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PARENTS MARITAL DISCORD: CONSEQUENCES FOR OFFSPRING'S INTERPERSONAL COMPETENCIES IN ROMANTIC RELATIONSHIPS

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The present review investigates the issue of how parent's marital discord is related and possibly transmitted to children's own intimate relationships. The two main theories of this transmission are discussed: marital discord is transmitted either through disruptions in parent-child relationships or through children's observations of parental behavior. The research indicates that both are important and contribute to children's marital quality. Given what we know about the effect of parent's relationships on their children's relationships future research should be committed to testing and developing preventive measures for couples and families. The latter part of this manuscript is devoted to discussion of current premarital education programs, particularly the Prevention and Relationship Enhancement Program (PREP).

The belief that marital quality is transmitted from parents to children has been consistently demonstrated throughout several bodies of research. This assertion has far-reaching implications, as almost 90% of all adults will eventually marry, although 50% or more of these marriages will either fail or be marked by conflict and discontent (Conger, Cui, Bryant, and Elder, 2000). Given the high rate of marital disruption in the United States, the intergenerational transmission of marital quality is a phenomenon that touches the lives of large numbers of people. Research demonstrating that discontented but non-divorced families may have even more adverse and long terms effects on children (Feng, Giarrusso, Bengtson, & Frye, 1999), has stimulated even more research investigating the intergenerational transmission of marital discord. In relation to content couples, maritally distressed couples express more negative emotion during marital conversations, tend to avoid or withdraw from problem-solving discussions, and have more difficulty resolving conflict. Furthermore, distressed couples listen to their spouses less attentively, are more critical of their partners, and are more likely to report problems with moodiness and controlling anger (Amato & Rogers, 1997; Sanders, Halford, & Behrens, 1999**)**. Making these findings even more alarming, children have been shown to learn problematic interpersonal behaviors through growing up in maritally discordant homes (Conger et al, 2000). This suggests that these individuals will bring poor communication skills and behaviors, learned in the family of origin, to their own marriages. For this reason, it is apparent that without preventative measures these children may be destined to the same marital problems and marital instability associated with their parent's marriages.

Parental Marital Discord and Children's Marital Competencies

While a number of scholars have recognized the existence of a relation between parental and child competencies in intimate communication (Sanders et al, 1999; Conger et al, 2000;Amato & Booth, 2001), a fundamental question concerning this relation remains to be addressed: What are the mechanisms by which parent's marital discord exerts its influence on children's marital competencies? Although attempts have been made to identify the primary mechanisms that might account for the relation between marital discord and offspring's marital competencies, there are two underlying theories for most of these proposed explanations. The first theory states that marital quality is transmitted across generations through direct observation of parental behavior, however the second theory claims that marital quality is transmitted through disruptions in parent-child relationships (Amato & Booth, 2001).

Several studies have supported the notion that children are placed at risk for future marital instability through the process of observational learning. The proposition is that children learn interpersonal behaviors and competencies through observation of their parents (Conger et al, 2000). For this reason, children whose parents are maritally distressed, compared with children whose parents are maritally content, have fewer opportunities to observe positive social skills (such as resolving conflict cordially, support and compromising) that facilitate fulfilling, long- term relationships. Consistent with the notion that children learn relationship skills through observing their parents, studies have found similarities between parents' behavior toward one another and their children's behavior with peers and siblings. For instance, Stocker and Youngblade (1999) conducted a study observing 136 families marital and family interactions in order to examine the association between marital conflict and children's relationships with siblings and peers. Based on these observations and the family member's self-reports, the research found that parent's marital conflict was positively associated with problematic sibling and peer relationships. Perhaps, a child observing their parent's hostility and negative affect as they quarrel in the kitchen, leads that child to model those negative interpersonal behaviors in their own peer relationships. A related study (Dadds, Atkinson, Turner, Blums & Lendich, 1999), using three samples of children, with ages from 10 to 14 years, shows that parents and children tend to use similar conflict-resolution strategies. Their findings were most evident when the children interacted with their siblings during high conflict situations in which they had most frequently observed their parents interact, such as getting ready in the morning, mealtimes, and doing chores.

Similarly, Jenkins (2000) found that when examining the relationship between anger-based marital conflict and the amount of anger displayed by their children, that children and parents tend to exhibit similar amounts of interpersonal anger.

Providing the most compelling evidence for the observational learning explanation of the intergenerational transmission of interpersonal skills and relationship distress comes from a 17-year longitudinal study. After interviewing 297 parents and their married offspring, Amato and Booth (2001) found that parent's marital discord was positively related to offspring's marital discord. Supporting the notion that children model and replicate their parents' behavior, children's descriptions of their parent's marriages and children's descriptions of their own marriages were positively correlated.

Ruling out a number of potential explanations for this relationship, the authors found that the effects of marital discord were independent of whether parents' divorced. Hence, there was no evidence that marital discord affects children largely by disrupting parent-child relationships. However, this discrepancy could be attributable to the limitations of the present study. For example, since the data was collected retrospectively to measure relationships with parents during adolescence there could be possible biases in their recollections. In addition, the study was completed entirely by self-report, rather than observational data (Amato & Booth, 2001). Nonetheless, these findings substantiate the theory of observational learning, which assumes that many children from chronically conflicted homes develop poor interpersonal relationship skills that undermine marital stability.

While several studies support the notion that children are placed at risk for future marital instability through the process of observational learning, considerable research supports the notion that offspring learn intimate relationship skills primarily from the way parents interact with their children. Through this process of socialization, negative or ineffective child-rearing strategies are proposed to act as mechanisms that link marital conflict to children's negative relationship outcomes (Buehler & Gerard, 2002). Parents in discordant marriages have been found to engage in practices that disrupt the parent-child relationship, such as frequent expressions of anger, reduced levels of involvement, inconsistent use of discipline, withdrawal from problem solving situations, and poor communication (Sanders et al, 1999; Stocker & Youngblade, 1999). The idea that marital conflict might shape ineffective parenting is often referred to as "spillover". Spillover is defined as the direct transfer of mood or behavior from one setting to another. Margolin, Christensen, and John (1996), reported that distressed couples exhibit prolonged tension and more negative "spillover", particularly from marital to parent-child interaction. Lending support to these findings, Harold & Conger (1997) also found that marital conflict produces a "spillover" effect in the form of more frequent hostile parent-child interactions. In fact, marital tensions have been shown to spillover into the next day, thus making parents 50% more likely to have tense exchanges with their children (Buehler & Gerard, 2002). In other words, when receiving support from your spouse you are not only strengthening the marriage, but you are also facilitating a stronger relationship with your child. Where as consistent marital conflict may actually decrease the positive encounters you have with your child even a day after marital tensions had occurred. In addition, Davies and Cummings (1994) suggest that children who witness hostile exchanges between their parents may feel less secure in their own relationships with their parents. Springing from this sense of emotional insecurity, children may develop personal traits such as a lack of trust, or being overly critical, that will put them at greater risk for problematic interpersonal relationships as an adult.

