fear scores. Contrary to the hypothesis, individual administration in the school population yielded the higher fear scores. No significant effect was found in the clinic population, however a trend was noted supporting the hypothesis.

Sex differences were anticipated due to the consistent findings reported throughout the literature. An overall main effect was significant. Closer inspection revealed that the difference was in the school population with the females obtaining higher fear scores than the males on Factor III with a strong trend in the same direction on Factor I.

The hypothesis that females in the group administration

condition in the clinic population would obtain higher fear scores on the WSAS was not supported; the three way interaction was nonsignificant.

Conclusions

The strong correlations demonstrated between the first and the second administration of the WSAS testifies to the stability of the WSAS over time. Additionally, the correlations demonstrate a trend that the clinic population tended to obtain a higher test-retest correlation, therefore, greater stability of fearfulness over time than the school population. Perhaps this is evidence of chronicity of fear in this population and increased variability in this correlation on subsequent administrations may offer empirical proof of decreased chronicity. Thus the WSAS may have potential to be used as a progress monitor for therapeutic interventions, or serve as an outcome measure for short or long term therapy.

Factor II demonstrated significantly less stability over time than the Total score in the school population and appears to have a lower correlation on all variables except in the clinic population. As Factor II has only seven items, concern about its usefulness due to so few items is raised. However, Factor III also has only seven items and does not show the same trends. In addition, Factor II was found to correlate consistently with the State scale on the STAIC which, due to the transient properties of the State

scale, may account for the lower reliability coefficients. Therefore, it is concluded that the Factor II results are due to its social rejection fear measuring properties and not due to so few items which comprise this factor.

As expected, the WSAS correlated positively and significantly with the STAIC Trait scale, confirming the construct validity of the fear survey. The correlations, though significant, were only moderate correlations indicating that the instruments are not identical, but related. Due to the relatively weak, but significant correlation between the WSAS, a fear inventory, and the STAIC, an anxiety inventory, it appears that fear and anxiety are related, but not synonymous. A strong relationship between Factor II (Social Rejection) and the State scale indicates Factor II to be more state dependent. This was evident in both populations and particularly so with males and in the group administration condition. Inferences are that, among peers, Factor II, fear of social rejection, picks up the subtle situational influences not demonstrated by significantly different total and factor scores. This may be particularly true for males, confirming earlier speculation by Graziano et al. (1979) that males may be more greatly influenced by peer perceptions leading them to act according to stereotypes as a defense against social rejection.

The lack of a significant difference between the two populations' reports of fears is not terribly disappointing.

One possible influence on this result is the therapeutic process. Children who seek psychiatric treatment are actively being treated for their concerns. Therefore, their concerns are (hopefully) lessened while in treatment, while the school children do not have this benefit. Implications for future research may include recording the length of treatment the child has had at the time of the administration. It could be that children in the first few weeks of treatment will report more fears than children who have been actively treated for their concerns over a long period of time. In that respect, the WSAS could be an invaluable tool as pre-, post-, and outcome measures in psychiatric clinics, especially for treatment directed at abating fears.

Table 8 (pp. 39-40) displays the Axis I and II diagnoses. Of the 71 clinic children who participated, diagnoses were available on 52 children (73%). The available information indicates that only five subjects (10%) were diagnoses with some form of anxiety disorder. The majority of the diagnoses imply some type of acting out behavior which may have been the motivator for treatment for these participants, not necessarily related to fear or anxiety. This would appear to be a strong influence on the lack of difference demonstrated between the clinic and school populations' fear and anxiety scores.

Sample size is another consideration when reviewing this result. Only 71 clinic children were employed in this

study, and 75% were male respondents. As mentioned in an early chapter, males are hypothesized to suppress their fears due to the stigma that fears may be viewed as feminine and/or a sign of weakness. With the majority of respondents being males, the result could be due to the lack of female respondents who are more likely to admit to fears.

The strong test-retest correlations discussed earlier provides evidence of a more subtle difference between the populations than significantly different total and factor scores. The more stable fearfulness of the clinic population on all three factors demonstrates the subtle evidence of chronicity of this population versus the less stable, more variable quality emotionally of the school population. This may testify to the normal fluctuating nature of fear development.

The population by administration interaction breaks down into components which revealed that the school population obtained higher fears scores on the total and on all three factors in the individual administration condition than they did in the group administration condition. Though the clinic population yielded no significant differences between group and individual administration conditions, the trend was in the opposite direction where the subjects obtained higher total and factor scores in the group administration condition than they did in the individual administration condition. Perhaps the influence of peers' verbalizations in the group setting should be taken into

account, particularly in the school population as their interactions are necessary on a daily basis, thus more need for perceived "respect." The clinic groups, however, meet only on a weekly basis and only for an hour or so at a time. Therefore less threat to daily perceptions of respect. School is also a more competitive atmosphere academically and socially where clinic groups, from the beginning, have the goals of building trust and respect among their members.

