INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.

2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.
Horowitz, Sidney Stuart

EXPECTANT FATHERHOOD: AN EXPERIMENTAL COMPARISON OF TRAINING PROGRAMS FOR ANTICIPATORY FATHERS

The Ohio State University

Ph.D. 1982

University Microfilms International

Copyright 1982 by Horowitz, Sidney Stuart

All Rights Reserved
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ___.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages _____
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _______ lacking when material received, and not available from school or author.
12. Page(s) _______ seem to be missing in numbering only as text follows.
13. Two pages numbered _______. Text follows.
14. Curling and wrinkled pages _____
15. Other ____________________________________________________________

University Microfilms International
EXPECTANT FATHERHOOD: AN EXPERIMENTAL COMPARISON OF TRAINING PROGRAMS FOR ANTICIPATORY FATHERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Sidney S. Horowitz, B.A., M.S.

* * * * *

The Ohio State University

1982

Reading Committee:

Andrew Schwebel, Ph.D.
J. Dennis Nolan, Ph.D.
Beverly Thorn-Gray, Ph.D.

Approved By

Andrew Schwebel
Adviser
Department of Psychology
Dedicated to the memory of Sol J. Horowitz, my father; and, to Andy Lee Deutsch-Horowitz, my son.
ACKNOWLEDGEMENTS

The author wishes to express appreciation to those people who have been helpful in the process of completion of this project. To Andrew Schwebel, Ph.D., advisor, chairperson, colleague and friend, for all of his assistance and encouragement. To J. Denny Nolan, Ph.D., and Beverly Thorn-Gray, Ph.D., for being on the reading committee.

Gratitude is expressed to the Department of Psychology at the Ohio State University for their financial support of this study.

Acknowledgement is made of the assistance offered by the administrations of St. Mary's Hospital, and Yale-New Haven Hospital for their cooperation in the collection of the data. Appreciation is expressed to their nursing staff, especially Peggy Bauby, R.N., Marilyn Hirsch, R.N., and Louise Niesebechi, R.N., for their interest and help.

To my wife, Gladys Deutsch, for her incredible support, understanding, and encouragement through this long process.

To Ms. Patti Watson, for her warmth and friendship, and her assistance in the preparation of this manuscript.

To all the expectant fathers who were willing to share their experiences with me in this project.
April 17, 1949 ............... Born - New York City.

1971 ...................... B.A. (Psychology), State University of New York at Binghamton.

1972 ...................... Drug Abuse Specialist, New York City Addiction Services Agency.

1973 ...................... Research Assistant, Community Medicine Department, Mt. Sinai Hospital, New York City.

1974 ...................... M.S. (Social Research), City University of New York: Hunter College, New York City.


1976-1978 ................ Graduate Teaching Assistant, Department of Clinical Psychology, Ohio State University, Columbus, Ohio.

1978-1979 ................ Graduate Teaching Associate, Department of Clinical Psychology, Ohio State University, Columbus, Ohio.

1979-1980 ................ Clinical Psychology Associate (Internship), West Haven V.A. Medical Center, Connecticut.

1980-Present ............ Director, New Directions: Waterbury Chronic Juvenile Offender Program, Waterbury, Connecticut.

1981-Present ............ Consultant, Waterbury Regional Department of Pediatrics.

1981-Present ............ Field Instructor, University of Connecticut

Publications and Presentations


"Expectant Fatherhood: Psychological Implications of Becoming a Father," presented to the Waterbury Regional Department of Pediatrics; Connecticut, 1981.

"A Plan to Aid the Senior Residents in CDA District Eight: The Final Report," with Andrew Schwebel and Jaques Kaswan; submitted to the Department of Development, The Columbus Foundation, and The Ohio Department of Mental Health and Retardation; February, 1979.


# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION.</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS.</td>
<td>iii</td>
</tr>
<tr>
<td>VITA.</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES.</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES.</td>
<td>x</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. Review of the Literature</td>
<td>1</td>
</tr>
<tr>
<td>The Role of the Father: Historical Perspective</td>
<td>1</td>
</tr>
<tr>
<td>Pregnancy as a Developmental Phenomenon</td>
<td>9</td>
</tr>
<tr>
<td>The Couvade Phenomenon</td>
<td>13</td>
</tr>
<tr>
<td>Ritual Couvade</td>
<td>13</td>
</tr>
<tr>
<td>Couvade Syndrome</td>
<td>16</td>
</tr>
<tr>
<td>Couvade: Conclusion</td>
<td>22</td>
</tr>
<tr>
<td>Empirical Studies of Expectant Fatherhood</td>
<td>23</td>
</tr>
<tr>
<td>Violence Committed by Expectant Fathers</td>
<td>24</td>
</tr>
<tr>
<td>Sexual Frustration</td>
<td>25</td>
</tr>
<tr>
<td>Family Transition and Domestic Violence</td>
<td>27</td>
</tr>
<tr>
<td>Transition to Parenthood: Crisis or Not?</td>
<td>29</td>
</tr>
<tr>
<td>Summary</td>
<td>34</td>
</tr>
<tr>
<td>The Family Life Cycle</td>
<td>35</td>
</tr>
<tr>
<td>Stage-theory Model</td>
<td>35</td>
</tr>
<tr>
<td>Life Events Model</td>
<td>36</td>
</tr>
<tr>
<td>Assessment of Expectant Father's Support Groups</td>
<td>38</td>
</tr>
<tr>
<td>Rationale for Dissertation Research</td>
<td>42</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>45</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>45</td>
</tr>
<tr>
<td>II. Methodology.</td>
<td>48</td>
</tr>
<tr>
<td>Subjects</td>
<td>48</td>
</tr>
<tr>
<td>Design</td>
<td>49</td>
</tr>
</tbody>
</table>
III. Results ................................................................. 63

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Introductory Comments</td>
<td>63</td>
</tr>
<tr>
<td>Lag-1</td>
<td>63</td>
</tr>
<tr>
<td>Multiple Regression/Path Analysis</td>
<td>63</td>
</tr>
<tr>
<td>Cronbach's Alpha</td>
<td>65</td>
</tr>
<tr>
<td>Statistically Testing the Differences Between Groups</td>
<td>65</td>
</tr>
<tr>
<td>Sample Size</td>
<td>66</td>
</tr>
<tr>
<td>Identification of Groups</td>
<td>66</td>
</tr>
<tr>
<td>Results of the Analysis of the Major Dependent Measures</td>
<td>66</td>
</tr>
<tr>
<td>State Anxiety Measures</td>
<td>67</td>
</tr>
<tr>
<td>State Anger Measures</td>
<td>71</td>
</tr>
<tr>
<td>State Curiosity Measures</td>
<td>74</td>
</tr>
<tr>
<td>Marital Conflict Measures</td>
<td>79</td>
</tr>
<tr>
<td>Irritability and Tension Measures</td>
<td>81</td>
</tr>
<tr>
<td>Desire for Pregnancy Scales</td>
<td>85</td>
</tr>
<tr>
<td>Couvade Symptoms Scales</td>
<td>88</td>
</tr>
<tr>
<td>Baby Involvement Indices</td>
<td>91</td>
</tr>
<tr>
<td>Self/Goal Discrepancy Measures</td>
<td>95</td>
</tr>
<tr>
<td>Self/Other Discrepancy Measures</td>
<td>99</td>
</tr>
<tr>
<td>Summary of the Results</td>
<td>102</td>
</tr>
</tbody>
</table>

IV. Discussion ........................................................................ 106

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>106</td>
</tr>
<tr>
<td>Discussion of Specific Hypotheses</td>
<td>107</td>
</tr>
<tr>
<td>State Anxiety.</td>
<td>107</td>
</tr>
<tr>
<td>State Anger.</td>
<td>109</td>
</tr>
<tr>
<td>State Curiosity.</td>
<td>110</td>
</tr>
<tr>
<td>Marital Conflict</td>
<td>111</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Irritability and Tension</td>
<td>112</td>
</tr>
<tr>
<td>Desire for Pregnancy</td>
<td>113</td>
</tr>
<tr>
<td>Couvade Symptomology</td>
<td>114</td>
</tr>
<tr>
<td>Baby Involvement</td>
<td>115</td>
</tr>
<tr>
<td>Self/Goal and Self/Other Discrepancy</td>
<td>117</td>
</tr>
<tr>
<td><strong>The Role of Mediating and Antecedent Factors in Expectant Fatherhood</strong></td>
<td>119</td>
</tr>
<tr>
<td>Problems and Limitations</td>
<td>121</td>
</tr>
<tr>
<td>Soliciting Subjects for the Study</td>
<td>121</td>
</tr>
<tr>
<td>Generalizability of the Results</td>
<td>122</td>
</tr>
<tr>
<td>Lack of Input from Spouse</td>
<td>123</td>
</tr>
<tr>
<td>Training and Assessment Issues</td>
<td>123</td>
</tr>
<tr>
<td>Suggestions for Psychoeducational Groups for Expectant Fathers</td>
<td>124</td>
</tr>
</tbody>
</table>