In examining the potential spillover from conflicting marital interactions to parent-child relationships, Buehler and Gerard (2002) found marital conflict to be associated with more frequent parent-adolescent conflict and greater use of harsh disciplinary practices. In addition, marital conflict was found to be linked with reduced levels of parental involvement (Buehler & Gerard, 2002). As marital conflict intensifies, parents might become more consumed by their marital problems, while becoming even less available to their children. As a result of these interactions, adolescents may in turn develop behaviors that are more outwardly aggressive and defiant (Buehler & Gerard, 2002). Some children may in fact behave more defiantly as a means of gaining attention from their withdrawn or neglectful parents.

Significantly advancing the parental socialization hypothesis, the Conger et al. (2000) study may provide the strongest direct evidence for how earlier parent-child relations are linked to later romantic relationships. While conducting a prospective, longitudinal study of 193 families, Conger et al (2000) found that interpersonal behavior between parents in 1989 predicted offspring's interpersonal behavior with their adult romantic partners in 1997. Moreover, the study discovered that warm and supportive parent-child interactions predicted, that as an adult, this child would elicit the same warm and supportive behaviors in their romantic relationships (Conger et al, 2000). In addition, these behaviors were linked with greater relationship quality among the offspring and their partner. Contrary to Amato and Booth's (2001) findings, the socialization practices of parents, rather than their marital interactions, were the only significant predictor of later competence in relationships.

Making the argument for parental socialization even stronger, the Conger et al. (2000) study collected data from directly observing marital and family interactions in both the family of origin and in the early adult relationship, where as the Amato and Booth (2001) study was based only on perceived interactions documented by self-report. In the Conger et al (2000) research, all of the behavioral interaction measures for the family of origin and for the early adult couples were generated using observer ratings of the videotaped discussion tasks. The tasks were designed to elicit both positive and negative effect through asking general questions about their relationships such as approaches to parenting, household chores, and activities they enjoyed doing together, to more personal questions about conflicts and disagreements. Furthermore, the study attempted to determine the degree to which the family and marital relationships appropriately regulated negative affect by videotaping the behavioral interactions of the participants as they were asked to try to solve the greatest conflicts in their relationships (Conger et al. (2000). Although knowing that you are being videotaped may inhibit a person's responses, it is very difficult to hide your viewpoint when discussing the most important conflict you have in such a vital relationship. Another strength of this research study was that it addressed several different relationships: (a) parenting behavior toward the target adolescent, (b) marital interaction between the parents, (c) sibling behavior toward the target, and (d) target affect toward partner in early adult relationship. Hence, controlling for several personal and social factors that may influence the family-of-origin characteristics and the behavioral competencies of the target youth adult and their success in a close relationship.

However, the study did have limitations. When assessing the generality of these findings, the sample was limited in terms of geographic location and ethnicity; therefore, future research should extend the study across more diverse populations. In addition, only a small portion of the participants were married, which makes it difficult to determine if the problematic relationship skills will persist into marriage. This research will be extended to the year 2004, when one will be able to assess if the problematic interpersonal competencies found in 1997 have persisted into those participant's marriages. Conger et al's (2000) findings broaden researcher's understanding of the intergenerational transmission of interpersonal relationships while providing important implications for the prevention of poor relationship outcomes. Given the overlap between the communication behaviors parent's show toward their spouses and their children, offspring in maritally discordant homes are at a greater risk for coercive parent-child interactions. In other words, marital discord may decrease the likelihood that children develop relationship competencies necessary for maintaining satisfying, long-terms relationships in adulthood.

Although these discrepancies in findings raise the issue of whether offspring learn intimate relationship skills primarily from the way parents interact with one another or from the way parents interact with their children, both mechanisms provide evidence for the transmission of marital quality from parent to child through the learned behavioral competencies of the offspring. In short, parents represent the most important source from which children learn about the nature of marital relationships, as well as marital behaviors.

Implications for Intervention and Prevention

Taken together, these findings provide important implications for conducting research committed to developing and testing prevention programs for couples and families. The primary method of helping distressed couples is to treat relationship problems after they have become severe enough to seek therapy, suggesting that the adverse affects of destructive conflict may already have impacted the child (Stanley & Markman, 1995). This suggests the importance of preventive measures. Recognizing that poor relationship skills can be transmitted from parent's marital behaviors to their child's marital behaviors, potentially allows us to predict and prevent marital distress before problems develop. If deficits in communication and conflict management are identifiable in people whose parents are maritally distressed, then perhaps preventive measures can be taken to hinder poor interpersonal competencies being transmitted from parent to child. Potentially we could implement educational measures that educate at-risk youth on skills from positive communication to conflict management that may actually enhance their chances of developing important relationship skills before they enter into marriage, or may be even earlier than that. In fact, early prevention of marital distress, as well as parent training may have significant benefits for the next generation for producing, long-term advantages in relationship development. Even political and policy leaders have begun to call for a variety of measures to strengthen marriage, including state initiatives targeting couples to undergo premarital education training (Stanley et al., 2001). Oklahoma, for example, has initiated a large, broad- based effort to strengthen marital and family relationships, while Texas and Florida have taken initiatives encouraging couples to undergo premarital education. Some states, including Florida, have now elected to require high school students to take classes to prepare them for marriage and other committed relationships (Stanley, 2001). The possibility that the effects of preventive interventions could cross-generational boundaries holds appeal because the intervention has the potential to be self-sustaining, as the offspring themselves may go on to be better parents for their own children.