The sample size may again be questioned when considering these results; however, the distribution was relatively even, 88 individual administrations compared to 93 subjects in small groups. One possible influence would be the anonymity concern. Though it was hoped that the group condition would provide greater anonymity, the entire subject population was assured anonymity by being allowed and assured that their names would in no way be connected with their questionnaire results. Therefore, anonymity was not really being tested. Another possible influence might be the interactions of the group members. Though each member recorded their own responses confidentially on their own WSAS form, children frequently verbalized personal comments about different items as they were being read. The comments appeared to be directed at receiving humorous responses and public verification that certain items were of no threat or a great deal of threat. This influence appears to be measured by the significant correlation between Factor II (Social Rejection) and the State scale, particularly in

the group administration condition and with males. With this observation, unless this type of interaction is controlled, the group administration condition, whether promised anonymous or not, may provide just the opposite atmosphere, one of bias. In addition, consideration must be given to the nature of the task and the motivation behind participation. In the individual administration condition, the subjects may have felt more of an obligation to report fears than subjects who could remain anonymous in a group setting. Due to the lack of STAIC State significant difference between types of administration, it would be tempting to state that group administration condition was neither less nor more threatening than the individual administration condition, but it is the correlations that must be considered for the subtle clues of peer influence.

The sex main effect was significant: females reported more fears than males. Significance lies only with Factor III - Personal Safely, but there is a trend on the other two scores to support the hypothesis and a particularly strong trend on Factor I - Family and Personal Disorganization. Comparison of females to males scores by population revealed the difference in scores in the clinic population to be nonsignificant, but again, only 25% of that population was represented by females. The school population, where the percentages are closer, 47% males and 53% females, did show significant differences in scores, again on Factor III and a strong trend on Factor I.

The issue of sex differences in reporting fears is difficult to speculate about without more pointed discriminations between the sexes in the actual research methods. Issues of sensitivity to stimuli may need to be discussed and researched before speculation about the reasons for differences can begin. However, the results do indicate personal safety to be of greater concern among females than males, and a tendency for females to obtain higher scores on issues relating to family and personal disorganization.

The lack of significant interaction effects, population by sex, administration by sex, and population by administration by sex, has already been addressed sufficiently in the discussion about the main effects. In addition, small sample size is considered a major influence in these results.

Recommendations

One major and consistent concern is the sample size of this study. As noted, 75% of the clinic population was male, which is not unusual for psychiatric clinic populations, but less beneficial when comparing the response patterns of males to females. Therefore, a larger sample size of each population and more equal percentages of males and females in the clinic population is recommended in future research. An additional suggestion is that the length of treatment at the time of administration be

recorded as this may further support the inferences about chronicity shown through the strong test-retest correlations. This information may also prove useful should the WSAS be used as a monitor of therapeutic progress.

As fear is considered a transient emotion, the need for norms at finer gradations of age is recommended. Therefore it would be useful to have available information about fears at two to three month intervals throughout each year of age, rather than only at twelve month intervals. This breakdown may also provide a clearer understanding of the nature of certain fears and perhaps even add to the understanding of sex differences in reporting fears.

One concern about the WSAS is its length, 107 items. The administrator maintained a quick pace throughout the data collection as a means of maintaining attention, motivation and economy of time. Regular use of the instrument may require added incentive and/or breaks to achieve the same effect if disclosure is the goal versus a quick pace. The pace and the novelty of the items is believed to have contributed most to the motivation of the subjects. Younger subjects may lack perceptual motor skills to follow along with the items, and may benefit from the use of a tool, such as an index card, that would help them focus on only one item at a time. Ten protocols were discarded due to missing data where the child had either left a line blank, perhaps on purpose, or had unintentionally mismarked a previous or later line with two marks, therefore

misperceiving their marking pattern.

And of curiosity is the effect of the clustering of certain items. On several occasions related items are grouped together or within a couple items of each other. The possibility of perseveration is the main concern, that is where previous items influence the response to later items due to the emotional theme that may be maintained due to the relatedness, and how that emotional theme may impact unrelated items following the cluster.