**APPENDICES**

A. Psychoanalytic Perspective on Expectant Fatherhood                   | 126  |
B. Expectant Fatherhood Questionnaire                                  | 138  |
C. Labor Chart                                                          | 163  |
D. Glossary - Handout for Group 2                                       | 166  |
E. Interpreting Path Analysis Figures                                  | 180  |
F. Statistical Definitions and Application                              | 183  |

**BIBLIOGRAPHY**                                                        | 186  |
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Means and Standard Deviations Obtained by the Experimental Group for the Dependent Measures Over Time</td>
<td>68</td>
</tr>
<tr>
<td>2.</td>
<td>Means and Standard Deviations Obtained by Control Group 2 for the Dependent Measures Over Time</td>
<td>69</td>
</tr>
<tr>
<td>3.</td>
<td>Means and Standard Deviations Obtained by Control Group 1 for the Dependent Measures Over Time</td>
<td>70</td>
</tr>
<tr>
<td>4.</td>
<td>The Influence of Treatment Groups on State Anxiety Measures</td>
<td>72</td>
</tr>
<tr>
<td>5.</td>
<td>The Influence of Treatment Groups on State Anger Measures</td>
<td>75</td>
</tr>
<tr>
<td>6.</td>
<td>The Influence of Treatment Groups on State Curiosity Measures</td>
<td>77</td>
</tr>
<tr>
<td>7.</td>
<td>The Influence of Treatment Groups on Marital Conflict Measures</td>
<td>80</td>
</tr>
<tr>
<td>8.</td>
<td>The Influence of Treatment Groups on Irritability and Tension Measures</td>
<td>82</td>
</tr>
<tr>
<td>9.</td>
<td>The Influence of Treatment Groups on Desire for Pregnancy Measures</td>
<td>86</td>
</tr>
<tr>
<td>10.</td>
<td>The Influence of Treatment Groups on Couvade Symptomology</td>
<td>89</td>
</tr>
<tr>
<td>11.</td>
<td>The Influence of Treatment Groups on Baby Involvement Measures</td>
<td>93</td>
</tr>
<tr>
<td>12.</td>
<td>The Influence of Treatment Groups on Self/Goal Discrepancies</td>
<td>96</td>
</tr>
<tr>
<td>13.</td>
<td>The Influence of Treatment Groups on Self/Other Discrepancies</td>
<td>100</td>
</tr>
<tr>
<td>14.</td>
<td>Summary of Results</td>
<td>103</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>&quot;Pregnancy&quot; Condition</td>
<td>49</td>
</tr>
<tr>
<td>2.</td>
<td>A Path Model of State Anxiety</td>
<td>73</td>
</tr>
<tr>
<td>3.</td>
<td>A Path Model of State Anger</td>
<td>76</td>
</tr>
<tr>
<td>4.</td>
<td>A Path Model of State Curiosity</td>
<td>78</td>
</tr>
<tr>
<td>5.</td>
<td>A Path Model of Marital Conflict</td>
<td>83</td>
</tr>
<tr>
<td>6.</td>
<td>A Path Model of Irritability and Tension</td>
<td>84</td>
</tr>
<tr>
<td>7.</td>
<td>A Path Model of Desire for Pregnancy</td>
<td>87</td>
</tr>
<tr>
<td>8.</td>
<td>A Path Model of Couvade Symptoms</td>
<td>90</td>
</tr>
<tr>
<td>9.</td>
<td>A Path Model of Baby Involvement</td>
<td>94</td>
</tr>
<tr>
<td>10.</td>
<td>A Path Model of Self/Goal Discrepancies</td>
<td>97</td>
</tr>
<tr>
<td>11.</td>
<td>A Path Model of Self/Other Discrepancies</td>
<td>101</td>
</tr>
</tbody>
</table>
CHAPTER I
REVIEW OF LITERATURE

The Role of the Father: Historical Perspective

Today society holds the father who shares time with his children and the child care chores with his spouse in high regard. Not long ago, he would have been accused of "playing the woman's part" or at least doing things other than those prescribed by the father's role. The role of the father has been and is changing. In Western society the ideal nineteenth-century father was self-reliant, strong, resolute, courageous, honest, hard working, and capable of filling the role of breadwinner (Filene, 1975). The father's home was his castle, and he was both respected and feared by his children; in many ways he functioned as absolute ruler. Society was structured so that the father often worked as a skilled tradesman, farmer, or shopkeeper at or near his home; consequently, it was easy for the children to identify with him and his role. If the father operated a tinsmith shop at the back of the yard, the children could watch him work and conduct business so that they knew who he was and what skills he had, and thus they understood his importance to them.

Although virtually all physical aspects of child care may have been left to the mother, the father often determined what was to become of the lives of both mother and children, ruling the roost
often with an iron hand (Robischon & Scott, 1969).

Centuries of habitual patriarchy created a father whose role was fixed and unquestioned. The father around the turn of the 20th century was seen as the disciplinarian, the value giver, whose strong will was unchallenged and who had little interest, let alone involvement in the care of his children. His power was supreme. A family ate well or badly, dressed well or badly, according to how cleverly the father could push his way ahead in the world: his was the sole income. If he deserted his family, they starved. They learned only the lessons he could pay for. If he could not afford the doctor's bills, they stayed sick or died. Father's position in the community, his success in both business and in his social life, conferred on his wife and his children their only prestige. A woman was identified as Mrs. Jones, Mr. Jones' daughter, or the merchant's wife. One of the wife's tasks was to bear his children, so that they might carry his name and inherit his property. Father's judgment on moral and social questions made him priest as well as king inside his household, and as Green (1976) adds, this role was underlined in those homes where the servants and the family assembled each morning to be led by him through prayers beginning with "Our Father..."

As characteristic of family life as it was a hundred years ago, only a few remains of that realm of paternalism (Lamb, 1981) persist today. The father's role has not only changed, in many cases it has become quite invisible. Every year an increasing number of families make do without the father at all. Well over six million children
in the United States live in fatherless families, over 10 percent of the total child population (Biller & Merideth, 1974).

The 19th century was typical of a substantial period of recorded history of mankind. For most people pregnancy and childbirth were largely a matter of concern only for the female. It was a matter of her pregnancy and her birth. A sense of adulation and esteem was associated with her pregnancy. Her pregnancy was a visible confirmation of her role in society--the bearer and carrier of children. Concomitantly, the role of the male through much of the pregnancy period was one of a distanced spectator. He made his contribution (impregnation was the confirmation of his masculinity), and, he had special obligations to protect and comfort the woman as she "performed her duty." However, the feelings, thoughts and experiences of the male were largely ignored by his family and community, or at least attracted far less attention than the feelings, thoughts and experiences of the expectant mother.

Childbirth was accepted as part of the life cycle, usually occurring at home with the assistance of a midwife, woman relative, or the family physician. The father could choose to wait in the house with male friends or relatives or to go about his work at or near the home until the baby's arrival was announced. At times he would be needed to boil water, build a fire, or generally help prepare the birth environment. But whether or not he was active in the physical preparations, the father remained only distantly although often proudly interested in the pregnancy and birth (Green, 1976).
The father's absolute power in the home began to decline as social reforms swept over society in the United States in the early 1900's and women's rights became an issue. Trade unions and democratic developments proliferated, and mothers and children began to make demands for democracy in the home, speaking openly of partnership in the home and of equality of the sexes. As the voices for equality became louder, the father began losing his power. Unfortunately, the attack was so strong that in denying paternalism it also denied fatherhood (Biller & Merideth, 1975); i.e., the positive and proactive aspects of fathering were diminished along with its negative aspects.

