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# INFLUENCES OF MOTHERS AND DUAL-CAREER FAMILIES ON THE EDUCATIONAL ATTAINMENT OF FEMALE COLLEGE STUDENTS

by Mansi Patel

#### A Thesis

Submitted in partial fulfillment of the requirements of the Master's of Arts in School Psychology Degree of

The Graduate School at

Rowan University

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Approved by

Advisor

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#### **ABSTRACT**

# Mansi Patel INFLUENCES OF MOTHERS AND DUAL-CAREER FAMILIES ON THE EDUCATIONAL ATTAINMENT OF FEMALE COLLEGE STUDENTS 2006/2007

Dr. Dihoff & Dr. Epifanio M.A. in School Psychology

The purpose of this study was to understand if mothers have an influence on their daughters by (a) determining if a relationship existed between the educational attainment of mothers and the level of education female college students strive to achieve and (b) verifying if female college students are more likely to come from households with working mothers and dual-career families. A sample of 50 predominantly Caucasian female college students at Rowan University were surveyed on their personal and family background. A non-parametric correlation test revealed that a significant relationship existed between the educational attainment of mothers and the aspired educational level of their daughters although it was an inverted. Descriptive statistics show that the majority of participants came from homes with a working mother and dual-career-families. Implications for future research refer to more detailed studies to discover an influential relationship between mothers and daughters.

#### **ACKNOWLEDGEMENTS**

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#### Chapter I: Introduction

Need

Individuals' family backgrounds can shed light on what their future may become. The roles parents and guardians hold within a household are important in the influence on children whether this may be intentional or unconscious. The decisions parents make as well as the careers they choose, may have a great influence on what their children will become. It is important to consider how many parents have jobs in the house whether it is the father figure, the mother figure or both.

As of late, it is becoming common for both males and females to work and the numbers of female workers increase from one generation to the next. It is possible that more females are encouraged to choose careers and be more successful through many aspects of society especially through their homes. It is important to set positive examples for children so that they can value education and set goals for promising futures.

Purpose

The purpose of this study was to perceive the relationship between the highest level of education of parents in a household and the level of education their daughters plan to attain. I looked specifically at the relationship of mothers and their college level daughters to see if a pattern developed in regard to level of education.

Hypothesis

In this study it was hypothesized that female college students were more likely to strive to attain a level of education similar to or beyond that of their mothers' level of education. It was also hypothesized that female college students were more likely to come from households with two working parents, and especially households with working mothers.

#### Theory/Background

Women have struggled in the past to attend college in order to receive the same education that men did. It wasn't till the 1830's that coeducational colleges were built and women were accepted. Women's colleges were built but equality of education between male and female students didn't become completely acceptable until much later. Women began to choose careers in medicine, politics, journalism, law and many other paths that they may have not been able to do before this movement. Over the past few decades, the U.S. sex college attainment ratio (SCAR) has decreased (Sanchez-Marcos, 2004). This means that the number of males and females attaining a college level education has become more equal than when compared to before when males accounted for the majority of college students.

There are many factors that could have contributed to the gradual change towards increased numbers in female college attainment. Views on women being educated and working have been an obvious change that can be seen just by the numbers of women working. How these views have changed can be an important question that would help us understand this trend. The United States has adopted a culture where independence is valued (Sato, 1998). The awareness of the benefits for women and incentives for attending college have increased. Higher education allows for better paying jobs. The increase in numbers of single women and the negative correlation between education and

fertility are important factors that influenced the increase of female college education (Sanchez-Marcos, 2004).

Social factors are important in explaining trends in female college attainment but there is something to be said about the environment a child is exposed to in their early years and how this can affect their aspirations and career choices. When making choices about colleges, the encouragement of parents have been found to be the most important in the predisposition phase, where parents assist their children in shaping the initial thoughts of their children and their aspirations to attend college (Ceja, 2006).

The educational background of parents can also be a factor in the career choices children make. The family norms of education can be an educational "floor" for the attainment of their children. If parents in a family attended college, then the children will at least attend college and possibly go on further. In terms of gender differences, it has been observed that mothers, who had college attainment, seem to encourage their daughters more so to reach the same level of attainment (Sheridan, 2001).

Some educational theorists believe that parents encourage their children to do as well as or better in attainment of education because individuals face psychic costs to downward intergenerational mobility. A possibility for why children may go as far as or further in their educational attainment then their parents is that parents can provide information and encouragement for what they have direct experience with, and once that level is achieved their influence may subside because they have no more information to provide their children (Ceja, 2006). In some cases, children may inherit the occupational categories of their parents and follow the same path. Social factors and family norms are large factors in the understanding of the connection between parental education

attainment with that of their children and the increase in numbers of females completing college.

