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Title of Thesis — Titre de la thèse

"Motive to Approach Success, Motive to Avoid Failure, and Early Mother-Daughter Relations

University — Université

University of Alberta

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

Master of Education

Year this degree conferred — Année d'obtention de ce grade

1980

Name of Supervisor — Nom du directeur de thèse

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THE UNIVERSITY OF ALBERTA

MOTIVE TO APPROACH SUCCESS, MOTIVE TO AVOID FAILURE, AND EARLY MOTHER-DAUGHTER RELATIONS

by

Donna Jamieson

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1980

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance a thesis entitled "Motive to Approach Success, Motive to Avoid Failure, and Early Mother-Daughter Relations" submitted by Donna Jamieson in partial fulfillment of the requirements for the degree of Master of Education in Educational Psychology.

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SUPERVISOR

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Date July 15, 1980.

This thesis is dedicated to my dear, long time friend Ethel Bullock, who passed away during the course of this project. She never doubted my ability to finish what I started, though I sometimes doubted myself.

ACKNOWLEDGEMENTS

I wish to thank Dr. Carolyn Yewchuk for her help, encouragement and patience throughout the course of this study. The participation of Dr. Eugene Fox and Dr. Terry Davis on my committee was also much appreciated.

As well, I am grateful to Forrest for his support, both emotional and financial, throughout the long course of my educational studies. I would also like to thank my parents, Elsie and Wes Stocks, for all their "grand-parenting" activities, and for sharing their energy and encouragement while I worked on this study. Special thanks to my two daughters, Kama and Joey who have had a "part-time" mother all their young lives, and who are almost certainly responsible for my interest in "mother-daughter" relationships.

ABSTRACT

This study was intended primarily to investigate the relationship between early maternal nurturance, restrictiveness and protectiveness and later Motive to Approach Success (MS) and Motive to Avoid Failure (MAF) in adult females. As well, the relationships between these motives and some early demographic variables were considered.

The subjects used in this study were forty female undergraduate education students, the majority of whom were in their early twenties.

Early mother-daughter relationships were investigated by means of the Parent-Child Relations Questionnaire II (Siegelman and Roe, 1973). This test provides 5 category scores: Love, Reject, Casual, Demand and Attention, and 3 factor scores: Love-Reject, Casual-Demand and Attention. Motive to Approach Success (MS) was determined by means of a projective TAT measure which has been used on females in a nationwide survey (Veroff et al., 1960). Motive to Avoid Failure (MAF) was measured with the Debilitating Anxiety Scale of Achievement Anxiety Test (Alper, 1960). The subjects' early religious and socioeconomic background, as well as their mothers' work and educational history were obtained by means of a personal questionnaire.

Pearson product-moment correlational analysis and one-way analysis of variance techniques were used to examine the relationships between the subjects' PCR II Factor Scores and later MS and MAF. No significant results were obtained from these analyses. However, these results did suggest a tendency for subjects with lower MS to recall somewhat more attentive, protective mothers than did subjects higher in this motive. Also suggested was a tendency for subjects with higher MAF to recall less supportive nurturant mothers than did females found to be lower in MAF.

One-way analysis of variance was used to examine the relationship

between the subjects' present level of MS and MAF, and their religious upbringing, socioeconomic history, and their mothers' education and work history during the period they were growing up. Again, no significant results were obtained. However, there was a tendency for subjects reared in Protestant homes to obtain higher MS scores than those from Catholic homes.

In summary, the results of this study did not indicate a significant relationship between early maternal child rearing techniques and later achievement-related motivations in females. However some trends and implications for further study were suggested.

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CHAPTER I

INTRODUCTION

"The supposition that selected adult response patterns are established at an early age is a primary assumption of developmental theory. Although literary documents and psychotherapy protocols have provided anecdotal support for this hypothesis, more objective validation has been difficult to obtain".

(Moss and Kagan, 1961, p. 505)

Although there has been a growing body of developmental research since this statement was made in 1961, "objective validation" of how some adult personality characteristics and response patterns are related to early childhood experiences is still very scanty. There are very few studies which have attempted to demonstrate a connection between the early socialization experiences of female children and later Motivation to Approach Success (MS) and Motivation to Avoid Failure (MAF), for example. These two motives have been suggested as major determinants in an individual's overall achievement behavior (Atkinson, 1974; Atkinson and Litwin, 1966). In a recent review of the literature pertaining to achievement in women, Stein and Bailey (1973, p. 346) noted that "Virtually no research has been done with females using this expanded formulation."

The purpose of the present study is to examine the relationship between certain early maternal childrearing practices and attitudes,

and later MS and MAF in adult women. Only maternal attitudes and behaviors are considered as it appears that the early mother-daughter relationship may be especially important in determining later achievement motivation and behavior in females (Bardwick, 1971; Bronfenbrenner, 1961; Crandall and Battle, 1970; Crandall et al., 1964; Kagan and Moss, 1962; Kagan and Freeman, 1963; Hoffman, 1972; Moss and Kagan, 1961).

Background to the Problem

There has been a growing awareness that women are under-represented in achievement oriented careers, and that they often fail to achieve their intellectual potential. Many explanations for this phenomenon have been advanced in recent years, so many that Hoffman (1972, p. 129) was "almost tempted to ask why women achieve at all." One possible explanation for women's underachievement is that childrearing practices commonly used with female children may not be conducive to the development of achievement-related motivations.

Achievement motivation (Atkinson, 1958; McClelland et al., 1953) was defined as a fairly stable personality disposition which causes a person to strive for success in any situation where standards of excellence are applicable. More recent theory (Atkinson, 1974; Atkinson and Litwin, 1966) proposes two achievement-related motives-Motive to Approach Success (MS), and Motive to Avoid Failure (MAF). It is assumed that all individuals acquire both of these motives by means of their early learning experiences. Both will be expressed in any situation where it appears to individuals that their performance will be evaluated in reference to some standard. MS is associated with a tendency to attempt the activity, while MAF is associated with an opposing tendency not to attempt it. These two motives are assumed to

combine and yield an achievement-oriented tendency which will be either approach or avoidant in nature, and of a strength which depends on the relative strengths of MS and MAF, as well as on the "extrinsic" components of the situation (Atkinson, 1974). Individuals' freedom to enter into achievement-oriented activities and desire to succeed at these will be determined largely by their levels of MS and MAF, which produce their overall achievement orientation. It has been suggested that the personality characteristics perceived as "feminine" (passivity, dependency, cooperation and nurturance, for example) are not those associated with the development of a high achievement orientation. As well, child-rearing practices typically used with female children may inhibit the development of achievement-oriented motivation and behaviors (eg. Bardwick, 1971; Berens, 1973; Hoffman, 1972).

Hoffman (1972) believes that the separation of the self is facilitated when the child is the opposite sex of the primary caretaker. In our society the mother tends to be the "primary caretaker" for both male and female children who both form their first emotional attachments to her. However, male children are usually pushed at an early age to give up infantile dependency and are encouraged to identify with the father or some abstract masculine ideal. In this way, they form an early separate sense of self, and develop a need to achieve that is largely independent of parental approval. Berens (1973), in discussing sex role stereotyping, states that for young girls infantile behavior tends to be viewed as "feminine" and appropriate, so there is little pressure for girls to "grow up" and that this makes it less likely that girls will develop an independent sense of self-esteem or a strong achievement orientation in later years.

Some authors have suggested that maternal overprotectiveness, nurturance and restrictiveness may be detrimental to the development of later achievement-related motivations and behaviors in females. (Bronfenbrenner, 1961; Hoffman, 1972; Stein and Bailey, 1973).

Strong identification with the mother also tends to be opposed to the development of achievement orientation, unless the mother is a non-traditional model, who does not fit the typical female role definition (Douvan and Adelson, 1966; Stein and Bailey, 1973). Several authors have found that females with high achievement orientations tend to recall more rejecting mothers (Crandall et al., 1964; Kagan and Moss, 1962). It has also been suggested that girls who experience too much maternal rapport and protection as children, may not learn to face stress or master their fear of failure, so that later, as adults they show a tendency to avoid failure and lack self-confidence (Heckhausen, 1967; Hoffman, 1972).

Overall, it seems that it is insufficient for parents merely to value achievement in order for girls to become high achievers (Bardwick, 1971), and that early maternal attitudes and behaviors may play a major role in determining the later achievement motivations of adult females.

Purpose of the Study

This study is exploratory in nature in that its objective is to generate ideas about possible relationships between early maternal child-rearing practices and later achievement-related motives in adult women and to point the direction for further research in this area.

The general purpose of this research is to compare (1) the Motive to Approach Success (MS) in adult females and early mother-daughter

relationships and (2) the Motive to Avoid Failure (MAF) in adult females and early mother-daughter relationships. A secondary purpose of this study is to examine the relationship between the early demographic variables of: religion, socioeconomic status, mother's marital and work history - first with MS and then with MAF. Thus, the study is intended primarily to generate ideas about the relationship between maternal child-rearing practices and attitudes and later achievement-related motives in females.

Significance of this Study

1. This study is intended to contribute to the understanding of how achievement-related motivations, involving both the Motive to Approach Success (MS) and the Motive to Avoid Failure (MAF), develop in females, since the results of research on males does not directly apply to females (eg. Veroff, Wilcox and Atkinson, 1953; Horner, 1972; Stein and Bailey, 1973).
2. Very little research has been done on the Motive to Avoid Failure (MAF) in females except that it is generally concluded that females are more anxious about failure than males (Feld and Lewis, 1969; Hill and Sarason, 1966). This study is intended to add to the understanding of MAF in females.
3. This study is intended to provide some leads for further research in the area of female achievement motivations and behaviors, as well as to contribute to the understanding of how these variables develop.

Overview

The purpose of this study has been discussed very briefly in this chapter. More detailed discussion of the theoretical concepts and related research are included in Chapter II. Methodology, design and the specific

test instruments used are discussed in Chapter III. Chapter IV reports the findings of the present study, while Chapter V consists of a discussion of these findings, their limitations and implications for further research.

CHAPTER II

RELATED LITERATURE

This chapter contains a review of the relevant literature pertaining to theory and research in the area of achievement-related motives. Initially, the history and theory leading up to the present formulation of the Motive to Approach Success and the Motive to Avoid Failure as the major personality components which operate in achievement situations, is reviewed. This is followed by a discussion of literature relating to these motives in females. Finally, research focusing on some early antecedents of these motives in females is dealt with.

Achievement Motivation Theory: Past to Present

Since Atkinson's most recent formulation of achievement-oriented motivation (1974), on which the present study is based, grew from and still incorporates much of the original achievement motivation theory (Atkinson, 1958; McClelland et al., 1953), this theoretical perspective seems to be an appropriate starting point for this review. Originally, achievement motivation (n Ach) was defined as a fairly stable personality disposition which caused a person to strive for success in any situation where standards of excellence are applicable (McClelland et al., 1953).

This early and well-known theory of achievement motivation originated from studies on the effects of hunger on thematic apperception Atkinson and McClelland, 1948; McClelland and Atkinson, 1948). Having established that experimentally induced motivation (hunger) was expressed

in Thematic Apperception Test (TAT) responses, McClelland and his associate began to examine the effects of experimentally induced motivation to achieve on TAT responses.

The results of this experimentation were summarized in The Achievement Motive (McClelland et al., 1953). This book deals with the theory and research pertaining to the origins and behavioral consequences of need Achievement, as well as the reliability and validity of the thematic apperception technique as a measure of this motive.

According to McClelland et al., (1953, p. 28) "all motives are learned" and a motive is "the redintegration by a cue of a change in an affective situation." "Redintegration" means that when certain cues become associated with an emotion, on later occasions these cues may again elicit some part of that emotion. These cues may be either external (environmental) or internal (arising from fantasies, thoughts or actions, for example) to the individual. The partial reactivation of the emotional state is seemingly motivating. That is, it causes individuals to engage in instrumental activity which allows them to approach situations which previously produced pleasant emotions, or to avoid a situation which had been unpleasant in the past. This learning applies to basic motivations or drives such as hunger, as well as to "secondary" motivations such as achievement (McClelland et al., 1953).

Motivated behavior is seen as falling on an appetite-anxiety or approach-avoidance continuum. Affect is considered basic to motivation in McClelland's theory. He suggests that affect is aroused when there are discrepancies between expectation (adaption level-AL) and perception (McClelland, 1953, p. 28) so that when stimuli deviate from expectation a person will react with affect; the cues associated with this affect

will then be capable of eliciting some part of it at a later date, and a motive will be in action. McClelland et al. (1953) report that whether aroused affect is positive or negative will depend on the size of the perceptual discrepancy. Relatively small discrepancies from the AL yield positive affect, large discrepancies cause negative affect (unpleasantness). The AL must build up to a minimal level of stability before discrepancies from it can produce affect. As well, discrepancies must persist for a time to produce an affective response.