Industrialization heralded the demise of the small shop located on or near the homestead. Centrally located factories drew men from their workplace. The process of urbanization began. A father found himself now working a long distance from home and working long hours, often from sunrise to sunset. The father's domain became his world of work. As the father spent more and more time away from the home, many traditional functions of the father were assumed by the mother, and thus the mother's domain became the home and the children. Increasingly, men were measured not by what they did or how well they did it, but by how much money they earned. A father became valuable in society when he became a good (financial) provider (Hines, 1971). When World War II brought women into the work force, where many stayed, the cultural sex roles in the United States changed rapidly. This new trend of equality of the sexes eliminated much of the "authority" the father had left.
Not only did work take the fathers away from the home and previous roles, but institutions and professional became more involved in childbirth and childrearing. The setting for childbirth began to move into hospitals for those who could afford them, and now instead of waiting in his parlor or his shop for his child to be born, the father found himself waiting in a hospital's Father's waiting room. Large cities were building beautiful modern women's hospitals with well equipped units, where the mystique surrounding birth isolate the father even more (Filene, 1975).

As has been pointed out, the sex roles of men and women have been tightly drawn and rigid. Since many men in our society have been raised in an atmosphere in which the role of the father no longer includes nurturing and non-financial providership, most people think it unmanly for males to maintain much of a sense of emotionality at all. In fact, most people react with embarrassment or disgust at a man's inability to "control himself" (Goldberg, 1976).

According to the cultural norm a woman should be soft, passive, tender, loving, and able to respond emotionally. To be a woman is to be nurturing—that is, motherly. A man, on the other hand, has had to repress his feelings of tenderness and gentleness, causing him to deemphasize his role as father, thus making fatherhood a social obligation (Josselyn, 1964), and motherhood a biological obligation. These strict sex-role definitions have helped to exclude men from the women's wards of our hospitals (Sasmor, 1979), where most childbearing occurs in our society.
It is difficult to chart the history of "father revival." In the 1950's, English and Foster spoke to this issue, and produced a book entitled *Fathers are Parents Too* (1951). They assert that men have been trying on many roles since discarding their autocratic one. They state that the patriarchal "father" has been supplanted in popular terminology by the effete "papa," the saccharine "daddy," the fraternal "dad," the ineffectual "pop," and the frankly scornful "old man." English and Foster contend that none of the roles seem worthy of the father's true value to his family and society. "In stepping down as dictator he has abdicated to a pretender"; i.e., he is without a true role in the family. Although many of the insights they offer in their volume about the potential involvements of men in their families would be well accepted today, they include a generalized philosophy that states men need to be more than involved, they need to be in control. "Plainly this nation needs father in the armchair at the head of the table again..." (p. xi).

Fasteau (1975) in *The Male Machine*, contends also that men are often in the role of "pretender," i.e., they are powerless to fulfill their role position; but he does not see the answer in men (re)gaining control of their families. Rather, he views men as having caught themselves in a web of sex role stereotypes, and the way out is by taking control of themselves, towards a goal of androgyny. Fasteau notes that there are many resistances that men have in terms of being a father. He states: "Being a father, in the sense of having sired and having children, is part of the masculine image; but fathering, the actual care of children, is not"
The father has lost his control that he had from the Victorian Era, and he has replaced it with a equally distant stance.

Biller and Merideth (1974) have stated that the principle danger to fatherhood today, and to the American family for that matter, is that fathers do not have the vital sense of "father power" that they have had in the past. Because of a host of pressures from society, the father has lost the confidence that he is naturally important to his children—that he has the power to affect children, guide them, help them grow. He is not confident that fatherhood is a basic part of being masculine and a legitimate focus of his life. Biller and Merideth do not suggest that "father power" means a return to the tyrannical or paternalistic power of the Victorian era. Rather they are describing the pervasive, profound power that is part of every father's nature as a parent. They state:

*Paternalism is the use of masculine power to shape a person into something the paternalist thinks he should be, regardless of the wants of the person. Father power is the use of your profound, natural influence to help your child become what he wants to be. You not only teach your child what he will need to know to prosper in the world, but you also give him an important sense of independence from you—his own sense of power.* (p. 7)

The fact that certain couples today are questioning whether they want to have children or not, has raised motivational issues surrounding the why's of fatherhood. Goldberg (1976), in his book entitled *The Hazards of Being Male*, identifies nine factors which may "trap" a man into fatherhood: it may be "a public affirmation of his potency and manhood; to please mommy; or career and image reasons;
it may be to prove to his wife that he loves her and is committed to the relationship; or the reasons may be security, or the fantasy of immortality, something for my old age; and finally, children to serve as indirect aggression targets or relieving self hate."

Goldberg sees all the above reasons as fantasy-oriented and self-destructive motivations for becoming a father, and feels that the only "right" reason to father a child is that the "process of being a father excites him and is seen as enriching, fulfilling and joyful, and the realities of his life allow him to participate fully."

Goldberg (1976) states:

It is time for the male to totally reevaluate his orientation to marriage and fatherhood. The female has set the stage and facilitated the process by allowing herself to emerge honestly as a person—refusing any longer to confine her role simply to that of devoted wife and mother. She even has had the courage to disavow the notion of the "maternal instinct."

It is time for the male to own up likewise. (p. 156)

Helpful in the process of women reevaluating their roles has been the childbirth education movement. This too has provided structure and impetus for men to begin an evaluation of his role in pregnancy and parenthood.

Childbirth education has had a place in the history of men. Sasmor (1979) reports that in 1908 the first organized childbirth education class for women was begun by the American National Red Cross. In 1938 the Maternity center Association opened its doors to males as well as females, but "few men ever attended." Sasmor (1979) asserts that it was in the late 1950's when men started
becoming involved in the psychoprophylaxis method. It was not until 1971 with the formation of the American Society of Childbirth Educators, that formal emphasis on the expectant father's presence was given much attention. As this perspective slowly emerged, the proposition became "our pregnancy and birth" as contrasted with "her pregnancy and birth." With the advent of the Lamaze Method and the Prepared Natural Childbirth Movement, the man became more intimately involved in the pregnancy and childbirth experience. He attended pregnancy and childbirth classes, and watched childbirth films. He became an aid or "coach" in the process, helping with breathing exercises, listening to fetal heartbeats, learning to comfort and cope with the experience of the woman. There is no question that this movement involved males more closely with the pregnancy and birth experience. For those men who participated, there is a very real sense of "our pregnancy and birth" which represents a substantial departure from the traditional involvement of the male. Finally, it is important to acknowledge that the advent of the Lamaze Method stimulated research and writing about the male role.

Pregnancy as a Developmental Phenomenon

There is a recent interest in examining and understanding the post adolescent periods of life from a developmental perspective. In particular, emphasis has been given to certain age related stages and the transitional periods between such stages (Gould, 1978; Levinson, 1978). It is proposed here that pregnancy can reasonably be viewed as such as a developmental phase; one that marks a major or critical transition point in the life of an individual.
One of the most consistent as well as one of the earliest perspectives promulgating such a view is that of psychoanalysis. The psychoanalytic perspective has provided a foundation, albeit controversial, with which to understand the psycho-historical orientation of pregnancy and childbirth phenomena. Much of the basis for analytic theory rests on what is termed the psychobiological maturation of women. Whereas this approach ultimately may or may not be applicable to the understanding of the experience of fatherhood, it does provide a frame of reference (e.g., the father as provider), on which theorists and researchers can build. The reader is referred to Appendix A for a general review of the psychoanalytic material pertaining to expectant fatherhood. However it is necessary to review here the work of Eric Erikson, a psychoanalytically oriented theoretician, who has contributed heavily to present knowledge of adult development as it pertains to parenthood. According to Erikson (1956), the socialization process consists of eight phases—the "eight stages of man." Each stage is regarded by Erikson as a "psychological crisis," which arises and demands resolution before the next stage can be satisfactorily negotiated. His eight stages of development are as follows:

1. Learning trust versus mistrust (Birth to about two years old).
2. Learning autonomy versus shame (1 1/2 to about 4 years old).
3. Learning initiative versus guilt (3 1/2 to about 6 years old).
4. Industry versus inferiority (6 to about 14 years old).
5. Learning identity versus identity diffusion (13 to about 20 years old).
8. Integrity versus despair (mature adulthood).

