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Behavioral Change in First Time Expectant Fathers' Aggression

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Behavioral Change in First Time Expectant Fathers'
Aggression

Thesis Submitted to
The Graduate College of
Marshall University

In Partial Fulfillment of the
Requirements for the Degree of
Master of Arts
Psychology

By

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Abstract

Thirty-two first time expectant fathers, 23-38 years of age, were recruited on a voluntary basis. They were tested on several behavioral measures throughout the course of their wives' pregnancy. The Aggression Inventory (AI) was utilized during the first and third trimesters of the pregnancy in order to determine whether or not men become more aggressive over the course of a woman's pregnancy. A two-way repeated measure Analysis of Variance (ANOVA) was utilized. The Wilks' Lambda Multivariate test of effect for time yielded an F of .186. At an alpha level of .05, it was not significant. The Wilks' Lambda multivariate test of effect for the subscales yielded an F of 10.951, which was a significant main effect at an alpha level of .05. Finally, when testing for an interaction between time and subscales the Wilks' Lambda multivariate tests yielded an F of 1.024. It was not significant. Therefore, it appears that there is not a significant increase in aggression in males over the course of a pregnancy. However, there were significant limitations to this study.

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RUNNING HEAD: Expectant fathers' behavioral changes

Aggression

Behavioral changes in first time expectant fathers

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Introduction

Aggression is often times viewed as a natural instinct of men, which is what it is not (Fischer & Mosquera, 2001.) Webster defines the term aggressive as, “boldly hostile; quarrelsome; self-assertive; an aggregate.” Webster goes on to define aggression as, “the act of making an unprovoked attack; a hostile action or behavior” (Webster, 1990). A major problem with the topic of aggression is that a majority of individuals commonly view aggression as an automatic act that is uncontrollable. Aggression is; however, a response that occurs when it is viewed as profitable to one, whether or not it is profitable to one is based on past experiences in similar situations. Numerous situations arise that evoke anger in both men and women (Fischer & Mosquera, 2001).

However, the way in which men and women react to that anger is different. Gender differences between men and women are largest in relation to physical aggression. Men report that they physically or verbally assault individuals, whereas women often report crying when angry. Findings suggest that both men and women are equally as likely to feel angry, thereby, showing a tendency to behave aggressively. Yet, men are more likely to display their aggression in overt manners when they are angry (DeMaris, 2001).

Studies have found that the main reasons men aggress are: physical harm, being insulted, an alleged loss of social status, blockage of a goal, or another person’s faults or incompetence (Fischer & Mosquera, 2001). Men get angrier when their partners or friends do not pay attention to them. In reference to topics such as intellectual incompetence, men in particular get more aggressive after they have received negative feedback over their intelligence. Women on the other hand do not. One specific reason

given for why men have greater aggressiveness is that they feel they are more easily provoked and offended. Men aggress when they feel there is a threat to their personal integrity (Fischer & Mosquera, 2001).

It seems unusual to presume that a person who feels good about one's self would be aggressive toward others. The idea that an individual feeling good about one's self causes aggression seems unusual, at least initially. Emotional rejection of a child and physical punishment of a child have been identified as predictors of later aggressiveness. While unconditional love and acceptance, on the other hand, are viewed as the basis for development of the very essence of self-esteem. This concept of unconditional positive regard developing the essence of self-esteem serves as a plausible explanation for why one would not automatically reason that high self-esteem is associated with aggression. However, Aggressive behavior is often risk-taking behavior. It often involves some courage and confidence in one's ability whether it is physical or psychological. Individuals with low self-esteem often lack this confidence.

After thorough investigation Bushman and Baumeister (1998) determined that self-esteem level was unrelated to aggressiveness. However, aggression was found to be associated with narcissistic characteristics. Buss and Perry (1991) too found no relationship between self-esteem and either physical or verbal aggression. However, a negative correlation was found between hostility and self-esteem level. According to the psychodynamic view, narcissistically disturbed persons defensively deny their weaknesses, failures, and negative characteristics in order to guard their self-image. This kind of categorical rejection and denial of negative characteristics may lead to very high

scores on self-esteem questionnaires. Moreover, an ostensibly high self-esteem is a different thing from “true” self-esteem (Salmivalli, 2001).

Signs of aggression are related to high rather than low self-esteem. Individuals who aggress believe in inferiority, but in their superiority. It is important to keep in mind that high self-esteem does not cause nor lead to aggression or violent-like behaviors. If self-esteem level is unrelated to aggressiveness, then why do these individuals appear to be in the high self-esteem group and obtain such high scores on self-esteem measures. It has been suggested that it is a particular subset of the high self-esteem individuals who are aggressive and violent.

However, aggressive persons are one subtype of individuals who report having high self-esteem. Baumeister states that threatened egotism, and insecure arrogance are the primary causes of aggression. For example, if someone or something challenges the favorable appraisals of this individual, then it is the combination of highly favorable self-appraisals in conjunction with the ego threat, which leads the person to aggress towards the source of the threat (Baumeister, 1993).

Additionally, Baumeister discusses the concept of underlying self-doubts. Self-doubt is often evident in many persons who have high self-esteem. It is these underlying doubts, which influence their self-view and make it frail and fragile. He states, “An aggressive person has an insecure but inflated view of self. Feeling that he or she may lose esteem at any moment, he/she responds zealously, even violently, to potential threats. He/she may seem egotistical, but they are very different from the secure person who does not feel vulnerable to threat or loss” (Baumeister, 1993). Thus, it is the threat

of entering a state of low self-esteem that these individuals find to be an extremely aversive experience.

The particular subtype, which is the most common among aggressive individuals is the high and unstable type of self-esteem. Individuals with high and stable self-esteem report lower levels of anger and hostility. The connection between high and unstable self-esteem and proneness toward anger and hostility is that these individuals have fragile self-views. Thereby, making them extremely vulnerable to any challenge from various sources. However, feelings of anger and hostility are different from overt aggressive acts.

Types of Aggression

In studies related to the link between self-esteem and aggression, different types of aggression have not been taken into account. Aggression has and still continues to be treated as one large category that includes numerous types of overt behaviors. Raskin et al. (1991) found that people who were more hostile had a higher self-esteem only if they were also grandiose, narcissistic, and domineering. When any of these characteristics were absent, individuals who expressed higher levels of hostility reported low self-esteem. Specifically, narcissism contributes greatly to aggression.

It is well known that numerous factors can contribute to aggressive behavior, whether they are situational, interpersonal, or developmental. Salmivalli (2001) feels that rather than being a cause of aggressive behavior, self-esteem may function as a moderator; influencing what kinds of situations are perceived as threatening, whether or not anger arises in these situations, and how people deal with this anger.

DeMaris (2001) studied a sample of 411 cohabiting couples, (those who were living together but unmarried.) Violence was investigated in these cohabiting couples. Violence is the term used to describe physical aggression in this particular study. The effects of “common couple” violence and the effects of intense male violence were both investigated. “Common couple” violence is physical aggression that occasionally erupts in the context of interpersonal conflict, is engaged in at equal rates by both men and women, and shows little tendency to escalate in severity over time (Johnson, 1995). Intense male violence is similar to that of “patriarchal terrorism.” This type of aggression is a severe form of aggression by men against women. It is motivated by the desire for total control over the partner. It is characterized by frequent and severe assaults on women and it tends to escalate in severity over time (Johnson, 1995). It is this latter form of aggression, which is most commonly associated with a negative evaluation of the relationship, specifically by the woman.

Out of the 411 cohabiting couples in the study, 42% made the transition to marriage, and 37% had separated. While one fifth of the couples were still cohabiting and did not make the transition toward marriage. Physical conflict was not an uncommon occurrence. Approximately one fifth of both the men and women reported being violent with their partner one year prior to the first observation in the DeMaris study. Eight percent of the women and 4% of the men were injured as a result of such confrontations. Additionally, 9% of the sample, which was 36 couples, experienced intense male violence.

After this study, the question remained, whether or not violence is associated with the quality of the relationship? After all extraneous factors were accounted for,

surprisingly, violence appeared to have little impact on the quality of the relationship. This finding exists even after all other factors were accounted for and controlled. The only significant association of any index of relationship quality with physical aggression was, that intense male violence is associated with lower relationship happiness on the part of the woman. Moreover, verbal conflict has a more consistent effect. It is associated with lower happiness and less perceived stability for both men and women. From the woman's perspective, a positive communication style is associated with happiness in the relationship and better relationships (DeMaris, 2001).