In terms of achievement motivation (which McClelland termed need Achievement- n Ach) this means that a person would need to continue to master more and more complex problems, objects, or situations since working too long at any particular level after mastery would cause expectations to become certain and boredom would result (McClelland et al., 1953, p. 64). This theory of n Ach also suggests that when individuals attempt achievement situations which are far beyond their ability, negative affect is produced and there is then a tendency to avoid achievement situations in the future.

Generally, achievement motivation has been measured with a projective Thematic Apperception Test (TAT) which requires the subject to write imaginary stories in response to pictures especially selected for their achievement cues. This type of measure is used because it is assumed that motivation may have measurable effects on a subject's fantasy. Early research by McClelland and associates tended to support this assumption (Atkinson and McClelland, 1948; McClelland and Atkinson, 1948). Later, standardized Scoring Manuals for the Achievement Motive based on McClelland's theory were developed for these Thematic Apperception Tests (Atkinson, 1958; McClelland et al., 1953).

Support for the use of the TAT as a measure of need achievement and for McClelland's theory of achievement motivation was obtained by experimentation in which deliberate attempts were made to arouse the "achievement motive" of subjects who were required to perform some academic-type task under various motivational conditions and then respond to a Thematic Apperception Test of need achievement. Scoring of the TAT generally produced results consistent with the theory (McClelland et al., 1953, Atkinson, 1958). These laboratory studies have shown that subjects' n Ach Scores on TAT measures are correlated with performance on arithmetic and anagram tests, with task persistance and with selection of task goals of varying difficulty (McClelland et al., 1953; Atkinson, 1958). McClelland et al. (1953) reported that college grades have sometimes been found to be related to n Ach scores as well.

In summary, the original Achievement theory defined the need for achievement as a stable personality disposition to strive for success in any situation where standards of excellence are applicable, and assumed that the TAT provided a reliable and valid estimate of this motive. The theory and research supporting this view is elaborated fully in The Achievement Motive (McClelland et al., 1953).

Achievement Motivation Theory: Motive to Approach Success and Motive to Avoid Failure

More recently, Achievement theory has been expanded to include two independent achievement-related motives — the Motive to Approach Success (MS) and the Motive to Avoid Failure (MAF). This reformulation was necessary as early experiments based on Achievement theory revealed curvilinear relationships between n Ach scores and some achievement behaviors.

This seemed to be occurring because subjects in the middle third of the n Ach range showed performance decrements because of a "fear of failure" motivation. An early study by Clark, Teevan and Riccuti (1956) found that subjects scoring in the middle range on the TAT measure of n Ach tended to give more negative achievement-related responses (dealing with "fear of failure") than did higher and lower scoring subjects on this measure. Atkinson and Litwin (1966) hypothesized that subjects' achievement behaviors could be predicted on the basis of their n Ach scores (measured projectively) and their "fear of failure" scores (as measured by a test anxiety scale). Their 1966 study which predicted the distance that male college subjects would chose to throw from in a ring toss game (on the basis of their combined n Ach and "fear of failure" scores), showed support for this hypothesis. Thus, these authors concluded that the subjects' overall achievement behavior was the result of two separate achievement related motives — a positive motive to approach success and a negative motive to avoid failure. These two motives were determined by a projective test of n Ach and a test anxiety measure, respectively. Since this early study (Atkinson and Litwin, 1966), this expanded theory of achievement motivation has been elaborated more fully, and the two achievement motives found have been labelled the Motive to Approach Success (MS) and the Motive to Avoid Failure (MAF) (Atkinson, 1974). These two motives are now viewed as interacting with other variables, to determine an individual's overall achievement behavior.

Atkinson (1974) suggests that the strength of subjects' tendency to achieve success (TS) is a function of three variables: Motive to Achieve Success (MS), which is conceived of as a relatively stable disposition of personality, plus two other variables which reflect the

effect of the immediate environment— the strength of expectancy or the subjective probability of success following a task (P_s) and the relative attractiveness of that particular activity or the incentive value of success (I_s). According to Atkinson $TS = MS \times P_s \times I_s$, in any achievement situation. The Motive to Achieve Success (MS) is generally equated with McClelland's need Achievement (n Ach) and is measured in the same way, using a projective TAT technique and the original scoring system (McClelland, et al., 1953; Atkinson, 1958). Atkinson (1974, p. 14) states "whenever performance is evaluated in relation to some standard of excellence, what constitutes the challenge to achieve for one individual poses the threat of failure for another. The tendency to avoid failure associated with anxiety is as fundamentally important a factor in achievement oriented action as the tendency to achieve success".

Atkinson regards this tendency to avoid failure as an inhibitory tendency that functions to oppose and decrease the tendency to approach achievement situations. It is experienced consciously as anxiety by a person. He believes the Motive to Avoid Failure (MAF) is separate and independent from MS . The tendency to avoid failure (TF) is aroused whenever there is an expectancy that some act will lead to failure (P_f). and it is also influenced by the incentive values of failure at that particular activity (I_f). So, $TF = MAF \times P_f \times I_f$.

The present study is primarily concerned with MS and MAF both of which Atkinson (1974) considers to be relatively stable personality characteristics which all individuals acquire to some degree by means of the laws of learning. That is, everyone has some capacity for interest in achievement and some capacity for anxiety about failure which will be expressed in any situation when it is apparent to individuals

that their performance will be evaluated in reference to some standard. MS produces a tendency to undertake the task; MAF produces an opposing tendency not to undertake it (an approach-avoidance conflict). Atkinson (1974) suggests that these two tendencies are independent and can combine additively to yield an overall achievement - oriented tendency, which will be either approach or avoidant in nature, depending on the relative strengths of the two motives for that individual. When MAF is dominant the person is expected to suppress all achievement-oriented activity. However, there are usually extrinistic variables involved in these activities which may overcome this resistance (approval-seeking, monetary reward, compliance with authority or even curiosity would be such extrinsic influences).

For any given achievement activity there are usually a number of extrinsic factors involved. Anxiety in achievement situations is seen by Atkinson as a consequence of MAF that is overcome (because of extrinsic variables). Anxiety is thus a symptom that a negative outcome is expected for the action that is being performed. If subjects perform an act with no anticipation of failure they should not experience anxiety. This is given as the rationale behind using self-report measures of test anxiety in achievement situations to assess the strength of subjects' tendency to avoid failure, and of indirectly obtaining a measure of their MAF. The inhibitory tendency must be overcome by stronger positive variables (including the tendency to achieve) or the individuals will never be present in the sort of academic achievement situation about which they are being questioned (on test anxiety scales). When they report how much anxiety they experience in test situations they are, according to Atkinson (1974) reporting the strength

of their resistance to achievement-oriented action. From this measure the strength of their MAF maybe inferred.

Achievement Motivation Theory: Motive to Avoid Success

Horner (1972) found that a third component called fear of success or Motive to Avoid Success (FS) seemed to be involved in the achievement behaviors of women. She felt that this fear of success might account for the higher test anxiety scores typically obtained by females. Fear of success is assumed to be a stable personality characteristic learned early in life as a part of the female sex-role. FS consists of a predisposition to feel uncomfortable and to avoid achievement situations because of a fear of success. Women are supposed to fear social rejection as a consequence of success, especially when competition with a male is involved.

Karabenick and Marshall (1974) found a zero order correlation between FS scores, using Horner's original projective measurement technique (1972), and MAF, using the Achievement Anxiety Test— Debilitating Anxiety Scale (Alpert and Haber, 1960). These authors concluded that fear of success and fear of failure (MAF) as they are presently operationalized, are independent of each other. This lack of correlation appears to negate Horner's (1972) contention that FS is responsible for high achievement anxiety test scores obtained by women. These authors suggested that fear of failure (MAF), should be included as a variable in future studies of fear of success, since these variables were both found to be predictive of females' performance on various tasks.

The present study will not consider the Motive to Avoid Success but will be limited to Atkinson's (1974) theory of achievement motivation. This decision was made as there has been little research on females using Atkinson's expanded theory. Atkinson does not include the Motive to Avoid

Success in his theory of achievement motivation, but considers MS and MAF to be the two major personality characteristics associated with achievement behaviors. The present study is intended primarily to explore MS and MAF in females, and to consider the relationship between these two variables and earlier mother-daughter relationships. Thus, Horner's (1972) formulation of "Motive to Avoid Success" will not be considered. However, it was felt that a review of achievement motivations in women would not be complete if it did not touch on this motive.

Achievement Motivation Theory: Females

Females and the Motive to Approach Success (MS)

Recent achievement theory has equated the Motive to Approach Success (MS) with earlier formulations of "need achievement" and "achievement motivation" (Atkinson, 1974; Atkinson and Litwin, 1966). Since, regardless of label, these variables have generally been measured in an identical manner, using projective measures and the same scoring system, earlier studies which discussed achievement motivation (n Ach) in females will be regarded as also reflecting MS, although the original labels will be maintained in this review.

Findings related to achievement in women have been very scarce. What studies have been done in the area are usually inconsistent with findings for males. An early study (Veroff et al., 1953) found that women did not show an increase in thematic apperception achievement imagery as men did (McClelland et al., 1953) when experimental arousal of need achievement (n Ach) stressing leadership and intelligence was used. Under neutral conditions, however, female scores on n Ach were as high as, and sometimes higher than, those obtained by males.

Angelino (1955, cited in Atkinson, 1958) found that female Brazilian

college students did show an increase in n Ach scores under achievement arousal conditions. These results were explained by the fact that opportunities for higher education are very limited in Brazil so that only highly achievement-oriented, competitive females would succeed in enrolling in college.

Lesser et al. (1963) suggested that American female college students might be more concerned with social acceptability than with high standards of intellectual or academic excellence. They did a study of achievement motivation at Hunter High School in New York City. This institution places a high emphasis on intellectual and academic accomplishments (only 150 out of every 4000 applicants are admitted and over 99% of graduates go onto University). These authors expected that their sample would be comparable with Angelina's Brazilian sample. From the Hunter High School sample, a group of "achievers" (meeting school's standards) and "underachievers" (not meeting the school's standards) were selected. These groups were then exposed to TAT pictures of both males and females, under conditions of both neutrality and achievement arousal. The need achievement scores of the "achievers" increased significantly in response to the female TAT pictures following achievement-oriented directions. The "underachievers'" n Ach scores increased significantly only in response to male TAT stimulus pictures under conditions of arousal. These authors concluded that the "achieving" subjects saw intellectual goals as relevant to their own female role, but the "underachieving" subjects saw this as relevant only to the male role. However, under neutral conditions the n Ach scores of the "achievers" were higher than those of the "underachievers" for both male and female pictures, and the "achievers" had higher n Ach scores than the underachievers for all experimental conditions and types of

pictures combined.

Alper (1957) found that female undergraduates expressed more n Ach imagery in response to female cues when achievement arousal was kept low and social acceptability was not at stake. French and Lesser (1964) using college women who valued either a "woman's role" or an "intellectual role" more highly found that n Ach scores were always higher under intellectual arousal when male stimulus cues were used, and higher under woman's role arousal when female stimuli were used, regardless of the subject's value orientation.

Stein and Bailey (1972) in a review of the literature stated that social skills are a central area of concern for many females. However, these authors felt that this did not reflect an affiliation motivation, but rather a goal to attain a standard of excellence in an area different from males (social). They felt that this was supported by the fact that "social arousal" leads to increased achievement imagery rather than increased affiliation imagery.

Veroff (1969) suggested that boys from grades one to six are significantly higher than girls on fantasy measures of need achievement, but other research has consistently found that high school and college aged women obtain high n Ach scores on TAT measures of this motive (McClelland et al., 1953).

Baruch (1967) found that the achievement motivation of female college graduates tends to be associated with age and family situation. She found that n Ach declines during the years when home and children tend to be a woman's main concern but then returns to earlier levels once her family is established and a return to paid employment becomes a possibility.

It has been found that high achievement motivation is characteristic of women who show "masculine" interests. Sundheim (1963) found that science majors had higher achievement motivation than language majors who were higher than elementary education majors.

In summary, there are some discrepancies in the research on females and achievement motivation. However, evidence suggests that under neutral administration conditions the TAT is able to differentiate between high and low achieving women, as suggested by academic performance (Lesser, et al., 1963), education level (Baruch, 1967; Veroff et al., 1960) and family income (Veroff et al., 1960).

Females and the Motive to Avoid Failure (MAF)

As mentioned earlier, the Motive to Avoid Failure (MAF) is often measured with test anxiety scales (Atkinson, 1974; Atkinson and Litwin, 1966). For this reason literature which deals with test anxiety in females will be regarded as also reflecting MAF, although original labels will be maintained in this review.