In Erikson's theory of the epigenesis of identity, it is the seventh stage which largely revolves around parenthood. Generativity concerns establishing the next generation, both in the sense of marriage and parenthood, and in the sense of working productively and creatively. Fortified by intimacy, the adult seeks fulfillment through the nurturance and guidance of his progeny (Erikson, 1950, 1959). The developmental alternative to generativity is stagnation—a turning inward; a state of boredom and interpersonal impoverishment to the point where the individual often indulges himself in excessive self-love and self-preoccupation (Erikson, 1968). Whether one wants or has children, as well as the converse, does not insure generativity or stagnation respectively. Nevertheless, parenthood represents the more normative event which initiates this stage. Erikson portrays this stage, as well as the others, as a developmental crisis, not to connote the threat of a catastrophe, but rather as "a turning point, a crucial period of increased vulnerability and heightened potential, and therefore, the ontogenetic source of generational strength and maladjustment" (1968, p. 96).

The thesis that crises are turning points in an individual's life and that these points are often rooted in the course of natural biological development is perhaps most strongly exemplified in the
position of Bibring (1959). Although inaugurated by the biological event of pregnancy, the crisis it provokes continue parturition and is evident in all areas: emotional, physical and social. Bibring further contends that this crisis is in many ways analogous to the developmental crisis of the adolescent. Presumably all expectant mothers, and fathers, are affected no matter what their prior psychic state. The notion that the crisis is initiated by the biological advent of pregnancy makes it a maturational crisis with the same status and developmental significance as puberty and menopause (Bibring, 1959; Bibring, Dwyer, Huntington, & Valenstein, 1961). Like other theorists, Bibring points out that the "acute disequilibria" inherent in the maturational crisis affords the individual the potential for achieving new maturational steps in psychic functioning (Bibring, 1959). Pregnancy provokes a substantial degree of dissolution in the adult woman's psychological organization resulting in a loosening of the defenses and eventually a change in self image with new goals and functions in life. Pregnancy is a natural turning point in the life of a woman (Bibring, 1959) and a man.

The analytic case study research, supported by a developmental perspective, suggests that psychological growth during the pregnancy phase may elicit in the men and women a crisis or "working through" of what is termed previously not integrated material. Pregnancy may also be a period of heightened dependency in the man (Bibring, 1959; Benedek, 1970); a time when he needs mothering for himself, but the wife, self-absorbed and non-responsive to his needs, may only include her husband in the pregnancy through a recital of her pains.
and her fatigue, through her descriptions of her urination, constipation, morning sickness, leg cramps, and contractions. He may respond to her complaints or retreat from her demands, but through all of it he feels very lost (Ackerman, 1958). In his confusion, he may consciously or unconsciously seek out ways to adapt to his overwhelming feelings. The couvade phenomenon is one such adaptation.

The Couvade Phenomenon

Ritual Couvade

"Couvade" is a word derived from the French verb couver, which means to brood or hatch. Many customs practiced in other cultures fall under the general heading of ritual couvade phenomena. The practice has been referred to as far back as in Greek mythology (e.g., Diodorus Siculus in 60 B.C.). Marco Polo also saw instances of it in his travels in Chinese Turkestan in the 13th century (Dawson, 1929). (The term itself was first used in 1865, by Taylor, an anthropologist, to designate a series of related behaviors involving regulations for the father during the period around childbirth.)

In the ritual couvade the father is frequently required to observe certain rest patterns, dietary restrictions, and work prohibitions. It is a magical practice common to many primitive peoples (Driver, 1969).

Studies on the expectant father in other societies provide a fascinating glimpse into some of the ways fathers do experience pregnancy and childbirth. In some tribes, the man and wife must both avoid eating the flesh of particular animals whose young are born
blind, for fear that the child will also be born blind. A husband in the Ifage tribe in the Philippines, is not allowed to cut or kill anything during his wife's pregnancy. This restriction extends to such essentials as cutting wood, resulting in his relatives helping him and thus acknowledging his special status. Among the Chaorati, a tribe in South America, the husband must keep to his hammock during the several days after the delivery. At the time of birth, he mimics the labor and goes through the motions of delivery. The Kurtachi fathers in the Pacific Islands must stop work and go into seclusion at the time of delivery. They are not permitted to eat certain foods, such as pig, fish or opossum, and are forbidden to lift anything heavy or touch a sharp object. After the fourth day, they are allowed to meet the infant and must give him a medicine which is supposed to make him strong (Coleman & Coleman, 1971).

Students of these customs, which stress imitation of the female, feel that they represent a form of sympathetic magic that is common in many non-literate cultures. The husband simulates his wife's childbirth or acts like her in the post partum period in the belief that evil spirits may be fooled into pursuing him, and so letting the mother and baby live unharmed. More sophisticated cultures may discount this idea as fantastic, and its attendant behavior as unnecessary, but the couvade phenomena have the important psychological side effects of helping a husband play an important part in pregnancy and childbirth, and of evolving into a father in the eyes of his wife and society. In addition, they help a man cope with the envy and competitiveness which he may feel at his wife's ability to
perform such a fundamental and unique act. Lastly, a man may also find a reasonable outlet for his own desire to take on something of the female role in life (Coleman & Coleman, 1971).

Coleman and Coleman cite that perhaps the most direct way for the father to participate in pregnancy has been found among the New Guinea tribespeople, who believe the child is nourished through intercourse. The couple is therefore compelled to have frequent intercourse in order to have a healthy baby. Child begetting is therefore considered an equally exhausting but enjoyable labor for the man as for the woman. The Zinacanteco Indians in Mexico employ the father in a more pragmatic way: he must pull on a cinch around his wife's waist to exert a downward pressure on the uterus and thus help expel the child. In other cultures the father performs the more soothing function of having his wife recline against him during delivery. But among the Sirona in Bolivia, the father must go off as soon as the labor begins, and must name the child after the first animal he kills. The mother hopes for a speedy kill, since the cutting of the cord must wait until the husband returns, when he will perform the operation.

The question may be raised as to the relationship of couvade behaviors with postpartum behavior. If in a certain culture the biological father is to have no role in the raising of his child, there may be no need for him to have any role in the pregnancy or nurturing after its birth. There are some cultures where the father has even less of a role than in the United States, but with the advent of the "our birth" phenomena, e.g., Lamaze, there seems to
be an attempt to bring the father back into a participatory role at least at the birthing level.

Customs function most effectively when they are appropriately adapted to the society in which they are practiced (DeFleur et al., 1971). Some practices may seem bizarre only because of the primitive motives underlying them rather than because of the behavior itself. There is no obvious reason why a husband should not cut the umbilical cord of his own child and therefore actually participate in the physical separation of the infant from the mother. Couvade rituals may serve an important psychological function for the husband and wife. Perhaps our own rituals (or lack of rituals) for the expectant father are limiting a potentially rich experiential event, or causing harm to the individual and his family. Today's society may be failing to satisfy a man's psychological requirements at this phase of his life, or we may be establishing patterns of dependency which will inhibit the family from developing itself as a viable social unit.

Couvade Syndrome

Unlike the ritual Couvade, in the clinical phenomenon known as Couvade syndrome the expectant father does not deliberately "act out" his wife's pregnancy, but reacts to it by the unintentional acquisition of symptoms. These symptoms may be physical manifestations of the anxiety which the father experiences or perhaps a result of a conversion reaction. In either case, they may occur without any awareness on his part of the connection between his symptoms and his wife's condition (Trethowan, 1968).
Trethowan (1972) suggests that the Couvade syndrome may be regarded as analogous to, or a neurotic equivalent of, the ritual Couvade. He does not claim that all who suffer from the Couvade syndrome should be viewed as neurotic, but he feels that many clearly are. "While certain special factors may predispose a man to become unduly anxious during his wife's pregnancy or confinement, if he is not an unduly anxious man at other times, he cannot fairly be branded as neurotic in the wider sense" (Trethowan, 1972).

Trethowan and Conlon (1965) noted that researchers have generally ignored the Couvade syndrome, and collected data from 327 expectant males and a control was comprised of 220 married men matched for age, social and occupational class, whose wives had not been pregnant during the previous year. They found that the expectant fathers reported more symptoms than the controls although the difference between groups was not significant on any single measure. If the incidence of loss of appetite, nausea and sickness, and toothache, the three most frequently occurring symptoms, were combined, the difference between groups were highly significant. Other findings of interest included: a significant association between physical symptoms and anxiety; a significant association between the occurrence of physical complaints and psychiatric symptoms such as depression, tension, insomnia and irritability; and that "primiparous" males were no more likely to manifest symptoms than "multiparous" males.