Findings show that despite the fact that male and female violence are not necessarily definitive predictors of separation, the risk of separation among those couples is significantly higher for couples characterized by intense male violence. The risk of separation among these couples is approximately 177% higher when the man's violence is more severe than the woman's (DeMaris, 2001). When verbal conflict and communication style are taken into consideration, this effect is reduced; however, it is still a significant finding. These results are consistent with prior research showing that hostility and other forms of negative affect are reliable predictors of relationship dissolution (Gottman et al., 1998). The likelihood of separation was decreased, on the other hand, when the female partner was older at the initiation of the union or when the couples experienced a birth while living together.

When all factors are taken into consideration and accounted for, intense male violence can predict separation. Out of all quality indicators, (such as verbal conflict, communication style, socio-demographic controls, and relationship quality,) only the way the man perceives the stability of the relationship is significant. The more the man

predicts the couple will stay together, the lower the risk of separation for that couple. The impact of intense male violence was significantly stronger than male violence alone. Contrarily, when intense male violence and female violence were compared, the results were not significant.

Despite the fact that violence increases the likelihood of separation and decreases the likelihood of marriage, there are many different aspects and components of violence. Thus, it can be concluded that it is the meanings and interpretations that partners attach to violent episodes that have considerable bearing upon whether or not it influences the course of the relationship. Therefore, further research into this aspect of violence needs to be conducted. More attention needs to be directed toward collecting more information on the circumstances that surround violent episodes. It is also important to determine how partners use such information to plan the future of the relationship. This study would lead to a better understanding of the role played by aggression in the transition of relationships.

The goal of the Smallbone and Milne study (2000) was to investigate the association between trait anger and the type and level of aggression utilized in the commission of sexual offenses. The rapists that were involved in this study were more likely to have used both verbal and physical aggression when committing their sexual offenses, as compared to both intra- and extra-familial child molesters. Yet, no differences in trait anger were evidenced in this study between the three groups. Results did suggest that there is an indirect relationship between trait anger and aggression in sexual offenders.

Moreover, researchers found a significant association between trait anger and level of verbal aggression utilized during the crime. It is believed that sexual offenders who incorporate threats of death in the commission of their offenses have an increased likelihood to perceive situations as anger-evoking and acting in an angry manner than those who do not threaten their enemies overtly. Verbally aggressive offenders, once angered, are thought to be more likely to show their anger in an outward manner and appear less likely to be capable of controlling their anger than offenders who are less verbally aggressive. Trait anger is associated closely with aggression; thus, sexual offenders who utilize verbally aggressive tactics during their offenses may be able to benefit from anger management interventions. Anger management interventions are designed to reduce hostile and expressive aggression. Moreover, these findings are also beneficial in understanding sexual victimization. Smallbone and Milne said, "If verbal threats by sexual offenders tend to be associated with anger arousal, actions by the victim that may be perceived by the offender as provocative may serve to increase the levels of verbal hostility both during and after the commission of the offense" (Smallbone & Milne, 2000).

Yet, no association was found between trait anger and physical aggression used in the commission of sexual offenses. Rapists are more likely to incorporate physical aggression in their offenses, as compared to offenders such as child molesters. However, rapists were not found to experience more anger or have less control of their anger. Thus, rapists may use more instrumental rather than expressive aggression. Although, the researchers note that trait anger in the more physically aggressive offenders may have been underestimated. The continued investigation of the role of anger and aggression in

relation to sexual offending may lead to clarification of the link between anger and sexual aggression (Smallbone & Milne, 2000).

Aggression and Personal Integrity

A recurring theme in reference to males aggressing was the threat to men's personal integrity. Men are extremely sensitive to signs of disrespect by their fellow males and that aggression or the threat of aggression is seen as a means to achieve or regain respect. The idea that men are more sensitive to attacks to their self-esteem does not mean that it has to be low in order to be aggressive. In fact, many argue that aggression stems from positive or inflated self-views that may be threatened by others (Baumeister, Appendix A). Due to this high self-esteem, male egos are easily threatened, thus resulting in the use of aggression in an attempt to restore their entitlement to respect (Fischer & Mosquera, 2001). The same principle applies to violence within marriage. A common antecedent for male domestic violence is not infidelity on behalf of the wife, but instead an attack on the husband's self-worth. Many feel their violent behavior is justified due to the belief that they feel entitled to respect.

Displaying aggression is appraised as functional by men. Men consider aggression as a way of imposing one's control over others. Men more often report an impression management motive to express their anger. This latter motive implies that men want to create the impression of being in control of the situation and they expect that the display of anger assists in attaining this impression.

Showing aggressiveness confirms ideals and establishes one's social position and one's personal identity as a man. Research has shown that this idea supports findings on

the relationship between gender roles and the expression of anger. For example, men with a less traditional masculine gender role are clearly less aggressive compared to men with traditional gender roles. Cross cultural research has shown that societies with sharp and traditional distinctions of sex roles and with fathers spending little to no time in childcare, typically have more male physical violence. Further support is evidenced through domestic violence studies.

For example, men who commit aggressive behavior towards their wives and/or children generally have traditional views on gender roles and the family. Furthermore, they endorse a belief in male superiority, which entitles them to use violence whenever they deem necessary (Fischer & Mosquera, 2001).

Purpose

It would be of great interest and purpose to determine whether or not there are specific psychological changes that expectant fathers go through as a result of pregnancy, particularly aggression levels. Moreover, the benefits of determining whether or not specific measuring devices exist that can determine the likelihood and occurrence of specific psychological reactions would be of great importance. Through the use of the Aggression Inventory it will be determined whether or not aggression levels can be expected to increase as a result of pregnancy. Moreover, it will also show whether or not there is a change in the aggression level of expectant fathers over time.

Therefore, a hypothesis will be tested in order to acquire the knowledge desired. It is hypothesized that aggression will increase over the course of the pregnancy as measured by the Aggression Inventory. The Aggression Inventory will be utilized to

show any changes in fathers' aggression levels as a result of pregnancy and whether or not this instrument is the appropriate instrument measure to use to measure this type of change.

Method

Participants

The participants in this study consist of 32 first time expectant fathers who are between the ages of 18 and 35, and are married (Appendix B). The participants for this study were selected from the Upper Ohio Valley region of West Virginia and Ohio. The participants were unknown to the examiner prior to the study. Participants were recruited from the OB/GYN office in which their pregnant partner was a patient. Others were recruited from college campuses, and through public notices. All subjects participated on a voluntary basis. They were financially or otherwise rewarded for their participation. Finally, each participant was screened for eligibility through an intake form prior to participation in the study (Appendix C).

Instrumentation

The particular instrument used for this study was the Aggression Inventory (AI). This instrument consists of 30 items and four subscales. The AI was designed to measure various aggressive behavioral characteristics or traits: physical, verbal, impulsive/impatient, and avoidance. Scores on the AI need to be interpreted differently based on gender; however, this study focused only on the male gender.

The norms for the AI were derived from a sample of 960 undergraduate psychology students. The population was 96% Caucasian, and consisted of 517 males

and 443 female students. The age range of the population was from 18 to 34 years, with a mean age of 20.4 years. The mean subscale scores for the males were: physical aggression = 2.34, verbal aggression = 3.04, impulsive/impatient = 2.80, and avoidance = 2.85. For the males, the pattern of explained variance was physical aggression 32.6%, verbal aggression 12.7%, impulsive/impatient 8.4%, and avoidance 4.9% (Gladue, 1991).

The Aggression Inventory appeared to be a useful method by which to measure aggressive behavioral characteristics. Gladue (1991) used the data derived from the utilization of the Aggression Inventory in order to support his hypothesis. Gladue hypothesized that men and women view aggressive behavior in different ways, but men are consistently more aggressive. For men, the most common factor exhibited by men is physical and confrontational in nature. Men reported having consistently higher scores on the Aggression Inventory when compared to women. Men are both more physically and verbally aggressive.

Moreover, men are more likely to engage in overt forms of aggressive behaviors. Despite the fact that there are circumstances and situational factors, which modify the expression of aggressive acts, men have a greater predisposition toward aggressive behavior. Due to the fact that sex differences exist in relation to aggressive behavior, one may question the origin of sex difference in regarding aggression.

The Aggression Inventory was the instrument was used to investigate any change in the male's psychological state as a result of a pregnancy. This instrument assisted in determining whether or not any significant changes transpired over the course of the pregnancy. In particular, it showed whether or not there was an increase in aggressive behavior on the part of the male during the time of the pregnancy.