Generally, research has indicated that females are more anxious about failure in academic situations and that they score higher on test anxiety measures than males (Hill and Sarason, 1966; Feld and Lewis, 1969; Maccoby and Jacklin, 1974). It has also been found that their anxiety increases during the elementary school years more than that of males. Hill and Sarason (1966) found that sex differences were absent in the first grade, but female students showed higher anxiety in grade three and this gap continued to widen as age increased. Test anxiety (Motive to Avoid Failure) has been found to be negatively correlated with measures of aptitude and achievement for both sexes (Maccoby, 1972; Sarason et al., 1964).

Evidence also suggests that females are more afraid of failure and more disorganized by it than males. Harmatz (1962, cited in Maccoby, 1972) when working with college students found that when women who were working on a fairly difficult task were told they were doing poorly, their performance declined, as compared with a control group of women who did not receive this feedback.

Maccoby (1972) has suggested that boys are more likely to rise to a challenge, while girls generally tend to become disorganized, passive and desirous of leaving the field when they are faced with a difficult task. Feld and Lewis (1969) found that white second grade girls have significantly higher test anxiety scores than white second grade boys. Hill and Sarason (1966) also reported higher test anxiety scores for third and fifth grade girls than for boys of the same grade level. Sarason et al. (1964) suggested that girls may be more willing to admit anxiety because boys are not supposed to be fearful. The alternate interpretation would be that young girls are genuinely more anxious than boys in achievement situations.

Crandall and Rabson (1960) found that as boys grew older they tend to become more willing to return to tasks at which they had previously failed, but girls tend to withdraw from the possibility of repeating failures. Crandall (1969) reported a series of studies on various age groups that showed that females had lower expectancies of success even when their performance was high, than did males.

In summary, research suggests that females are higher in MAF and related areas than males at all age levels (Hill and Sarason, 1966; Feld and Lewis, 1969; Maccoby and Jacklin, 1974).

Antecedents of Motive to Approach Success (MS) and Motive to Avoid Failure (MAF) in Females

Maternal Antecedents of MS and MAF in Females

It has been suggested that the child-rearing practices commonly used with female children may not be conducive to the development of achievement-related motivations, and that the early mother-daughter relationship may be especially important in determining the later achievement-orientations of adult females (Bardwick, 1971; Berens, 1973; Crandall and Battle, 1970; Hoffman, 1972; Kagan and Freeman, 1963; Kagan and Moss, 1962; Moss and Kagan, 1961).

Hoffman (1972) believes that separation of the self is facilitated when the child is the opposite sex of the primary caretaker. In our society the mother is almost always the "primary caretaker", and both male and female children from their first emotional attachments to the mother. The male child, however, is usually encouraged early in life to identify with his father or some abstract concept of masculinity. Thus, according to Hoffman, for males separation from the mother begins earlier and is more complete. The young girl is permitted to maintain her identification with the mother for longer and is less likely to achieve an early separate sense of self. Hoffman suggests that many girls experience too much maternal rapport and protection as children and then later as adults they are not willing or able to face stress. As well, they may possess little motivation for autonomous achievement, having never been encouraged in that direction. Berens (1973), in discussing sex role stereotyping, states that for young girls there is little pressure to "grow up". She feels that this makes it less likely that girls will develop an independent sense of self-esteem or a strong achievement orientation in later years.

Maternal Antecedents of MS in Females

Stable patterns of achievement-oriented behavior and related personality variables such as dependence and passivity, seem to be acquired by females in childhood, and parental socialization during that period appears to have long term effects. Longitudinal studies (Kagan and Moss, 1962; Moss and Kagan, 1961; Crandall and Battle, 1970) have shown that the achievement behaviors of female children are predictive of later achievement and independence behaviors.

Some studies have examined the relationships between MS (and related behaviors) in adult females, and early maternal child-rearing practices. Studies dealing with maternal nurturance, restrictiveness and protectiveness, and later MS in adult females are discussed in the following sections of this review. These maternal variables have been defined differently by various authors. As well, it is often difficult to consider these variables independently of each other. For these reasons, some overlap may occur in the following sections of this review.

Maternal Nurturance and MS in Females

There is some evidence that girls may need to experience some maternal rejection or hostility if they are to become independent, self-confident and achievement-oriented (Crandall et al., 1964; Kagan and Moss, 1962). Bronfenbrenner (1961) also suggested that young girls may receive too much support and nurturance and because of this may never learn to take care of themselves. Bardwick (1971) noted that a highly developed achievement tendency in girls tends to be associated with alienation from the parents, especially the mother. She feels that the male child is pushed at an early age (about two and half years) to give up infantile dependency, to strive for independence, and to compete. According to

Bardwick, the male child quickly learns to regard his parents as an uncertain source of approval and so is forced to develop a need to achieve which is relatively independent of external approval in order to make himself less vulnerable to parental rejection. Female children with supportive and affectionate mothers may never be forced to develop a motive to achieve which is free of affiliation cues.

Crandall et al. (1964) studied forty children in grades two through four and found that girls who were high achievers had mothers who were less affectionate and nurturant. They suggested that these girls, who did not receive as much maternal support and affection as the less achieving girls may have turned to other sources for satisfaction and security, such as academic achievement. Highly nurtured girls, on the other hand, may have had restricted learning experiences which produced fewer possibilities for developing independent problem-solving techniques in achievement situations and less confidence (and more anxiety) about their abilities. These authors suggested that a less nurturant mother who rejects the child's help-seeking is likely less involved with her maternal role and may herself be more achievement-oriented. These daughters may tend to model the mother's achievement behaviors, values and motivations.

Kagan and Moss (1962) in their longitudinal study also found that achievement behavior in females tended to be associated with early maternal hostility. This study also indicated that adult women with high "intellectual concern" had somewhat hostile, less protective mothers. Female children with highly accepting and affectionate mothers became adults who tended to withdraw from achievement tasks (Kagan and Freeman, 1963). Douvan and Adelson (1966)

found that achievement - oriented adolescent girls had placid, but not especially close relationships with their families. Martin (1975) found that women in non-traditional typically male "high prestige" areas of study were significantly higher on an achievement motivation measure than a more traditional female group. The traditional group tended to perceive both parents, especially the mother, more positively than did the non-traditional group. This seemed to provide support for Martin's hypothesis that less nurturant mothers may tend to produce more achievement oriented daughters who show less identification with the typical "feminine" sterotype, and who are more likely to enter a non-traditional vocation.

In summary, studies suggest that a certain amount of maternal rejection, even hostility, may be necessary if female children are to develop high levels of MS and related characteristics.

Maternal Restrictiveness and MS in Females

[redacted]rally been found that early parental restrictiveness, as opp[redacted]missiveness, is associated with low achievement motivatio[redacted]n males and females (Stein and Bailey, 1973). It seems likely t[redacted]thers are often more restrictive with female children, regarding [redacted]em as somehow more fragile, requiring more protection and less able [redacted] handle autonomous tasks (Hoffman, 1972).

Kagan and Freeman (1963) found that early maternal punitiveness and restrictiveness was associated with later conformity in adolescent females. Kagan and Moss (1962) reported that early parental restrictiveness tends to be associated with later "feminine" interests and dependency. Relative parental permissiveness has been found to be associated with intellectual striving, assertiveness and indepen-

dence in children, while restrictiveness is associated with later fearfulness, dependency and conformity (Becker, 1964). Baumrind (1971) found that permissiveness by both parents was positively associated with achievement-oriented behaviors for female preschoolers, but not for males. She found that restrictive parents generally had female children who were low in achievement-oriented behaviors. Among adolescent females, parental restrictiveness is associated with low achieveemtn aspirations, compliance and passivity (Douvan and Adelson, 1966). Although these authors generally spoke of parental restrictiveness, other authors have implied that it may be specifically maternal restrictiveness that is a primary determiner of achievement related motivations in females, or at least that it may be the mother's attitude and involvement with her daughter that determines the overall restrictiveness of the home environment (Bardwick, 1971; Hoffman, 1972).

In summary, it appears that maternal restrictiveness may be related to later low levels of MS in females, and to other "feminine" traits, while permissiveness is likely associated with high MS and related characteristics in females.

Maternal Protectivenss and MS in Females

Crandall and Battle (1970) using adult subjects from the Fels Research study found a strong negative correlation between female adult intellectual achievement efforts and earlier maternal babying and protectiveness. These authors found that mothers of daughters showing the highest intellectual effort during the preschool period tended to be "cool" affectively, made special efforts to accelerate their daughter's achievement skills, refused help, tended to treat their daughters as older and more competent than they actually were, and allowed them to

be exposed to hazards and threats to their physical safety and emotional comfort. At ages 6 - 10 years, these mothers continued to refuse help and were still lacking protectiveness. At this time they also made special attempts to explain logically and carefully the reasons for their policies and directives, and tended to evaluate the girls' intellectual ability as high. It appeared that these mothers promoted intellectual striving, and at the same time discouraged the girls from relying on interpersonal relationships for protection and support. The mothers of girls who showed high intellectual effort ceased to support their daughters' dependency as early as age three, as have been suggested as typical for male children (Bardwick, 1971). Crandall and Battle (1970) measured "academic effort" separately from general "intellectual effort". They found that early maternal non-protectiveness was not predictive of high achievement effort in adult females, although it was positively associated with intellectual effort in other areas.

Kagan and Moss (1962) also found that early maternal protectiveness was related to adult passitivity and "feminine interests." Bronfenbrenner (1961) feels that girls are especially susceptible to the detrimental influence of overprotection which may interfere with the development of independence, initiative and self-sufficiency. Hoffman (1972) suggests that research indicating that low achieving females have warm accepting mothers may mean that these girls experience too much maternal rapport and protection during this period and because of this, as adults they find themselves unwilling or unable to face stress and unmotivated to achieve autonomously.

In summary, it appears that low levels of achievement motivation

and related characteristics such as dependence and passivity, may be associated with earlier maternal babying and over-protectiveness, while more achievement-related characteristics are found in females whose mothers were less protective.

Maternal Antecedents of MAF in Females

Very little direct research has been done relating early child-rearing practices to the development of fear of failure or Motive to Avoid Failure (MAF) in women. Research has consistently shown that females are more anxious about failure in academic situations than men, and tend to score higher on the questionnaire measures of test anxiety, which are usually used to measure the subjects' level of MAF (Hill and Sarason, 1966; Feld and Lewis, 1969; Maccoby and Jacklin, 1974). Kagan and Moss (1962) found that "fear of failure" or withdrawal in female children was related to similar types of behaviors in the same subjects as adults.

While some studies have looked at the importance of child-parent relationships in the development of "fear of failure" (MAF) in males (Bartlett and Smith, 1966; Feld, 1967; Hermans et al., 1972; Teevan and McGhee, 1972) no similar studies have been done using only female subjects. Some theory and research (Bartlett and Smith, 1966; Feld, 1967; Sarason et al., 1964) suggests that high test anxiety (MAF) is the result of parental criticism of the preschool child's efforts, delayed independence training and the witholding of love as a way of insuring conformity to achievement standards. Smith (1969) suggested that parents of children with high motivation to approach success may react to even partial success with encouragement so that they continue to feel essentially positive toward themselves and their performance. The

parents of highly anxious children, on the other hand may react to the same level of performance by pointing out how it falls short. In this way these children get the feeling that parental love is contingent on doing well, and become anxious about losing love if they fail.

However, it is also possible that female children may receive too much parental support and nurturance and thus never learn to cope with stress or the possibility of failure. Heckhausen (1967, p. 146) states that "during the course of growing up boys are obviously faced more strongly than girls with the necessity to master fear of failure and . . . not to evade the problem of achievement. Thus only in women does the fear of, and tendency to avoid failure, observed in childhood correlate with . . . . the same tendencies in adulthood." Becker (1964) and Baumrind (1971) both suggested that moderate amounts of punishment and hostility maybe necessary if a child (of either sex) is going to learn to handle frustration, competition, risk of failure and the realities of independent living.

Hoffman (1972) stated that mastery requires the ability to tolerate frustration. So that if a parent responds too quickly with help the child will not develop this tolerance. This "lack of tolerance" seems to be more typical of females than males as they more often show a tendency to withdraw from threatening achievement situations (Crandall and Rabson, 1960). Kagan and Freeman (1963) found that adolescent girls who showed a tendency to withdraw from achievement tasks had mothers who were highly accepting and affectionate during their early childhood years.

In summary, very little research has investigated the relationship between maternal childrearing practices and later MAF in females. Further exploration in this area appears warranted.

Summary: Maternal Antecedents of MS and MAF in Females

It appears that the early mother-daughter relationship may be important to subsequent MS and MAF in adult females. Maternal attitudes and behaviors that are conducive to the development of traditional "feminine" characteristics may actually be antagonistic to the development of achievement tendencies. The present study will attempt to explore the relationship between some maternal childrearing practices and later MS and MAF in adult females.