In a later paper, Trethowan (1968) interpreted couvade-toothache by relating it to sympathetic magic, i.e., "expectant fathers develop
toothaches as a magical act in order to protect the teeth of their pregnant wives from damage" (p. 114); this is important to protect the pregnant woman from undue calcium strain. Subsequently, Trethowan (1972) described the clinical picture of the Couvade syndrome more fully. The five most common symptoms were: 1) Nausea and vomiting: These are the most common of all symptoms and while varying in severity, may affect as many as 1 in 5 expectant fathers. Dickens and Trethowan (1971) in a study of 90 pregnant primiparae, found that 17 husbands suffered from nausea and vomiting. 2) Alterations of Appetite: Of Dickens' and Trethowan's subjects, 6 men suffered from what seemed to be cravings. 3) Toothache: Twenty-five percent of the 1971 sample showed this symptom at some time or other during their wife's pregnancy compared with its occurrence in about 10% of the control group. The symptom was reported as persistent or transient (migrating from tooth to tooth) and sufferers have been known to demand extraction of perfectly sound teeth because of it (Trethowan, 1965). 4) Indigestion, Heartburn, Abdominal Pain, etc.: Backache and pain in the chest are frequently complained of, and may occur separately or together with abdominal pains. 5) Sympathy Pains: Sympathy or spurious labor pains are extremely common and usually occur in men on or about the time that their wives start labor (Trethowan, 1965). The symptom was commonly described as stomach ache, lower abdominal pain, or cramps, sometimes accompanied by diarrhea. It may be severe and can cause considerable distress, but characteristically it ceased as soon as childbirth was over. Trethowan (1972) also described other less common physical symptoms
which included nosebleeds, earache, swelling of the lips, cramps in 
the legs, skin rashes and boils, and abdominal swelling. These 
symptoms occurred at various times during the pregnancy and usually 
ceased following the birth of the child.

Gorer (1938), Hogbin (1943), McKennan (1959), Nydegger and 
Nydegger (1966), Raum (1940), and Munroe and Munroe (1971) looked 
to other societies where males have been found to experience symp­
toms during their wives' pregnancies. Munroe and Munroe (1971) 
prompted by reports of the high frequency of pregnancy-like symptoms 
in husbands of pregnant women, studied the phenomena from the stand­
point of its relationship to sexual identity. They conducted three 
studies in separate cultures: American, Black Carib males in British 
Honduras, and among Logoli males in Western Kenya. Their sample 
consisted of 200 white, predominantly lower-middle-class husbands of 
pregnant women. Clinical interviews determined that 41% of the men 
experienced physical symptoms which were not present prior to their 
wives' pregnancy. While there were no differences found between the 
symptom and non-symptom males on age, religion, number of children, 
or severity of wife's symptoms during pregnancy, the males who 
experienced symptoms had significantly less schooling than did males 
who did not experience symptoms (11.1 years versus 12.3 years, respec­
tively). From this population, thirty one males matched on educational 
level, who had experienced fairly severe symptoms and twenty-five 
males who had not experienced symptoms were selected. Five covert 
and overt measures (not described by the authors) were employed to 
test their hypotheses. Specifically the symptom-group males generally
displaying more female-like behavior on covert measures and more
defensively masculine behavior on overt measures. Furthermore, this
group reported more father-absence during their first 10 years.

It is interesting to note that similar results were obtained
among the Logoli and Carib males as well. Munroe and Munroe stated
in summary that "some areas (of behavior) are more likely than others
to be subject to defensive responses. Any behaviors which are rela-
tively public and explicitly sex-typed would be of this nature. On
the other hand, covert or implicitly sex-differentiated behaviors
might be expected to show female-like responses on the part of males
who have identified with the female role" (p. 12).

If the Couvade syndrome is viewed as a neurotic reaction with
somatic manifestations then the physical symptoms which affect expec-
tant fathers may be attributed to an anxiety state precipitated by
concern over their wives' pregnancies. In many cases the sufferer
perceives the relationship of his anxiety to his physical symptoms.
Trethowan (1972) noted that insight, however, usually does not bring
relief, although it may do so if initially absent and acquired at a
later juncture. There are those who, while they express concern over
their wives' pregnancies and at the same time experience a variety
of physical discomforts, are apparently unaware of any connection
between these events. In these cases, there is some degree of dis-
sociation. Trethowan suggested that there is a third category in
which the degree of dissociation is even more complete. This com-
prised those who develop sometimes quite severe and obviously related
symptoms but who, presumably due to repression and conversion, seem
apparently not to be at all anxious.

Curtis (1955), observing that his subjects were seldom aware that their symptoms were correlated with approaching parenthood, proposed that this "ignorance" could be partially explained by the fact that in American culture there is a "general silence" concerning expectant fatherhood, that is, the professional and popular literature have not modeled an openness about expectant fatherhood. This "silence," he pointed out, is in marked contrast to many primitive societies where the behavior of the expectant father is strictly ritualized. Curtis' position explains one essential difference between ritual Couvade and the Couvade Syndrome and why those with the Couvade syndrome, who may guess what the cause of their symptoms is, nevertheless tend to conceal its occurrence.

While the ritual Couvade can be explained as an act of sympathetic magic designed to 1) protect the mother and child from malign influences, and 2) to establish the paternity of the child, there has been no relatively simple explanation for the Couvade syndrome. The three most likely hypotheses for its occurrence are, first, that it is the outcome of ambivalence in which the symptoms which occur can be regarded as a reaction-formation against concealed or repressed hostile or sadistic wishes felt by a man towards his pregnant wife. Reik (1931) viewed the hostility of the husband towards the wife being enhanced by the superstitious fear which prohibited him from having sexual intercourse with her especially when her pregnancy was advanced. [Trethowan (1972) offered an alternate explanation for ambivalence or hostility. During pregnancy, the wife may become
more introspective and as a result may withdraw some of the affection she previously expressed towards her husband. As an extension of this, some husbands may tend to regard their offspring, even before birth, a rival for their wives' attention. This may be exacerbated when the husband is immature, narcissistic and demanding.]

The second hypothesis is that the Couvade syndrome may be due to both identification and empathy with the spouse. The third possible explanation is that it is due to a man's jealousy of the woman's ability to bear a child [sometimes labeled as parturition envy (Boehm, 1930). Boehm postulated this jealousy from psychoanalytic cases, while he postulated that this jealousy is the outcome of the persistence of maternal trends in young boys, which do not disappear following the resolution of the Oedipus complex, the jealousy may also be due to the inordinate attention that the expectant woman receives in this culture.]

Couvade: Conclusion

In conclusion, reference will be made to a passage which Trethowan cites:

It is of high biological value for the human family to consist of both father and mother, if traditional customs and rules are there to establish a social situation of close moral proximity between father and child; if all such customs aim at drawing man's attention to his offspring, then the Couvade which makes men simulate the birth pangs and the illness of maternity is of great value and provides the necessary stimulus and expression for paternal tendencies. (Malinowski, 1937, p. 285)
Trethowan notes that Malinowski made these comments in regard to ritual Couvade, but states, "Could not these words apply equally to those fathers who by reason of their own personality problems must, like their wives, suffer a little in order to better accept their paternal role?" (1972, p. 91).

Empirical Studies of Expectant Fatherhood

A review of the literature brought to light a few studies which compared expectant fathers with non-expectant controls. Curtis (1955) investigated the effects of expectant fatherhood on 55 servicemen, and based on their ability to cope with the situation, differentiated these men into three groups. Group A was comprised of 17 men whose previous personality problems were exacerbated by the prospective birth of their child. Their characteristic problems were depressive reactions and severe passivity or overtly aggressive behavior. Group B contained 11 men who were ambivalent or rejecting toward their wives and/or the expected child. They characteristically manifested mild to moderate psychoneurotic and psychosomatic disorders. The last group C, a control, was comprised of 24 men who had not sought nor were they referred for psychiatric help. Approximately one third had problems similar to those of group B and another third had similar problems to group A, but of a lesser degree. Curtis inferred that prospective fatherhood apparently exacerbated existing personality problems and precipitated mild disorders in a number of men with no such previous history. Furthermore, Curtis concluded that the role of expectant parenthood as a source of emotional stress in men has been too frequently overlooked. Recently,
researchers have endeavored to examine the parameters of expectant fatherhood. These reported empirical studies concerning expectant fatherhood will be discussed below grouped within specific categories.

