

A Study on the Effects of Anxiety on First Time Expectant Fathers

Thesis submitted to
the Graduate College of
Marshall University

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

by

Michael W. Watt

Approved by
Fred Jay Krieg, Chair
Elizabeth K. Boyles
Tony R. Goudy

May 2003

Table of Contents

| | |
|--|-------|
| Approval Page | p. 2 |
| Abstract | p. 4 |
| Introduction | p. 5 |
| Method | p. 9 |
| Participants | p. 9 |
| Instrumentation | p. 9 |
| Procedure | p. 10 |
| Results | p. 11 |
| Tables and figures | p. 12 |
| T-Test results | p. 12 |
| Individual question raw scores and means-1st trimester | p. 13 |
| Graph of the means of individual questions-1st trimester | p. 14 |
| Individual questions raw scores and means-2 nd trimester | p. 15 |
| Graph of the means of individual questions-2 nd trimester | p. 16 |
| Individual question raw scores and means-3 rd trimester | p. 17 |
| Graph of the means of individual questions-3 rd trimester | p. 18 |
| Demographic data of the participants | p. 19 |
| Discussion | p. 21 |
| References | p. 22 |

Although many studies have been conducted on the psychological, social, and physical changes associated with motherhood, little attention has been given to the psychological aspects of expectant fathers. Most clinical studies have focused on emotional difficulties experienced by men during their wives pregnancy or on new parenthood strategies, rather than on the actual psychological change process. Although there has been an increase in the number of studies done, studies on the process of expectant fathers coping with pregnancy have received relatively little emphasis, and there has been a tendency to minimize the adjustments of normal males in response to pregnancy and new parenthood.

The emphasis of this study is going to determine whether the Clinical Anxiety Scale (CAS) is sensitive enough to predict behavioral and attitudinal changes in expectant fathers. Strickland (1987) found anxiety to be a significant predictor of total symptoms, indicating that physical symptom manifestation in expectant fathers is related to increased emotional stress. Her findings also showed anxiety as a positive predictor of psychological symptoms and hostility. Psychological symptoms by definition are a measure of emotional well-being. These findings support the findings of Trethowans and Conlan (1965) that anxiety and other psychological symptoms are evident in expectant fathers. It also supports Trethowans (1972) contention that hostility may be unconsciously concealed or repressed in expectant fathers and, therefore, increase's the expression of symptoms. If this is the case, expectant fathers who are able to communicate their feelings may be less likely to repress their hostility and less likely to act out toward others

Osofsky (1982) describes in a pilot study of clinical cases and extensive psychiatric and obstetrical practice, that men in general undergo considerable stress and upheaval during the course of the pregnancy and following the birth of a baby, especially a first child.

In a recent study Clinton (1987) compared 81 expectant fathers and 66 non-expectant men over the course of a year at monthly intervals. He concluded that from a psychological perspective, the psychological transition to fatherhood is as dramatic as that to motherhood. Brown (1986) in a study involving 313 couples in the second half of pregnancy had a similar conclusion. In a more recent study conducted by the Royal Melbourne Institute of Technology (RMIT) and the University of Melbourne, it was found that first time fathers experience depression and anxiety during pregnancy. RMIT woman's health professor Carol Morse says that she found that up to 15% of the men suffered depression and anxiety from the middle stage of pregnancy onward (Morse, 1999). They also found that by four months after birth, depression and anxiety in men had reduced to 6%. Morse (1999) said that the cause of depression and anxiety was mostly due to age, emotional state and family background of the father, with younger fathers and those with poor family relationships more likely to suffer.

Another much cited research study was conducted by May (1982). This small, twenty subject project suggests a characteristic pattern of development of subjective emotional involvement in pregnancy among first time fathers. He identified three phases of father involvement. The phases are announcement, moratorium, and focusing.

The announcement phase is the period between the first suspicion of pregnancy and its confirmation. The length of this period is variable, and the father's reaction is dependent in part on whether or not the pregnancy is desired (May, 1982).