Thus, the Aggression Inventory was utilized in order to determine any significant change in behavior. The Aggression Inventory has fair to good internal consistency. For the males studied, the alpha coefficients were: physical aggression = .82, verbal aggression = .81, impulsive/impatient = .80, and avoidance = .65. The data on stability were not reported. The validity of the Aggression Inventory subscale was supported by factor analysis (Gladue, 1991).

However, the psychometric soundness of the Aggression Inventory (AI) was investigated by Forrest, Banyard, and Shevlin (2000). In this study, a sample composed of 337 undergraduate university students was utilized. The participants completed the 20-item inventory on aggression. The implications of the findings from the Aggression Inventory were significant; however, the researchers found that they were unable to replicate the factor structure, which was reported by Gladue (1991). This result indicates that construct validity for the scale has not been established.

Additionally, the use of summed subscale scores for the four components of the scale, which represent physical aggression, verbal aggression, impulsiveness, and avoidance, could not be substantiated. A goodness-of-fit was conducted and it showed that the four-factor model was not an acceptable method for describing the sample data. Moreover, a total summed score on the Aggression Inventory cannot be utilized as a general aggression indicator. This result is due to the single factor model not being an acceptable mode of describing the sample data.

Forest (2000) suggests that the Aggression Inventory is in need of further refinement. Data compiled from the Aggression Inventory is likely to result in biased estimates. In particular, it will result in biased estimates of relationships with other

variables. This bias will continue to occur if construct validity is not established for this scale. Thus, refinement of the scale is a necessary and essential step in improving the scale and establishing its validity.

Procedure

This study was carried out by a cohort group of 12 Marshall University Graduate students. Each graduate student interviewed first time fathers, and used a step-by-step format to administer an extensive battery of test (Appendix D). Each participant signed a liability release form to participate in the project. Most importantly, all participants were assigned a double code in order to maintain confidentiality and anonymity.

The Aggression Inventory was one of the tests, included in this battery. All participants were tested and interviewed at three different times during the course of the pregnancy. The first testing session took place during the first trimester, the second session during the second trimester, and the third session during the third and final trimester. Participants were informed that they were taking part in a study in order to discover the effects a pregnancy has on expectant fathers. Every participant completed the entire battery.

The battery of tests that each participant completed included an intake assessment, the California Psychological Inventory (CPI), the Clinical Anxiety Scale (CAS), Selfism (NS), the Index of Self-Esteem (ISE), the Non-Physical Abuse of Partner Scale (NPAPS), the Aggression Inventory (AI), the Love Attitudes Scale (LAS), the Relationship Assessment Scale (RAS), Index of Marital Satisfaction (IMS),

Multidimensional Scale of Perceived Social Support (MSPSS). However, the Aggression Inventory is the sole focus of this particular investigation.

The procedure by which the Aggression Inventory was administered is as follows. Each participant was given the thirty-item inventory and asked to rate oneself based on a five-point scale, which ranges from “does not apply at all to me” to “applies exactly to me.” The subscales were scored by adding the responses of the items, then dividing by the number of items for the particular subscale. The range of scores is from 1 to 5. Higher scores are reflective of more aggression. Each participant engaged in the completion of the inventory on an individual basis during both the first and third trimesters of the pregnancy.

Finally, the statistical procedure, utilized was an ANOVA type approach. This statistical method is used in order to analyze and evaluate data, such as that associated with the Aggression Inventory. This statistical procedure served as a method by which to accept or reject the proposed hypothesis. Thus answering the question of whether or not first time expectant fathers experience an increase in aggression over the course of a pregnancy.

Results

The Statistical program, which was used in order to derive the results of this particular study was the SPSS program (SPSS, 1999). The statistical procedure, which was utilized in order to interpret the data, which was derived from the Aggression Inventory (AI), was a two-way repeated measure Analysis of Variance (ANOVA). This statistical procedure takes all variables of the test into consideration and determines

whether or not a statistical difference exists among the different variables. There were several variables in this particular study including time, the four subscales of the test (PA, VA, II, and A,) and whether or not an interaction between the subscales was present. Conducting an ANOVA shows whether or not a significant difference occurred in the level of aggression from the first trimester to the third trimester. In addition to whether or not a significant difference exists among the subscales of the test, and whether or not an interaction is taking place among those particular subscales (Appendix E).

The Wilks' Lambda Multivariate test of effect for time yielded an F of .186. At an alpha level of .05, it was not significant. The Wilks' Lambda multivariate test of effect for the subscales yielded an F of 10.951, which was a significant main effect at an alpha level of .05. Finally, when testing for an interaction between time and subscales the Wilks' Lambda multivariate tests yielded an F of 1.024. It was not significant.

Thus, the only significant findings were derived from a difference among the individual subscales. When the mean scores from trimester one and trimester three were calculated the following results were obtained. The mean for physical aggression (PA) was 1.98, verbal aggression (VA) was 2.46, impulsive/impatient (II) was 2.33, and avoidance (A) was 2.62.

When the mean scores for the subscales of the Aggression Inventory were studied, the following scores were obtained: PA = 2.34; VA = 3.04; II = 2.80; A = 2.85. The most likely explanation for the difference from this study and the original study is that this study was composed exclusively of men who were going to be fathers. The original study (male portion) was composed of 517 undergraduate introductory psychology students.

An item analysis was conducted in order to determine the reliability of the test items, which the Aggression Inventory is composed (Appendix F). A reliability analysis was conducted on each individual scale of the AI during the first and third trimesters (Appendix G). These results demonstrated the impact that two of the scales, in particular, had on the internal validity. This impact on internal validity was a result of a particular item on one of the scales (II scale), and one or more of the scale(s) being composed of too few items, primarily the A scale.

Reliability Coefficients for First Trimester

Physical Aggression(PA)	.7637
Verbal Aggression(VA)	.8739
Impulsive/Impatient(II)	.8596
Avoidance(A)	.1038

Reliability Coefficients for the Third Trimester

Physical Aggression(PA)	.6150
Verbal Aggression(VA)	.8435
Impulsive/Impatient(II)	.5578
Avoidance(A)	.3462

The reliability coefficients for the physical aggression (PA) scale and the avoidance (A) scale were lower than the verbal aggression (VA) and impulsive/impatient (II) scale because they were composed of fewer items. The VA and II scale were composed of 7 items, while the PA scale was composed of 4 and the A scale of only 2 items. All changes in reliability were fairly consistent except for the change in the II scale and the A scale. The II scale evidences a decline in reliability during the third trimester. This decline is due to the item response on question 30 of the Aggression Inventory. The reliability analysis showed that the reliability of the II scale would increase if this item were to be deleted. The fluctuation in the A scale from the first to the third trimester can not be specifically pin-pointed to one specific item on that particular scale, because it is composed of too few items. Therefore, the change in reliability may not be due to the quality of a specific question, but may be due to the quantity of questions. Therefore, the item analysis shows that the internal validity may be questionable due to the findings of the analysis of each item on the Aggression Inventory.

Discussion

This study has significant limitations. First, a significant limitation was the sample size utilized in the study. Idealistically, more fathers would have been recruited. However, the difficulty in acquiring participants was significant. Additionally, a few subjects did not follow the specific instructions for responding to the questions on the test. Thus, flaws in the implementation of the testing instrument lead to a smaller sample size (32 as opposed to the original sample size of 34.) A larger sample size would have

been a significant improvement to this study and would have served as a stronger foundation for future study.

Moreover, all individuals involved in this study had to be of the male gender. This theoretically excludes half of the general population. Thus, although necessary, gender was a limitation of this study.

Additionally, all the male participants recruited for the study were required to be married in order to participate in the study. A large number of individuals are no longer getting married at a young age. Many individuals are waiting until they are in their thirties or even later. This delay in marriage age may be due in part to the high rate of divorce.

Another limitation was age. The age of the participants was restricted to the ages of 18-35. Aside from waiting to get married, there are numerous couples that are waiting to start a family until after the age of 35. Obviously, this too would exclude any individuals outside of this age bracket from participating in this study.

Once individuals had been found which did meet the above restrictions, an additional limitation was acknowledged. Individuals who participated in this study were required to be first time fathers. This placed a further restriction on the likelihood of acquiring participants. Individuals who were going to be a father, but not a first time father, had to be declined.