**Violence Committed by Expectant Fathers**

Using a non-expectant male control Hartman and Nicolay (1966) investigated the association between pregnancy and antisocial reactions manifested by expectant fathers. The 91 married male subjects were persons who had been arrested for various offenses and referred by judges to a psychiatric clinic for examination. A matched sample of 91 married males whose wives were not pregnant were drawn for controls. Each subject and their relative or complainant were interviewed by a team of psychiatrists, clinical psychologists and social workers. Hartman and Nicolay inferred from their data that the wife's pregnancy is a stress condition upon the husband such that he responds in the form of antisocial behavior, frequently of a sexual nature. Inspection of the type and frequency of offenses of the 91 expectant fathers suggested regressive kinds of sexual behavior, with exhibitionism and pedophilia accounting for more than two-thirds of the cases. The other sexual offenses included rape or attempted rapes, lewd phone calls or letters, homosexual behavior, transvestism, pornography and voyeurism.

Hartman and Nicolay felt it plausible that persons with weak impulse controls develop strong anxiety which might lead to sexual reactions such as exhibitionism and pedophilia. They posit that this stress may be influenced by increased responsibility and potential demands economically as well as emotionally. If an expectant
father feels overwhelmed by the responsibilities he attributes to the role of fatherhood, consequent anxiety, frustration or anger may occur. Males who are inadequate may therefore anticipate the child as an intolerable burden and as pressures upon them to demonstrate greater adequacy. Sexually deviant behavior may be viewed as regressive immature reactions to anxiety. Hartman and Nicolay (1966) asserted that these are compulsive forms of sexual deviation which appear to reduce anxiety about masculinity rather than provide sources of nurturance or normal sexual expression. Finally, one other explanation offered by Hartman and Nicolay for the increase of sexual offenses during the pregnancy was sexual deprivation. They however offered no empirical support for this assertion.

In a more recent study by Gelles (1974), members of 80 randomly drawn families were interviewed using an unstructured informal procedure. In 44 of these families at least one incident of conjugal violence was discussed, with ten families indicating violence occurred while the wife was pregnant.

Gelles (1975) discussed five major factors which contribute to pregnant wives being assaulted by their husbands: 1) sexual frustration, 2) family transition, stress, and strain, 3) bio-chemical changes in the wife, 4) prenatal child abuse, and 5) defenselessness of the wife. A discussion of these five factors will follow.

**Sexual Frustration**

Landis, Poffenberger and Poffenberger (1950) studied the systematic effects of pregnancy on sexual behavior having 212 primiparous and their husbands answer anonymous, written, retrospective (up to
2 1/2 years post partum) questionnaire. The questions were directed toward three time periods, before, during and after pregnancy. Areas probed included happiness, sexual desire, sexual adjustment, general health, and the use of contraception. Landis et al. concluded that those with good sexual adjustment prior to pregnancy continued to have good adjustment subsequently. They noted an almost linear decline in sexual desire in both sexes as the pregnancy progressed.

Masters and Johnson (1966) studied 101 primiparas and multiparas by means of progressive interviews held during the first, second and third trimesters, and three months post partum. They found little change in sexual activity during the first trimester, a marked increase during the second, with a subsequent decline in the third. At the end of the third post partum month, a group of 79 husbands were interviewed. A slow and "almost involuntary" withdrawal from coital activity was reported by 31 (39%) of the men during the second and third trimesters.

Similar findings were reported by Bartova, Kolrova, Uzel, Spott and Jieinska (1969) who studied 500 women utilizing direct, retrospective questionnaires. They found little change in the first half of the pregnancy, but a strong decrease in sexual interest in the latter half. Similarly, Prochazka and Cernoch (1970) gave anonymous, retrospective questionnaires to 200 primiparas and multiparas and found that 50% of the women did not enjoy intercourse during the pregnancy. It is interesting to note that the majority of their respondents continued having relations, fearing loss of their husbands' fidelity.
Parallelizing the results of Landis et al. (1950), were three studies reported in 1973: Falicov (1973); Solberg, Butler and Wagner (1973); and Kenny (1973). All found an initial rise in sexual activity in the second trimester, with a steady decline in all aspects of sexuality through the last trimester.

Tyznik and Schwebel (1978) studied eight couples and 15 women who were in their third trimester. The results were consistent with retrospective studies showing a general decrease in sexual activity as pregnancy progressed. They found that the subjects' reasons for this decline were that it was "too awkward," feeling that the "spouse didn't enjoy it," "painful for the wife," and for males a "fear of 'hurting the baby'." Fear of miscarriage was not considered as an important factor by the subjects.

Malinowski (1978) discussed seven factors, both real and imagined, which affect couples in their decision to slow down or desist sexual intercourse as pregnancy advances. They are: Physical discomfort; fear of injuring the fetus; fear of infecting the fetus; fear of rupturing the membrane; fear of causing premature labor; traditional recommendations of abstinence; and, feelings of unattractiveness by the woman. When the couple is frustrated by the above reasons, and is unable to remedy such through education or counseling, one or both may succumb to violence as an outlet for their sexual frustration (Malinowski, 1978).

**Family Transition and Domestic Violence**

Rossi (1968) labels the onset of the pregnancy as the end of the honeymoon stage of marriage; and when a man and woman marry
because the woman is pregnant, the honeymoon stage ends rather rapidly. Such husbands may feel increasing stress as the baby approaches (or as the woman begins to "show"). Perhaps it is the element of "doing the right thing by her" and the resentment tied into facing those responsibilities, that causes those men to act violently towards their pregnant spouse.

Regardless of the timing of the occurrence of the pregnancy, the male's overall desire for the pregnancy will affect his adjustment (Bittman & Zalk, 1978). If his desire is low, and remains that way, his consequent anxiety and perhaps, anger, may also lead him to express himself with violence.

The addition of a child to an existing dyadic or family system may generate stress as a result of concerns about financial and/or emotional drain. The male may feel that he is utilizing his limits already in both arenas, and may resent the desired and necessary involvement placed on him. This stress may lead to violence (Gelles, 1975). Violence toward a pregnant woman, whether on a conscious or sub-conscious level, may be a form of pre-natal child abuse or filicide. In reporting the results of her study, Malinowski (1975) transcribes the following from one of her respondents:

Oh, yea he hit me when I was pregnant. It was weird. Usually he hit me in the face with his fist, but when I was pregnant he used to hit me in the belly. It was weird. (p. 83)

Malinowski states that it may not have just been "weird," it may have been her husband's attempt to terminate the pregnancy and relieve him of the impending stress of yet another child.
Transition to Parenthood: Crisis or Not?

It has already been suggested that pregnancy provokes anticipatory parenthood (Jessner, Weigart, & Foy, 1970). If so, any perceptions that prospective parents may have regarding parenthood could also affect their feelings towards pregnancy. The extant literature on parenthood as a crisis-laden transition point in life is pertinent.

LeMasters (1957) assumed that parenthood is potentially crisis laden because with the advent of a child, a family has to be reorganized, roles have to be reassigned, and values reoriented. Taking Hills' (1969) definition of crisis as "any sharp or decisive change for which old patterns are inadequate," LeMasters found 38 of the 46 couples he interviewed reported severe or extensive crisis. In a similar study, Dyer (1963) reported that 91 percent of the couples interviewed experienced moderate to severe crisis with the birth of their first child. (It was not reported whether those couples adapted well or poorly postpartum.)

In contrast, Hobbs (1965, 1968) found that a majority of parents did not view the first child as a crisis point. He concluded that "it would seem more accurate to view the addition of the first child to the marriage as a period of transition which is somewhat stressful, than to conceptualize beginning parenthood as a crisis experience for the majority of new parents" (p. 417). Similarly, Rossi (1968) noted that the term crisis has negative and maladaptive connotations and offered as a substitute the term "role task." The role task of parenthood, as defined by Rossi, is affected by several variables. One is the cultural pressure to assume a role and this seems somewhat
related to Neugarten's (1969) idea of society's perception of the best age for certain occurrences. Also included is the irrevocability of parenthood as well as the lack of preparation for parenthood.