#### **Definitions of Terms**

- College attainment The completion of an educational program higher than the high school level such a bachelor's program or graduate program.
- 2. Educational attainment The highest level of education an individual achieves.
- SCAR SCAR stands for sex college attainment ratio. This is the ratio comparing
  male and female college attainment represented in decimal form.
- 4. Educational "floor" The standard or minimum level of college attainment a child will reach that is set by a group that came before them. In this paper we refer to the floor parents set for their children.
- 5. Dual-Career family A family in which both mother and father hold a career and provide financially for the household.
- 6. Intergenerational occupational mobility The idea that children are likely to choose the same occupational career paths as their parents specifically boys following the path of their fathers and daughters following the path of their mothers.

#### Assumptions

In this study, it was assumed that all participants attended the University at their own will. It was also assumed that each participant interpreted the questions of the distributed survey in the same way as the rest of the participants and that they answered the questions honestly and accurately.

#### Limitations

One limitation is that this study was only conducted at Rowan University and cannot be generalized to all female college students. This study focused only on interactions with family and its effects and did not involve any internal motivations of the students that could have affected the decisions of students' career paths. It also did not account for any external factors that may have influenced the student from a source outside of the family. Another limitation is that only college level females were surveyed. This may have affected the relationship of mother-daughter level of education because all participants have already completed high school and gone beyond where as some mothers may have only gotten that far. The sample was predominantly Caucasian and therefore an analysis of students from different backgrounds could not be accurately assessed.

Chapter II presents research related to parents as role models with respect to education and career choices. Chapter III illustrates how the study was designed and conducted. Chapter IV includes the results of the study. Chapter V presents conclusions and a discussion about this study as well as any suggestions for further research in this area of study.

#### CHAPTER II: REVIEW OF THE LITERATURE

#### Introduction

The research presented in this chapter is discussed from the most general to the most specific as related to the topic of study. The general research includes trends of women in higher education, women's current career paths and influences on women to attend college. The more specific research relates to research on effects of parents' education on children's achievements, parental effects on child attainment, paternal effects on child attainment, maternal effects of child attainment, research on the intergenerational occupational mobility and research on dual-career families.

General Research on Trends of Women in Higher Education

Research shows that there are increasing numbers of females aspiring to obtain postsecondary schooling. Freeman (2004) examined statistics of high school seniors from 1980 to 2001 on their reported college plans. The results showed that in 1980, more males than females claimed that they definitely will attend a 4 year college. However, in 2001, more females claimed they would do so. The same trend was present among males and females in terms of attending graduate or professional schools from 1980 to 2001.

As the determination of females to attend college increased, research also showed an upward trend in women actually obtaining higher education. Females have made considerable gains in multiple realms of education and are doing as well or better than males on some key educational standards (DiPrete & Buchmann, 2003). Studies done by the National Center for Education Statistics (2006) show that in 1970, men outnumbered women in undergraduate enrollment. However, since 1978, women's undergraduate

enrollment has surpassed that of men and may continue to follow that trend in the future. When looking at trends in graduate and first-professional program enrollment the U.S. Department of Education (2006) found that from 1976 to 2004, there was a 106.5 percent increase in female enrollment compared to a 23.1 percent increase for males. This increase shows a significant advancement for women and their college careers over the past few decades. In fact, the large gaps in the level of higher education that existed between men and women have been eliminated in most cases (Bae et al., 2000).

#### Women's Current Career Paths

As female enrollment increases at colleges, it is interesting to explore what careers these students work towards. Research shows that more women have ideas and plans to work or hold a career. The importance of a career seems to stem from various different factors. A study done on career awareness of 1,443 high school seniors in North Carolina showed that 93.8 percent of females believed that a career choice was important to them and about 70 percent had an idea of what occupational field they wanted to work in (Braverman et al., 1997).

Among many factors that are involved in females placing an importance on career choice, research indicates that perceptions of male and female roles are influential to some degree. In his study Hartley (1960) focuses on how the roles of males and females are perceived. He determined that parents become models for their children especially when it comes to occupation. He claims that even though stereotypical assumptions of gender roles can affect these children, parents can still be an influence. Although studies have been done on the influence of mothers on high school students' aspirations, Hartley

also discovered that girls who have mothers that work were more prone to take up occupations later on in their lives that were less typical of women (Hartley, 1960).

According to Klein (1963), industrialization has made an impact on women's increase in careers and the roles they play now compared to those they held at an earlier time. Culture has allowed for a shift from rewards towards family to rewards for the individual (Klein, 1963).

As the influence of education continues to affect occupational status twice as much for women than it does for men, the first jobs of women are found to be 6 points higher than the first jobs of men (Sewell, Hauser & Wolf, 1980). Looking at the types of careers chosen by women can help determine what has changed over time. Research by Freeman (2004) shows that bachelor's degrees given out to women were traditionally in health professions and education in 1970 as opposed to male dominated fields like engineering and physical sciences. Recently, more women have been receiving degrees in technical fields. Freeman found that more females than males received bachelor's degrees in biological sciences, accounting and the health professions in 2001.