This study is the first in what should be a series of studies assessing the validity and reliability of the Walker Student's Attitude Survey, and offers trends and results which need to be verified by future studies. The WSAS possesses great potential as a clinical tool. As the author of this paper was also the data collector, it was observed that during the administration, both in group and individually, the children readily offered explanations for their responses which could provide a beneficial therapeutic process for children with unusual or excess fears, or even lack of fears in normal situations. As noted earlier, the change in stability of scores over time may provide a barometer of chronicity.

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APPENDICES

APPENDIX A

WALKER STUDENT'S ATTITUDE SURVEY

Name_____

Date_____

Age_____

STUDENT'S ATTITUDE SURVEY

C. Eugene Walker, Ph.D.
Division of Pediatric Psychology
University of Oklahoma Medical School

The things below are things that sometimes make people scared or afraid. Mark the box that tells if they do that to you or not. If you have any questions or don't know some of the words, ask the person who gave you this paper. You should be sure to tell the truth in your answers. What you say will help us know how to help you.

	Doesn't Scare Me At All	Scares Me A Little	Scares Me Very Much
1. Being alone			
2. Being in a strange or funny place			
3. Loud talking			
4. Dead people			
5. People who seem crazy			
6. Cars and trucks on the road			
7. Being teased			
8. Thunder			
9. Failure			
10. Being in a high place and looking down			
11. Imaginary creatures monsters, animals, etc.)			
12. Strangers			
13. Riding in a car or bus			

	Doesn't Scare Me At All	Scares Me A Little	Scares Me Very Much
14. Old people			
15. Bugs, spiders, or worms			
16. Sudden noises			
17. Crowds of people			
18. Large open spaces			
19. Cats or dogs			
20. Somebody hitting or being mean to someone else			
21. Tough looking people			
22. Being watched when I'm doing something			
23. Guns			
24. Sick people			
25. People telling me I'm wrong			
26. People who are mad			
27. Knives			
28. Being kidnapped			
29. Blood			
30. Someone in the family dying			
31. Things that are messy			
32. When people don't like me			
33. When somebody tells me to stop doing something			
34. When people won't listen to me			
35. Being in the dark			
36. Lightning			
37. Doctors			
38. Doing things wrong			

	Doesn't Scare Me At All	Scares Me A Little	Scares Me Very Much
39. When people say I'm silly			
40. Getting sick			
41. Going crazy			
42. Taking tests			
43. Feeling different from other people			
44. Arguing with people			
45. When my heart beats funny			
46. Growing up and getting older			
47. Boys			
48. Girls			
49. Talking to my teacher			
50. Talking in front of class			
51. Homework			
52. Taking a shower with other kids at school or someplace			
53. Going on dates			
54. People without their clothes on			
55. Going to the bathroom when other people are around			
56. Getting good grades at school			
57. Not being chosen for a team or being chosen near the end			
58. If people don't like me			
59. Dreams or nightmares			
60. Wetting the bed			
61. Finding spots on my underwear			
62. Getting clothes dirty			
63. Spankings			

	Doesn't Scare Me At All	Scares Me A Little	Scares Me Very Much
64. Breaking things			
65. People swearing			
66. Getting married someday			
67. Mornings			
68. Going to bed			
69. Being lost			
70. Mom and Dad arguing			
71. Mom or Dad shouting			
72. Hurting myself			
73. Not having any friends			
74. Getting into fights			
75. School			
76. Teachers			
77. The future			
78. Drugs			
79. Drinking			
80. Forgetting things			
81. Being late			
82. People laughing at me			
83. Not doing what I am told			
84. People who show off			
85. Older kids			
86. Not being invited to parties			
87. Going to parties			
88. Staying overnight with a friend			

	Doesn't Scare Me At All	Scares Me A Little	Scares Me Very Much
89. Riding the school bus			
90. Looking funny in my clothes			
91. Not telling the truth			
92. Getting caught doing something			
93. Water			
94. Not having a home			
95. Losing my breath			
96. Being ugly			
97. Not being smart enough			
98. Not understanding things			
99. Parents getting divorced			
100. Hospitals			
101. Falling			
102. Elevators			
103. Dying			
104. People who are drunk			
105. Being poisoned			
106. End of the world			
107. People from outer space			

APPENDIX B

WSAS ITEM NUMBERS AND ITEMS INCLUDED IN FACTORS I, II, & III

TABLE B-1

WSAS ITEMS INCLUDED IN FACTOR I - FAMILY AND PERSONAL DISORGANIZATION

Item #	Item
28	being kidnapped
30	someone in the family dying
41	going crazy
45	when my heart beats funny
64	breaking things
69	being lost
70	mom & dad arguing
71	mom or dad shouting
73	not having any friends
74	getting into fights
78	drugs
79	drinking
83	not doing what I am told
90	looking funny in my clothes
91	not telling the truth
92	getting caught doing something
94	not having a home
95	losing my breath
96	being ugly
99	parents getting divorced
101	falling
103	dying
104	people who are drunk
105	being poisoned
106	end of the world