The moratorium phase is characterized by the father's emotional distance from the pregnancy. The distancing may allow expectant fathers to work through any ambivalence that he is experiencing about the pregnancy. The average length of this phase was from the 12th to the 25th week of pregnancy. Marital tension and disrupted communication characterized this phase for the couple (Grey, 1999). Feelings of alienation and resentment may be experienced, and the couple may be at risk for continued marital and parenting problems unless these issues are resolved. May, (1982) points out that the more ready the father felt for this phase, the shorter, less stressful a moratorium he experienced.

The focusing phase usually begins around the 25th to the 30th week of pregnancy and ends with delivery. It is during this phase that the expectant father experiences a change in attitude and feelings regarding the pregnancy; he redefines himself in terms of his future parental role.

Other researchers such as Jordan (1990) have also described three phases of behavior for expectant fathers during pregnancy. Each has used a paradigm of interpersonal and intrapersonal components to describe the process of change and stress management.

In one final study Jerrold Shapiro, Ph.D. in *When Men are Pregnant* (1993) studied 227 expectant fathers over a span of 5 years (1980 to 1985). He suggests that expectant fathers fears can be grouped into four categories: 1. Performance fears -

queasiness and responsibility, 2. Security fears – OB-GYN establishment, questions of paternity, and loss of spouse or child, 3. Relationship fears – being replaced in the relationship by the child, and 4. Existential fears – issues of life and death.

As Dr. Shapiro (1993) reviewed the trimesters of pregnancy, the last three months were the most trying for expectant fathers. He observed heightened emotional concerns in his subjects during this time. They included dissatisfaction with sexual relationship, performance anxiety, pressures of financial responsibility, and discomfort with lack of privacy. Existing problems between the partners tend to become significantly aggravated during this time of increasing stress.

He noted that a small but alarming number of men attempt to deal with their stress by becoming involved in a sexual affair with another woman. Extra-marital affairs can be particularly devastating to the later relationship of the married couple.

Unfortunately, Dr. Shapiro, like every other researcher, failed to look for “psychological triggers” separating those that deal well with the experience from those that did poorly.

The hypothesis for this study is that first time, expectant fathers have an increase in measured anxiety and behaviors during the nine months of their wife’s pregnancy, and the Clinical Anxiety Scale is sensitive enough to measure this increase in anxiety and behaviors. Through an interview testing process, expectant fathers’ measured anxiety and behaviors will correspond to the data received from the Clinical Anxiety Scale.

Method

Participants

The group of participants consisted of 34 first time, expectant fathers between the ages of 20 and 40, and who are married. Subjects were recruited from within a 200-mile radius from Pittsburgh, Pa, to Columbus, Oh, to Marietta, Oh. Each subject was screened for eligibility through an intake interview/ questionnaire prior to participation. The participants were unknown by this examiner prior to the study.

Instrumentation

The testing instrument that was used for this research study was Bruce A. Thyers Clinical Anxiety Scale. The Clinical Anxiety Scale (CAS) is a 25-item scale that is focused on measuring the amount, degree, or severity of clinical anxiety reported by the respondent, with higher scores indicating higher amounts of anxiety. The CAS is simply worded, and easy to administer, score, and interpret. The items for the CAS were psychometrically derived from a larger number of items based on the criteria for anxiety disorders in the DSM III. The CAS has a clinical cutting score of 30 (+/-5). This instrument is particularly useful for measuring general anxiety in clinical practice.

Like most WALMYR Assessment Scales instruments, the CAS is scored by first reverse-scoring items listed at the bottom of the page (1, 6, 7, 9, 13, 15, 16), summing these and the remaining scores, subtracting the number of completed items, multiplying this figure by 100, and dividing by the number of items completed times 4. This will produce a range from 0 to 100 with the higher scores indicating greater magnitude or severity of problems.

The CAS has excellent internal consistency, with a coefficient alpha of .94. The SEM of 4.2 is relatively low, suggesting a minimal amount of measurement error. The CAS had good stability, with two-week test-retest correlations that range from .64 to .74.