Advancing the argument for implementing premarital education programs, evidence has shown that providing couples with premarital training can lower their risks for future marital distress (Stanley, 2001). For the past 10 years, in the longest running, longitudinal investigation of its kind, researchers at the University of Denver have been conducting an investigation of the development of marital distress and the effectiveness of the Prevention and Relationship Enhancement Program (PREP; Stanley, 2001). PREP, one of the most rigorously tested programs for the prevention of marital distress, attempts to help couples susceptible to risk in marriage by strengthening protective factors, such as friendship, fun, and commitment, while weakening risk factors such as negative interaction and unrealistic expectations (Stanley & Markman, 1995). Since much of what goes wrong in a relationship has much to do with never having learning skills and principles associated with successful relationships, PREP is education, not therapy. There are a variety of training approaches used by PREP from weekend workshops

to private instruction by an educated PREP instructor, however each method focuses on educating PREP couples about successful interpersonal skills vital to enhancing their relationships (Stanley & Markman, 1995). The research projects findings have shown that up to four years post-intervention, the PREP couples demonstrate significantly better communication skills, support, and positive affect, relative to the control group. Furthermore, PREP couples exhibit less negative communication patterns such as denial and withdrawal when compared to the matched control group (Renick, Blumberg, & Markman, 1992). Although the findings of the longitudinal study support the effectiveness of PREP, there could be possible selection effects. Since couples choose to complete these programs, it is difficult to determine if the positive relationship outcomes are reflective of the program or of the participant's inherent determination to see their marriages to succeed (Stanley & Markman, 1995). In other words, the study should conduct measure the positive and negative affect of the participant's before they begin the program. In addition, post-intervention studies conducted five years later to determine the effectiveness of the program have found that preventive measures seem to weaken over time (Stanley, 2001). This then suggests that couples may need to participate in follow up review sessions over time. Despite some limitations, these studies demonstrate that couples can be taught the positive social skills needed to maintain satisfying relationships.

In conclusion, these findings suggest that marital discord operates by undermining children's development of interpersonal skills necessary for maintaining satisfying romantic adult relationships through observing distressed parental interactions and through disrupting the parent-child relationship. The present review underscores the complexity of the processes involved when children are from maritally discordant homes. This literature on the intergenerational transmission of marital quality emphasizes the possibility that many couples at risk for marital dysfunction can be identified early and efficiently, partly on the basis of troubled parent-child relationships and marital interactions. These data are important for developing and refining preventions, such as PREP, for those young couples and developing families who are at risk for suffering profound consequences of chronic marital discord. As the capacity for predicting outcomes improves, so does the ability to identify couples at elevated risks for adverse outcomes. Perhaps highlighting these key findings on the transmission of marital quality from parent to child through the learned behavioral competencies of the young adult, will encourage future research to address the importance of developing preventative education programs for adolescents, as well as premarital couples emphasizing positive interpersonal competencies such as conflict management strategies and communication skills. Considering the discrepancies in findings of whether offspring learn intimate relationship skills primarily from the way parents treat one another or from the way parents interact with their children, future studies should investigate the roles of observational learning and parent-child interactions in shaping children's relationship skills and future relationship quality. Given the dynamic role parents play in transmitting interpersonal relationship skills, marital distress may in fact influence children's marital success or failure through a combination of disrupting the parent-child relationship and of observing parents' marital interactions.

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THE EFFECT OF BODY IMAGE ON SELF-ESTEEM ACROSS ETHNICITY

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The different effects of body area satisfaction on self-esteem in black and white females were observed during this study. Body area satisfaction was measured using the Body Area Satisfaction Subscale (BASS) and self-esteem was measured using the Rosenburg Self-Esteem scale (RSE). It was hypothesized that females with higher levels of body area satisfaction would have higher levels of self-esteem, and that black females would have higher levels of body area satisfaction than white females. These hypotheses were based upon research showing the effects of culture identity, body image, and self-concept. The results did not indicate a significant difference between the body area satisfactions of black and white females. Findings did indicate a strong positive correlation between the body area satisfaction and self-esteem of white females, but not black females.

Over the past ten to twelve years there has been an increase of study in the area of self-concept and self-esteem. Self-concept is a multidimensional construct, including the dimension of self-worth. Self-worth is the value one has for his or herself, often times referred to as self-esteem. Some researchers have used self-description as another dimension in evaluating self-concept. Self-concept and self-esteem are often used interchangeably, because self-concept encompasses self-worth ("Body Attitude", 2001). However, self-concept includes an individual's overall perception of their psychological and physiological being, where as self-esteem is the judgment of worth an individual assigns to his or herself. In the areas of self-concept and self-esteem there has been a particular emphasis on college students in their second years of studies. In this population self-esteem appears to correlate with body image (the overall perception an individual has about their physical body), which has in turn been found to have a strong correlation with an individual's self-concept (Von Bergen & Soper, 1996). The motivation of much of this research is the finding that self-esteem and self-concept have been found to correlate with human behavior, specifically eating disorders. Therefore much of this research has been targeted towards finding an antidote to the correlation between low self-esteem and clinical eating disorders. In particular, research has focused directly on the correlations of gender and ethnicity.

Von Bergen and Soper (1996) reported that individuals with high self-esteem tend to have high self-concepts, whereas individuals with low self-esteem tend to have self-concepts that are inconsistent and frequently changing. Participants in their study were tested using the Revised Janis-Field Self-Esteem Scale. They concluded that individuals with low self-esteem tend to be affected more by external factors such as media as well as their achievements ("Body Attitude", 2001; Von Bergen & Soper, 1996). The authors suggested that these findings exist because these individuals are not as certain about their own self-identity. This trend was not noted in individuals with high self-esteem.

Evidence has been found that suggests a relation between an individual's body image, self-esteem, and self-concept. Many factors are related to an individual's self-concept, but self-worth (esteem) has been found to have great significance in this area. Negative body image tends to correlate with negative behavior towards one's self ("Body Attitude", 2001). Negative behaviors would include those behaviors that typically lead to clinical eating disorders.

Research by Nigel Barber (2001) reported that experimentally-induced depression affected the self-perception of males and females regardless of ethnicity. Participants' moods were altered using the Velten procedure, which is a series of sixty statements. The series consists of neutral, depressive, or elating statements. Participants were tested in all three categories. Individuals whose moods reflected depression tended to feel physically heavier in comparison to the other individuals. The ideal goal for males in the study was to be heavier, and for females the exact opposite. This heaviness and lightness was a reflection of how they perceived their current body weight as a result of the induced moods.