Moreover, all of the subjects that participated in this study were Caucasian. There was no diversity within the sample group. Additionally, the socioeconomic status of all participants would best be described as middle class. Finally, all subjects were derived

exclusively from a 200-mile radius of the upper Ohio Valley area of West Virginia and Ohio. No subjects were sampled from outside of this select area.

Another limitation that was determined after participants had been recruited was the participants' uncertainty and lack of being comfortable with divulging personal information required by the in-take form and the questionnaire. Participants inquired about the security of the information and the necessity of divulging such information. Furthermore, participants complained about the amount of time required to complete the entire battery and the length of particular tests involved in each of the testing sessions. Moreover, participants felt that there was a significant disparity between the length of several tests in the battery, the amount of time required to complete the entire battery, and the lack of compensation for doing so.

An additional, significant limitation to the study was the way in which the design was set up. The study was conducted over the course of 9 months. Participants were tested during each trimester. Thus, many participants became stagnant by the third trimester since it was the third time each father had been exposed to the battery of tests.

Another limiting aspect of the study was the lack of a control group. A control group serves as a standard for comparing the experimental group. Therefore, no method for comparing and contrasting the behavioral changes of the fathers existed.

A final limitation is the test, which was utilized. The validity of self-report questionnaires is often questionable. The Aggression Inventory is a form of self-report questionnaire. The participant answers the items based on a 5-point likert-scale. Thus, the data is based solely on the individual's interpretation of oneself. The self-report format raises the question of the participant responding in a socially desirable manner, or

any other form of response bias pattern. A method for addressing this concern may have been to test the wives of the individuals involved. Thereby, acquiring their interpretation of their husband's behavior during the trimesters of their pregnancy and comparing and contrasting the difference. Additionally, two of the scales had questionable validity due to a particular item as was the case with the II scale, or as a result of the scale containing too few items such as the PA scale or the A scale specifically.

Another limitation of the test instrument was the amount of items on the test. The AI was composed of 30 items; however, only 20 of which were used as scale items. Thus, determining the reliability on so few questions is not as representative of the construct being measured as one would desire. Particularly, the Avoidance scale of the AI was composed of only 2 questions. Therefore, expanding the amount of number of questions would be a significant improvement to this specific test.

Considering all of the above limitations, the results of this study are of limited usefulness. The limitations involved in order to study the effects of pregnancy on first time expectant fathers may be cumbersome and too time consuming to explore using this type of instrumentation. As a result, many participants were not pleased with their involvement in the study. This constraint may be the reason why such difficulty was experienced when trying to recruit participants. There is a need for a shorter more-user-friendly form of instrumentation in order to study this problem at the depth required to produce meaningful results.

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Differences in Anger and Aggression

In Males and Females

Literature Review

For decades researchers have conducted studies on all of the various psychological changes associated with motherhood. However, there is a minuscule amount of this type of research on expectant fathers. Many researchers have attempted to address the changes expectant fathers experience, yet none have focused on the actual process of psychological change. There is very little literature, which actually focuses on the overall psychological experience of expectant fathers.

Many researchers suggest that the psychological transitions of fatherhood are as dramatic as those to motherhood (Clinton, 1987). Jordan (1990) studied 56 expectant and new fathers. It was determined that there is a struggle for recognition and validation by the father. Both expectant and new fathers go through transition struggles in reference to the reality and presence of the pregnancy, recognition as a parent, deliberating the meaning of the role of an involved father. Men are often viewed as helpers or financial supporters, not as parents. Thus, often interfering with their ability to validate the actuality of the pregnancy. The men in Jordan's study often felt excluded from the overall childbearing process due to the attitudes of numerous individuals involved in the entire process.

Before conception the man may have primary identity of student or worker. American society still holds the occupational role as most salient for the male, a formidable force to move beyond. With formation and commitment to a couples' relationship, he incorporates the role of mate or husband. With conception he becomes a sperm donor and is recognized for his virility. Most frequently he is then relegated to the role of spectator as he observes the pregnancy from the

sidelines. He also assumes the role of support person to his pregnant mate. With the birth of the child, the man is recognized as father of the baby, analogous to a sperm donor, but the product is now a child. This may be as far as the man goes in his development. The power of the recognition providers often impedes progress beyond this stage (Jordan, 1990).

More often than not, men will experience a significant amount of frustration as a result of a pregnancy. Frustration commonly leads to aggressive acts. Discovery of a pregnancy is just one source of conflict among couples. Capaldi and Owen (2001) examined a community-based sample of young couples to determine the associations of frequent physical aggression, fear, and injury. They hypothesized that frequent physical aggression is primarily caused by antisocial behavior and mutual conflict between the couple. Additionally, aggression was thought to be bi-directional in couples. Contrarily, the rates of injury and fear women experience were not significantly higher than that of men.

Men have always been viewed as the more aggressive sex for decades. This perception is due in part to evolutionary principles. Fischer and Mosquera (2001) wrote a paper discussing and critically evaluating the evolutionary proposition of men's aggressiveness. They believed that men's greater aggressiveness is a product of the male intra-sexual competition. Support for the theory that men's concern for women, (as a result of intrasexual competition) as the primary cause for male's supremacy in violence is not supported. Fischer and Mosquera argue that it is the fear of losing status and respect in the eyes of one's fellow man is that the predominant concern, which evokes anger and aggression in males.

Aggression in males has been evidenced for decades, and it continues to be the topic of numerous research studies to this date. White, Merrill, and Koss (2001)

researched the topic of premilitary experiences of intimate partner (IP) aggression among U.S. Navy recruits. The subjects consisted of 1,307 males, whose average age was 20 years, and 1,477 females whose average age was 20 years of age. It was found that situational components explained more variance than were the background components of these individuals. In fact, variance nearly tripled after situational factors were added. Partner aggression was a significant contributor to the variance. Verbal aggression was found to be the single best predictor of aggression. In addition, the second best predictor was partner's physical aggression.

Aside from situational factors, one's self-esteem is thought to influence aggressive behavior. While no view has been uniformly supported with empirical evidence, there have always been theories connecting aggression to either high or low self-esteem. Salmivalli (2001) studied this very relationship between self-esteem and aggression. She believes that there is a particular subset of individuals who report having high self-esteem who are aggressive. On the surface, these individuals appear to be self-confident; however, these people tend to have a significant amount of insecurity regarding their self-view below the surface. Emperically, this type of insecurity is reflected by narcissistic, grandiose, and defensive characteristics.

Salmivalli (2001) feels that a distinction should be made between the different types of healthy and unhealthy self-esteem. An individual who has high self-esteem is not necessarily well adjusted. It is this type of self-esteem, which appears to be associated with aggressive behavior. Therefore, even those individuals, which, appear to be well adjusted and capable of handling any type of major change in their relationship,

may in fact not be capable of doing so. These individuals may react aggressively in response to the change.

A study by Alfred DeMaris (2001) analyzed the effects of intimate violence on relationships. He found an association between intense male violence and both separation and lowered happiness in the relationship with their counterparts. Additionally, his findings suggested that intense male violence raises the likelihood of separation. However, positive communication, frequent verbal conflict, and perceptions of relationship stability elevate the marriage.

Moreover in a study of 56 married couples, Lawrence and Bradbury (2001) found aggression to be a reliable predictor of marital outcomes even after the authors controlled for stressful events in the marriage. Confirmation of a pregnancy can be one of the most stressful events in a marriage. Regardless of this fact, the role of aggression is often overlooked in relation to marriage difficulties. However it can provide information for early identification and prevention programs.

Dalia (1999) stated that 18% percent of new parents are divorced within four years of the birth of their first child. Moreover, one in ten adolescents will be a part of two divorces by the time they are 16 years old. These facts show that adults are experiencing a significant amount of difficulty in their transition into parenthood. There continues to be a decline in the nuclear family. Research shows that there is a drop in marital satisfaction after conception occurred. (Dalia, 1999)

Finally, Hartman and Nicolay (1966) conducted a study within a court psychiatric clinic. They found that sexual crimes such as: voyeurism, exhibitionism, and rape are committed by expectant fathers more often than any other crimes. Additionally,

Smallbone and Milne (2000) used incarcerated adult male sexual offenders to investigate associations between trait anger and types of aggression used during the commission of their sexual offenses. An association was found between trait anger and verbal aggression. However, the absence of an association between trait anger and physical aggression implies that physical aggression employed in the commission of sexual offenses may be largely instrumental and of great importance.