The CAS has good known-groups validity, discriminating significantly between group's known to be suffering from anxiety and lower-anxiety control groups. Using the clinical cutting score of 30, the CAS had a very low error rate of 6.9% in distinguishing between anxiety and control groups. Analysis of the CAS in relation to demographic variables such as age, sex, and education reveals that scores on the CAS are not affected by those factors.

This instrument was administered to all participants during each trimester of their wife's pregnancy

Procedure

This study is part of a larger research project designed by R. G. Rodriguez, Ph.D. and carried out by a cohort group of 13 Marshall University Graduate Students. Each subject took a battery of tests during each trimester of their wife's pregnancy. The individual battery of tests for each trimester included some of the following tests, but not all. Over the full term of the study every one of these tests were given at one time or another. They are, California Psychological Inventory (CPI), the Clinical Anxiety Scale (CAS), Selfism (NS), the Index of Self-Esteem (ISE), the NonPhysical Abuse of Partner Scale (NPAPS), the Aggression Inventory (AI), the Love Attitudes Scale (LAS), the Relationship Assessment Scale (RAS), the Index of Marital Satisfaction (IMS), and the Multi-Dimensional Scale of Perceived Social Scale (MSPSS). For the purpose of this

part of the study, the data from the CAS was collected, examined and interpreted using a paired samples t-test.

The expectant fathers were interviewed and tested during the first, second, and third trimester of their wives pregnancy. All subjects were assigned double codes to assure confidentiality and anonymity.

Results

The results of the paired samples t-test show that there is no statistically significant difference in the scores from the CAS between the three trimesters of pregnancy. For this study, a Factorial ANOVA would have been more appropriate to use to analyze the data. Because there was no statistical significance noted from using the t-test, there was no need to run a Factorial ANOVA. On page 12 the results of the t-test show that between trimester 1 and trimester 2 there is mean paired difference of 1.3824, a standard deviation of 5.9544, a standard error of the mean of 1.0212 and a t-score of 1.354. In comparing the differences of trimester 2 and trimester 3 the data on page 12 shows a mean paired difference of -2.0588, a standard deviation of 8.5385, a standard error of the mean of 1.4643, and a t-score of -1.406. In analyzing the data between trimester 1 and trimester 3 we find a mean paired difference of -.6775, a standard deviation of 6.1680, a standard error of the mean of 1.0578, and a t-score of -.640. All of these results show no significance of scores over the term of this study.

In comparing individual question means of trimester 1 (pg.13-14), trimester 2 (pg. 15-16) and trimester 3 (pg. 16-17) we find no significance in the power of each individual question over the life of this study.

Tables and figures

T-Test

Paired Samples Statistics

| | Mean | N | Std. Deviation | Std. Error Mean |
|-----------------|---------|----|----------------|-----------------|
| Pair 1 VAR00001 | 36.7059 | 34 | 9.2262 | 1.5823 |
| VAR00002 | 35.3235 | 34 | 8.4305 | 1.4458 |
| Pair 2 VAR00002 | 35.3235 | 34 | 8.4305 | 1.4458 |
| VAR00003 | 37.3824 | 34 | 9.7141 | 1.6660 |
| Pair 3 VAR00001 | 36.7059 | 34 | 9.2262 | 1.5823 |
| VAR00003 | 37.3824 | 34 | 9.7141 | 1.6660 |

Paired Samples Correlations

| | N | Correlation | Sig. |
|----------------------------|----|-------------|------|
| Pair 1 VAR00001 & VAR00002 | 34 | .776 | .000 |
| Pair 2 VAR00002 & VAR00003 | 34 | .565 | .000 |
| Pair 3 VAR00001 & VAR00003 | 34 | .789 | .000 |

Paired Samples Test

| | Paired Differences | | | | | t |
|----------------------------|--------------------|----------------|-----------------|---|--------|--------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | |
| | | | | Lower | Upper | |
| Pair 1 VAR00001 - VAR00002 | 1.3824 | 5.9544 | 1.0212 | -.6953 | 3.4600 | 1.354 |
| Pair 2 VAR00002 - VAR00003 | -2.0588 | 8.5385 | 1.4643 | -5.0380 | .9204 | -1.406 |
| Pair 3 VAR00001 - VAR00003 | -.6765 | 6.1680 | 1.0578 | -2.8286 | 1.4756 | -.640 |