In general, females are affected more by body image and self-concept than males (Henriques & Calhoun, 1999). Self-concept is learned, and is consistent in both males and females until their adolescent years. After adolescent years self-concept and age have a negative correlation in females; the older an individual gets the lower one's self-concept. Media, health, fashion, and beauty industries have been credited the most for this trend. Beauty is the most important factor in advertising targeted towards females, whereas males are also valued for their success and achievements ("Body Attitude", 2001; Von Bergen & Soper, 1996).

Although females have been found to be at risk more than males for negative behavior surrounding self-concept and body image, white females are more likely to be victims of this phenomenon than black females (Falconer & Neville, 2000; Henriques & Calhoun, 1999). White females have a tendency to associate self-concept with weight, shape, and appearance (Henriques & Calhoun, 1999). In comparison, black females rely more on internal aspects when developing self-concepts. Even when evaluating actual physical characteristics, black females tend to focus on specific aspects of their body features instead of their overall body image, for example buttocks, hips, and body shape. Black females have been described as "working with what they have," instead of trying to obtain the ideal beauty presented by the media (Faulkner & Neville, 2000).

Research has been steadily increasing in the area of self-concept across culture and gender boundaries, but less focus has been on specific ethnic groups, particularly on blacks. Falconer and Neville (2000) conducted research to determine if the differences between black female and white female self-concepts actually existed, and why the self-concepts of black females were different from those of their white counterparts. Their research showed that black females were indeed dissatisfied with heavier body weight, which correlated with lower body image. The same correlation had been found in white females (Henriques & Calhoun, 1999). The difference that lies between black females and white females is that black females are less likely to engage in negative behavior toward themselves because of this lower body image (Falconer & Neville, 2000).

Although black females are affected by lower body image, they still had higher self-concepts than white females. There are several contributors to this finding. Black females tend to reject external standards of beauty, essentially in an effort to protect their self-esteem. Falconer and Neville (2000) have directly related this to a worldview that is specific to the black community. An African Self-Consciousness (ASC) scale was used to measure the black female participants' identity with African descent and the Body-Areas Satisfaction Subscale (BASS) to measure satisfaction with particular body parts. There was a correlation between higher ASC and BASS scores and a higher self-concept. The black community tends to identify more with its African heritage which emphasis larger body features, such as breast, lips, buttocks, and shapely bodies. As a whole the community is more favorable to these larger features. Satisfaction and self-concept are usually generated around these features instead of body image as a whole. Therefore, black females tend not to be greatly affected by the white media beauty ideals that are projected. However, higher-class black females identify more with their white female counterparts and problems relating to self-concept (Falconer & Neville, 2000).

Research in the area of self-concept has provided new insight to the links between ethnicity, body image, and self-concept. Research has been consistent in finding that body image, self-esteem, and self-concept are correlated to some extent. All three elements combined directly affect white females more than white males, black males, and black females (Henriques & Calhoun, 1999).

An issue that has not been addressed in this past research is whether specific body area satisfaction (the degree of satisfaction or dissatisfaction with individual body parts) has the same correlation with self-esteem for white females, as it appears to have with self-esteem for black females. The focus of this study is the correlation of body area satisfaction and self-esteem in both white and black females. Body area satisfaction will be assessed using the Body Area Satisfaction Subscale (BASS) and self-esteem will be assessed using the Rosenberg Self-Esteem (RSE) scale. It was hypothesized that females with higher levels of body area satisfaction would have higher levels of self-esteem, and that black females would have higher levels of body area satisfaction than white females. Although past research has not shown a significant difference in body image between white and black females, it has been found that higher levels of body area satisfaction in black females correlates with higher self-concepts and self-worth (esteem). Falconer and Neville (2000) related body area satisfaction in black females to a worldview specific to the black community, African Self- Consciousness. The prediction that the body area satisfaction of black females will be higher than those of white females is due to the culture identity, which is exclusive to the black community.

Methods

Participants

Twenty-six female students from the University of North Carolina at Charlotte participated in this study. There were 13 white females and 13 black females. The participants were either in their first or second year of study and between the ages of 18 and 20.

The majority of the participants were in a general psychology lab seeking research participation credit. Overall the individuals had little to no knowledge of previous research on body area satisfaction and self-esteem. The participants had a variety of body shapes and weights. Body area satisfaction ranged from 15-30 and self-esteem ranged from 10-26.

Design and Materials

This study was conducted as a 2x2 factorial design. The two variables were ethnicity and body area satisfaction. Ethnicity had two levels, black females and white female. Body area satisfaction scores could range from 9-45, scores closer to 9 indicated higher levels of body area satisfaction, and sores closer to 45 indicated lower levels of body area satisfaction. Self-esteem was the dependent variable. Self-esteem scores could range from 10-40, scores closer to 40 indicated higher self-esteem, and scores closer to 10 indicated lower self-esteem. The Body Area Satisfaction Subscale (BASS) was used to assess body area satisfaction (Falconer & Neville, 2000). This subscale consisted of nine items, which could be rated from 1-5, 1 being very satisfied and 5 being very dissatisfied. The Rosenberg Self-Esteem (RSE) Scale was used to assess self-esteem (Rosenberg, 1965). There were ten items on this scale. Each item was rated from 1-4, 1 being strongly agree and 4 being strongly disagree.

Procedure

Participants were informed that their results would remain anonymous and confidential during and after the study. Participants were given both the BASS and RSE scale to complete (*see Appendix*). Before completing either scale participants were asked to mark their ethnicity, age, and which body feature they individually valued the most. They were then asked to complete the BASS first followed by the RSE Scale. This was to ensure that their self-esteem assessment did not interfere with their body area satisfaction assessment. Upon completion of the scales, participants were asked to place the scales in a folder by the door. Participants were then given background information on research in the area of body area satisfaction, self-esteem, and ethnicity, as well as the present studies variables and hypotheses.

Results

The scores for the BASS could range from 9-45 and the scores for the RSE could range from 10-40. The BASS scores of the black female participants ranged from 12-30 and the RSE scores ranged from 14-26. The BASS scores of the white female participants ranged from 16-26 and the RSE scores ranged from 11-23.