#### Influences on Women Attending College

The increase of college enrollment of females and the shift in career paths have various influences behind them. As women began to hold more prestigious careers in the past few decades, women and men tend to do equally well from educated families more due to sex-gender socialization. The idea of women feeling a sense of personal worth through association with work became less unusual according to society (Bruce, 1974).

Some studies show that in the history of our society, women who had made a decision to marry as well as have a career had always set their career off as their second

priority to family. This led to choosing jobs that required little interruptions to the responsibilities of a family. Women who had not married had more opportunities and better career options. However, socialization towards the idea of work as a higher priority has been modeled by mothers may have caused an increase in the numbers of women who decided to strive for careers and to start families later on their lives (Macke & Morgan, 1978).

There is further research done by Sanchez-Marcos (2004) on the influences towards women attending college. According to this study, the changes in earnings have been effected by higher rates of employment in general. There are now more incentives in receiving higher education because it will lead to higher pay. Sanchez-Marcos also realized a pattern for marital status. The number of single women has increased for women who are college educated and even more of an increase for women who are highly educated is evident. Sanchez-Marcos claims that this could be caused by the increasing delay in the decision to marry.

In the United Kingdom as well, researchers have come across the conclusion that some parents are investing more in their children's future education because of the increasing benefits. However, it is found that parents have a large influence on their children's transition to higher education through their encouragement and support. If the support is not there, children are less likely to receive and complete higher education. (Jones et al., 2004).

There is a large amount of research supporting the idea that encouragement from significant others can have an influence on the attendance of college. The consistency of encouragement on the parent's behalf is related to the child's attendance at a post-

secondary school (Conklin & Dailey, 1981). Over 1,686 students were included in a sample where they were surveyed as high school freshman and then later surveyed as tenth and twelfth graders. The results show that consistency of encouragement was associated in a positive relationship with college entry, especially at a four year college. There was even an influence on college attendance by children of parents who made an assumption that their child would attend a post-secondary school (Conklin & Dailey, 1981). It is found that the assumptions made by parents about their children and the encouragement given to them, affect their educational desire (Dornbusch et al., 1987; Parsons et al., 1982).

Further research on encouragement and support, shows the influence of siblings and peers. Ceja (2006) did a study on 20 Chicana high school seniors in Los Angeles and discovered that those who had older siblings who attended college had been important sources of information for the process of applying to and attending college. They had more expectations of going to college since they had siblings who had done so. Further research on family interaction also shows that younger siblings are more likely to develop aspirations and have encouragement from older siblings to attend college (Widlak & Perrucci, 1988).

Researchers Teachman and Paasch (1998) also proposed a connection with children's future goals and influences among siblings. The way a child perceives the family and his or her role within the family has an effect on the outcomes they will have in further education. Parents decide how to distribute their investments amongst their children and can cause differences in the educational attainment between each child within a family (Teachman & Paasch, 1998).

When studying peer influences, Kandel and Lesser (1969), surveyed 2,157 students broken into dyads of adolescents and their best friends. Peer's encouragement and acceptance of their friend attending college was measured. Results showed that those friendships which had been based on reciprocity were more influential on the college attendance of their corresponding friends. Students did not necessarily have the same aspirations in career paths but acceptance of one another's aspirations was important (Kandel & Lasser, 1969).

Further research on the influence of peers on students' decisions for their future has been done by Davies and Kandel (1981). The students were matched to a best friend and were surveyed to note the differences in influence between males and females.

Results show that the influences of a friend on educational aspirations were not very common among males but more important when it came to females (Davies & Kandel, 1981).

Aside from influences by society, siblings and peers, the goals parents have in their minds for their children also play a large role in influencing future careers. Smith (1981) organized a study to see if adolescents agree with the goals their mothers and fathers had developed for their further education. The sample consisted of 2,424 students who were used in the analysis of how close in agreement children were with the educational goals their mothers had for them. The effects of the mother's goals were found to be 50 percent greater than that of the father's goals for the child. According to Stevens and Boyd (1980), their studies demonstrated that daughters are more likely to choose occupations that will match those of their working mothers. Wilson and Portes (1975) claim that, "educational aspirations plus significant-other influences and academic

performance determine educational attainment, and the latter plus occupational aspirations affect occupational attainment." It seems that influences from significant others play a role in influencing females to attend college as well as various outside factors.

Research on Parental Effects on Children's Achievement

Among those influences, the effects of parents have been a focus in multiple studies. When studying a sample of low income families, research by Halle and colleagues (1997) shows that mothers who had high expectations for their children were more likely mothers who had higher education. Those children, who were expected to do well, were also more likely to have higher achievements in their performance in school especially in subjects like math and reading (Halle et al., 1997).