Some Demographic Antecedents of MS and MAF in Females

Few studies have considered early demographic variables and their relationship to the Motive to Approach Success (MS) in female subjects. There is also a noticeable lack of literature exploring the relationship between the Motive to Avoid Failure (MAF) in females and demographic background. The present study considers the relationships between the childhood demographic variables of: parental marital status, religious affiliation, socioeconomic status, mothers' work and educational history, and later MS and MAF in adult females.

Previous research has suggested that certain demographic variables may be associated with achievement-related motivations in females. Veroff et al.(1960) in a nationwide survey found that females from homes where the parents were divorced or separated obtained higher n Ach scores on the TAT than females from intact homes. These authors also reported that females from higher socioeconomic status homes were higher in n Ach than those from lower social class homes.

Several studies have examined the relationship between n Ach and religion in male subjects. Veroff et al. (1962) found that Jewish and Catholic males obtained higher TAT n Ach scores than did Protestant males.

However, earlier research had suggested that Protestant males were higher in n Ach than Catholic males (McClelland, 1961; Rosen, 1959). No similar research has examined the relationship between religion and n Ach in female subjects.

Some authors have looked at the relationship between the educational and work history of mothers, and later achievement-related motives and behaviors in their daughters. Stein and Bailey (1973) felt that the presence of an achieving maternal model may facilitate achievement-oriented tendencies in females. These authors noted that identification with the mother by female children seems to be opposed to the development of achievement orientation, unless the mother is a non-traditional model who does not fit the typical female role definition. Douvan and Adelson (1966) found that girls who had low achievement aspirations and high traditional feminine interests usually named their mothers or close female relations as their role models, while girls with high achievement aspirations usually named non-family members. Lansky et al. (1961) reported that adolescent females who were highly critical of their mothers and showed low levels of maternal identification tended to be highly achievement motivated.

Maternal employment in middle class families was found to be associated with high educational and occupational aspirations and expectations for young females (Banducci, 1967). As well, these girls more frequently planned to combine a homemaking and working career than did girls with non-working mothers. Douvan and Adelson (1966) also found that daughters of working mothers expressed less traditional feminine interests than daughters of non-working mothers.

Higher levels of maternal education have been found to be positively

correlated with intellectual mastery in females (Kagan and Freeman, 1963), but negatively related to academic effort (Crandall and Battle, 1970).

In summary, it seems that while an individual's early demographic background may play an important role in later levels of MS and MAF, little research has investigated this supposition in females. The present study explores the relationship of parents' marital status, early religious background, early socioeconomic status, mother's work history and educational level and later MS and MAF in adult females.

Overview of the Related Literature

This chapter reviewed literature pertaining to theory and research in the area of achievement-related motives, especially as it pertains to females. Initially, the early work of McClelland in the area of achievement motivation was reviewed. This was followed by a discussion of Atkinson's (1974) formulation of Motive to Approach Success (MS) and Motive to Avoid Failure (MAF) as stable personality dispositions which operate in achievement situations. Next, the literature pertaining to these motives in females was reviewed. Finally, some early maternal and demographic antecedents of MS and MAF and related characteristics in females were discussed.

This literature suggests that some achievement-related motives in females tend to remain fairly stable from childhood to adulthood, and that early childhood experiences may have long term effects on the later achievement motives and behaviors of females. It appears that early maternal attitudes and behaviors might be especially important factors in determining the later achievement-orientations of adult females.

CHAPTER III

METHODOLOGY

Sample

The sample group consisted of forty female University of Alberta undergraduate education students who volunteered to participate in this study. The majority of the subjects who reported their ages were in their early twenties. Unfortunately, only 26/40 subjects gave their ages on the questionnaire requesting this information. Forty-one subjects volunteered for this study. However, one subject reported that her father had been her "primary caretaker" in the years prior to age twelve so her test results were not analyzed. Test results from two students who reported that their sisters had been their "primary caretakers" while their mothers worked were left in, however, as it was felt that their mothers had likely been the primary parental influence in their lives. The subjects were tested in small group settings, with the size of the group ranging from 3 - 10 subjects. Each subject took part in one experimental session which lasted approximately one hour.

Testing Procedure

In addition to a questionnaire requesting background information (labelled the Personal Questionnaire), three test instruments were employed in this study:

a) Six Thematic Apperception Test pictures in which a female is depicted

as the central figure were used to measure Motive to Approach Success (Veroff et al., 1960)

b) The Debilitating Anxiety Scale of the Achievement Anxiety Test (Alpert and Haber, 1960) and

c) The Parent-Child Relations Questionnaire II (Siegelman and Roe, 1973).

Copies of the test instruments and questionnaire are included in Appendices B, C, D and E. The general introductory directions given to the subjects are found in Appendix A.

First, the Thematic Apperception Test (TAT) of Motive to Approach Success (MS) was administered by the examiner. This took approximately thirty minutes of each session. The subjects then completed the Delibitating Anxiety Scale (DAS), the PCR Questionnaire II (PCR II), and the Personal Questionnaire. The subjects completed the last three tests independently, following the written directions provided with each of these.

For most subjects these last three tests took from fifteen to twenty minutes to complete. This order of administration was chosen as it was felt that the DAS, the PCR II and even the questionnaire might have a biasing effect on the projective TAT measure of MS. The PCR II and the questionnaire were administered last as they seemed to be more objective and less suspectible to influence than the other two measures. This order of test presentation is the usual one employed when test measures of MS and MAF are administered under neutral conditions (Karabenick and Marshall, 1974; Horner, 1972).

Thematic Apperception Test (TAT) of Motive to Approach Success (MS)

Achievement motivation has usually been measured through the scoring

of fantasy stories elicited by TAT pictures and other similar projective stimuli, using McClelland's original standardized scoring system. The rationale, reliability and validity for this system appeared along with detailed administration and scoring instructions, in his 1953 book The Achievement Motive and also in Motives in Fantasy, Action and Society: A Method of Assessment and Study (Atkinson, 1958). The scoring system is based on: a character expressing concern about achievement and/or possible failure, a character engaging in achievement-related tasks or actually achieving some degree of success (or failure) and expressing satisfaction or distress about this end result.

The six stimulus pictures used in this study were chosen because they depict females as the central character, and have been used on female subjects in an American nationwide survey (Veroff et al., 1960). Also, a later study found these pictures to be especially useful in discriminating between female achievers and underachievers (Lesser et al., 1963).

These pictures were presented individually to each subject along with oral directions similar to those used by McClelland et al. (1953). See Appendix B for copies of the stimulus pictures used and exact directions given to subjects. No deliberate attempt was made to manipulate the motivation of the subjects. The purpose of this was to keep the level of subjects' motivation to approach success (MS) "normal". That is, to measure the motivational level the subjects had brought into the experimental situation, and which they were likely to display in response to the cues of everyday university life.

The instructions for the TAT were given orally by the examiner and were basically the same ones which had been used by McClelland et al.

(1953, p. 98-99). The stimulus pictures were presented in booklet form with a blank page behind each picture which the subject was to use to write her story. The subjects were told that this was a test of creative imagination. They were given 20 seconds to look at each picture and then allowed four minutes to make up a story about it. They were instructed to try to answer the following four questions in their stories:

1) What is happening? Who are the persons?
2) What has lead up to this situation? That is, what has happened in the past?
3) What is being thought? What is wanted? By whom?
4) What will happen? What will be done?

(From McClelland, 1953)

The experimenter kept time, and after a minute had been allowed for each question would say, "All right, it is time to go on to the next question" (or some shorter version of this remark). About 55 seconds into the final minute the experimenter said "Try to finish your story now, please." As soon as the subjects indicated they were finished, the next picture was presented. Generally, this method of presentation seemed to present no problem to the subjects, few queries were made during the test, and subjects generally finished their stories prior to, or within a few seconds of the time limits. Some subjects indicated that they were tired of writing by the sixth story, but this was usually done in a joking manner and following testing they indicated that this had posed no real problem. (After all these young women were university students used to taking large volumes of notes quickly!)

Scoring

The TAT was scored following the exact method prescribed by

McClelland and detailed in The Achievement Motive (1953) and Motives in Fantasy, Action and Society: A Method of Assessment and Study (1958).

The first step in scoring was to establish the reliability of the scorer. This was done by studying the scoring standards and instructions presented by McClelland et al. (1953) and Atkinson (1958). Next six sets of "practice" stories provided in Atkinson (1958) and two sets of "practice" stories from McClelland et al. (1953) were scored. These scores were compared in the prescribed manner with the scoring of "experts" who were experienced in this scoring procedure (Atkinson, 1958).

One of these sets was not scored for reliability. It was intended to provide practice and to familiarize the scorer with the system, and so was compared story by story with the expert's responses and studied for sources of error and misunderstanding.

Two "indexes of agreement" were calculated on the remaining seven sets of stories, in the manner prescribed (Atkinson, 1958). The first of these was the "percentage agreement" between the experimenter and the expert on the presence of motive-related imagery. This index is the ratio of twice the number of times that agreement on the presence of n Ach imagery is found divided by the number of times the experimenter found this imagery plus the number of times the expert found the imagery. The second index of agreement is simply a rank-order correlation between the experimenter's and the expert's ranking of the protocols, according to the total score for each story.

The average "percentage agreement" on the final seven story sets was .82 (range from .71 to .903). The average Rank order correlation on these story sets was .97, between the expert's scoring and the experimenter's (range from .90 to .98). This scorer reliability compares

very favorably to that found in other studies (Atkinson, 1958). Intra-scorer reliability was established by rescoring the protocols of five of the subjects used in the present study (30 stories) after a period of 6 months had elapsed, and then calculating the "percentage agreement" and rank order correlation between these scores and those obtained earlier. The percentage agreement was found to be .88 and the rank order correlation was .99, indicating very high intrascorer reliability.

The Debilitating Anxiety Scales (DAS)

The Achievement Anxiety Test was originally developed to measure achievement anxiety in academic test situations (Alpert, 1957).

It contained 27 items, 17 of which composed a Debilitating Anxiety Scale (the minus scale) and eleven of which made up a Facilitating Anxiety Scale (the plus scale). The Debilitating Anxiety Scale measures anxiety in academic test situations which interferes with, and is detrimental to the subjects' performance, while the Facilitating Anxiety Scale measures anxiety which improves the subjects' academic performance.

The reported test-retest reliability for the minus and plus scales are .76 and .75, respectively, (using college freshmen and retesting after an 8 month period had elapsed). Over a ten week period, using introductory psychology students Alpert (1957) achieved test-retest reliability scores of .87 for the minus scale and .83 for the plus scale.

The validity of the Achievement Anxiety Test was established by correlating the plus and minus scores of various samples of college students with their overall grade point averages, psychology grades, final exam grades and midterm grades. All correlations were found to be significant and in the predicted directions (Alpert, 1957).

Alpert also correlated the Verbal aptitude scores of various college samples with their minus and plus scores, and found significant correlations in [illegible]pected directions.

When or[illegible]esigned the plus and minus scales of the Achievement Anxiety [illegible] considered to be two independent specific anxiety scales [illegible]hich c[illegible]e administered separately as independent measures of achi[illegible]ement [illegible]xiety. Alpert and Haber (1960) refined the Achievement Anxiety [illegible]est a[illegible] decreased the number of items to 19. Nine of these made up t[illegible] Facilitating Anxiety Scale and ten remained on the Debilitati[illegible]Anxiety Scale. These authors retained only those items which were [illegible]ighly correlated with the criteria, but not with each other. In spite of [illegible]fforts to separate the two scales empirically, a low but significant [illegible]rrelation remains between the two scales.

The ten items of the Debilitating Anxiety Scale have been used as a measure of Motivation to Avoid Failure (MAF) in research on achievement motivation [illegible]Hermans et al., 1972; Horner, 1972; Karabenick and Marshall, 1974).

It was decided to use the revised Debilitating Anxiety Scale (minus scale) of the Achievement Anxiety Test to measure the subjects' Motivation to Avoid Failure (MAF) in the present study, since this scale had been previously used for similar research (Hermans et al., 1972; Horner, 1972; Karabenick and Marshall, 1974). As well, this scale correlates highly with the Mandler-Sarason Test Anxiety Scale (Alpert and Haber, 1960) which has also been used to measure "fear of failure" or Motivation to Avoid Failure (Atkinson, 1974; Atkinson and Litwin, 1966). Furthermore, the revised scale is shorter, seems easier to understand and generally requires less time and effort on the part of the subjects than the Test

Anxiety Scale. These considerations were felt to be important, as the subjects in the present study were asked to complete four tests in a fairly brief period of time. The ten items of the revised DAS appear in Appendix C.