Therefore, there is a great need to investigate all of the psychological changes that men encounter during the course of a pregnancy. Through investigation of the aggression inventory, a pattern of behaviors, and their warning signs may be identified. This investigation will assist in addressing this issue in the future, and determine whether or not this instrument is capable of detecting maladaptive changes during expectant fatherhood.

Demographic Data

Subject	0101	0102	0103	0104	0105
Age	26	26	32	25	28
Birth Date	6-12-75	4-28-75	12-26-69	8-4-76	9-21-78
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	Associate	Trade School	B.A.	B.A.	B.A.
Employed	Yes	Yes	Yes	Yes	Yes
Married	2 years	3.5 years	4 years	3 years	4 years
Due Date	8-17-02	6-25-02	8-1-02	8-10-02	7-6-02

Subject	0107	0201	0202	0301	0302
Age	24	28	35	35	32
Birth Date	2-1-78	12-31-73	8-16-66	8-19-66	11-21-69
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	High School	4 yr college	Mortuary Degree	B.A.	B.A.
Employed	Yes	Yes	Yes	Yes	Yes
Married	5 years	3 years	5 years	3 years	4 years
Due Date	9-13-02	7-10-02	8-9-02	6-20-02	5-06-02

Subject	0303	0305	0306	0401	0403
Age	30	35	33	31	32
Birth Date	10-19-71	7-14-66	6-13-68	8-20-70	5-24-69
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	M.A.	MBA/J.D.	MBA	B.A.	4 years + law school
Employed	Yes	Yes	Yes	Yes	Yes
Married	7 months	1.5 years	3 years	9 years	7 years
Due Date	5-21-02	5-20-02	8-19-02	8-08-02	7-02

Subject	0501	0502	1503	0701	0801
Age	25	24	30	27	27
Birth Date	1-01-77	5-09-78	7-14-71	3-26-74	9-20-74
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	2 year college	M.A.	M.A.	M.A.	4 years college
Employed	Yes	Yes	Yes	Yes	Yes
Married	5 years	3 years	6 years	1 year	1.5 years
Due Date	8-01-02	7-29-02	7-02	8-02-02	7-16-02

Subject	0802	0803	0901	1101	1102
Age	25	24	27	31	26
Birth Date	3-30-76	9-06-77	9-12-74	7-30-70	6-09-75
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	4 years college	Some college	B.S./B.A.	4 years of college	2 years of college
Employed	Yes	Yes	Yes	Yes	Yes
Married	1 year	1 year	2.5 years	5 years	5 years
Due Date	6-26-02	7-05-02	6-21-02	6-28-02	8-11-02

Subject	1103	1104	1105	1301	1302
Age	31	30	35	35	34
Birth Date	5-12-70	2-20-72	11-02-66	8-05-64	9-12-65
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Education	M.A.	4 years of college	4 years of college	B.S.	Associates Degree
Employed	Yes	Yes	Yes	Yes	Yes
Married	1.5 years	5 years	10 years	4 years	5 years
Due Date	7-10-02	6-13-02	6-21-02	10-02	8-02

Subject	1304	2101	2102	2103
Age	27	32	32	38
Birth Date	7-14-80	9-17-69	8-17-69	11-22-63
Race	Caucasian	Caucasian	African American	Caucasian
Education	B.A.	MBA	M.A.	High School
Employed	Yes	Yes	Yes	Yes
Married	2 years	9 years	8 years	1.5 years
Due Date	9-11-02	6-19-02	4-30-02	8-15-02

INTAKE/HISTORY FORM SUBJECT CODE NUMBER _____

SCREENING TOOL FOR INITIAL PHONE CONTACT:

- 1.) AGE _____
- 2.) MARRIED? YES ___ NO ___
- 3.) FIRST MARRIAGE? YES ___ NO ___
- 4.) IS THIS YOUR FIRST CHILD? YES ___ NO ___
- 5.) ANY OTHER CHILDREN LIVING IN THE HOME? YES ___ NO ___
- 6.) BABY DUE DATE? _____

DATE OF FIRST TRIMESTER TESTING BATTERY: _____

DEMOGRAPHIC DATA:

NAME _____
 ADDRESS _____

TELEPHONE NUMBER _____

DATE OF BIRTH _____

WIFE'S NAME _____

PHYSICIAN: a.) FAMILY _____
 b.) OB/GYN _____

RACE: CAUCASIAN ___ HISPANIC ___ AFRICAN-AMERICAN ___ ASIAN ___
 OTHER _____

MARRIAGE HISTORY: 1st? Y/N
 2nd? Y/N
 NUMBER OF YEARS _____

EDUCATION HISTORY: Highest grade completed _____
 College _____
 Graduate/Professional Degree _____

HISTORY OF MILITARY SERVICE: YES ___ NO ___

OCCUPATIONAL HISTORY: Employed ___ Unemployed ___

WIFE OCCUPATION: Employed ___ Unemployed ___

PREGNANCY/FAMILY DATA:

OTHER CHILDREN FROM PREVIOUS MARRIAGE? YES ___ NO ___
 WAS THIS A PLANNED PREGNANCY? YES ___ NO ___

FATHER FAMILY HISTORY: Intact? _____

Divorced? _____

Remarriage? _____

ARE YOU ATTENDING YOUR WIFE'S MEDICAL APPOINTMENTS?

YES ___ NO ___

OBSERVATIONAL DATA:

How would you describe your relationship with your wife prior to the pregnancy?

General thoughts about becoming a father?

DATE OF SECOND TRIMESTER TESTING BATTERY: _____

Additional information about pregnancy?

Medical complications/Changes during pregnancy?

Pregnancy progressing normally?

~~**DATE OF THIRD TRIMESTER TESTING BATTERY: _____**~~

Additional Information?

Testing Sequence

Testing sequence for the First Trimester and Third Trimester

1. Demographic information intake
2. CAS
3. NS
4. ISE
5. CPI

END OF TESTING-NO LONGER THAN SEVERAL(3) DAYS BEFORE
PROCEEDING

1. NPAPS
2. AI

SUBJECT TO TAKE 15 MINUTE BREAK

3. LAS
4. RAS
5. IMS
6. MSPSS

Testing sequence for the Second Trimester

1. CAS
2. NS
3. ISE
4. LAS

SUBJECT TO TAKE 15 MINUTE BREAK

5. RAS
6. IMS
7. MSPSS

Alraw-data.sav

	pa1	pa3	va1	va3	i1	i3	a1
1	3.50	2.50	3.43	2.57	2.57	2.43	3.00
2	2.50	4.00	4.29	4.29	3.00	2.86	3.00
3	1.00	2.00	1.14	1.00	1.00	2.71	3.00
4	1.75	2.00	2.71	2.43	1.00	1.29	2.00
5	3.00	2.25	3.00	3.00	2.43	2.43	3.50
6	2.25	2.25	2.29	2.29	3.14	2.86	2.50
7	1.00	1.00	1.43	1.43	1.86	1.86	3.50
8	1.25	1.00	1.00	1.00	4.29	1.71	5.00
9	1.25	1.25	1.29	1.43	1.57	2.14	3.50
10	1.25	2.50	2.86	2.57	2.71	2.86	3.00
11	2.75	2.50	3.43	3.71	2.86	3.14	2.00
12	2.75	1.75	3.14	3.00	1.57	2.00	1.50
13	2.00	2.00	4.29	3.86	2.71	2.00	3.00
14	2.75	2.50	2.71	2.57	2.43	2.43	2.00
15	1.00	1.75	1.29	2.00	1.00	1.86	3.00
16	1.20	2.00	1.71	2.00	2.43	2.14	3.00
17	2.00	2.00	1.86	2.00	1.43	1.86	2.00
18	2.00	2.50	2.00	1.71	2.29	2.43	2.50
19	2.50	2.25	3.86	3.43	3.00	2.29	3.50
20	2.00	2.25	2.57	2.43	2.14	2.71	2.00
21	2.25	2.25	3.71	3.00	3.29	3.14	3.00
22	3.25	3.25	2.29	2.71	2.57	3.57	3.00
23	2.00	2.00	2.43	2.29	1.71	1.43	4.00
24	1.00	1.00	2.43	2.43	1.86	2.14	2.50
25	1.75	1.25	1.57	2.29	2.29	2.14	1.50
26	1.00	1.00	1.86	2.29	2.00	2.57	3.50
27	1.50	1.50	2.57	2.57	1.86	2.00	2.00
28	1.00	2.00	1.86	1.71	4.00	3.57	1.50
29	2.25	2.50	3.14	3.14	3.29	3.00	2.50
30	1.75	1.50	2.29	2.14	2.43	1.71	2.00
31	2.00	1.50	2.43	2.29	2.00	2.00	2.00
32	2.00	3.25	2.00	2.71	1.57	1.71	3.50