Pearson Correlations were computed to determine if there was a correlation between both white and black female scores on body area satisfaction and self-esteem, neither significance nor strong correlation was found, $r=.304$. An independent t-test was calculated to examine any effect of race on body area satisfaction. Table 1 shows that the body area satisfaction of white females

(M=21.54, SD=3.20) and black females (M=19.77, SD=4.85) did not significantly differ from one another, t (24)=1.097, p= .283.

When Pearson correlations examining the relation between body area satisfaction and self-esteem per group were computed, separately for black and white females, white females were found to have a significantly positive correlation between the two, r=.784, p= .002. There was not a significant correlation found between body area satisfaction and self-esteem for black females, r= -.020, p=.949 (see Table 2).

Discussion

The goal in this study was to examine the correlation between body area satisfaction and self-esteem in both black and white females. The hypotheses were that females with higher levels of body area satisfaction would have higher levels of self-esteem, and that black females would have higher levels of body area satisfaction than white females. When testing for a correlation between body area satisfaction and self-esteem across both black and white females no correlation was found. There was also no significant difference in the mean scores of body area satisfaction between black and white females. These results do not support the aforementioned hypotheses. Although these hypotheses were not supported a strong positive correlation between body area satisfaction and self-esteem was found to be true for white females.

These results are consistent with previous research showing that self-esteem does not differ between white females and black females, nor does overall body image, specifically in college females. Previous studies have shown it is not necessarily one ethnic group that has a higher body image than the other, but it is the influence that body image has on self-esteem and in turn on self-concept that varies the most. The self-concepts of white females are found to have a greater correlation with lower body image and self-esteem than those of black females (Barber 2001; Henriques & Calhoun, 1999; Von Bergen & Soper,1996). Research has suggested that this is because the specific cultural identity of black females plays a large role in their assessment of body image, where as white females rely heavily on media images ((Falconer & Neville, 2000; “Body Attitude”, 2001).

Although there was no distinct variation in body area satisfaction between groups, the correlation between body area satisfaction and self-esteem found in white females, further supports research that has found correlations between self-concept, body image, and self-esteem has a greater significance when pertaining to white females, than their black counterparts ((Falconer & Neville, 2000).

Results from this study may have differed had there been a larger sample size of both white and black females. This may have allowed more inferences to be made on the data as well as the prevalence of stronger correlations between body area satisfaction and self-esteem. It may have led to more insight regarding the impact in ethnicity truly holds on body image. Although the sample size was small its, findings were consistent with those from previous research in the area of body image, self-esteem, and self-concept.

One aspect that was not taken into account during this study was the culture identity or African Self-Consciousness of the black female participants in this study. The participants were from a majority white institution. It may be possible that their white counterparts have influence on their own bodily perceptions as Falconer and Neville (2000) found with higher-class black females. The presence or absence of cultural identity in these black females may be correlated with the differences found between BASS and RSE scores in white and black female participants.

Further research may involve the direct relation between body area satisfaction and overall body image. It may be possible to increase an individual's own body area satisfaction, which may lead to an increase of body image. From previous research indicating the correlation between body image and self-esteem, this may very well raise one's self-esteem and increase self-concept. This increase of self-concept may result in a decrease of eating disorders that females, particularly white females, tend to engage in as a result of poor self-concept.

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Table 1

Mean Scores of Body Area Satisfaction

	Body Area Satisfaction	
Race	Mean	Standard Deviation
Black	21.54	3.20
White	19.77	4.85

Note: No significant difference, *p*=.283.

Table 2

Intercorrelations Between Subscales for Black and White Females

Ethnic Group	Pearson Correlation between BASS and RSE
Black Females (n=13)	**-.020**
White Females (n=13)	**.784***
Black and White Females (n=26)	**.304**

Note: * indicates significant correlation, *p*= .002

Appendix

PLEASE PROVIDE THE FOLLOWING INFORMATION BY PLACING A CHECK MARK BESIDE THE RESPONSE THAT APPLIES TO YOU.

Race: __ Black __White ***Age:*** __ 15-17 __18-20 __21 or above

Which one of the following features is the most important to you:
__face __ breast __buttocks __stomach __legs __thighs __hips __arms

---

Directions. *Using the following 5-point scale below, please rate the degree to which you agree or disagree with each of the following statements.*

1 = *Very Satisfied*

2 = *Mostly Satisfied*

3 = *Neither Satisfied nor Dissatisfied*

4 = *Mostly Dissatisfied*

5 = *Very Dissatisfied*

1. Face (facial features, complexion) ___
2. Hair (color, thickness, texture) ___
3. Lower torso (buttocks, hips, thighs, legs)___
4. Mid torso (waist, stomach) ___
5. Upper torso (chest or breasts, shoulders, arms) __
6. Muscle Tone ___
7. Weight ___
8. Height ___
9. Overall appearance ___

Please answer each question as honestly as possible by circling one of the four possible responses. ANSWER ALL THE QUESTIONS.

1. I feel that I am a person of worth, at least on an equal basis with others.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

2. I feel that I have a number of good qualities.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

3. All in all, I am inclined to feel that I am a failure.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

4. I am able to do things as well as most other people.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

5. I feel I do not have much to be proud of.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

6. I take a positive attitude toward myself.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

7. On the whole, I am satisfied with myself.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

8. I wish I could have more respect for myself.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

9. I certainly feel useless at times.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

10. At times I think I am no good at all.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

IMPACT OF STRESS FACTORS ON COLLEGE STUDENTS ACADEMIC PERFORMANCE

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Stress can have an impact on a student's academic performance. Knowing that, is there is a correlation between a student's amount of perceived stress in a given semester and that same semester's GPA? Twenty-five college students participated in the study. The students were asked to complete a survey, including the perceived stress scale. Along with this test the students were asked to complete a demographic data sheet, that asked questions such as age and gender, and also their classes and grades the prior semester. Finally the students were asked to read a list of possible stress factors, for example not getting enough sleep, and rank them in order of importance. The present study was unable to find a correlation between the score on the perceived stress scale, and GPA. Still the stress factors that most contributed to the student's GPA, mainly sleep and social, activities were consistent with other research. A much larger survey would need to be conducted in order to provide an appropriate sample size.