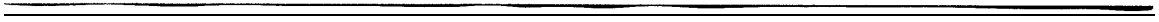
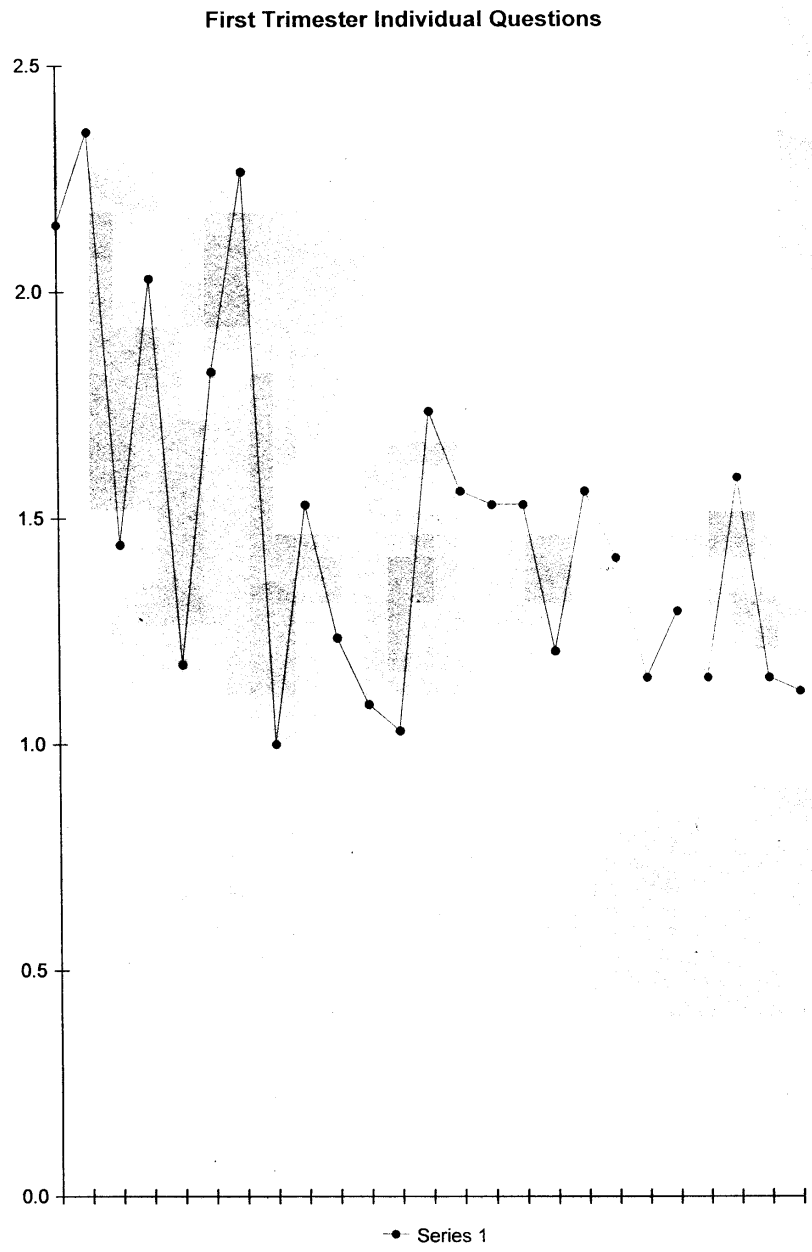
Paired Samples Test

| | df | Sig. (2-tailed) |
|----------------------------|----|-----------------|
| Pair 1 VAR00001 - VAR00002 | 33 | .185 |
| Pair 2 VAR00002 - VAR00003 | 33 | .169 |
| Pair 3 VAR00001 - VAR00003 | 33 | .527 |