The Parent-Child Relations Questionnaire II (PCR II)

The Parent-Child Relations Questionnaire II (PCR II) is a self-report measure of the characteristic behavior of parents toward their young children, as experienced by the child (Siegelman and Roe, 1973). The original Parent-Child Relations Questionnaire I (Roe and Siegelman, 1963) was constructed primarily for research purposes with adults, who were asked to recall how their parents treated them while they were growing up (especially before the age of 12). The original PCR I had 130 items and 10 subtests. The first six of these fit a theoretical model of parent-child relations developed by Roe (1957) and were labelled Loving, Protecting, Demanding, Rejecting, Neglecting and Casual. The other four subtests — Symbolic-Love Reward, Direct-Object Reward, Symbolic-Love Punishment, and Direct-Object Punishment were based on the work of Sears, Maccoby and Lewin (1957).

The PCR I was developed by an intensive search of literature for items that appeared to be related to the PCR I categories. These items were submitted to four "experts" for sorting or discarding. All of the selected items referred to specific overt parental behaviors rather than to parental attitudes or feelings. The authors felt that retrospective recollections would be more accurate if the subjects were asked to recall specific parental actions rather than their interpretations of these parent behaviors. PCR I reliability, validity, factor structure and normative data can be found in Roe and Siegelman (1963),

and Siegelman (1965, 1973). Analysis of responses on the PCR I revealed that parents were perceived differently by sons and by daughters, and that there were some differences connected with same sex and cross sex behaviors. The analysis of the PCR I for several different groups consistently yielded three factors. Two factors were bipolar, Love-Reject (LR) and Casual-Demand (CD), and the third one was unipolar, Attention (A).

The PCR I has been revised and shortened twice (Siegelman, 1973; Siegelman and Roe, 1978). Factor analysis of the 130 items of the PCR I for three undergraduate college groups was used to reduce the number of categories from 10 to 5, maintaining 3 factors. Items from the PCR I with the highest factor loading saturations were included in each of the five categories.

The PCR II consists of 50 questions, with 10 items measuring each of the following parental behavior categories: Loving, Rejecting, Casual, Demanding and Attention. The three factors measured by the PCR II are I Love-Reject (L-R), II Casual-Demand (C-D) and III Attention (A). Factor scores are obtained by simply combining the raw scores of those categories that comprise a given factor. Scoring details are given in the Parent-Child Relations Questionnaire II Manual (1978).

There are four separate forms of the scale: Father-Son, Father-Daughter, Mother-Son and Mother-Daughter. Because only mother-daughter relations were being investigated in this study, the Mother-Daughter form of the PCR II was used.

Administration and scoring instructions are detailed in the Parent Child Relations Questionnaire II Manual (1978). Kuder - Richardson Formula 20 reliabilities are presented in Tables 2, 3, and 10 of this

Manual (p. 11 and p. 18). These reliabilities range from .63 to .97 for all samples studied. The content validity of the PCR II was supported by the unanimous agreement of four "expert" judges that certain items fit a given category. The construct validity of PCR II has been supported by the research findings of Siegelman (1965, 1973) who has found the factor scores of subjects relate to personality variables in meaningful, predicted ways.

PCR II Categories

1) Loving - Parents were warm, affectionate, and helpful, respected their children's point of view and encouraged them to express it; made them feel wanted and important; reasoned with them and explained harmful consequences when they did wrong things; helped their children to live comfortably with themselves, and made it easy to confide in them.
2) Rejecting - Parents were too busy to answer questions, did not spend any more time with their children than they had to; did not take them into consideration in making plans; ridiculed and made fun of them; complained about them; paid no attention to them; and did not try to help their children learn things.
3) Casual - Parents set very few rules for their children; gave them as much freedom as they wanted; let them off easy when they did something wrong; let them stay up as late as they liked; did not object when they were late for meals; were easy with them; did not bother much about enforcing rules.
4) Demanding - Parents punished their children hard enough when they misbehaved to make sure that they wouldn't do it again; made it clear

that they were bosses; demanded unquestioning respect; punished their children by being more strict about rules and regulations; expected prompt and unquestioning obedience.

5) Attention - Parents spoiled their children; relaxed rules and regulations as a reward; gave them candy or ice cream as a reward; gave their children special attention as a reward; rewarded them by giving them money or increasing their allowance; gave them new things as a reward, such as toys (PCR II Manual, p.8, 1978).

PCR II Factors

I Love-Reject (LR) - a bipolar factor. High scores are associated with parental love, acceptance, warmth and nurturance towards the child. Low scores are associated with parental rejection and hostility toward the child.

II Casual-Demanding (CD) - High scores are associated with parental casualness, non-restrictiveness, permissiveness, granting of autonomy, and lax discipline toward the child. Low scores are associated with parental restrictiveness, control, strictness and non-permissiveness toward the child.

III Attention (A) - High scores are associated with parental protectiveness, solicitousness and indulgence. Low scores are associated with parental non-protectiveness (Roe and Siegelman, 1963).

Predictions for this study were based only on the three factors of the PCR II as past research had shown these to provide as much information as the five PCR II categories separately (Siegelman, 1965; Siegelman, 1973).

Personal Questionnaire

This questionnaire requested background information, and was given primarily to determine that the subjects' mothers were the primary parental influence in their lives during their early years. As well, the subjects were asked about their mother's education level and work history, their parent's marital status, their early religious and socio-economic history. These questions were asked primarily so that additional demographic hypotheses, regarding the development of MS and MAF later in life could be tested. In order that the subjects be encouraged to recall early childhood experiences, they were asked to answer the questions as they applied to their lives prior to age twelve. This was congruent with the PCR II which also asks the subjects to think especially about the time before they were 12 when responding (Siegelman and Roe, 1973).

Hypotheses of the Present Study

Motive to Approach Success (MS) and Maternal Practices

The literature suggested that MS in adult women might be associated with distinct patterns of early mother-daughter relationships. Generally, the mothers of females with high achievement needs and behaviors have been found to be more hostile, less nurturant, less affectionate and less protective than the mothers of females lower in these attributes. (eg. Crandall et al., 1964; Crandell and Battle, 1970; Kagan and Moss, 1962; Martin, 1975). Early maternal restrictiveness has also been found to be associated with conformity in adolescent girls (Kagan and Freeman, 1963) and with "feminine"interests and dependency (Kagan and Moss, 1962). With consideration for the literature cited, the following directional hypotheses were proposed:

Hypothesis # 1

Females who are high in the Motive to Approach Success (as measured by the TAT) will recall their mothers as being more rejecting, more casual, and less attentive and protective (as indicated by their PCR II factor scores) than females low in MS.

Hypothesis # 1 A: Love-Reject Factor

Females who are high in MS (as measured by the TAT) will have lower scores on the Love-Reject factor of the PCR II than females who are low in MS.

Hypothesis # 1 B: Casual-Demand Factor

Females who are high in MS (as measured by the TAT) will have higher scores on the Casual-Demand factor of the PCR II than females who are low in MS.

Hypothesis # 1 C: Attention Factor

Females who are high in MS (as measured by the TAT) will have lower scores on the Attention factor of the PCR II than females who are low in MS.

Motive to Avoid Failure (MAF) and Maternal Practices

There have been few experimental attempts to examine MAF in females, especially in relation to early childhood experiences. Kagan and Freeman (1963) did report that female children with highly accepting and affectionate mothers became adults who tended to withdraw from achievement tasks. However, in view of the noticeable lack of literature in the area of female MAF, the following non-directional exploratory hypotheses were suggested.

Hypothesis # 2

Females who are high in the Motive to Avoid Failure (as measured by

the DAS) will not differ from females low in MAF in their recollections of their mothers' childrearing practices (as indicated by their PCR II factor scores).

Hypothesis # 2 A: Love-Reject Factor

Females who are high in MAF (as measured by the DAS) will not differ on the Love-Reject factor of the PCR II from females who are low in MAF.

Hypothesis # 2 B: Casual-Demand Factor

Females who are high in MAF (as measured by the DAS) will not differ on the Casual-Demand factor of the PCR II from females who are low in MAF.

Hypothesis # 2 C: Attention Factor

Females who are high in MAF (as measured by the DAS) will not differ on the Attention factor of the PCR II from females who are low in MAF.

Motive to Approach Success (MS) and Demographic Variables

The subjects were asked to report their parents' marital status, religious background, and their mothers' educational and employment history, as research had suggested that certain demographic variables are associated with achievement motivation (Motive to Approach Success). Veroff et al. (1960) found that females from homes where the parents were divorced or separated obtained higher TAT scores than females from intact homes. Jewish and Catholic males were found to be higher in achievement motivation than Protestant subjects (Veroff et al., 1962). However, earlier research had found Protestant men to be higher in this Motive than Catholic or Jewish men (Rosen, 1959; McClelland, 1961). Females from higher socioeconomic backgrounds have been found to obtain

higher need achievement scores than those from lower socioeconomic backgrounds (Rosen, 1959; Veroff et al., 1960). Barducci (1967) found that maternal employment was associated with high educational and occupational expectations for young females. Higher levels of maternal education have been found to be positively related to intellectual mastery in females (Kagan and Freeman, 1963), but negatively correlated with academic effort (Crandall and Battle, 1964). Since the relationships between the demographic variables measured and MS in females were not always clear, the following non-directional exploratory hypotheses were proposed:

Hypothesis # 3

Females will not differ in levels of Motive to Approach Success (as measured by the TAT) on the basis of the following demographic variables: parent's marital status, religious background, early socioeconomic status and mother's education and work history.

Hypothesis # 3 A : Parent's Marital Status

Females from homes where the parents were divorced or separated will not differ in MS (as measured by the TAT) from females reared in intact homes.

Hypothesis # 3 B: Religious Background

Females from Protestant homes will not differ in MS (as measured by the TAT) from females reared in Catholic homes.

Hypothesis # 3 C: Socioeconomic Status

Females from homes of differing socioeconomic status will not differ in MS (as measured by the TAT).

Hypothesis # 3 D: Mother's Work History

Females whose mothers worked while they were growing up will not

differ in MS (as measured by the TAT) from those whose mothers never worked outside the home.

Hypothesis # 3 E: Mother's Educational Level

Females whose mothers had more years of formal education will not differ in MS (as measured by the TAT) from those whose mothers had less education.

Motive to Avoid Failure (MAF) and Demographic Variables

Because of a lack of literature in the area, it was not known how the childhood demographic variables under consideration would interact with later Motive to Avoid Failure in adult females. The following non-directional exploratory hypotheses were accordingly proposed:

Hypothesis # 4

Females will not differ in levels of Motive to Avoid Failure (as measured by the DAS) on the basis of the following demographic variables: parent's marital status, religious background, early socioeconomic status, and mother's education and work history.

Hypothesis # 4 A: Parent's Marital Status

Females from homes where the parents were divorced or separated will not differ in MAF (as measured by the DAS) from females reared in intact homes.

Hypothesis # 4 B: Religious Background

Females from Protestant homes will not differ in MAF (as measured by the DAS) from females reared in Catholic homes.

Hypothesis # 4 C: Socioeconomic Status

Females from homes of differing socioeconomic status will not differ in MAF (as measured by the DAS).

Hypothesis # 4 D: Mother's Work History

Females whose mothers worked while they were growing up will not differ in MAF (as measured by the DAS) from those whose mothers never worked outside the home.

Hypothesis # 4 E: Mother's Educational Level

Females whose mothers had more years of formal education will not differ in MAF (as measured by the DAS) from those whose mothers had less education.

Method of Analysis

Hypothesis # 1

The relationship between the subjects' TAT scores and the three PCR II Factor Scores was initially examined by means of a Pearson product-moment correlation. Correlations between the subjects' TAT scores and their scores on the PCR II Love-Reject factor, the Casual - Demand factor and the Attention factor were obtained to test Hypothesis # 1 A, # 1 B, and # 1 C, respectively.

In addition, the subjects were divided into high and low scorers on the TAT (low scorers were those below the total mean TAT score; high scorers were those above this mean). A one-way analysis of variance was done to determine whether these groups varied significantly on their mean PCR II factor scores.

Following this, the fifteen highest and lowest scorers on the TAT measure of MS were selected. The mean PCR II factor scores of these two groups were also compared by means of a one-way analysis of variance. Both of these analyses were done to further test hypotheses # 1 A, # 1 B and # 1 C that high and low scorers on the TAT would differ on their PCR II Love-Reject, Casual-Demand and Attention factor scores, respectively.

Hypothesis # 2

Analysis to test hypothesis # 2 A, # 2 B and # 2 C was identical to that described for the hypotheses 1 A, 1 B and 1 C in the preceding section, except that subjects were grouped on the basis of their DAS scores.