College students have many obstacles to overcome in order to achieve their optimal academic performance. It takes a lot more than just studying to achieve a successful college career. Different stressors such as time management, financial problems, sleep deprivation, social activities, and for some students even having children, can all pose their own threat to a student's academic performance. The way that academic performance is measured is through the ordinal scale of grade point average (GPA). A student's GPA determines many things such as class rank and entrance to graduate school. Much research has been done looking at the correlation of many stress factors that college students' experience and the effects of stress on their GPA. A name given to such stress factors by Hatcher and Prus (1991) referred to these stress factors as academic situational constraints. Their study took into account a variety of factors that can diminish a student's academic performance. Factors such as fraternity and sorority activities, job responsibilities, or having a boyfriend or girlfriend taking away from valuable time. One extraneous variable that was taken into account was that at most universities students involved in activities such as fraternities or sororities, and also athletics, must maintain an acceptable GPA to participate. This factor by itself could attribute to these students GPAs being higher than the average college student.

This study did not take into account a main factor that a lot of college students have to deal with, having children and families to care for. Today more and more people are deciding to return to college after being out in the work force. Coming back to college puts high demands on older people, who sometimes have family already. This factor of having a family could itself contribute to a lower GPA, but one study looked at this factor of family and found the contrary. What helped these students was the support they found within the University, support such as childcare services, and also courses in how to hone superior studying skills (Hammer, Grigsby, & Woods, 1998). One extraneous factor in the study of family and school demands was that most

of the students surveyed were only part-time students and therefore not a representative sample of the general college population.

There are also a number of health–related factors that can contribute to a student's academic performance, and therefore have an effect on his or her GPA. The amount of exercise, nutritional routines, and also the amount of social support the student perceives all can contribute to how a student academically performs (Hammer et al, 1998). Exercising too much or not at all can influence academic performance. Taking time out of frequent study hours to work out pulls away from grades. A frequent occurrence on college campuses is students becoming almost addicted to exercise, turning a healthy behavior into one that is psychologically unhealthy. In a study in 2000 Trockel, Barnes, and Egget found "That students who exercised seven or more hours a week obtained significantly lower grades than students who exercised six or fewer hours weekly or not at all " (p. 126).

Nutrition is also a problem with college students. Students may have difficulty finding the time to cook adequate meals. Most students are just learning to live on their own, and learning to cook can prove to be a challenge. Finding time to go to the grocery store once every couple of weeks can be a demanding task. Little storage space is available in the average dorm room, and food storage may not be possible at all (Trockel et al, 2000).

The effects of perceived social support are mixed. Some studies have shown that the amount of social support from the university and outside contributors like family, friends and mentors can make a huge impact on a student's success. Support such as emotional, academic, and financial are tremendous factors in the success of a college student. The years spent at college can be a stressful and life-changing experience, having your family and friends, along with the university all be there is crucial. If the student has a family that involves his or her own children, the support of everyone is needed even more, to achieve the goal of graduation. (Trockel et al., 2000).

The correlation between hours worked in a week and GPA seems obvious. The more time spent at work, the less time a student spends studying. Having to hold down a job and still be a college student is a constant source of stress (Calderon, Hey, & Seabert, 2001). Also, mentally juggling the two roles of workplace and college student can itself be stressful. Finding the time to work a full or part time job and take it as seriously, and also maintain focus on academic studies can be perceived as stressful. Being exhausted from working the night before can cause a poor attendance record and also give a student less time to study, resulting in a poor academic performance.

The most important contribution that was found was the effects of sleep on students' GPA. One study took into account previous research that had been done in the area of sleep, not just on college students but also on the general population. Kelly, Kelly, and Clanton (2001) "classified sleepers into three categories. 1) Short sleepers, individuals who, when left to set their own schedule, slept six or fewer hours. 2) Average sleepers, individuals who slept seven or eight hours, and 3) long sleepers, individuals who slept nine or more hours out of twenty-four " (p. 84). The study found that people who were considered to be long sleepers reported higher GPAs.

One thing that this study did not take into account was that some past research on sleep suggests that people who sleep fewer hours a night may have psychological maladjustment. Sleeping shorter amounts of time has shown to increase factors such as anxiety and stress, which have been associated with academic performance (Kelly et al, 2001). These factors cause students problems by causing shortened attention span and also increasing the number of errors students make on tests.

Another study took the hours of sleep correlation with GPA to another level by taking factors into account like amount of sleep a student gets on the weekends versus during the week, the average time a student gets up in the morning during the week, and waking time on the weekends. Trockel, Barnes, and Egget (2000) found that variables such as later weekday wake-up and later weekend wake-up times were associated with a lower GPA. This study seems to take the research from previous study further, by asking questions specifically related to when the sleep is obtained and what time of the morning a student wakes up.

Another health-related factor that can influence student's GPA is class attendance. Attendance itself can be related to stress factors like insufficient sleep, job responsibility, illness and also having a family or children to care for. Having a class at seven in the morning can be a huge problem for students deprived of sleep, especially for those students who attend classes during the day and work at night. Students who have children to take care of can often find themselves being held out of class for reasons like their children being ill or not having the proper child care readily available. Grades, motivation and prior GPA can also be reasons for class attendance (Devadoss & Foltz, 1996). With attendance having a major influence on academic performance, even to the point of some professors using it as a requirement to pass a course, it is a great indicator of a students overall GPA. One major prediction of class attendance is a student's GPA prior to enrolling in the class. Students who have done better in previous classes are likely to attend classes more frequently. Other factors in class attendance include the level of courses the student is taking. On average, junior and senior level courses have a higher attendance record than freshman and sophomore courses (Devadoss & Foltz, 1996). One finding that is contradictory to that of other studies is that students who work and are financially independent are more likely to attend classes and take their education more seriously. This is maybe due to the fact that paying for their education themselves makes them value their college careers more than students who do not pay for it themselves.

There are many factors that can cause stress and influence a student's academic performance and therefore affect his or her overall GPA. The factors include exercise, nutrition, sleep, work and class attendance. A college student may find him or herself in a juggling act, trying to support a family, taking care of job responsibilities, and at the same time trying to make the most of the college career. All of these factors can affect the grades of students, which ultimately affect the rest of their lives.

All of the factors that have been reviewed in the literature can contribute to a college student's level of stress. By themselves these constraints may have no effect at all on a student, but when combined, a student could perceive them as stressful, and the stress factors could have a dramatic effect on a student's academic performance. With too many stress factors present and with limited resources of time and energy, a student could easily become overwhelmed.