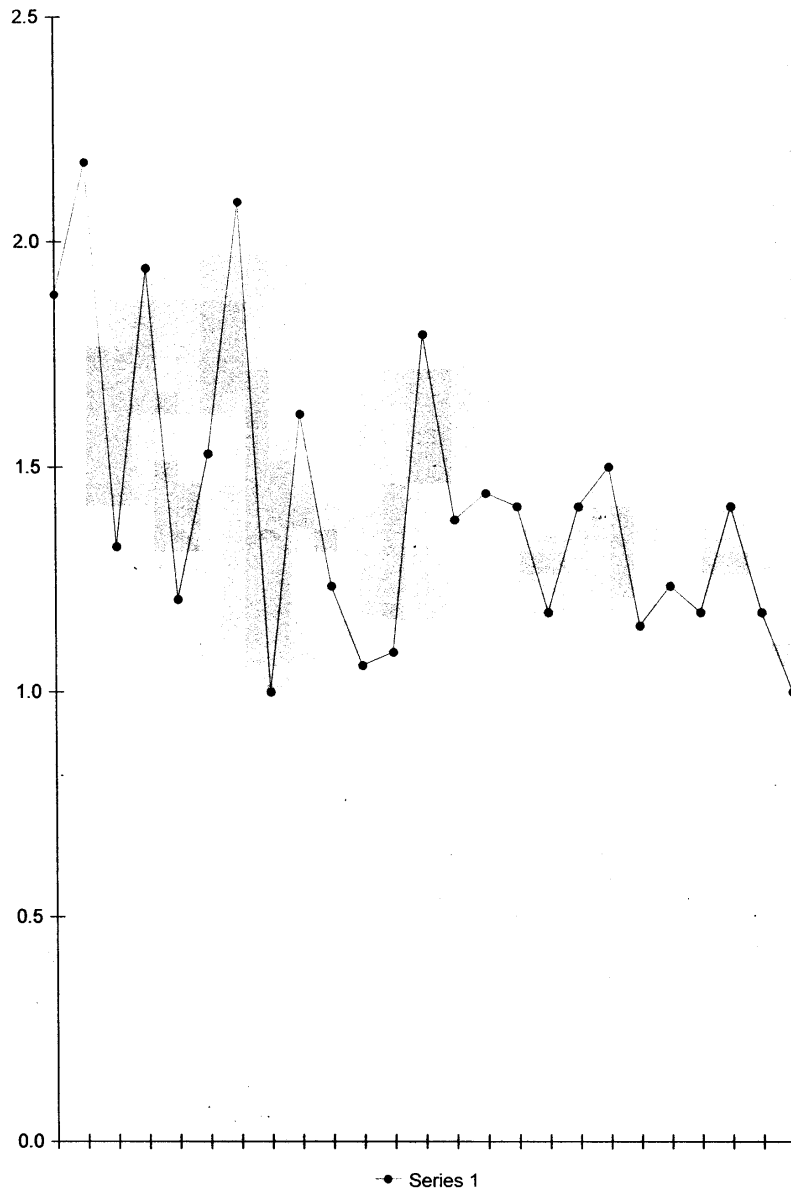
Individual questions raw scores and means-1st trimester