TABLE B-2

WSAS ITEMS INCLUDED IN FACTOR II-SOCIAL REJECTION AND FACTOR III-PERSONAL SAFETY

Factor II

Item #	Item
32	when people don't like me
57	not being chosen for a team or being chosen near the end
58	if people don't like me
75	school
82	people laughing at me
87	going to parties
89	riding the school bus

Factor III

Item #	Item
8	thunder
12	strangers
15	bugs, spiders, or worms
23	guns
27	knives
29	blood
36	lightening

APPENDIX C

COVER LETTER AND CONSENT FORMS

Dear Parent, April 17, 1989

Your child has been selected as a possible participant in a research project to be conducted this spring through the Sand Springs Public Schools. The goal of this study is to assess the reliability and validity of a new screening instrument entitled the Walker Student Attitude Survey, which is to be used to identify excessive or unusual concerns in both school and psychiatric clinic children.

Given parental consent, each participant will be administered the Walker Student Attitude Survey and the How I Feel Questionnaire in an individual or group setting. Participation is voluntary and anonymous. The instruments will be administered during the school day requiring only thirty minutes of your child's time. Your child's participation will be rewarded with his/her choice of a pencil or a sticker.

This project has been approved by the Institution Review Board at Oklahoma State University, Children's Medical Center, Dr. Wendell Sharpton, Superintendent of Sand Springs School District, and Richard Berumen, Principal of Pratt Elementary School.

If you have any questions, I'll be happy to discuss your concerns. To give permission for your child to participate in this research study, please complete these steps:

1. Check one of the two boxes at the bottom of this page;
2. Sign one of the parent consent forms enclosed, retain the other one for your records;
* 3. Return the signed consent form and this cover letter in the envelope provided by _____,

If you do not wish your child to participate in this study, please check the appropriate box on this cover letter and return the entire packet in the envelope provided.

Thank you for your time and consideration.

Sincerely,

Consent to participate:	
YES	NO
[ ]	[ ]

Alice Wellington, M.S.
Children's Medical Center
664-6600 EXT. 324

(School Consent Form)

Oklahoma State University
Department of Psychology

I, _____, voluntarily consent for my child, _____, to participate in the research project entitled, "Walker Student's Attitude Survey: An Assessment of Validity and Reliability," the purpose of which is to assess the validity and reliability of the Walker Student's Attitude Survey (WSAS). I hereby authorize _____ to participate in this project conducted by Alice Wellington, M.S. under the direction of Kenneth D. Sandvold, Ph.D., and such assistants as they may designate.

I understand that the examiner will administer the WSAS and the "How I Feel Questionnaire" to my child. And that each of these questionnaires contain statements representing everyday experiences that might concern or scare children to which the child is to report his/her degree of concern or fear. The administration may be done in the school class room with the other students in the class also participation or individually at the school in a designated classroom or office. The estimated length of testing is thirty minutes. My child will be given one short break to ensure maximum comfort during the administration process. In addition, my child may be contacted to complete the WSAS a second time following a two week period. This will also take place in the school.

The results of the tests taken by my child will be kept confidential, my child's name will not be recorded with any of the information, and the information will only be identified by a code number.

The main risk in participating in this research project is that my child's identity and the results of my child's tests will be known by the investigator and assistants. However, every effort and precaution will be taken to protect my child's privacy and confidentiality as designated in the code of Ethics for Psychologists and as specified by the American Psychological Association.

The benefits of participation in this study include the knowledge that my child has contributed to the assessment of validity and reliability of the WSAS. Such assessment could allow the WSAS to be used in both normal and clinical populations as an instrument aiding in the early identification and appropriate interventions of exaggerated concerns or fears.

I understand that participation is voluntary, that there is no penalty for refusal to participate, and I am free to withdraw my consent for my child to participate in the project at any time without penalty after notifying the project director. I also understand that no feedback or

scores will be given since this is a research project.

Should I have any questions, I can contact Dr. Ken Sandvold, Department of Psychology, Oklahoma State University, Stillwater, OK 74078, (405) 744-7558, or Alice Wellington at Children's Medical Center, (918) 664-6600 ext. 324 or 325. I also may contact Terry Maciula, University Research Services, 001 Life Sciences East Oklahoma State University, Stillwater, OK 74078, (405) 744-5700.