Araw-data.sav

	a3
1	3.00
2	2.00
3	3.00
4	3.00
5	2.50
6	2.50
7	3.00
8	5.00
9	4.50
10	2.50
11	2.00
12	1.00
13	1.50
14	2.50
15	4.00
16	1.50
17	3.00
18	2.50
19	3.00
20	2.00
21	3.00
22	3.00
23	2.00
24	3.00
25	2.00
26	1.00
27	2.00
28	1.00
29	3.00
30	2.00
31	2.00
32	2.00

General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

TIME	SCALES	Dependent Variable
1	1	PA1
	2	VA1
	3	II1
	4	A1
2	1	PA3
	2	VA3
	3	II3
	4	A3

Descriptive Statistics

	Mean	Std. Deviation	N
PA1	1.9203	.71277	32
VA1	2.4650	.88440	32
II1	2.3219	.80129	32
A1	2.7344	.80306	32
PA3	2.0391	.69302	32
VA3	2.4466	.75587	32
II3	2.3434	.57778	32
A3	2.5000	.91581	32

Multivariate Tests^b

Effect		Value	F	Hypothesis df	Error df	Sig.
TIME	Pillai's Trace	.006	.186 ^a	1.000	31.000	.669
	Wilks' Lambda	.994	.186 ^a	1.000	31.000	.669
	Hotelling's Trace	.006	.186 ^a	1.000	31.000	.669
	Roy's Largest Root	.006	.186 ^a	1.000	31.000	.669
SCALES	Pillai's Trace	.531	10.951 ^a	3.000	29.000	.000
	Wilks' Lambda	.469	10.951 ^a	3.000	29.000	.000
	Hotelling's Trace	1.133	10.951 ^a	3.000	29.000	.000
	Roy's Largest Root	1.133	10.951 ^a	3.000	29.000	.000
TIME * SCALES	Pillai's Trace	.096	1.024 ^a	3.000	29.000	.396
	Wilks' Lambda	.904	1.024 ^a	3.000	29.000	.396
	Hotelling's Trace	.106	1.024 ^a	3.000	29.000	.396
	Roy's Largest Root	.106	1.024 ^a	3.000	29.000	.396

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: TIME+SCALES+TIME*SCALES

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.
TIME	1.000	.000	0	.
SCALES	.475	22.119	5	.001
TIME * SCALES	.605	14.954	5	.011

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

Within Subjects Effect	Epsilon ^a		
	Greenhouse -Geisser	Huynh-Feldt	Lower-bound
TIME	1.000	1.000	1.000
SCALES	.677	.724	.333
TIME * SCALES	.761	.824	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept

Within Subjects Design: TIME+SCALES+TIME*SCALES

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
TIME	Sphericity Assumed	5.063E-02	1	5.063E-02	.186	.669
	Greenhouse-Geisser	5.063E-02	1.000	5.063E-02	.186	.669
	Huynh-Feldt	5.063E-02	1.000	5.063E-02	.186	.669
	Lower-bound	5.063E-02	1.000	5.063E-02	.186	.669
Error(TIME)	Sphericity Assumed	8.418	31	.272		
	Greenhouse-Geisser	8.418	31.000	.272		
	Huynh-Feldt	8.418	31.000	.272		
	Lower-bound	8.418	31.000	.272		
SCALES	Sphericity Assumed	14.077	3	4.692	5.410	.002
	Greenhouse-Geisser	14.077	2.030	6.935	5.410	.007
	Huynh-Feldt	14.077	2.173	6.477	5.410	.005
	Lower-bound	14.077	1.000	14.077	5.410	.027
Error(SCALES)	Sphericity Assumed	80.664	93	.867		
	Greenhouse-Geisser	80.664	62.930	1.282		
	Huynh-Feldt	80.664	67.372	1.197		
	Lower-bound	80.664	31.000	2.602		
TIME * SCALES	Sphericity Assumed	1.067	3	.356	1.750	.162
	Greenhouse-Geisser	1.067	2.282	.467	1.750	.177
	Huynh-Feldt	1.067	2.473	.431	1.750	.173
	Lower-bound	1.067	1.000	1.067	1.750	.196
Error(TIME*SCALES)	Sphericity Assumed	18.894	93	.203		
	Greenhouse-Geisser	18.894	70.744	.267		
	Huynh-Feldt	18.894	76.670	.246		
	Lower-bound	18.894	31.000	.609		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	TIME	SCALES	Type III Sum of Squares	df	Mean Square	F	Sig.
TIME	Linear		5.063E-02	1	5.063E-02	.186	.669
Error(TIME)	Linear		8.418	31	.272		
SCALES		Linear	10.246	1	10.246	8.081	.008
		Quadratic	.587	1	.587	.733	.398
		Cubic	3.244	1	3.244	6.081	.019
Error(SCALES)		Linear	39.305	31	1.268		
		Quadratic	24.820	31	.801		
		Cubic	16.539	31	.534		
TIME * SCALES	Linear	Linear	.831	1	.831	2.601	.117
		Quadratic	5.641E-02	1	5.641E-02	.360	.553
		Cubic	.179	1	.179	1.344	.255
Error(TIME*SCALES)	Linear	Linear	9.910	31	.320		
		Quadratic	4.855	31	.157		
		Cubic	4.129	31	.133		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	1409.345	1	1409.345	1069.137	.000
Error	40.864	31	1.318		

Item analysis -1st.sav

	va3.1	va4.1	va6.1	v7.1	va8.1	pa9.1	pa11.1
1	4.00	4.00	3.00	3.00	2.00	2.00	3.00
2	4.00	2.00	5.00	5.00	4.00	2.00	3.00
3	1.00	1.00	2.00	1.00	1.00	1.00	1.00
4	4.00	4.00	3.00	3.00	1.00	1.00	2.00
5	3.00	3.00	4.00	4.00	2.00	2.00	4.00
6	2.00	2.00	2.00	3.00	2.00	2.00	2.00
7	1.00	2.00	1.00	2.00	1.00	1.00	1.00
8	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9	2.00	1.00	1.00	1.00	1.00	1.00	2.00
10	4.00	3.00	3.00	2.00	3.00	2.00	1.00
11	5.00	5.00	2.00	4.00	3.00	2.00	3.00
12	2.00	4.00	5.00	3.00	3.00	1.00	3.00
13	5.00	4.00	5.00	5.00	3.00	2.00	2.00
14	3.00	3.00	2.00	2.00	3.00	1.00	4.00
15	1.00	1.00	1.00	3.00	1.00	1.00	1.00
16	2.00	2.00	2.00	2.00	1.00	1.00	2.00
17	2.00	3.00	2.00	3.00	1.00	1.00	2.00
18	2.00	1.00	2.00	2.00	3.00	2.00	1.00
19	4.00	4.00	4.00	4.00	3.00	2.00	2.00
20	2.00	2.00	2.00	4.00	3.00	2.00	2.00
21	5.00	2.00	5.00	3.00	3.00	1.00	4.00
22	3.00	2.00	2.00	2.00	2.00	1.00	3.00
23	3.00	3.00	2.00	3.00	1.00	1.00	3.00
24	4.00	4.00	2.00	4.00	1.00	1.00	1.00
25	2.00	1.00	2.00	1.00	1.00	1.00	2.00
26	3.00	2.00	2.00	2.00	2.00	1.00	1.00
27	3.00	2.00	4.00	4.00	2.00	1.00	1.00
28	5.00	1.00	1.00	1.00	2.00	1.00	1.00
29	2.00	4.00	4.00	4.00	2.00	2.00	2.00
30	2.00	2.00	4.00	4.00	1.00	1.00	2.00
31	3.00	1.00	3.00	3.00	2.00	1.00	2.00
32	2.00	3.00	1.00	2.00	2.00	1.00	2.00
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Item analysis -1st.sav