| | |
|---|-----------|
| 2 2 1 3 2 3 2 1 1 3 2 3 2 2 3 3 2 3 2 2 1 2 2 4 1 2 2 3 2 4 2 2 1 1 | 2.1470588 |
| 2 3 1 2 1 3 2 2 5 3 2 3 3 2 3 2 2 2 3 2 2 2 2 4 2 2 2 3 2 4 2 2 2 1 | 2.3529412 |
| 1 3 5 1 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 2 1 4 1 1 1 1 | 1.4411765 |
| 1 3 1 2 2 3 2 2 1 2 2 3 2 2 1 3 2 2 2 2 2 1 1 4 2 1 2 3 2 4 3 2 1 1 | 2.0294118 |
| 1 5 | 1.1764706 |
| 2 3 1 2 2 3 2 2 1 2 1 1 2 1 2 3 2 3 2 1 2 2 1 2 1 1 1 4 2 3 1 1 2 1 | 1.8235294 |
| 4 3 5 2 1 3 1 1 5 2 1 5 2 2 3 3 2 2 1 1 2 1 2 4 2 1 1 2 1 2 2 2 2 4 | 2.2647059 |
| 1 | 1 |
| 1 1 1 2 2 2 1 1 1 2 1 2 2 2 3 2 2 3 1 1 2 1 1 3 1 1 2 1 1 2 1 1 1 1 1 | 1.5294118 |
| 1 3 1 1 1 1 1 1 1 1 1 3 1 1 2 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 3 1 1 1 1 | 1.2352941 |
| 1 3 1 2 1 1 1 1 1 1 1 1 | 1.0882353 |
| 1 2 1 1 1 1 1 1 1 1 | 1.0294118 |
| 1 1 1 2 1 5 2 4 1 3 1 1 1 1 1 5 1 3 2 1 1 1 3 3 1 1 2 3 1 1 1 1 1 1 1 | 1.7352941 |
| 1 3 1 1 2 1 1 2 1 2 1 1 2 2 2 1 4 1 1 2 1 1 2 3 1 1 1 1 2 4 1 1 1 1 1 | 1.5588235 |
| 2 3 1 2 1 1 1 2 1 3 1 1 1 1 1 2 2 3 1 1 2 1 1 2 1 1 1 3 1 2 3 1 1 1 1 | 1.5294118 |
| 1 2 1 3 1 1 2 1 1 1 1 1 4 1 1 2 1 3 2 1 2 1 1 3 1 1 2 3 1 2 1 1 1 1 1 | 1.5294118 |
| 1 3 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 1 1 3 1 1 1 1 1 | 1.2058824 |
| 2 3 1 1 1 2 2 5 1 2 1 1 1 1 1 2 1 2 1 1 1 1 3 2 2 1 1 1 1 3 2 1 1 1 1 | 1.5588235 |
| 1 2 1 1 2 2 1 1 1 1 1 1 2 2 4 2 1 1 1 1 1 1 1 2 2 1 1 1 1 3 2 1 1 1 1 | 1.4117647 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 2 1 1 1 1 1 3 1 1 1 1 1 | 1.1470588 |
| 1 4 1 1 1 1 1 1 1 3 1 1 2 1 1 1 1 1 1 1 1 1 1 1 3 1 1 2 1 1 2 1 1 1 1 | 1.2941176 |
| 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 3 1 1 1 1 1 | 1.1470588 |
| 1 2 1 2 2 3 1 2 1 1 1 3 2 1 2 1 1 1 1 1 2 1 1 3 3 2 1 1 2 4 1 1 1 1 1 | 1.5882353 |
| 1 5 1 2 1 1 1 1 | 1.1470588 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 3 2 1 1 1 1 1 1 1 1 1 | 1.1176471 |