Hypothesis # 3

Hypothesis # 3 A, # 3 B, # 3 C, # 3 D and # 3 E were tested by means of a one way analysis of variance. Subjects were divided into groups on the basis of the demographic variables involved, and the mean TAT scores of these groups were compared to determine whether there was a significant difference between them.

Hypothesis # 4

Analysis to test hypothesis # 4 A, # 4 B, # 4 C, # 4 D and # 4 E was identical to that described for the # 3 hypotheses in the preceeding section, except that the mean DAS scores of the various demographic groups were considered in the analysis.

The level of significance was set at .05 for all analyses done in the present study.

CHAPTER IV

RESULTS

Initially, Pearson product-moment correlations between the subjects' Thematic Apperception Test (TAT) scores and the three Parent-Child Relations Questionnaire II (PCR II) factor scores (I Love-Reject, II Casual-Demand and III Attention) were obtained. When no significant correlations were found, an additional set of correlations between the TAT scores and the five PCR II category scores was computed. The correlations for both sets of analyses are shown in Table I. None of the obtained correlations achieved significance at the .05 level. This result did not support Hypothesis # 1 A, # 1 B or # 1 C, which had proposed directional relationships between the subjects' TAT scores and their PCR II factor scores.

Pearson product-moment correlations were obtained between the subjects' Debilitating Anxiety Scale (DAS) scores and the three factor and five category scores of the PCR II (see Table I). None of the obtained correlations were significant at the .05 level. Thus, these results supported Hypotheses # 2 A, # 2 B, and # 2 C which had predicted that no relationship would be found between the subjects' DAS Scores and their PCR II factor scores.

Additional analyses of variance were computed on each of the above hypotheses separately to confirm the results obtained from correlational analysis.

TABLE I

PEARSON PRODUCT-MOMENT CORRELATIONS (r), "t" SCORES, AND PROBABILITY LEVELS (p) FOR COMPARISONS BETWEEN SUBJECTS' PCR II SCORES AND 1) TAT AND 2) DAS SCORES

N=40

	PARENT-CHILD RELATIONS QUESTIONNAIRE II								
	PCR II CATEGORIES					PCR II FACTORS			
	Love	Reject	Casual	Demand	Attention	L-R	C-D	A	
r =	-.169	.124	.114	-.094	-.173	-.137	.115	-.173	
t =	-1.06	.771	.705	-.583	-1.08	-.851	.713	-1.08	TAT
p =	.296	.446	.485	.564	.286	.400	.480	.286	
r =	-.216	.145	.140	-.096	.150	-.222	.129	.150	
t =	-1.37	.905	.875	-.597	.935	-1.40	.803	.935	DAS
p =	.180	.371	.387	.554	.356	.169	.427	.356	

TABLE II

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN PCR II SCORES FOR HIGH AND LOW SCORING GROUPS ON THE TAT

N=40

	PARENT-CHILD RELATIONS QUESTIONNAIRE II							
	PCR II CATEGORIES					PCR II FACTORS		
	Love	Reject	Casual	Demand	Attention	L-R	C-D	A
High TAT n=19	32.11	14.63	23.26	22.89	21.63	67.47	50.37	21.63
Low TAT n=21	31.62	15.57	22.95	24.67	22.95	65.57	48.29	22.95
F =	.10	.43	.05	1.04	1.61	.48	.58	1.61
P=	.750	.516	.816	.313	.213	.490	.451	.213

Hypothesis # 1

The TAT scores of the 40 subjects were arranged in order of magnitude. The 19 subjects whose scores were above the total mean TAT score of 6.08 were arbitrarily labelled the High TAT Group. The 21 subjects whose scores fell below the mean were labelled the Low TAT Group.

Next, the 15 highest scorers on the TAT were arbitrarily labelled the Very High TAT Group and the 15 lowest scorers were labelled the Very Low TAT Group. This was done to eliminate the subjects who were very close to the median on the TAT, in the hope that this would define the groups more clearly in terms of MS. In order to test hypotheses # 1 A, # 1 B and # 1 C, the mean PCR II factor scores of the Low TAT and High TAT Groups (see Table II), and those of the Very Low TAT and Very High TAT Groups (see Table III) were compared, using a one way analysis of variance tehcnique. When no significant results were obtained for the three factors of the PCR II, analysis were run for each of the 5 categories and the results are presented in Table II and III, as well.

Hypothesis # 1 A

Females who are high in MS (as measured by the TAT) will have lower scores on the Love-Reject factor of the PCR II than females who are low in MS.

This hypothesis was tested by comparing the mean PCR II Love-Reject factor scores (L-R) of the High ($\bar{X}$ = 67.47) and Low ($\bar{X}$ = 65.57) TAT Groups (see Table II). The results were not significant ($F = 0.48$, $p = .490$).

Next the mean PCR II L-R scores of the Very High ($\bar{X}$ = 67.13) and

TABLE III

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN PCR II SCORES FOR THE VERY HIGH AND VERY LOW GROUPS ON THE TAT

N=30

	PARENT-CHILD RELATIONS QUESTIONNAIRE II							
	PCR II CATEGORIES					PCR II FACTORS		
	Love	Reject	Casual	Demand	Attention	L-R	C-D	A
Very High TAT n=15	32.20	15.07	23.20	22.67	21.53	67.13	50.53	21.53
Very Low TAT n=15	32.40	14.27	23.00	24.27	23.67	67.47	48.73	23.67
F =	.01	.28	.01	.65	3.20	.01	.29	3.20
P =	.907	.601	.907	.428	.085	.912	.594	.085

TABLE IV

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN PCR II SCORES FOR THE HIGH AND LOW SCORING GROUPS ON THE DAS

N=40

	PARENT-CHILD RELATIONS QUESTIONNAIRE II							
	PCR II CATEGORIES					PCR II FACTORS		
	Love	Reject	Casual	Demand	Attention	L-R	C-D	A
High DAS n=20	30.95	15.90	22.75	23.65	22.35	64.55	49.10	22.35
Low DAS n=20	32.75	14.35	23.45	24.00	22.30	68.40	49.45	22.30
F =	1.47	1.19	.28	.04	.00	2.07	.02	.00
P =	.233	.281	.600	.843	.964	.158	.901	.964

the Very Low ($\bar{X}$ = 67.47) TAT Groups were compared (see Table III). Again, the results were not significant (F = .01, p = .912). Thus, Hypothesis # 1 A was not supported.

Hypothesis # 1 B

Females who are high in MS (as measured by the TAT) will have higher scores on the Casual-Demand factor of the PCR II than females who are low in MS.

This hypothesis was tested by comparing the mean PCR II Casual-Demand factor scores (C-D) of the High ($\bar{X}$ = 50.37) and Low ($\bar{X}$ = 48.29) TAT Groups (see Table II). The results were not significant (F = .58, p = .451).

Next, the mean PCR II C-D scores of the Very High ($\bar{X}$ = 50.53) and the Very Low ($\bar{X}$ = 48.73) TAT Groups were compared (see Table III). Again, the results were not significant (F = .29, p = .594). Thus, Hypothesis # 1 B was not supported.

Hypothesis # 1 C

Females who are high in MS (as measured by the TAT) will have lower scores on the Attention factor of the PCR II than females who are low in MS.

This hypothesis was tested by comparing the mean PCR II Attention factor scores (A) of the High ($\bar{X}$ = 21.63) and Low ($\bar{X}$ = 22.95) TAT Groups (see Table II). The results were not significant (F = 1.61, p = .213).

Next, the mean PCR II A scores of the Very High ($\bar{X}$ = 21.53) and the Very Low ($\bar{X}$ = 23.67) TAT Groups were compared (see Table III). Again these results were not significant (F = 3.20, p = .085). Thus, Hypothesis # 1 C was not supported.

Hypothesis # 2

The DAS scores of the 40 subjects were arranged in order of magnitude. The 20 subjects whose scores were above the total mean DAS score of 28.45 were arbitarily labelled the High Motive to Avoid Failure (High DAS) Group. The 20 subjects whose scores fell below the mean were labelled the Low Motive to Avoid Failure (Low DAS) Group.

Next, the 15 highest scorers on the DAS were arbitarily labelled the Very High DAS Group, and the 15 lowest scorers were labelled the Very Low DAS Group. This was done to eliminate the subjects who were very close to the median on the DAS measure of MAF, in the hope that this would define the groups more clearly in terms of failure motivation.

In order to test hypothesis # 2 A, # 2 B, and # 2 C the mean PCR II scores of the Low DAS and High DAS groups, and those of the Very Low DAS and Very High DAS Groups were compared, using analysis of variance techniques, first for the three factors and then for the five category scores (see Tables IV and V).

Hypothesis # 2 A

Females who are high in MAF (as measured by the DAS) will not differ on the Love-Reject factor of PCR II from females who are low in MAF.

This hypothesis was tested by comparing the mean PCR II Love-Reject factor scores (L-R) of the High ($\bar{X}$ = 64.55) and Low ($\bar{X}$ = 68.40) DAS Groups (see Table IV). The results were not significant ($F = 2.07$, $p = .158$).

Next, the mean PCR L-R scores of the Very High ($\bar{X}$ = 62.07) and the Very Low ($\bar{X}$ = 67.73) DAS Groups were compared (see Table V). Again,

TABLE V

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN PCR II SCORES FOR THE VERY HIGH AND VERY LOW SCORING GROUPS ON THE DAS

N=30

	PARENT-CHILD RELATIONS QUESTIONNAIRE II							
	PCR II CATEGORIES					PCR II FACTORS		
	Love	Reject	Casual	Demand	Attention	L-R	C-D	A
Very High DAS n=15	29.93	17.20	23.40	24.47	22.67	62.07	48.93	22.67
Very Low DAS n=15	32.87	15.13	22.40	24.53	21.73	67.73	47.87	21.73
F=	2.53	1.49	.63	.00	.52	3.02	.14	.52
P=	.123	.232	.433	.974	.477	.093	.712	.477

TABLE VI

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN TAT AND DAS SCORES OF SUBJECTS REARED IN PROTESTANT AND CATHOLIC HOMES

N=37

	MEAN TAT SCORES	MEAN DAS SCORES
Protestant n=23	7.39	28.87
Catholic n=14	4.36	27.07
F=	2.67	.70
P=	.111	.407

the results were not significant ($F = 3.02$, $p = .093$). Thus, Hypothesis # 2 A was supported.

Hypothesis # 2 B

Females who are high in MAF (as measured by the DAS) will not differ on the Casual-Demand factor of the PCR II from females who are low in MAF.

This hypothesis was tested by comparing the mean PCR II Casual-Demand factor scores (C-D) of the High ($\bar{X} = 49.10$) and Low ($\bar{X} = 49.45$) DAS Groups (see Table IV). The results were not significant ($F = .02$, $p = .901$).

Next, the mean PCR C-D scores of the Very High ($\bar{X} = 48.93$) and Very Low ($\bar{X} = 47.87$) DAS Groups were compared (see Table V). Again, the results were not significant ($F = .14$, $p = .712$). Thus, Hypothesis # 2 B was supported.

Hypothesis # 2 C

Females who are high in MAF (as measured by the DAS) will not differ on the Attention factor of the PCR II from females who are low in MAF.

This hypothesis was tested by comparing the mean PCR II Attention factor scores (A) of the High ($\bar{X} = 22.35$) and Low ($\bar{X} = 22.30$) DAS Groups (see Table IV). The results were not significant ($F = .00$, $p = .964$).

Next, the mean PCR II A scores of the Very High ($\bar{X} = 22.67$) and Very Low ($\bar{X} = 21.73$) DAS Groups were compared (see Table V). Again, the results were not significant ($F = .52$, $p = .477$). Thus, Hypothesis # 2 C was supported.

Hypothesis # 3

To test hypothesis # 3 A, # 3 B, # 3 C, # 3 D and # 3 E, the subjects were arranged into demographic groups on the basis of their responses to the Personal Questionnaire (see Appendix E). These groups were then compared on the basis of their mean MS (as measured by the TAT) scores, using a one-way analysis of variance technique.

Hypothesis # 3 A

Females from homes where the parents were divorced or separated will not differ in MS (as measured by the TAT) from females reared in intact homes.

There were not enough subjects from broken homes (n=2) in the present sample to adequately test this prediction.

Hypothesis # 3 B

Females from Protestant homes will not differ in MS (as measured by the TAT) from females reared in Catholic homes.

This hypothesis was tested by comparing the mean TAT scores of the Protestant ($\bar{X}$ = 7.39) and the Catholic ($\bar{X}$ = 4.36) Groups (see Table VI). The results were not significant ($F = 2.67$, $p = .111$).

Thus, Hypothesis # 3 B was supported.

Hypothesis # 3 C

Females from homes of differing socioeconomic status will not differ in MS (as measured by the TAT).