	pa12.1	pa13.1	ii15.1	va16.1	a17.1	ii18.1	ii20.1
1	4.00	5.00	4.00	4.00	3.00	3.00	2.00
2	2.00	3.00	5.00	5.00	3.00	2.00	2.00
3	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4	2.00	2.00	1.00	2.00	2.00	1.00	1.00
5	2.00	4.00	3.00	3.00	4.00	2.00	2.00
6	2.00	3.00	4.00	3.00	3.00	3.00	2.00
7	1.00	1.00	2.00	2.00	5.00	2.00	2.00
8	2.00	1.00	5.00	1.00	5.00	5.00	2.00
9	1.00	1.00	3.00	1.00	2.00	1.00	1.00
10	1.00	1.00	4.00	2.00	3.00	3.00	2.00
11	3.00	3.00	4.00	3.00	2.00	3.00	1.00
12	3.00	4.00	3.00	3.00	1.00	1.00	2.00
13	1.00	3.00	5.00	5.00	4.00	3.00	1.00
14	2.00	4.00	4.00	4.00	2.00	4.00	1.00
15	1.00	1.00	1.00	1.00	4.00	1.00	1.00
16	1.00	1.00	3.00	2.00	3.00	2.00	2.00
17	2.00	3.00	1.00	1.00	2.00	1.00	1.00
18	2.00	3.00	4.00	2.00	2.00	3.00	1.00
19	2.00	4.00	3.00	3.00	4.00	3.00	3.00
20	2.00	2.00	2.00	3.00	2.00	2.00	2.00
21	2.00	2.00	4.00	5.00	3.00	4.00	3.00
22	4.00	5.00	5.00	3.00	4.00	3.00	1.00
23	2.00	2.00	1.00	2.00	4.00	1.00	1.00
24	1.00	1.00	2.00	1.00	3.00	3.00	1.00
25	2.00	2.00	3.00	2.00	2.00	2.00	1.00
26	1.00	1.00	3.00	1.00	4.00	2.00	2.00
27	2.00	2.00	2.00	2.00	2.00	2.00	2.00
28	1.00	1.00	5.00	2.00	2.00	4.00	5.00
29	2.00	3.00	4.00	4.00	3.00	4.00	2.00
30	1.00	3.00	3.00	1.00	2.00	2.00	2.00
31	3.00	2.00	2.00	2.00	2.00	2.00	2.00
32	1.00	4.00	2.00	2.00	5.00	1.00	1.00
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Item analysis -1st.sav

	va21.1	a22.1	ii24.1	ii25.1	ii28.1	ii30.1	va3.3
1	4.00	3.00	2.00	2.00	2.00	3.00	3.00
2	5.00	3.00	3.00	3.00	4.00	2.00	5.00
3	1.00	5.00	1.00	1.00	1.00	1.00	1.00
4	2.00	4.00	1.00	1.00	1.00	1.00	3.00
5	2.00	3.00	2.00	2.00	2.00	4.00	3.00
6	2.00	2.00	4.00	2.00	3.00	4.00	2.00
7	1.00	2.00	1.00	2.00	2.00	2.00	2.00
8	1.00	5.00	5.00	4.00	4.00	5.00	1.00
9	2.00	5.00	3.00	1.00	1.00	1.00	2.00
10	3.00	3.00	3.00	2.00	2.00	3.00	3.00
11	2.00	2.00	5.00	2.00	2.00	3.00	4.00
12	2.00	2.00	1.00	1.00	1.00	2.00	3.00
13	3.00	2.00	5.00	1.00	2.00	2.00	5.00
14	2.00	3.00	4.00	2.00	1.00	1.00	3.00
15	1.00	2.00	1.00	1.00	1.00	1.00	2.00
16	1.00	3.00	3.00	2.00	2.00	3.00	2.00
17	1.00	2.00	2.00	1.00	1.00	3.00	3.00
18	2.00	3.00	2.00	3.00	1.00	2.00	2.00
19	5.00	3.00	4.00	3.00	2.00	3.00	5.00
20	2.00	2.00	2.00	2.00	2.00	3.00	3.00
21	3.00	3.00	3.00	4.00	2.00	3.00	4.00
22	2.00	2.00	2.00	3.00	2.00	2.00	3.00
23	3.00	4.00	2.00	1.00	3.00	3.00	3.00
24	1.00	2.00	1.00	1.00	3.00	2.00	5.00
25	2.00	1.00	4.00	2.00	1.00	3.00	3.00
26	1.00	3.00	1.00	1.00	1.00	4.00	4.00
27	1.00	2.00	2.00	1.00	2.00	2.00	3.00
28	1.00	1.00	5.00	3.00	1.00	5.00	5.00
29	2.00	2.00	4.00	2.00	2.00	5.00	2.00
30	2.00	2.00	3.00	2.00	2.00	3.00	4.00
31	3.00	2.00	2.00	2.00	2.00	2.00	3.00
32	2.00	2.00	2.00	2.00	1.00	2.00	4.00
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Item analysis -1st.sav

	va4.3	va6.3	va7.3	va8.3	pa9.3	pa11.3	pa12.3
1	3.00	3.00	2.00	2.00	2.00	1.00	3.00
2	5.00	5.00	5.00	2.00	4.00	4.00	4.00
3	1.00	1.00	1.00	1.00	1.00	1.00	5.00
4	5.00	3.00	3.00	1.00	1.00	3.00	2.00
5	4.00	4.00	3.00	2.00	2.00	3.00	1.00
6	2.00	2.00	3.00	2.00	1.00	2.00	3.00
7	1.00	2.00	1.00	1.00	1.00	1.00	1.00
8	1.00	1.00	1.00	1.00	1.00	1.00	1.00
9	2.00	1.00	2.00	1.00	1.00	2.00	1.00
10	3.00	3.00	3.00	2.00	2.00	2.00	3.00
11	4.00	3.00	5.00	4.00	1.00	3.00	2.00
12	5.00	3.00	3.00	3.00	1.00	2.00	1.00
13	3.00	4.00	4.00	4.00	2.00	1.00	1.00
14	3.00	2.00	2.00	3.00	1.00	4.00	2.00
15	2.00	3.00	2.00	1.00	2.00	1.00	1.00
16	3.00	2.00	2.00	1.00	1.00	2.00	2.00
17	4.00	2.00	2.00	1.00	1.00	2.00	2.00
18	1.00	2.00	1.00	2.00	2.00	1.00	3.00
19	4.00	4.00	4.00	2.00	2.00	2.00	2.00
20	2.00	3.00	2.00	2.00	2.00	3.00	2.00
21	3.00	3.00	2.00	3.00	1.00	4.00	2.00
22	2.00	2.00	3.00	3.00	2.00	1.00	5.00
23	2.00	3.00	2.00	1.00	1.00	2.00	3.00
24	4.00	2.00	3.00	1.00	1.00	1.00	1.00
25	2.00	2.00	3.00	2.00	1.00	1.00	2.00
26	3.00	3.00	3.00	1.00	1.00	1.00	1.00
27	2.00	4.00	4.00	2.00	1.00	1.00	2.00
28	1.00	1.00	1.00	2.00	2.00	2.00	2.00
29	4.00	4.00	3.00	2.00	3.00	2.00	3.00
30	2.00	3.00	3.00	1.00	1.00	2.00	1.00
31	2.00	3.00	4.00	1.00	1.00	1.00	1.00
32	4.00	1.00	2.00	3.00	2.00	4.00	3.00
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Item analysis -1st.sav

	pa13.3	ii15.3	ii16.3	a17.3	ii18.3	ii20.3	va21.3
1	4.00	3.00	2.00	4.00	3.00	2.00	3.00
2	4.00	3.00	3.00	3.00	4.00	1.00	5.00
3	1.00	5.00	1.00	1.00	1.00	5.00	1.00
4	2.00	2.00	1.00	3.00	1.00	1.00	1.00
5	3.00	3.00	3.00	4.00	2.00	2.00	2.00
6	3.00	4.00	3.00	2.00	2.00	2.00	2.00
7	1.00	3.00	2.00	4.00	1.00	1.00	1.00
8	1.00	1.00	1.00	5.00	5.00	2.00	1.00
9	1.00	3.00	1.00	4.00	1.00	2.00	1.00
10	3.00	4.00	2.00	2.00	3.00	2.00	2.00
11	4.00	3.00	3.00	2.00	4.00	2.00	3.00
12	3.00	1.00	2.00	1.00	2.00	1.00	2.00
13	4.00	3.00	4.00	2.00	2.00	1.00	3.00
14	3.00	4.00	3.00	2.00	3.00	1.00	2.00
15	3.00	3.00	2.00	4.00	1.00	1.00	2.00
16	3.00	2.00	2.00	1.00	2.00	2.00	2.00
17	3.00	1.00	1.00	4.00	1.00	2.00	1.00
18	4.00	3.00	2.00	4.00	3.00	1.00	2.00
19	3.00	4.00	2.00	3.00	2.00	3.00	3.00
20	2.00	2.00	2.00	2.00	3.00	2.00	3.00
21	2.00	5.00	3.00	3.00	3.00	2.00	3.00
22	5.00	5.00	4.00	4.00	4.00	3.00	2.00
23	2.00	1.00	2.00	3.00	1.00	1.00	3.00
24	1.00	3.00	1.00	4.00	3.00	1.00	1.00
25	1.00	4.00	2.00	3.00	1.00	1.00	2.00
26	1.00	5.00	1.00	1.00	3.00	2.00	1.00
27	2.00	2.00	2.00	2.00	2.00	2.00	1.00
28	2.00	4.00	1.00	1.00	3.00	5.00	1.00
29	2.00	3.00	4.00	4.00	3.00	2.00	3.00
30	2.00	2.00	1.00	2.00	2.00	1.00	1.00
31	3.00	1.00	1.00	2.00	1.00	3.00	2.00
32	4.00	2.00	2.00	2.00	1.00	2.00	3.00
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Item analysis -1st.sav