Furthermore, in a study by Huston and colleagues on the effects of promoting employment among low-income families with a program called New Hope, the results show academic success their daughters through grades at school. There was also evidence of positive influences from the New Hope program on reading and literacy as well (Huston et al., 2005).

Further research on this topic by Davis-Keen shows that the socioeconomic status of parents in some way has an effect on the achievement of children in school performance and behavior (Davis-Kean, 2005). This researcher evaluated data from 868 subjects who were between the ages of eight and twelve, both male and females evenly distributed. Davis-Kean proposed that there was a link between the behaviors and performance of children in school to the parents' educational encouragement and influence.

The results from Davis-Kean's study proved the hypothesis and also showed that parents with higher educational attainment are more likely to provide their children with more materials for their achievement in school. Researchers suggest that parents can influence their children's aspirations by giving them educational materials and activities that can stimulate their minds (Murnane et al., 1981). This allows for children to value education more and develop future plans.

Effects of Parental Education and Occupation on Child's Attainment

The accomplishments academically and occupationally of parents have an affect on how well their children will do. According to Kim (2005), research shows that when searching for information access, children turn first to their parents and then to others. The transition from high school to college can be difficult for a student without some support by others. Kim believes the congruence of the goals of parents and children can increase the chances that the student will attend college. This study shows that parents can help connect information and resources for their children to help them make appropriate decisions for their future. The further in education their children surpass, the less resources and information their parents will be able to provide them. Consequently, this means that the more educated a parent is the more they can offer to their children for access to higher education (Kim, 2005).

Studies directed by Teachman (1987) demonstrate that other resources and information given to their children in hopes of higher educational attainment includes providing children with resources to provide an appropriate environment for aspirations and encouragement for higher education. These resources offer material for better academic skills in order to increase motivation. The sample included 4,904 females and

4,698 males who had completed college. Teachman's results conclude that there was a higher and direct impact on women through educational resources provided for them.

Research on the influence of families shows how children are influenced to strive for further education past high school. Cohen (1987) studied the effects of parents as models for their children through their own education and exemplifying their own college-going decisions. In this study, 2,485 boys and 3,013 girls were surveyed to see the effects of parents as models for their children. Results showed that the influence of parent's modeling had a larger influence on their daughters. They concluded that the modeling influence of the father and the mother were equally effective. According to Cohen, children will imitate the parent that has had higher education (Cohen, 1987).

Furthermore, in a longitudinal study researchers Alexander and Eckland (1974) studied the effects of status background on high school students' decision to further their education. The study was conducted with a sample of 2,077 students from different schools. The results did show that the decisions and outcomes of females were more dependent on the social status of their parents, more so than males.

A study on the factors that can possibly influence the decisions of high school students about their future was conducted on 440 students who had graduated.

Researchers Christensen, Melder and Weisbrod (1975), proposed that, "the level of education, and perhaps, the occupation of his parents would likely be closely related to the amount of parental encouragement to attend college the youth perceives; hence, education and occupational status should also be positively related to college attendance." Similar findings were found by Hossler and Stage (1992) as they discovered that parental education remained an important factor for a direct effect on the expectations parents

have on their children which make these children predisposed to having higher aspirations for themselves. According to these researchers, encouragement seems to be the middle variable that connects the effect of parental occupational status on the educational attainment of their children (Hossler & Stage, 1992).

Christensen and her colleagues concluded from this study that different aspects of socioeconomic status had an effect on the decisions of students. Income was the least correlated, mother's occupation had a large impact on daughters' decisions for careers and an educated working father was also an additional influence in the chances of a daughter having a career plan (Christensen et al., 1975).

Effects of Paternal Education and Occupation on Child's Attainment

Studies have shown that the educational attainment and occupational status of the father has an effect on the college attendance of his children. Werts (1968) studied 127,125 college freshman and their educational attainments in comparison to their father's education and occupation. They discovered that upper-middle class families were concerned with getting their children of both sexes to attend a post secondary school. Results show that children of fathers who are considered intellectuals had boys and girls who were equally likely to attend a post secondary school. The likelihood of a female attending college was more prominent in families where the father had some college or more. Research shows that there is a strong connection between the education of a child's father and the attendance of the child in a post-secondary institution (Hossler & Stage, 1992).

Research on Effects of Mother's Education and Occupation

The influence of mothers and their educational attainment has become the topic of many recent research studies. Jennifer Sheridan (2001) has done a study of the effects of parents' unrealized aspirations and their effects on children's outcomes. Sheridan claims that mothers have set an educational "floor" for transitions into college and graduate school attendance as well. This floor is set regardless of what their aspirations were and if they were realized or not. The study discusses that the norms for attainment of education within a family help set a floor. For example, the study explains that if the parents of a child have completed high school, then the child will be more likely to finish high school and possibly go further.