This hypothesis was tested by comparing the mean TAT scores of subjects who reported being reared in Lower Middle Class ($\bar{X}$ = 6.58), Middle Class ($\bar{X}$ = 5.76) and upper Middle Class ($\bar{X}$ = 6.14) homes (see Table VII). The results were not significant ($F = .08$, $p = .924$). Thus, Hypothesis # 3 C was supported.

TABLE VII

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN TAT AND DAS SCORES OF SUBJECTS FROM LOWER MIDDLE CLASS, MIDDLE CLASS AND UPPER MIDDLE CLASS HOMES

N=40

	MEAN TAT SCORES	MEAN DAS SCORES
Lower Middle Class n=12	6.58	28.17
Middle Class n=21	5.76	29.29
Upper Middle Class n=7	6.14	26.43
F=	.08	.53
P=	.924	.590

TABLE VIII

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN TAT AND DAS SCORES FOR DAUGHTERS OF WORKING AND NON-WORKING MOTHERS

N=40

	MEAN TAT SCORES	MEAN DAS SCORES
Working Mother n=10	4.40	27.10
Non-Working Mother n=30	6.63	28.90
F=	1.20	.60
P=	.280	.445

Hypothesis # 3 D

Females whose mothers worked while they were growing up will not differ in MS (as measured by the TAT) from those whose mothers never worked outside the home.

This hypothesis was tested by comparing the mean TAT score of subjects whose mothers had worked (either full or part-time) outside the home ($\overline{X}$ = 4.40) with that of subjects whose mothers had never worked outside the home ($\overline{X}$ = 6.63). These results, which are presented in Table VIII, were not significant (F = 1.20, p = .280). Thus, Hypothesis # 3 D was supported.

Hypothesis # 3 E

Females whose mothers had more years of formal education will not differ in MS (as measured by the TAT) from those whose mothers had less education.

This hypothesis was tested by comparing the mean TAT score of subjects whose mothers had completed high school ($\overline{X}$ = 6.32) with that of subjects whose mothers had not completed high school ($\overline{X}$ = 5.86). These results which are presented in Table IX, were not significant (F= .07, p= .799). Thus, Hypothesis # 3 E was confirmed.

Hypothesis # 4

The demographic groups compared in the preceding # 3 hypotheses were again compared by means of a one way analysis of variance, this time on the basis of their mean MAF (as measured by the DAS) scores.

Hypothesis # 4 A

Females from homes where the parents were divorced or separated will not differ in MAF (as measured by the DAS) from females reared in intact

TABLE IX

ONE-WAY ANALYSIS OF VARIANCE OF THE MEAN TAT AND DAS SCORES FOR DAUGHTERS OF MOTHERS WITH HIGHER AND LOWER EDUCATION LEVELS

N=40

	MEAN TAT SCORES	MEAN DAS SCORES
Higher Education n=19	6.32	28.79
Lower Education n=21	5.86	28.14
F=	.07	.10
P=	.799	.752

homes.

There were not enough subjects from broken homes (n=2) in the present sample to adequately test this hypothesis.

Hypothesis # 4 B

Females from Protestant homes will not differ in MAF (as measured by the DAS) from females reared in Catholic homes.

This hypothesis was tested by comparing the mean DAS scores of the Protestant ($\bar{X}$ = 28.87) and the Catholic ($\bar{X}$ = 27.07) groups (see Table VI). The results were not significant ($F = .70$, $p = .407$). Thus, Hypothesis # 4 B was supported.

Hypothesis # 4 C

Females from homes of differing socioeconomic status will not differ in MAF (as measured by the DAS).

This hypothesis was tested by comparing the mean DAS scores of subjects who reported being reared in Lower Middle Class ($\bar{X}$ = 28.17), Middle Class ($\bar{X}$ = 29.29) and Upper Middle Class ($\bar{X}$ = 26.43) homes (see Table VII). The results were not significant. ($F = .53$, $p = .590$). Thus, Hypothesis # 4 C was supported.

Hypothesis # 4 D

Females whose mothers worked while they were growing up will not differ in MAF (as measured by the DAS) from those whose mothers never worked outside the home.

This hypothesis was tested by comparing the mean DAS scores of subjects whose mothers had worked (either full or part-time) outside the home ($\bar{X}$ = 27.10) with that of subjects whose mothers had never worked outside the home ($\bar{X}$ = 28.90). These results which are given

in Table VIII were not significant ($F = .60$, $p = .445$). Thus, Hypothesis, # 4 D was supported.

Hypothesis # 4 E

Females whose mothers had more years of formal education will not differ in MAF (as measured by the DAS) from those whose mothers had less education.

This hypothesis was tested by comparing the mean DAS score of subjects whose mothers had completed high school ($\bar{X} = 28.79$) with that of subjects whose mothers had not completed high school ($\bar{X} = 28.14$). These results, which are presented in Table IX were not significant ($F = .10$, $p = .752$). Thus, Hypothesis # 4 E was supported.

CHAPTER V

DISCUSSION

Hypothesis # 1 - Motive to Approach Success (MS) and Maternal Practices

None of the directional hypotheses concerning maternal childrearing practices and later Motive to Approach Success (MS) in females were supported.

Some authors have suggested that a certain degree of maternal rejection, even hostility, might be necessary to the development of achievement motivation (MS) in women (Bardwick, 1971, Bronfenbrenner, 1961; Hoffman, 1972). As well, several studies have found that maternal coolness, non-nurturance and rejection during the childhood years tends to be associated with various achievement-related motives and behaviors in females (eg. Crandall et al., 1964; Kagan and Freeman, 1963; Martin, 1975). However, the results of the present study do not support the prediction that females who are high in MS will recall less loving, more rejecting mothers while those lower in this motive will recall more nurturant, warm accepting mothers.

One possible reason that these findings are not consistent with previous research is that the PCR II Love-Reject (L-R) factor may not define maternal nurturance in the same way that prior research has. The PCR II Love category (which loads on the upper end of the L-R factor) appears to contain a maternal reasoning or justification component which seems similar to the "maternal justification of policy"

variable that Crandall and Battle (1970) reported to be associated with later high intellectual effort in adult females. For example, one PCR II Love item states "My mother reasoned with me and explained the possible harmful consequences when I did wrong things." (Siegelman and Roe, 1973).

Examination of this item suggests that the PCR II Love-Reject factor may be measuring maternal childrearing variables, other than nurturance or rejection, which affect the development of MS in females. It is possible that this "reasoning" component of the PCR II L-R factor may have tended to cancel the effects of its "loving-rejecting" dimension on which the prediction of the present study is based, for example.

Another possible reason for the non-significant relationship between early maternal nurturance and later MS in females in the present study may have been the fact that a relatively small homogenous sample group was utilized. This sample group seems quite similar in terms of the demographic variables considered. As well, these women likely provide a limited sampling of past mother-daughter experiences and a narrow range of both MS and MAF, in comparison to the general female population. These sample limitations may be a contributing factor in the failure to find significant results in the remaining hypotheses of this study, as well. Even if significant relationships between the variables considered do exist in the general female population, these sample limitations may prevent them from showing up in this study.

Previously, several authors had reported that parental restrictiveness was associated with later dependency, low achievement aspirations and conformity while parental permissiveness was predictive of achieve-

ment oriented behaviors in female children (Baumrind, 1971; Becker, 1964; Douvan and Adelson, 1966; Kagan and Moss, 1962). Kagan and Freeman (1963) found that early maternal punitiveness and restrictiveness was associated with adolescent conformity and dependency in females. The findings of the present study do not support the prediction that females higher in MS tend to recall more casual, relaxed and permissive mothers, while subjects lower in MS tend to recall more demanding, restrictive mothers.

Failure to find results in the predicted direction suggests that the Casual-Demand (C-D) factor of the PCR II may not measure equivalent behaviors to those termed "restrictive or permissive" by other authors (Stein and Bailey, 1972). However, Siegelman and Roe (1978) include restrictiveness and permissiveness as components of this factor.

Two items of the Demand category (which loads on the lower end of the C-D factor) category are: 1) My mother slapped or struck me when I behaved badly. 2) My mother nagged or scolded me when I was bad. (Siegelman and Roe, 1978). These items suggest a maternal hostility component in the C-D factor. This means that lower C-D factor scores could indicate both maternal restrictiveness and maternal hostility, which are associated with lower and higher levels of MS and related characteristics in females, respectively (Stein and Bailey, 1972). In this case, the maternal hostility component of the C-D factor may tend to cancel the effects of its "restrictive-permissive" dimension on which the hypothesis of the present study is based.

Another possible reason for the failure to find support for previous research is that studies of achievement in female subjects have usually reported <u>parental</u> restrictiveness rather than simply focusing on <u>maternal</u>

behaviors as the present study does. Possibly, the behaviors and attitude of both parents along this dimension need to be considered in relation to female achievement motives and behaviors, in order to obtain meaningful results.

Early maternal babying and protectiveness has been found to be predictive of later passivity and "feminine" interests and to be negatively related to intellectual achievement efforts in female subjects (Crandall and Battle, 1970; Kagan and Moss, 1962). The results of the present study do not provide significant support for the hypothesis that females high in MS will recall less protective mothers than those lower in this motive, who are expected to recall soliticious, protective and indulgent mothers. However, analysis of the PCR II Attention factor scores of the 15 lowest ($\bar{X}$ = 23.67) and 15 highest scorers ($\bar{X}$ = 21.53) on the TAT measure of MS presented in Table III suggests a tendency in the predicted direction ($F = 3.20$, $p = .085$). This suggests that females higher in MS tend to recall less attentive, protective mothers than those lower in MS. This tendency is congruent with earlier research which suggests that early maternal babying and protectiveness is negatively related to later intellectual achievement effort in female subjects, but positively related to later passivity and "feminine" interests (Kagan and Moss, 1962; Crandall and Battle, 1970).

In summary, no significant relationships between the MS of adult females and earlier maternal childrearing practices were found. Lack of significant findings was felt to be largely the result of using a small sample group which was too homogeneous both in terms of overall MS and maternal childrearing experiences. Failure to find support for

previous research may have occurred because the maternal practices considered in this study were defined and measured differently than they had been in prior studies.

Hypothesis # 2 - Motive to Avoid Failure (MAF) and Maternal Practices

All of the non-directional null hypotheses concerning early maternal childrearing practices and later Motive to Avoid Failure (MAF) in adult females are supported by the results of this study.

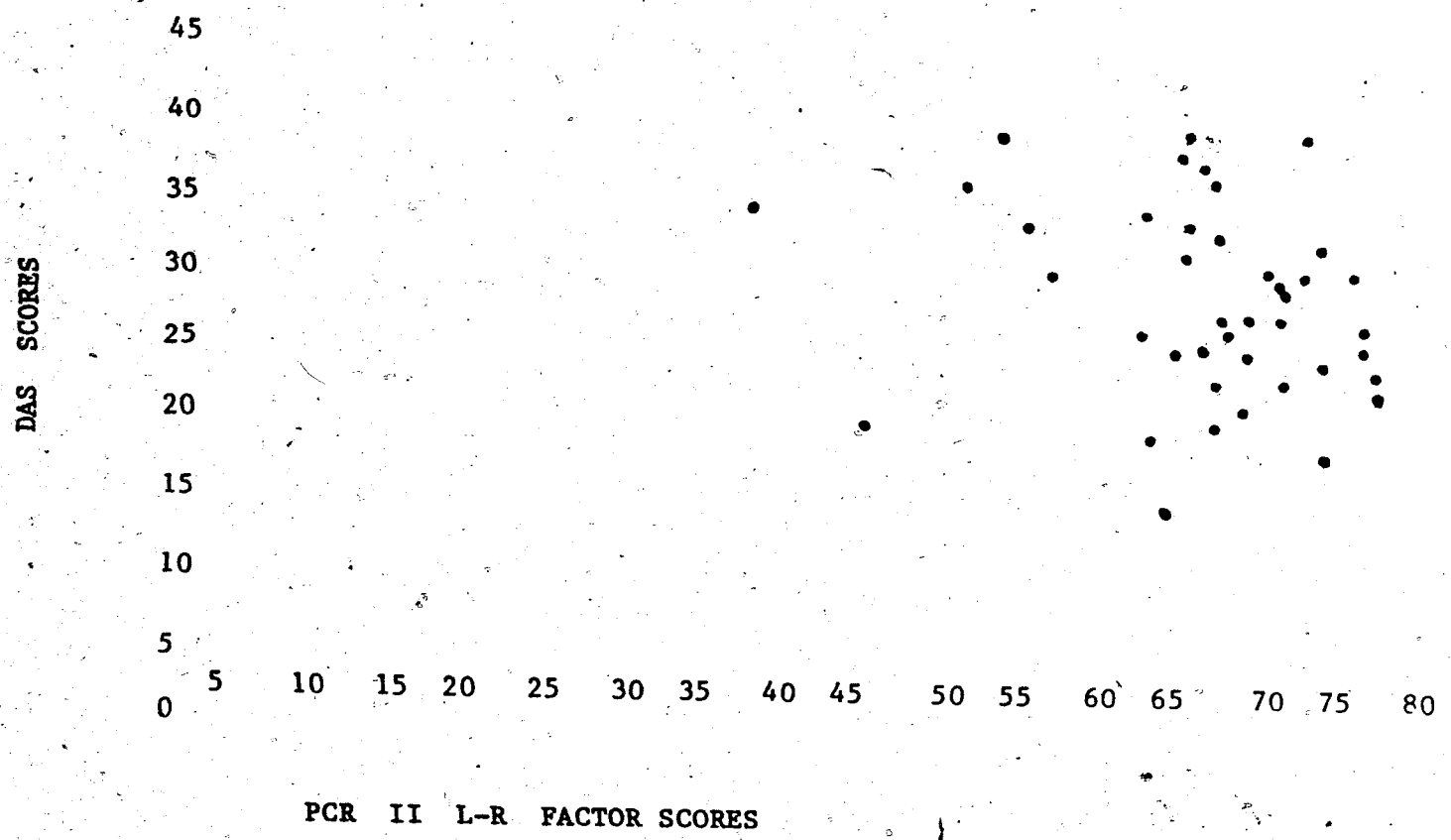
Kagan and Freeman (1963) found that adolescent girls who showed a tendency to withdraw from achievement tasks had mothers who had been highly accepting and affectionate during their early childhood years. However, the results of the present study did not reveal a significant relationship between the subjects' Motive to Avoid Failure and maternal love or rejection (as measured by the PCR II L-R score). It was felt that the relationship between maternal rejection (as measured by the PCR II) and MAF might be a curvilinear one. That is, that moderate amounts of maternal rejection might be necessary to desensitize the female to failure, but extreme amounts might create a highly anxious individual whose anxiety pervaded all aspects of her life (so that her DAS score would resemble that of a girl whose mother had been more loving and nurturant). No evidence of this type of relationship was found when these variables were plotted graphically, however (see Figure I).