Hill and Aldous (1969) stressed the idea that, "Parenthood rather than marriage appears to be the crucial role-transition point that marks the entrance into adult society in our culture" (p. 923). They postulated that parenthood is stressful because conjugal and parental roles are often in conflict. In addition, if parenthood rather than marriage indicates adult status, then the new roles of parenthood will be anxiety arousing since they "constitute how well the individual functions as an adult" (p. 925).

Pohlman and Pohlman (1969) summarized a number of possible reasons why potential parents may be conflicted about parenthood. First, having a child changes the focus of a husband and wife's relationship since children create a heavy demand on the time, energy and attention that a couple would devote to each other. Changes in sexual relations, loss of privacy and the idea of children as competitors for love and care were also mentioned. Other factors include concern about the child's health and development, confinement for the mother, blocking of career goals, financial burdens, loss of freedom and increased responsibilities.

Howells (1972) in discussing childbirth as a family experience, defines eighteen family stresses precipitated by pregnancy: increase in size of the family unit; the parenting role; sexual guilt; accidental conception; unexpected pregnancy; imposed pregnancy; attention-seeking; solution for marital tension; solution of neurosis;
responsibility; rivalry; phobias and myths; rejection; identification; grandparents; anxiety; gender preference; and, sex-identification of parent. Howells emphasizes that even when one member of the family suffers the major impact of any of these stresses, the whole family inevitably has a changed experience. Furthermore, the whole family is invariably involved in the situation that produced the stress and that its resolution is a matter for the entire family.

It is interesting to note that most studies that describe men's overall experience before and after the birth of a child depict stress-filled, anxious days and months, that is, they portray crisis and not development. Although several authors matter-of-factly suggest that pregnancy and parenting may bring out both the strengths and weaknesses of a man (Curtis, 1955; Wainwright, 1966; Fein, 1976), these and other studies, almost without exception, dwell on the latter to the exclusion of the former.

The emphasis on paternal difficulty may be seen in Arnstein's (1972) article that attempts to pull together strands from clinical and social science research. Arnstein says: "The truth is that pregnancy is no joke for some fathers." He goes on to list symptoms, worries, fears, and pathologies men encounter, calling attention to the problems of the husband whose "very real anxieties may get lost in the shuffle" (p. 43).

While the great majority of studies of men whose wives are expecting take a crisis orientation, several articles in the past decade have pointed toward an understanding of men's (and women's) perinatal experiences within a developmental perspective. Rapoport
and Rapoport (1968) put forth the idea that around each major transition point in family life (among them the birth of a first child) is a period of "critical flux" within the individual himself and in his interpersonal relationships. It is during these transitional times when extra support is quite helpful. Rossi (1968) pointed to the necessity of social supports for harmonious family life and suggested that increasing numbers of men and women are interested in crossing sex role norms to share in pregnancy, birth, and infant care. Jessner, Weigart and Foy (1970), observing that becoming a father is "still covered with the dust of stereotypes and convention," noted that with recognition of the importance of fatherhood and shifts in cultural definitions of masculinity, images of men's involvements in pregnancy, birth, and family life are broadening decidedly.

In a recent exploratory study, Fein (1976) adopted a developmental but non-crisis orientation in assessing 30 middle income couples who were pregnant with their first child. All of the participants were involved in some form of childbirth preparation classes. They were interviewed four weeks before and six weeks after childbirth to assess the change in men's level of general anxiety, infant related anxiety, and wishes for and concerns about emotional support.

Fein found that men decreased significantly in their levels of wishes for emotional support, general anxiety, and infant related anxiety from before to after the births, but not in their concerns about emotional support. While anxiety about their babies decreased, general anxiety decreased much more markedly, suggesting that six weeks post partum, men in the study were still moderately anxious.
about being parents, but were greatly relieved about the overall shape of their lives. Fein states that the "crisis" for these men, "if there was one," came before the birth, and perhaps immediately after birth (in the first two weeks after delivery,\(^1\) and that by six weeks post partum, men were adapting without high levels of anxiety, compared to prenatal days.

In extrapolating from his data, Fein (1976) suggested that effective adjustment to expectant fatherhood and to postpartum adjustment is related to the male developing some kind of coherent role (a pattern of behavior that meets his needs and the needs of his wife--and baby) rather than any particular role. Most of the men in Fein's study who appeared to adjust with relatively little difficulty were seen as adopting one of two roles: breadwinner or non-traditional father. As the term "breadwinner" connotes, these men tended to see themselves as responsible for providing financially for their families. These men took a businesslike view of their approaching parenthood, and in essence, established "traditional" roles with distinct division of labor. The men in the Non-traditional role saw themselves as deeply involved in the pregnancy. Common to these men was the explicit recognition that pregnancy, birth and childrearing could be a two person experience. Most of the men in this group arranged time in their schedules before the births so they could spend much time at home in the postpartum weeks. The

\(^1\)This is conjecture on Fein's part, since the men in his study were not tested during this time period.
remaining men in Fein's sample were seen as having more difficulty adjusting to life with their wives and babies than the "bread-winners" or "non-traditional" fathers. Men in these families seemed generally unsure of how much they wanted to be involved in the pregnancy process, or whether they wanted to adopt the breadwinner roles. Fein reported that often their wives appeared to share this unsureness.

Summary

This review has presented the available literature on pregnancy and the father's relation to it. Though there is contradictory evidence between the crisis versus stressful transition hypotheses, the literature on the transition to parenthood generally supports the contention that pregnancy and anticipatory parenthood can be important periods developmentally and often induce or exacerbate stress and conflict.

The literature on men's reactions to expectant fatherhood is equally limited and most studies draw on clinically derived material rather than empirical research. Nonetheless, the results of the few empirically based studies for the most part support the clinically derived contention that men typically do experience pregnancy related emotions, albeit to varying degrees.

Taken as a whole the literature accentuates the supposition that pregnancy and anticipatory parenthood are important transitional stages for many people. It has only been in recent years that any emphasis has been put on pregnancy not as a prelude to parenthood, but rather as a part of the parenting process. The advent of
childbirth education classes, and the plethora of books on pregnancy and parenting attest to this fact. With the increasing emphasis of the role of the father in the family it is only natural that there be a corresponding interest of the father during the pregnancy.

The Family Life Cycle

As the previous literature review suggested, the pregnancy period for men is a transitional period in the family life cycle, a "marker event." The effect of this transition has been viewed along a continuum. As Alpert (1981) summarizes, "There seems to be agreement that having a child is stressful, although there is disagreement regarding the degree of stress associated with the event" (p. 28). It has been perceived as an extreme crisis period (LeMasters, 1957), a period of substantially less crisis (Dyer, 1963; Hobbs, 1965, 1968; Hobbs & Cole, 1976; Hobbs & Wimbish, 1977) and a period of reorganization and change (Jacoby, 1969).

Two theoretical approaches to viewing the family life cycle, the stage theory and the life events model, will be briefly presented below. Aspects of them, e.g., antecedent and mediating factors, will be discussed as they relate to the experimental intervention utilized in the present investigation.

Stage-theory Model

The stage-theory approach has been applied to adulthood by such theorists as Freud, Erikson, Jung, and Piaget, and more recently by Gould (1978), Guttmann (1977), Levinson, Darrow, Klein, Levinson, and McKe (1978), Loevinger (1976), and Neugarten (1969). In his review of the stage-theory approach, Baltes (1979) addresses its
long history and usage.

Although theorists have disagreed on when a specific stage begins or ends, there is a fair amount of concurrence that a stage represents a "particular configuration of positions and roles,... (and), shifting from one stage to the next involves clear-cut, definite changes in positions and roles with in the family structure" (Alpert, 1981, p. 25). The usefulness of this approach may be summarized by Aldous (1978) who stated: "...the concept of stage in family career analysis has systematic properties. It enables us to make predictions about the behaviors of families, behaviors that hold for a majority of families despite class, ethnic, religious, or other differences" (p. 87). As Alpert (1981) reports, some theorists (e.g., Magrabi & Marshall, 1965) hold that success in meeting the developmental tasks at one particular stage sets the boundaries for possible task performance at later stages.