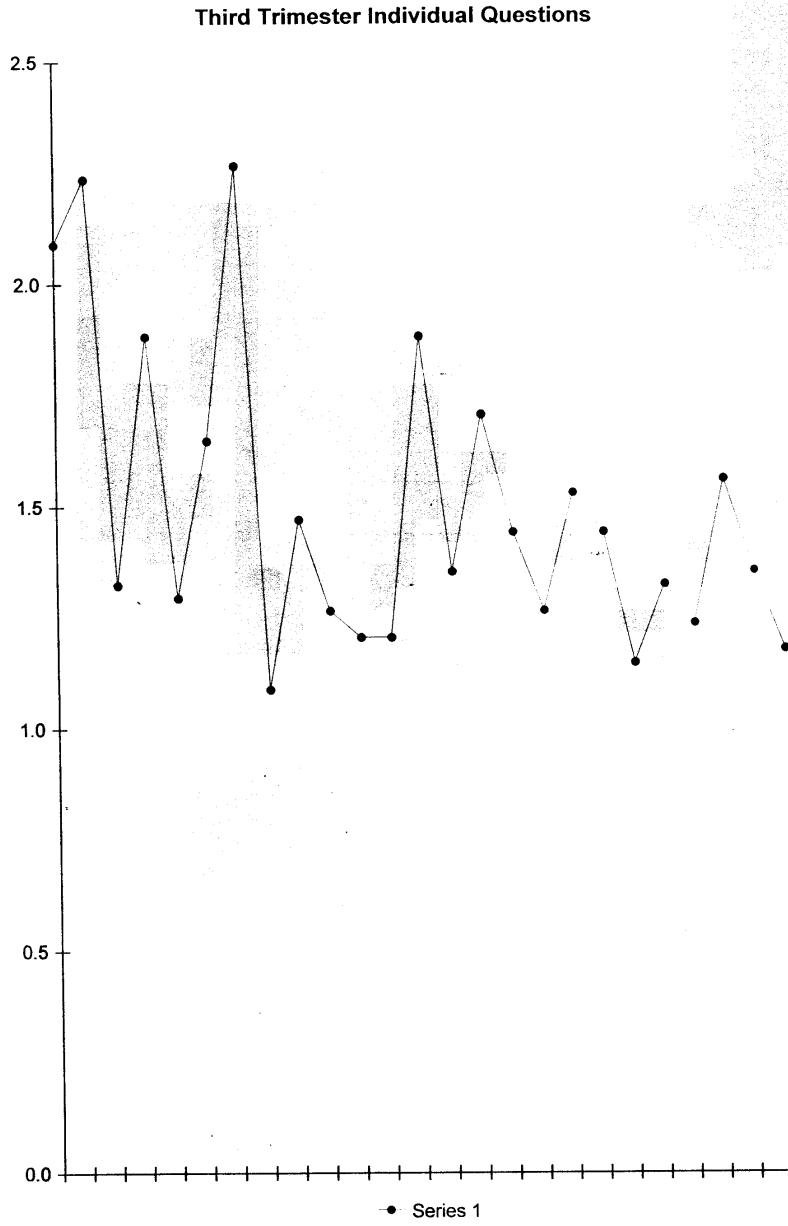




Second Trimester Individual Questions



| | |
|---|-----------|
| 2 1 1 2 1 2 2 2 5 2 2 3 2 2 3 2 3 2 2 2 1 2 2 3 2 1 1 3 2 3 3 2 2 1 | 2.0882353 |
| 3 3 1 2 1 3 2 2 2 2 4 2 2 3 2 2 2 3 3 1 3 2 3 3 1 2 3 2 3 3 2 1 1 | 2.2352941 |
| 2 3 1 1 1 2 1 1 1 1 1 2 1 1 3 1 1 1 1 1 2 1 1 2 1 1 1 1 1 3 1 1 1 1 | 1.3235294 |
| 1 3 1 2 1 2 2 2 1 1 2 3 2 2 1 2 2 1 3 2 2 2 2 3 2 1 1 3 2 3 3 1 2 1 | 1.8823529 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 4 1 1 1 1 1 2 2 1 1 5 | 1.2941176 |
| 2 2 1 2 1 1 2 2 1 2 1 2 1 2 2 2 1 2 1 2 2 2 1 3 2 1 1 1 2 3 1 1 2 2 | 1.6470588 |
| 3 1 1 2 5 2 1 1 5 2 1 2 1 2 3 3 1 5 2 2 3 2 2 4 3 1 2 1 1 2 3 1 2 5 | 2.2647059 |
| 1 1 1 1 1 2 1 2 1 1 2 | 1.0882353 |
| 2 1 1 1 2 1 2 1 1 1 1 2 1 2 1 2 2 2 1 1 1 1 2 4 2 1 1 1 1 3 2 1 1 1 | 1.4705882 |
| 2 3 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 3 2 1 1 2 | 1.2647059 |
| 2 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 2 1 1 2 | 1.2058824 |
| 2 1 1 1 1 2 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 2 | 1.2058824 |
| 1 3 1 2 1 2 1 4 1 4 1 1 1 1 1 1 4 1 5 3 2 3 1 2 3 1 2 1 1 2 4 1 1 1 1 | 1.8823529 |
| 2 1 1 1 1 3 1 1 1 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 3 1 1 2 | 1.3529412 |
| 2 4 1 3 3 1 1 3 1 2 1 1 1 1 1 3 1 1 2 1 3 1 1 4 1 1 1 3 1 3 2 1 1 1 1 | 1.7058824 |
| 2 1 1 3 2 1 2 1 1 1 1 1 1 1 1 1 2 2 2 1 1 1 2 3 1 1 1 1 2 3 2 1 1 1 1 | 1.4411765 |
| 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 3 1 1 1 1 1 3 2 1 1 1 | 1.2647059 |
| 1 3 1 2 1 1 1 3 1 2 1 1 1 2 3 2 2 1 1 1 1 1 1 3 3 1 1 1 1 2 2 1 2 1 | 1.5294118 |
| 1 1 1 2 2 2 1 1 1 2 1 2 1 2 1 1 2 1 1 2 1 2 2 1 1 1 3 1 3 2 1 1 1 1 | 1.4411765 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 1 3 1 1 1 1 1 2 1 1 1 1 | 1.1470588 |
| 1 2 1 3 1 2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 2 1 1 1 1 3 1 1 1 1 | 1.3235294 |
| 1 2 1 3 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 2 1 1 1 2 | 1.2352941 |
| 1 3 1 3 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 2 1 1 2 1 3 2 1 1 2 2 5 2 1 1 2 | 1.5588235 |
| 1 4 1 3 1 2 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 3 2 1 1 1 1 1 3 1 1 1 1 | 1.3529412 |
| 1 1 1 4 1 3 2 1 1 1 1 1 1 1 1 1 | 1.1764706 |