Extremes of maternal rejection and MAF were likely not frequent in the present sample, and this may account for the non-significant relationship found between these two variables. However, examination of the PCR II L-R factor mean scores of the 15 highest ($\bar{X}$ = 62.07) and lowest scorers ($\bar{X}$ = 67.73) on the DAS measure of MAF revealed a near significant ($F = 3.02$, $p = .093$) difference (see Table V). This suggests

FIGURE 1

GRAPHIC RELATIONSHIP BETWEEN DAS SCORES AND PCR II L-R FACTOR SCORES

N=40



a tendency for subjects with low MAF to recall more supportive, nurturant mothers. These mothers respected their children's point of view and encouraged them to express it, reasoned with them and explained, the harmful consequences when they did something wrong, made them feel wanted and important and were easy to confide in. Subjects with higher MAF tend to recall mothers who did not spend any more time with them than was necessary, who ignored and ridiculed them and who did not help them to learn new things (PCR II Manual, 1978, p. 8).

These findings suggest that some maternal affection and support may be necessary if females are to develop confidence and security in achievement situations. However, some authors have suggested that too much maternal love and acceptance may actually prevent female children from moving away from the mother and may foster dependent, non-achieving patterns of behavior (Bardwick, 1971; Bronfenbrenner, 1961; Hoffman, 1972). It was felt that since extremes of MAF likely did not appear in the present sample group, no definite conclusions could be inferred about the relationship of maternal love/rejection to later MAF levels in females.

Hoffman (1972) suggests that mastery requires an ability to tolerate frustration which will not develop if a parent responds too quickly with help. It seemed that this type of "overhelp" might be typical of overattentive protective mothers. Daughters of such mothers might be unable, or unwilling, to face stress and threat of failure later in life. However, the results of the present study do not reveal a significant relationship between the PCR II Attention factor and MAF, as might be expected if maternal protectiveness is associated with later fear of failure in females. Again, it is possible that since

extremes of MAF were probably not frequent in this sample, any relationship between these variables would not have been revealed by this study.

Hoffman (1972) feels that because female children are somehow regarded as more fragile than males, mothers may tend to be more restrictive with them. Becker (1969) found that fearfulness, dependency and conformity were associated with parental restrictiveness for children of both sexes. However, no significant relationship was found between maternal restrictiveness and non-permissiveness (as measured by the PCR II C-D factor) and later MAF in the subjects involved in the present study.

In summary, all of the non-directional hypothesis concerning MAF and early maternal childrearing practices were supported by this research. However, because failure to find significant relationships between these variables may have been partially the result of using a small homogeneous sample in terms of MAF and early mother-daughter experiences, these results should be interpreted with caution.

Hypothesis # 3 and # 4 - Demographic Variables

It was not possible to test the non-directional hypothesis concerning parent's marital status and later MS and MAF in adult females, as there were insufficient subjects from broken homes (n=2) in the present sample to do so adequately.

However, the non-directional null hypotheses concerning the relationships between early religious upbringing, socioeconomic status, mother's work and educational history, and later Motives to Approach Success and to Avoid Failure in adult females are supported. This suggests that for the present sample at least, level of MS and MAF are unrelated to the early demographic variables considered. The

reasons for this lack of significance are not clear.

Religious affiliation may not play as important a role in the development of achievement related motives as it once did. Outstanding achievements in the business world, the arts and the sciences have generally been produced more by Protestants than Catholics, in relation to their numbers in the total population. As well, there are higher proportions of Protestants among university students. However, these differences tend to disappear when one considers representative sample groups (Heckhausen, 1967). However, analysis suggested a near significant difference between the TAT scores of female subjects reared in Protestant homes ($\bar{X}$ = 7.39) and those reared in Catholic homes ($\bar{X}$ = 4.36). (See Table VI). This is congruent with earlier research which has found a Protestant upbringing to be more conducive to the development of achievement motivation than a Catholic upbringing (McClelland, 1961; Rosen, 1959). The findings of the present study are not strong enough to draw any definite conclusions about the relationship between religious upbringing and later MS in adult females, however.

Mother's education level and work history may not be overly important to the development of achievement-related motives in females. Many of the younger subjects of the present group grew up during the period when the women's movement was coming to the forefront, and successful female career role models were more readily available outside the home. As well, it is possible that mothers who value achievement highly without having worked outside the home or having achieved an especially high educational level may transmit these values verbally to their daughters.

The lack of significant findings relating mother's educational level

to later MS and MAF in adult females may, at least partially, reflect sample limitations. Because of the small number of subjects in the sample, it was decided to only divide the group into two rather rough educational levels (daughters of mothers who had completed high school and daughters of mothers who had not completed high school). This was done because subdividing the sample further would have resulted in extremely small sub-sample groups. Considering only two educational groups likely did not provide fine enough discrimination to reveal any relationship between maternal educational level and later MS or MAF in females that may exist in the general population.

The non-significant relationship found between socioeconomic status and later MS and MAF in adult females may reflect measurement difficulties in this area. The Personal Questionnaire required only subjective judgements of SES, and no objective criteria for judging earlier SES was provided. For this reason, some inaccuracy or distortion may have affected these reports. As well, the socioeconomic class division reported in this study may have been more perceived than real. None of the subjects reported that they had been reared in lower or upper class homes. This suggests that a very narrow socioeconomic range was sampled by the present study. The non-significant results may reflect this fact, rather than an actual lack of relationship between the achievement-related motives considered and early socioeconomic class in the population as a whole.

In summary, no significant relationships were found between MS or MAF and early demographic variables. It is possible that early religion, socioeconomic status, maternal educational and work history may not have played an important role in determining the MS and MAF of the present sample group. However, any relationship between these

variables that exists in the general female population may not have been revealed by this study because of the relatively small homogeneous sample group.

Summary of Findings

The general lack of significant results arising from the present study suggests that early mother-daughter variables may not be related to the development of achievement-related motivation in adult females. This research also suggests that the early childhood demographic variables of: religion, socioeconomic status, mother's education, and mother's work history are not significantly related to either MS or MAF. However, several trends were found:

1. Females higher in MS tended to recall mothers who had been less protective while females lower in MS recalled more protective, indulgent mothers.
2. Females lower in MAF tended to recall more supportive, nurturant mothers, while females higher in MAF recalled more rejecting, non-nurturant mothers.
3. Females from Protestant homes tended to be higher in MS than those from Catholic homes.

These suggestive findings did not achieve statistical significance, and so may be viewed only as trends which might be confirmed or negated by further research on a larger, more representative sample group.

Limitations of the Study

1. The fact that this research used a small relatively homogeneous middle class group limits its general applicability. Variations in social class, rural-urban residence, family structure and eth

may make generalizations from this study inappropriate.

The present sample was felt to be very limited both in terms of levels of achievement-motivation, and in terms of childhood experience. The fact that only University of Alberta education students were used in this study may have influenced the results by limiting the range of achievement-related motivations sampled. It was felt that these subjects were likely higher in the Motive to Approach Success than the female population in general, but lower in the motive than women in less traditional majors (Martin, 1975). As well, it was felt that this sample's Motivation to Avoid Failure was limited, since subjects very high in this motive likely would not be found in the competitive academic setting from which this group was drawn.

These women considered themselves to be from middle class homes and this makes it probable that the maternal childrearing patterns were similar. What appears to be a high level of "maternal rejection" in a middle class sample may not be considered high in a lower class sample, for example.

2. The Parent-Child Relations Questionnaire II measures adult retrospective reports of early parental behavior. It is probable that some distortions and inaccuracies occurred in these reports, in spite of excellent reliability and validity reported in the PCR II Manual (1978). Retrospective recollections of childhood experiences are probably never absolutely accurate. However, the PCR II asks the subject to recall overt parental actions rather than her interpretations of this behavior, or perceived parental attitudes and feelings, and this may eliminate some of the inaccuracy inherent in

this type of measure.

3. The Thematic Apperception Test was used to measure the Motive to Approach Success, and there has been some question about the reliability and predictive validity of fantasy-based measures of achievement motivation (Entwisle, 1972). There was considerable variability in the scores obtained by using this measure. (The mean TAT score of the 40 subjects was 6.075 and the S.D. of this measure was 5.52). This variability may have prevented TAT score differences that existed between the groups considered from achieving statistical significance.

4. It has been suggested that the traditional method of scoring the TAT for MS, which was developed using male subjects, may not be appropriate for females (Alper, 1974). Alper has developed a method of scoring the TAT specifically for female subjects. Her method uses one additional stimulus picture, and the subjects' projective stories are scored only for the presence or absence of an overall "achievement theme". Alper's (1974) study suggests that this new scoring system may overcome some of the difficulties involved in measuring the achievement motivation of female subjects.

5. The mother-daughter relationship may be only one of many contributing factors in the development of MS and MAF in females. Child development is complex, and in order to understand its relationship to later achievement-related motives in adult females, many more contributing variables will probably need to be isolated and examined. Family size, sex of siblings, intelligence, paternal child-rearing attitudes, behaviors, educational and occupational history, urban-rural residence, and nationality of origin are some possible factors of this sort.

6. Data from fathers was not included in this study. This may be considered a limitation since it has been suggested that girls with high achievement motivation may tend to identify with their fathers (Hoffman, 1972).

Implications for Further Research

1. Further research done in this area should use a larger, more heterogeneous sample group. A more heterogeneous sample would provide a more varied sampling of recalled childhood experiences, and a wider range of achievement-related motives (both of MS and MAF). Future samples should include women from more traditional "feminine" and less traditional "masculine" occupations as research suggests that these groups vary significantly in their levels of achievement motivation (Martin, 1975). Also, it seems likely that these groups would vary in their levels of MAF. As well, inclusion of women from more divergent early socioeconomic backgrounds would provide a broader range of maternal childrearing patterns then was sampled by this study.
2. Alper's (1974) method of scoring the TAT for female subjects could be utilized for future research in this area. As well, a behavioral measure of achievement (such as grade point average) should be included in further studies to supplement the data gathered by a projective measure of Motive to Approach Success such as the TAT.
3. A more detailed questionnaire for gathering background demographic information should be used, as well. Such an instrument should provide the subjects with objective criteria to assist them in classifying their families. These objective criteria might help to eliminate inaccuracies and distortions in the subjects' retro-

spective reports.

4. More longitudinal studies are required to adequately examine the relationships between early maternal variables and the development of achievement-related factors in females. These types of studies eliminate the necessity for retrospective reports of early childhood experiences. Unfortunately, considerations of time, expense and convenience often make this type of research impractical.

Conclusion

The results of this research did not indicate any significant relationship between childhood demographic variables or the early mother-daughter relationship and later Motives to Approach Success and Avoid Failure in adult females. There were, however, some suggestive trends which could be examined further in future studies.

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