What one student perceives as stressful may not be a factor of stress at all for another student. The Perceived Stress Scale was developed by Cohen and Mermeistein (as cited in Calderon et al, 2001) to measure the amount of stress that a person perceived during past semesters. The Perceived Stress Scale is a 14-item scale designed to measure the degree to which situations in one's life are appraised as being stressful.

Some students may perceive factors such as nutrition, exercise routines, sleep patterns, social activities, and work as stressors that they need to overcome in order to achieve a higher academic standing. On the other hand, other students may not perceive these life situations as factors of stress at all. Stress itself has been proven to be a factor affecting a college student's GPA. Moreover the way the student perceives his or her stress can determine how much stress the student is actually under.

A student who has a high score on the Perceived Stress Scale has experienced high levels of stress, and his or her GPA at that time should show that negative effect. The purpose of this present study is to determine if there is a negative correlation between perceived stress in a given semester and that semester's GPA. Perceived stress will be measured by the Perceived Stress Scale, and GPA by the grades obtained that semester (Fall of 2001). I hypothesize that a higher score on the Perceived Stress Scale resulting in a higher level of stress, the correlated GPA should be lower during that specific semester.

Method

Participants

Twenty-five undergraduate students at the University of North Carolina at Charlotte were asked to complete a survey. Participants were recruited by asking professors in my different classes if I would be able to pass the surveys out to the students. Seven males and eighteen females all completed the survey. Of these students, 18 were Caucasians, 2 Asian or Pacific Islanders, 1 American Indian or Alaska Native, 2 African Americans, 1 Hispanic, and 1 other. The class standing of the 25 students' was equally distributed, 7 sophomores, 9 juniors, and 8 seniors, with the exception of only surveying 1 freshman. Students ranged in age from 18 to 35. Fifteen students were of the ages 18 to 21, 7 were 22 to 26, 2 were 27 to 30, and 2 were 31 to 35 years of age. The course load of the students surveyed was classified in the routine way; a part-time student is one who takes less than 12 hours a semester, and only 1 was surveyed. The majority of students, 24, classified themselves as full-time students, those who take from 12 to 18 hours in a normal semester. The students who completed the survey were not given credit to apply towards any class.

Design

The purpose of this study is to detect if there is a correlation between the stress that students perceive that they are under, and their GPA's. Given that students may not be under the same amount of stress every single semester, the survey is designed to be answered as it pertained to them the previous semester of school, Fall 2001. If my hypothesis is correct, there will be a negative correlation between the amount of stress perceived by the student and that student's GPA that same semester at school. To add another factor to the stress that a student

perceives, I want to find out what the three main reasons they perceive themselves to be under either a lot of stress, or little at all.

Materials

Perceived Stress Scale. In order to evaluate the amount of stress that students perceive to be under, I used the Perceived Stress Scale, developed by Cohen and Mermeistein in 1983 (see Appendix A for Perceived Stress Scale). The Perceived Stress Scale is a fourteen-item scale that asks the respondents to answer a series of questions as they pertained to them in the last month. I filled in the words, during last semester, to be able to evaluate their level of perceived stress at that point in time. The method of answering the questions is a likert scale format with answers ranging from 0 being an answer of never to 4 being an answer of very often. The scale yields a single score and a higher score is indicative of greater levels of perceived stress, with items 4, 5, 6, 7, 9, 10, 13, being reversed scored. The Perceived Stress Scale has been shown to be reliable and to measure only the amount of stress, independent of other constructs like depression.

Demographic Data. Students were asked to report data about themselves to control for extraneous variables. Questions were asked such as their genders, ages, races. Students were also asked to answer questions about their course load, and class standing. (see Appendix B for demographic data sheet).

Stress Factors Survey. The students were asked to report the classes that they took over the Fall 2001 semester and any grades that they received. There is a list of reasons that could have contributed to their GPA; these reasons were be pulled out from what was reviewed in the literature (see Appendix C for stress factors survey). The students will be asked to report their top three reasons, that they received the grades that they earlier reported.

Procedures

Twenty-five students at the University of North Carolina at Charlotte were asked if they could take ten minutes and fill out a survey. The students were first asked to read and sign a consent form (see Appendix D for informed consent form). The signed consent forms were then placed into a manila envelope so the names of each of the students would remain confidential. The students were given sheets of paper stapled together, the first paper being the Perceived Stress Scale. The next sheet of paper was a series of questions pertaining to there gender, age, race, and class standing. Following that they were asked to list every single class that they took and the grades that they recieved. Lastly, the students were presented with a list of possible stressors or reasons that they obtained those grades last semester. They were asked to read the directions and answer the questions as honestly as they possibly could. It was brought to their attention again that their answers will be kept completely confidential and their names could not be matched with their answers.

All of the participants were tested under the same basic conditions. They were asked to complete the survey in a classroom that they are familiar with, since they have their regular classes in these rooms. The lighting in all of these classrooms is overhead fluorescent bulbs, and the temperature is basically kept comfortable, around 70-72 degrees fahrenheit. The noise levels in the classrooms is one extraneous variable that I was not able to control. Since the noise level

in a normal classroom setting rarely exceeds normal conversation levels, this should not have an impact on the results.

After the students finished the Perceived Stress Scale and fill out the rest of the survey, they were all thanked for helping me with my project. I asked them what they thought of the process. Students said that it took too long and it was hard to remember the classes that they took last semester. I then again assured them that the information that I collected would remain confidential, so they should not worry about the grades being used for something else.

Results

A correlation was run on the scores from the Perceived Stress Scale and the student's GPA. The results showed that the stress the surveyed students were under was not significantly correlated with the student's GPA, $r = -.030$, $p = .885$. The qualitative data was "eyeballed" to see in what order the students ranked their stress factors. Not getting enough sleep ranked number 1 with 12 students, followed by having problems with roommates, and social activities tied for number 2 with 8 responses. Lastly, working a part-time job came in at number 3 with 7 responses, close to the number 2 spot.

Discussion

If a student is under a large amount of perceived stress, one would tend to think that the student's GPA would suffer. In the review of the literature many studies found that certain factors could greatly influence a student's GPA. Health-related factors like, nutrition, and amounts of sleep were found to have a great influence on students (Trockel et al, 2000). Other factors like having a full or part-time job have been thought to take away from a student's academic performance (Calderon et al, 2001). Social activities such as, being in a fraternity or sorority, or having problems with boyfriends or girlfriends have shown to also have a negative effect on academic performance (Hatcher & Prus, 1991).