I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Parent(s) signature_____
(or legal guardian)

Date_____

(Clinic Consent Form)

Oklahoma State University
Department of Psychology

I, _____, voluntarily consent for my child, _____, to participate in the research project entitled, "Walker Student's Attitude Survey: An Assessment of Validity and Reliability," the purpose of which is to assess the validity and reliability of the Walker Student's Attitude Survey (WSAS). I hereby authorize _____ to participate in this project conducted by Alice Wellington, M.S. under the direction of Kenneth D. Sandvold, Ph.D., and such assistants as they may designate.

I understand that the examiner will administer the WSAS and the "How I Feel Questionnaire" to my child. And that each of these questionnaires contain statements representing everyday experiences that might concern or scare children to which the child is to report his/her degree of concern or fear. The administration will be done at the clinic where your child attends therapy in a designated room or office. The tests may be administered individually or to a group of children of no more than ten to fifteen participating, including my child. The estimated length of testing is one hour and fifteen minutes. My child will be given two short breaks to ensure maximum comfort during the administration process. In addition, my child may be contacted to complete the WSAS a second time following a two week period. This will also take place at your clinic.

Further, the following information may be obtained from my child's file to be used collectively with the same information from other children's files to describe this population as a whole: ethnic background, approximate level of intellectual functioning, socioeconomic status, and current Global Assessment of Functioning. This information will in no way be connected with my child's test results.

The results of the tests taken by my child will be kept confidential, my child's name will not be recorded with any of the information, and the information will only be identified by a code number.

The main risk in participating in this research project is that my child's identity and the results of my child's tests will be known by the investigator and assistants. However, every effort and precaution will be taken to protect my child's privacy and confidentiality as designated in the code of Ethics for Psychologists and as specified by the American Psychological Association.

The benefits of participation in this study include the knowledge that my child has contributed to the assessment of validity and reliability of the WSAS. Such assessment could allow the WSAS to be used in both normal and clinical

populations as an instrument aiding in the early identification and appropriate interventions of exaggerated concerns or fears.

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I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Parent(s) signature_____
(or legal guardian)

Date_____

APPENDIX D

TEST ADMINISTRATION SCRIPT

Hi, my name is Alice Wellington. I would like for you to help me with a project I'm doing. I'll hand you a questionnaire called Student's Attitude Survey. The things listed in the Student's Attitude Survey are things that sometimes make people scared or afraid. I'll read each of these things to you and you mark the box that tells if they do that to you or not. Would you like to help me with my project?

Thank you for helping me. On this questionnaire you should mark the first box if it doesn't scare you at all; the middle box if it scares you very much. There are no right or wrong answers, but be sure to tell the truth so that I know what kinds of things scare students your age. We'll take a break after this questionnaire. Are there any questions? (Read instructions to the kids).

I have one more questionnaire for you to answer. It is called the "How-I-Feel-Questionnaire". There are questions on both sides. I'll read the instructions to you and then I'll read each question and you answer by circling one of the three answers on the right side of your paper (illustrate by showing test to subjects). Do you have any questions? When we're through with this test you will each get your choice of a sticker or a pencil. (Read the instructions). Are there any questions?

VITA

Alice Janine Wellington

Candidate for the Degree of

Doctor of Philosophy

Thesis: WALKER STUDENT'S ATTITUDE SURVEY: AN ASSESSMENT OF VALIDITY AND RELIABILITY

Major Field: Psychology

Area of Specialization: Clinical Psychology

Biographical:

Personal Data: Born in Canon City, Colorado, October 6, 1960, the daughter of James L. and Wanda E. Burford.

Education: Graduated from Canon City High School, Canon City, Colorado, in May of 1979; received Bachelor of Arts degree in Psychology from the University of Oklahoma, Norman, Oklahoma, in May of 1983; received Master of Science degree in Clinical Psychology from Oklahoma State University, Stillwater, Oklahoma, in December of 1985; Completed requirements for the Doctor of Philosophy degree in Clinical Psychology at Oklahoma State University, Stillwater, Oklahoma, in December, 1989.

Professional Experience: Psychological Associate Bi-State Community Mental Health Center, Stillwater, Oklahoma, August 1985 to August 1986; Psychological Associate Psychological Services Center, Oklahoma State University, Stillwater, Oklahoma, August 1986 to October 1987; Psychological Associate Behavior Medicine Center at Hillcrest Health Center, Oklahoma City, Oklahoma, July 1987 to June 1988; Psychology Intern, Children's Medical Center, Tulsa, Oklahoma, September 1988 to August, 1989.

Professional Societies: American Psychological Association; Oklahoma Psychological Association.