In Sheridan's study of 10,317 seniors at Wisconsin high schools, accounts were taken on the influence of parents on their children through their own aspirations and what they want for their children. Results showed that the odds of a daughter attending college were closely related to if the mother had attended college herself and was 28 percent more likely to attend. Another conclusion from this study showed that in relation to college completion, mothers were more likely to set an educational floor rather then fathers. Both sons and daughters who had mother's who completed a four-year college, were 32 percent more likely to complete college and receive a bachelor's degree as well (Sheridan, 2001). The influence from the educational attainment of the mother seems to surpass the influence of fathers especially when it comes to the educational achievement of daughters more so than for sons (Sewell & Shah, 1968).

This study also revealed that boys who had mothers that failed to attend a postsecondary school had a higher rate of aspiring and attending college. Sheridan concluded that in the case where a mother who had not gone on to college even though they had planned to, were more likely to push their sons to obtain higher education and not their daughters (Sheridan, 2001). In a study conducted by Stevens and Boyd (1980), on the importance of a mother on the effects of educational attainment of daughters, results concluded that, "A mother's occupation does influence her daughter's. In fact we need know only the mother's occupation." The mother's influence has become more influential than that of fathers at times (Boyd, 1989). This shows the importance of mothers with high educational attainment as a factor in the encouragement and inspiration for daughters to have aspirations for attendance as well as completion of post-secondary schooling. Along with these findings, Kalmijn (1994) believes that the occupation of the mother can have an effect on the likelihood of graduating high school, attending college as well as graduating from college especially in dual-career families.

Researcher Irving Krauss (1964) claims that a working class mother is bound to obtain values of the working class and model that type of behavior for children. He also believes that if the father does not have a high status, the mother would try to fulfill her goals through her children. Results from this study also showed that children of mothers who held an occupation before getting married were more likely to aspire to go to a post-secondary school (Krauss, 1964).

Smith (1981) hypothesized that children would follow what their parents' expect of them to achieve even more if their parents have also had high formal education. When compared to mothers who have had 12 or less years of schooling, mothers who had postgraduate degrees had a higher percentage of children who agreed with their maternal goals. Smith also concluded that socioeconomic status can be drawn from the amount of formal education one has. This can affect the way in which upper class parents and lower

class parents influence their children to either aspire for higher education or not (Smith, 1981).

Further research by Hoffman and Nye (1974) suggests that the employment of mothers in a family has an influence on the socioeconomic chances and opportunities for their children. This is an effect that is especially important for daughters. It allows for an increased level in the way they live and also provides a role model for the children.

Influences on women for higher education lead to an interest for the consequent career choices of these students. Research on the type of careers chosen by women, show that females can be influenced by the career choices of their mothers. Marantz and Mansfield (1977) headed a research study on the stereotypes that affect younger girls due to the influence of maternal employment. The subjects consisted of 98 girls between five and eleven years old from schools in New York City who were for the most part middle class and white. Marantz and Mansfield discovered that the type of career a working mother held was of importance when used to understand the influence from mother to daughter. They explained that if the mother held a feminine job, then the daughter would be more likely to choose a similarly feminine career (Marantz & Mansfield, 1977). A feminine career in this circumstance represents the stereotypical careers held by women in the past.

Research on Intergenerational Occupation Mobility

These studies have shown that parents so influence the educational attainment of their children. The types of career choices made by children are influenced from one generation to the next. Studies show that children tend to favor the careers of their same sex parent rather than the career choice of the other parent. Studies of intergenerational

socioeconomic status claim that the characteristics of those same sex parents are what seem to be important in that decision (Looker & Pineo, 1983).

Intergenerational occupational mobility was tested in a study conducted by Gillian Stevens (1986) between the four different relationships in the family based on gender. The sample consisted of 7,429 men and 2,195 women. Results concluded that though there are few differences among the combinations of members with in a family; boys are more often likely to follow occupational level of their father and daughters of their mothers. Stevens also suggested like many other researchers that girls who have mothers that are educated and have a career would determine their own plans differently then those who have mothers without careers.

Rosenfeld (1978) believes that studying the intergenerational occupational mobility of women is important because of three factors. These three factors include the idea that it will provide an overall assessment of socioeconomic status of the family by involving the effects of both parents, that mothers can be a role model for influencing their children's future aspirations, and that when following occupational choices between generations it is necessary to see the effects within the same sex. Rosenfeld found in his study that the career a mother holds is influential on her daughter's aspirations.

#### Research on Dual-Career Families

The past few decades have been a time of social change in which mothers have become more influential, in particular, on their daughters. According to Pearson's study (1983), the influence of mothers on daughters has exceeded the influence of fathers on sons. In a study about effects of dual career and traditional families, researcher Chris Mann (1998) worked with families who were considered either traditional or transitional.