	a22.3	ii24.3	ii25.3	ii28.3	ii30.3
1	2.00	3.00	2.00	2.00	2.00
2	1.00	3.00	3.00	3.00	3.00
3	5.00	1.00	1.00	1.00	5.00
4	3.00	1.00	1.00	1.00	2.00
5	1.00	2.00	2.00	3.00	3.00
6	3.00	4.00	3.00	2.00	3.00
7	2.00	1.00	2.00	2.00	3.00
8	5.00	1.00	1.00	1.00	1.00
9	5.00	2.00	2.00	3.00	2.00
10	3.00	3.00	2.00	4.00	2.00
11	2.00	5.00	3.00	2.00	3.00
12	1.00	3.00	1.00	1.00	5.00
13	1.00	5.00	1.00	1.00	1.00
14	3.00	4.00	2.00	1.00	2.00
15	4.00	1.00	2.00	2.00	3.00
16	2.00	3.00	2.00	2.00	2.00
17	2.00	2.00	1.00	2.00	4.00
18	1.00	5.00	3.00	1.00	1.00
19	3.00	2.00	2.00	2.00	1.00
20	2.00	4.00	3.00	2.00	3.00
21	3.00	2.00	4.00	2.00	4.00
22	2.00	4.00	4.00	2.00	3.00
23	1.00	1.00	1.00	2.00	3.00
24	2.00	2.00	1.00	2.00	3.00
25	1.00	4.00	1.00	1.00	3.00
26	1.00	1.00	1.00	1.00	5.00
27	2.00	2.00	1.00	2.00	3.00
28	1.00	4.00	4.00	1.00	4.00
29	2.00	4.00	3.00	2.00	4.00
30	2.00	2.00	1.00	1.00	3.00
31	2.00	1.00	3.00	2.00	3.00
32	2.00	1.00	1.00	1.00	4.00
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RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	PA9.1	1.3438	.4826	32.0
2.	PA11.1	2.0625	.9483	32.0
3.	PA12.1	1.8438	.8466	32.0
4.	PA13.1	2.4375	1.2684	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	7.6875	8.0927	2.8448	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
PA9.1	6.3438	7.0716	.3072	.8160
PA11.1	5.6250	4.6290	.6285	.6709
PA12.1	5.8438	4.9103	.6572	.6627
PA13.1	5.2500	3.0323	.7814	.5854

Reliability Coefficients

N of Cases = 32.0

N of Items = 4

Alpha = .7637

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	VA3.1	2.8438	1.2472	32.0
2.	VA4.1	2.4688	1.1909	32.0
3.	VA6.1	2.6250	1.3137	32.0
4.	V7.1	2.8125	1.1760	32.0
5.	VA8.1	1.9688	.8975	32.0
6.	VA16.1	2.4375	1.2427	32.0
7.	VA21.1	2.0938	1.0883	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	17.2500	38.3226	6.1905	7

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
VA3.1	14.4063	28.6361	.6092	.8622
VA4.1	14.7813	29.9829	.5307	.8719
VA6.1	14.6250	26.8226	.7183	.8470
V7.1	14.4375	28.5766	.6651	.8542
VA8.1	15.2813	30.7893	.6755	.8566
VA16.1	14.8125	27.0605	.7516	.8420
VA21.1	15.1563	29.3619	.6593	.8554

Reliability Coefficients

N of Cases = 32.0

N of Items = 7

Alpha = .8739

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	II15.1	3.0625	1.3183	32.0
2.	II18.1	2.3750	1.0999	32.0
3.	II20.1	1.7188	.8514	32.0
4.	II24.1	2.6563	1.3346	32.0
5.	II25.1	1.9375	.8776	32.0
6.	II28.1	1.8438	.8466	32.0
7.	II30.1	2.6563	1.1531	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	16.2500	31.4194	5.6053	7

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
II15.1	13.1875	20.7379	.7449	.8220
II18.1	13.8750	21.8548	.8125	.8123
II20.1	14.5313	26.3216	.5006	.8560
II24.1	13.5938	21.3458	.6724	.8352
II25.1	14.3125	24.5444	.7021	.8333
II28.1	14.4063	27.2813	.3869	.8678
II30.1	13.5938	23.2813	.6119	.8423

Reliability Coefficients

N of Cases = 32.0

N of Items = 7

Alpha = .8596

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	A17.1	2.9063	1.1176	32.0
2.	A22.1	2.6563	1.0352	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	5.5625	2.4476	1.5645	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
A17.1	2.6563	1.0716	.0549	.
A22.1	2.9063	1.2490	.0549	.

Reliability Coefficients

N of Cases = 32.0

N of Items = 2

Alpha = .1038

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	PA9.3	1.5000	.7184	32.0
2.	PA11.3	1.9688	1.0313	32.0
3.	PA12.3	2.1250	1.1288	32.0
4.	PA13.3	2.5625	1.1341	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	8.1563	7.6845	2.7721	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
PA9.3	6.6563	5.3942	.5317	.4922
PA11.3	6.1875	5.4476	.2437	.6528
PA12.3	6.0313	4.5474	.3870	.5546
PA13.3	5.5938	4.1200	.4948	.4610

Reliability Coefficients

N of Cases = 32.0

N of Items = 4

Alpha = .6150

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	VA3.3	3.1250	1.1288	32.0
2.	VA4.3	2.7813	1.2374	32.0
3.	VA6.3	2.6250	1.0395	32.0
4.	VA7.3	2.6250	1.0999	32.0
5.	VA8.3	1.8750	.9070	32.0
6.	VA16.3	2.0625	.9483	32.0
7.	VA21.3	2.0313	.9667	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	17.1250	27.9839	5.2900	7

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
VA3.3	14.0000	21.3548	.5133	.8360
VA4.3	14.3438	20.1038	.5721	.8287
VA6.3	14.5000	20.5806	.6703	.8110
VA7.3	14.5000	19.8065	.7117	.8036
VA8.3	15.2500	22.3871	.5563	.8286
VA16.3	15.0625	22.2540	.5399	.8305
VA21.3	15.0938	21.1845	.6591	.8138

Reliability Coefficients

N of Cases = 32.0

N of Items = 7

Alpha = .8435

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	II15.3	2.9375	1.2427	32.0
2.	II18.3	2.2813	1.1140	32.0
3.	II20.3	1.9063	1.0273	32.0
4.	II24.3	2.5938	1.3645	32.0
5.	II25.3	2.0000	1.0160	32.0
6.	II28.3	1.7813	.7507	32.0
7.	II30.3	2.9063	1.1176	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	16.4063	16.3780	4.0470	7

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
II15.3	13.4688	11.0313	.4606	.4382
II18.3	14.1250	12.4355	.3439	.4949
II20.3	14.5000	13.0968	.2993	.5135
II24.3	13.8125	11.9637	.2704	.5294
II25.3	14.4063	10.9587	.6522	.3771
II28.3	14.6250	15.4677	.0587	.5806
II30.3	13.5000	15.4839	-.0403	.6344

Reliability Coefficients

N of Cases = 32.0

N of Items = 7

Alpha = .5578

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	A17.3	2.7500	1.1640	32.0
2.	A22.3	2.2500	1.1914	32.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	5.0000	3.3548	1.8316	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
A17.3	2.2500	1.4194	.2094	.
A22.3	2.7500	1.3548	.2094	.

Reliability Coefficients

N of Cases = 32.0

N of Items = 2

Alpha = .3462