With all this taken into consideration the purpose of this study was to examine the correlation between students' amounts of perceived stress in a given semester and their GPA's. The present study was unable to show a significant correlation between the two factors. Scores ranged across the board, from a high score on the perceived stress scale with a high GPA, and a low score on the perceived stress scale and a high GPA.

There could be many reasons for these findings. The small amount of surveys that were collected may not have been a great enough number to examine the correlation closely. The student's themselves could have in some way served as an extraneous variable, with a great deal of them having problems remembering the courses that they during in the last semester. The grades that they reported may not have been completely accurate. The fact that the students had a hard time referring to their thoughts and feelings that previous semester may have also affected their stress scale score.

The qualitative data that was examined at the end of the survey does run parallel to what was found in the review of the literature. Most students ranked not getting enough sleep as their number one factor in their level of stress, followed by problems with roommates, and social activities, which in the literature was proven to be a stress factor that a majority of students had to deal with. Finding a good middle-ground between what is almost expected of you as a college student in the social area, and what is definitely expected of your in the academic area, can be a constant uphill battle for a great deal of students. Too much activity in the social area can have detrimental effects on a student's GPA, with poor class attendance, and inadequate sleep leading to a downfall in the area of grades. The third ranking stress factor was working a part-time job, each hour a student spends at work that he or she could be studying, can take away from obtaining the students' full academic potential.

This study had many limitations that might have had an effect on the results. Not having an adequate number of students who were willing to take the time to fill out the survey was a constant problem. The subject-pool could have been used in order to have access to more students, but those enrolled in the general psychology lab are usually in their first year in college and therefore have different stress factors like adjusting to the different atmosphere of college life. Another limitation of this study was the fact that a majority of students were clueless about the grades that they received the prior semester, much less they knew about the classes they even took.

The main strength of this study was the point-of-view of the author. Being a college student myself and dealing with this stress on a daily basis gave me a great deal of insight on the subject researched. I am completely aware of the impact of things like work and sleep deprivation can have on a student's academic performance. Also, having family and financial obligliations can somehow take away from the ability to always perform your best.

This study was unable to show a correlation between a student's amount of perceived stress, and that student's academic performance, measured by GPA, though prior research showed there was a connection between the two. Some data suggested that those factors reviewed in the literature, like sleep and work, do somewhat contribute to a student's academic performance.

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Appendix A

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during last semester, fall 2001. In each case you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate. Remember that your answers can never be matched up with your name, so please try to answer the question as honest as possible.

For each question choose one of the following alternatives:

0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often

1. During last semester, how often had you been upset because of something that happened unexpectedly?

   0 1 2 3 4

2. During last semester, how often have you felt that you were unable to control the important things in your life.

   0 1 2 3 4

3. During last semester, how often have you felt nervous and stressed?

   0 1 2 3 4

4. During last semester, how often have you dealt successfully with irritating life hassles?

   0 1 2 3 4

5. During last semester, how often have you felt that you were effectively coping with important changes that were occurring in your life?

   0 1 2 3 4

6. During last semester, how often have you felt confident about your ability to handle personal problems?

   0 1 2 3 4

7. During last semester, how often have you felt that things were going your way?

   0 1 2 3 4

8. During last semester, how often have you found that you could not cope with all things that you had to do?

   0 1 2 3 4

9. During last semester, how often have you been able to control irrtations in your life?

   0 1 2 3 4

10. During last semester, how often have you felt that you were on top of things?

    0 1 2 3 4

11. During last semester, how often have you been angered because of things that happened that were outside of your control?

    0 1 2 3 4

12. During last semester, how often have you found yourself thinking about things that you have to accomplish?

    0 1 2 3 4

13. During last semester, how often have you been able to control the way you spend your time?

    0 1 2 3 4

14. During last semester, how often have you felt difficulties were piling up so high that you could not overcome them?

    0 1 2 3 4

Appendix B

Demographic Data

Please circle one:

Gender: M F

Age: 18 – 21 22 – 26 27– 30 31 – 35 over 35

Race: American Indian or Alaska Native African American Hispanic

Caucasian Asian or Pacific Islander Other

Class Standing: Freshman Sophomore Junior Senior

Course Load: part-time full-time more than 18 hours

Appendix C

Stress Factors Survey

Please list all of the classes that you took last semester (fall 2001), the credit hours each class is worth and the grades you received in each. (Please remember that this survey is completely anonymous)

1.

2.

3.

4.

5.

6.

Read this list of possible sources of stress. Then list in ranking order, if you believe that any of these sources of stress contributed to your grades last semester.

- Working a part-time job
- Working a full-time job
- Nutrition
- Sleeping too much
- Not getting enough sleep
- Problems with boyfriend / girlfriend
- Class Attendance
- Problems with roommate
- Over exercising
- Not exercising enough

- Social Activities
- Being a member of a fraternity or sorority
- Having children
- Being married
- Finances
- Course load

Please rank in the space provided:

1.

2.

3.

THANK YOU FOR PARTICIPATING IN THIS STUDY.

Appendix D

Informed Consent Form

This experiment is being conducted by Laura Womble as a class project for Research Methods at the University of North Carolina at Charlotte. The experiment is under the supervision of Dr. Jane Gaultney in the Department of Psychology. It deals with the effects of stress on a college student's academic performance. If you agree to participate then I will ask you to fill out a simple survey about yourself. Included in the survey will be some general questions about your stress level, and the sources of your stress, along with more specific information about your last semester grades. The survey should only take about ten minutes.

Your participation in this experiment is voluntary and you are free to not complete the survey without any penalty, and remove any data that you have contributed.

Please be assured that at no time will you name be reported along with any responses. In fact, this informed consent will be kept separate from your responses. Also your participation in this study will be kept confidential, as are any responses you will give. The responses that you provide will be used by this student for the purpose of learning about research and methodology, and will not be reported outside of class.

I acknowledge that I am at least 18 years old and that the purposes and procedures of this experiment have been explained to my satisfaction. I understand that my participation is totally voluntary and that I am free to withdraw at any time with no penalty.

Signed_____ Date_____