Transitional families were the types that went against gender role assumptions. Mann claims that the transitional family is influenced by opportunities of employment, education for adults, and the women's movement that allows for more opportunities for females in the work force and in education. The study was conducted with 70 females who were seniors in high school. Results revealed that mothers in transitional families preferred their daughters to obtain higher education through demonstrating the importance on independence, providing support, and by emphasizing their values due to social change (Mann, 1998). Further research also suggests working mothers are more likely than unemployed mothers to be the individual that their daughters want to be more like (Baruch, 1974; Douvan, 1963). These studies emphasize the recent importance and influence that working-mothers have had over their daughters.

Buchmann, DiPrete and Powell (2003) discovered that educational egalitarianism influenced the educational gap in gender. Girls had the chance to receive the same level as boys in families where both father and mother were educated at the college level. As the number of families where both parents were educated increased, the rates of females going to college have been rising faster than those of men (Buchmann et al., 2003).

Research shows that there has been an increase in families with both parents working in high status occupations. Researchers Stephan and Corder (1985) hypothesize that families in which both parents are working will tend to disagree with sex roles more so than families with one parent working with the majority being male-headed. They also hypothesized that daughters form dual-career families will be more likely to consider the mother to be their role model in comparison to those who only have one working parent which is the father. Results from Stephan and Corder's study show that females from

dual-career families are more likely to have a desire to hold a career and hold up family roles than those from traditional families. Children from dual-career families also tend to have more egalitarian views on gender roles (Stephan & Corder, 1985).

Thomas Wells (1995) tended to the issue of dual-career families and gender among 10,007 subjects through measuring education and occupation of both parents. He came to the conclusion that the influences of family background were more similar among dual-career families and single-earner two-parent families as opposed to the single-parent family.

#### Summary

In summary, most of the research presented in this chapter suggests that, increased research in the influence of parents' educational attainment and occupational status on the educational attainment of their daughters can provide an array of implications on how to better prepare children for a successful future. The research shows that mothers play a key role in influencing their daughters to further their education beyond the high school level especially in a dual-career family. Family trends have become more necessary and important for the success and performance of children influenced by mothers (David, 1993; Mann, 1998).

#### Chapter III: Design

#### Sample

The participants in this study were female college students from Rowan University located in Glassboro, New Jersey. Participants considered in the sample were limited to single females between the ages of 18 and 23 years old which meant that they attended college immediately after high school graduation. This study had no control group. Participants were recruited at the Student Center and Dining Hall located on the Rowan University Campus in order to obtain participants from a variety of academic departments. A total of 51 surveys were distributed for completion and of those, 50 surveys fit the criteria for the sample.

One survey was not included because a participant had added an answer to the choices for a multiple choice question. Two participants did not answer a question but these surveys were included in the sample because the question did not have any significant affect on the results for the necessary data. Therefore, the total number of participants in the sample was 50 predominantly Caucasian female students.

#### Materials

The survey distributed to the participants was prepared by the experimenter (see appendix b). It consisted of multiple choice questions, yes/no questions, and open-ended questions. The survey asked questions about the background of each participant's parents such as the highest level of education and occupations held by both the father and the mother. The survey also included questions about the participant such as year of high

school graduation, age, career choice and the highest expected level of education he or she plans to complete.

Reliability/Validity of Scales

Reliability and validity were not obtained for the survey distributed to participants. The surveys were created by the experimenter and were used only for this study and therefore the reliability and validity could not be assessed.

#### Method

Before the experiment began, a time was decided for distribution of the surveys in order to reach a large volume of participants. The surveys were distributed at dinner time between 4:00 pm and 6:00 pm. The experimenter approached female students and asked if they would fill out a one-page survey. An informed consent form (see appendix a) was distributed to each participant before the actual survey was handed out for completion. The consent forms were to be read carefully and signed by the participant, detached from the survey and then placed in a closed folder for confidentiality. The participants completed the survey voluntarily.

The completed surveys did not have names but were marked by codes with a letter and a number. The code allowed for organization when analyzing data so that answers to survey questions could be linked to the surveys. This allowed for anonymity so that names could be left out of the study.

Independent and Dependent Variables

The independent variable in this study was the level of education attainment of the parents of each student. The dependent variable was the level of education the

participant expected to complete. It was expected that female college student would strive to do as well or go beyond the educational level that her mother had completed.

Analysis of Data

After all of the surveys had been completed, data was gathered from the surveys of participants who fit the criteria for inclusion in the sample which were single female college students between the ages of 18 and 23. The ordinal Kendall's tau-b test was performed on this data at the .05 level to determine if the educational level of the participants matched the educational level of their mothers. Descriptive statistics were also gathered in order to determine the connection between family background and current attendance of participant in college.

#### **Summary**

In this study, female college students were recruited from the Student Center and the Dining Hall. Information was gathered on educational goals and family background. Qualified data were gathered and the ordinal Kendall's tau-b test was performed to determine if a pattern existed among the educational attainment levels between the participants and their mothers and descriptive statistics were gathered to determine a relationship between family background and current college enrollment. It was expected that the participants would strive to do as well or go beyond the educational attainment levels of their mothers due to the influence of working mothers on their daughters.