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 |

Discussion

The results of this study do not support the hypothesis that first time expectant fathers show an increase in anxiety, and/or that the CAS is not sensitive enough to measure that increase. The results show that over the length of a woman's pregnancy, the father does not show a significant increase in anxiety. This author believes that the CAS is sensitive enough to measure increased anxiety over a period of time, but it didn't happen during this study. There are a few reasons that might explain this result. The first reason is population size. A larger N would yield more statistically significant results. This author also believes that the area from which the subjects were chosen was a problem. A more diverse population could also increase the significance of the data. Finally, another reason that the data was not valid is because of the attitude of the participants. Throughout the testing most of the participants seemed to have a lack of interest, and also made comments about the length of the testing sessions. This lack of motivation could have had an effect on the results.

Future research should use a larger N, recruit a more diverse population, and use some type of incentive to keep the participants interested in the study. It is this author's opinion that this future research will find that men do have an increase in anxiety over the term of their wife's pregnancy and that the CAS is sensitive enough to measure that change.

References

Brown, M. A. (1986). Social Support, Stress, and Health: A Comparison of Expectant Mothers and Fathers. *Nurs. Res.*, 35(2), 72-76.

Clinton, J. F. (1987). Physical and Emotional Responses of Expectant Fathers Throughout Pregnancy and Early Postpartum Period. *Int. J. Nurs. Stud.*, 24, 59-68.

Jordan, P L. (1990). Laboring for Relevance: Expectant and New Fatherhood. *Nurs Res.*, 39 (1), 11.

May, K. A. (1992, April). Factors Contributing to First-Time Fathers' Readiness for Fatherhood: An Exploratory Study. *Family Relations*, July, 352-361.

Morse, Carol. (1999). Study Shows Fathers Show an increase in depression. *Australian Nursing Journal*, 6 (9), 13, 1/2p.

Osofsky, H. (1992). Expectant and New Fatherhood as a Developmental Crisis. *Bull Menninger Clin.*, May, 209-230.

Shapiro, J. L., (1993). When Men are Pregnant. New York: Delta.

Strickland, O. L. (1987). The Occurrence of Symptoms in Expectant Fathers. *Nurs. Res.*, 36, 184-189.

Trethowan, W. H., & Conlon, M. F. (1965). The Couvade Syndrome. British Journal of Psychiatry, 111, 57-66.