#### CHAPTER IV: RESULTS

#### Introduction

The purpose of this study was to discover if a relationship existed between the educational attainment of mothers and their daughters attending Rowan University in Glassboro, NJ. It was hypothesized that the anticipated level of education of the daughters would match or go beyond that of their mothers' educational attainment. It was also hypothesized that the female students who participated in this study would be more likely to come from a family with a working mother. Even further, it was expected that the female participants would be more likely to come from a dual-career family with a both a working father and a working mother.

#### Results

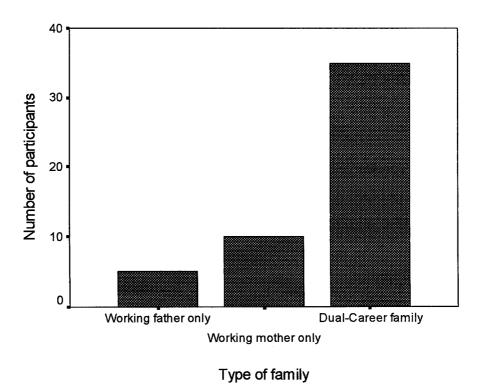
The study was conducted through a questionnaire about personal and family background that was voluntarily completed by female students at the University. The questionnaires measured for educational attainment of mothers, fathers and the level of educational attainment aspired by the participant. Data was gathered on 50 female college students.

The non-parametric correlation test was performed on the collected data. Kendall's tau-b correlation indicated a significant relationship between the educational attainment of mothers and the level of education that their daughters strived to achieve,  $T^b = -2.651, \, p \leq .008.$ 

The survey given to participants also measured for the careers that the female college students strived to achieve as well as the occupational attainment of their

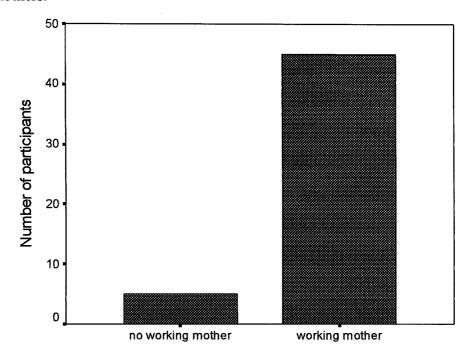
respective fathers and mothers. Descriptive statistics indicate that 5 participants (10%) came from a family with only a working father; 10 participants (20%) came from a family with only a working mother and 35 participants (70%) came from a family with two working parents (see figure 4.1).

Figure 4.1 Number of participants with working fathers, working mothers or dual-career families.



The data also measured the relationship between the number of participants with working mothers in their lives and non-working mothers in their lives. Descriptive statistics show that 5 participants (10%) had a non-working mother within the household and 45 participants (90%) had a working mother within the household (see figure 4.2).

Figure 4.2 A comparison of participants with working mothers and non-working mothers.



Type of mother

#### **Summary**

In summary, descriptive statistics of the data were performed and Kendall's tau-b correlation test was performed in this study. A significant relationship was found between the level of education of the mothers and the anticipated level of education of the participants. Although there is a significant relationship, it is also important to note that it is shown to be inverted. Descriptive statistics noted that more participants came from families with only working mothers rather than only working fathers. Furthermore, it was found that participants were more likely to come from dual-career families than with one working parent within the household.

#### **CHAPTER V: DISCUSSION**

#### Review of Results

After reviewing the data it was found that there was a significant relationship between the educational attainment of the mother and the aspired educational level of the female participants. This finding does support the hypothesis that female college students are more likely to strive to attain a level of education similar to or beyond that of their mothers' level of education. There were only two participants who strived for a lower level of education than their mothers had attained. This finding also supports research on the "educational floor" set for children's educational attainment. Mothers have set educational floors for transitions into college or graduate school and one way of determining if a female will attend college is by noting if her mother had attended college herself (Sheridan, 2001).

The negative correlation, however, refers to the fact that as the level of educational attainment a daughter wanted to achieve increased, the mother had attained a much lower level of education. As the level of educational attainment a daughter strived for decreased, the educational attainment of the mother had increased. This could have been due to imbalance of the individuals in the sample. Only female college students were surveyed, therefore the daughters had the advantage by only being given the option of 3 levels of education while mothers had to choose from 6 levels of education.

Therefore, the responses of the college students had little variance whereas the responses of their mothers had high variance leading to a misrepresentation of the levels of education among all types of females and their mothers. If the study had included female

participants of all different ages, it is possible that there may have been a positive correlation in that the level of education aspired by the participants increased along with the educational attainment of their mothers and would have been a more realistic sample.

After further analysis of the data, it was also found that 70 % of the participants came from dual-career families with both a working father and a working mother and 90% of the participants came from families with working mothers. This supports the hypothesis that female college students were more likely to come from households with two working parents, especially a working mother. Families in which both parents are working will tend to disagree with traditional sex roles more so than families with only a working father (Stephan & Corder, 1985). As the number of families with both parents educated increased, the rates of females attending college increased (Brachman et. al., 2003).

#### Limitations

One limitation of the current study was that it was conducted exclusively at Rowan University. The sample gathered from students at Rowan University may be different than students at other universities and the background they come from. The sample was predominantly Caucasian. This could also have been a limitation to this study because it does not accurately depict all female college students. Also, the sample size was very small with a total of 50 participants. It was difficult to obtain participants because it was limited to only females. These limitations did not allow the results to be generalized to all female college students and their families.

Another limitation to this study is that only college level females were used in the study. While mothers' educational level was measured from some high school education

to beyond a Bachelor's degree with 6 options, the participants' educational levels were only measured from an Associate's degree to beyond a Bachelor's degree with only 3 options because they were currently attending college. This limitation may have affected the results of this study with a negative correlation because there were no female participants with the opportunity to respond to the survey in the same way that the mothers' information was gathered. While there was a variance among the educational levels of mothers, there was not much of a variance for the female participants, which in turn may have affected the relationship found when analyzing data. If the study included females of all ages in the sample, it is possible that the negative correlation may have been avoided and an actual positive relationship could have been observed between the aspired level of education of the participants and the level of education attained by their respective mothers.

The level of education of the participant was measured by what level the participant thought she would achieve. This is another limitation because it assumes that the participants will complete their education up to the level they aspire to achieve. This is not an accurate measure because many outside factors may affect the level of accomplishment for these participants. This could account for error in the collection of data and its analysis. If participants who had careers and stable jobs were surveyed instead of college students, it is possible that the responses could be more reliable and accurate rather than gathering information on how far participants thought they would get as far as educational attainment.

## Conclusion

In conclusion, the results of this study showed a significant relationship between the educational attainment of mothers and the level of education their daughters strive for. It was found that daughters are striving to accomplish as much as or go beyond the educational attainment of their mothers. It was also found that female college students were more likely to come from households with dual-career families and households with working mothers.

## Implications for Further Research

There is a need for more research on the specific influences of working mothers on the level of education their daughters obtain. It would be interesting to expand this study to a larger scale by including women of all ages and their mothers in the sample rather than specifically college students. It would also be interesting to study the relationship between levels of education for mothers and daughters among a variety of ethnic groups. It would be interesting to see if a similar pattern would take place or if there were other factors that would influence the results. The influences of mothers on daughters in terms of education and career choice should continue to be studied further in order to encourage and better provide children with equal chances and opportunities to succeed and prosper in our changing society.

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Appendix A
Informed Consent Form

## **Informed Consent Form**

I agree to participate in a study titled "Influences of Mothers and Dual-Career Families on the Educational Attainment of Female College Students." which is being conducted by Mansi Patel, a graduate student of the School Psychology Program, Rowan University.

The purpose of this study is to determine if there is a relationship between the educational background and occupation of fathers and mothers and the aspirations of corresponding female college students.

I understand that I will be required to respond to questions about family background and my own goals for the future. My participation in this study will not take more than 5 minutes.

I understand that my responses will be anonymous and the gathered data will be confidential. I agree that information obtained in this survey may be used in publication provided that my name is not used and I am in no way identified.

I understand that there are no physical or psychological risks involved in my participation in this study, and I am free to withdraw my participation at any time without penalty.

If I have any questions or problems regarding my participation in this study I may contact Mansi Patel at <u>patelm74@students.rowan.edu</u>.

(Signature of Participant)	(Date)
(Signature of Researcher)	(Date)

Appendix B Survey

Survey Code
Student Information What year did you graduate High School? What is your age?
Did you begin college the year following your high school graduation? (Y/N)
What is your Major or Program at Rowan University?
What occupation are you striving to hold?
What is the highest level of education you plan to complete?  a. Associate's Degree  b. Bachelor's Degree  c. Graduate School or higher (M.A., PhD etc.)
Family Background and Information  What is the marital status of your parents?  a. Single b. Married c. Divorced/Separated  *If your parents do not live together, which parent do you live with the most?  a. Mother b. Father c. Other  Highest level of education father has completed  a. Attended some high school  b. High School Diploma  c. Attended College (no degree)  d. Associate's Degree  e. Bachelor's Degree  f. Graduate School or more (M.A., PhD etc.)
Highest level of education mother has completed g. Attended some high school h. High School Diploma i. Attended College (no degree) j. Associate's Degree k. Bachelor's Degree l. Graduate School or more (M.A., PhD etc.)  Does your father work? (Y/N) If so what occupation does he hold?
Does your mother work? (Y/N)  If so what occupation does he hold?