Life Events Model

While the stage-theory approach focuses on the intrapsychic and intrafamilial unfolding, the life events model stresses the familial growth as effected by external phenomenon. In describing the life events approach, Alpert (1981) states the following:

The life events approach, which is exemplified in the work of Dohrenwend (1961), Looft (1973), and Reese and Overton (1970), focuses on antecedent and mediating factors and on the consequent relations. Later behaviors are assumed to be reducible or predictable from the interaction of antecedent and mediating factors which are believed to combine in an additive and linear way. The definitions of life events range from broad concepts, such as 'noteworthy
occurrence,' to more specific ones, such as stressful, critical, or significant aspects of life. But all definitions specify that life events involve a change in the individual's usual activities. (p. 26)

There are advantages (and disadvantages) of each approach. They do however, focus on different aspects of the life cycle. Alpert (1981) presents an integrated framework, which has been suggested previously by such theorists as Hill and Mattessich (1979), Hultsch and Plemons (1979) and Levinson (1980). Such an integration provides a useful combination of the ontogenetic and evolutional influences on the family life cycle. Alpert suggests elaborating and enlarging upon the life events approach by using the stage-theory model. Alpert states:

One way to build a developmental perspective into the life events approach involves use of one of the available models of life stages, such as Erikson's, Levinson's or Gould's models of adult developmental stages. Erikson's model, for example, identifies developmental conflicts associated with periods of ascendancy, and is essentially a crisis model of development. Erikson's stages could be applied to the life events model of parenting by conceptualizing each major stage conflict as an antecedent...

In this way the study of parenting events would be embedded in the context of a specific life stage and variables associated with adaptation could be assessed. Hence, the study of parenting events would then be considered in interaction with stage conflicts and would shed light on the developmental regularities and sequence associated with parenting. (p. 31)

By utilizing an integrated developmental approach, researchers can better understand expectant fatherhood, and practitioners can be better able to plan and facilitate support and educational groups for prospective fathers.
Assessment of Expectant Father's Support Groups

In the past decade a few empirical studies evaluating outcome have been conducted which are relevant to the present issue. Hott (1972) examined first-time fathers for differences and change between prenatal and postnatal testing on concepts of ideal man, ideal husband, ideal father and ideal woman, ideal wife and ideal mother. The subjects were divided into two groups with half the men attending psychoprophylactic training (Lamaze method) with their wives and subsequently attending the birth, and half who chose traditional methods of child-bearing without the husband present. Hott hypothesized that those men who attended the Lamaze training would show a greater degree of concordance on measures of self and wife than men who did not participate. Her rationale for this hypothesis was that sharing the wife's childbearing experience is part of a pattern of participation, commitment and interdependence, producing psychological belongingness and positive attitude change. Although there were no significant differences found in concordance between the two groups on measures of self and wife, change in the direction of concordance was greater for the participating fathers than the non-participating fathers. The fact that the direction of change was achieved but not the magnitude hypothesized was explained by Hott (1972) that the psychoprophylactic training was geared primarily for the woman, and hence, the man may not feel that his needs are being fully addressed. Hott recommended that future training groups include more of a focus on men and primarily on the relationship of the expectant father's relationship with his own father as a factor.
affecting his paternal self image.

In a similar study, Gayton (1975) compared fathers on state-trait anxiety, attitude and self concept. The experimental group was comprised of thirty expectant fathers who attended natural childbirth classes (Lamaze method) with their wives. The control group were not so trained, and were not present during delivery. A pre-test was administered during their wives' sixth and eighth month of pregnancy and a posttest was given within one month post partum. The experimental group fathers recalled being significantly less state anxious than control group fathers when they first heard their wives were in labor and when their wives were in the delivery room before birth. There were no differences between both groups in positive net change in trait anxiety or attitude toward childbirth.

Klausman (1975) examined whether one could reduce pain in childbirth by the alleviation of anxiety during pregnancy. Forty-two primiparas in the third month of pregnancy were assigned to two prenatal education classes (one Lamaze and one Red Cross sponsored). Measures of fear and anxiety were taken before and after the courses using the IPAT Anxiety Scale. The Lamaze method group showed a significant reduction on ratings of fear and anxiety during the stage of labor. While this study did not focus on the father's role, it suggests that proper training aimed at the specific needs of the individual helps in alleviating anxiety during childbirth.

Wapner (1975) explored the attitudes, feelings and behaviors of 128 expectant fathers during their wife's third trimester of pregnancy. All the men attended Lamaze method childbirth classes and
were measured in three ways: an expectant father's self rating instrument; a rating form for the wives of subjects to rate their husbands on the same attitudes, feelings and behaviors; and, a rating sheet on which the childbirth instructor rated the fathers on class behaviors. Analysis of the self-rating instrument indicated that income, economic security, religious intensity, age, number of years married, self concept and family self concept as measured by the Tennessee Self Concept Scale and physical reactions to pregnancy in expectant fathers are all related in specific ways to attitudes, feelings and behaviors of expectant fathers. Although congruence between husband and wife was high on 51 out of 63 items, it was lowest where husbands saw themselves more involved and identified in the pregnancy than wives rated them to be. Wapner also reported that subjects with physical reactions to the pregnancy had more discrepancy on the items with their wives.

Wente and Crockenberg (1976) investigated whether Lamaze trained men who participate and aid during the birth of their child have an easier, more positive adjustment to their role as fathers than do their non-trained counterparts. Interviews and questionnaires to measure adjustment difficulty were administered. Thirteen difficulty items were included, such as "wife had less time for me; changing long term plans; lack of knowledge of parenting; and, change in established relationship with wife." No significant differences were found, in that Lamaze fathers did not report an easier, more positive adjustment to their babies.
Waldbaum (1975) investigated the effects of childbirth classes on the fears and anxieties of first time expectant fathers. Waldbaum utilized two kinds of prenatal counseling experiences: the expectant parents class, which included but did not focus on the expectant father; and, a preparation of childbirth class which solicited the expectant father's active participation (no control group was included). Sixty-three volunteers from 12 childbirth classes given in Washington, D.C. area hospitals were tested with a pretest/posttest design. The test battery was comprised of an expectant father's fear scale which was designed for the study, the Marlowe-Crowne Social Desirability Scale, and the Pregnancy Research Questionnaire (Part I - Psychosomatic). The predicted greater reduction in anxieties and fears for those in father-involved classes versus father-not-involved classes was not confirmed. Stability of pretest to posttest results suggests that first-time expectant fathers maintain relatively constant levels of pregnancy related anxieties and fears over the period of childbirth attendance.

Farber (1975), in an exploratory study, examined possible factors influencing the relative ease of the early transition to parenthood. Utilizing a battery of questionnaires he surveyed 28 female and 18 male first time parents during the last trimester and eight to thirteen weeks postpartum. The results indicated that the following five factors were most significantly related to the relative ease of transition: expectant parent's "psychological set" toward parenthood; marital factors; individual resources for coping with change and stress; sources of extra help; and, extent of support.
for parenthood from friends and family. In discussing these five factors, Farber noted that discussion groups for new and expectant parents may provide an ideal means for therapeutic support in facilitating positive adjustment in these areas.

The literature cited yields contradictory results with respect to prenatal training and its effect on expectant fathers. Most of the studies used prenatal groups that primarily addressed themselves to the concerns of women. In reviewing the efficacy of Lamaze interventions, Wente and Crockenberg (1976) suggested that: "fathers feel a need for information on parenthood beyond that typically offered by Lamaze classes."

Certainly, men may find much support in such groups, but they should receive more attention and support in groups that focused principally on the unique concerns of men.

**Rationale for Dissertation Research**

The preceding literature review has presented theoretical analyses, research findings and reports of clinical studies, all of which support the notion that expectant fatherhood is a significant event in the life history of men. Because psychological stress and parental attitudes of both men and women during pregnancy have been found to affect pregnancy, labor, delivery and postpartum adjustment (Sasmor, 1979), there has been increasing interest in pre-natal child preparation classes. In recent years these classes have been primarily oriented to women and the physiological changes that accompany their pregnancy. Many of these groups focus on the education and support of the pregnant woman (Dick-Read, 1954; Luchinski, 1970;
Lamaze, 1970). Grimm (1966) found that women receiving factual information significantly reduced pain and anxiety during labor and birth.

Men have taken part in many of these classes, and to a large degree, their attendance focused on two important factors: sharing or increasing the closeness between husband and wife during the later stages of pregnancy; and, teaching the husband to be a "coach" for the wife in preparation for natural childbirth (Lamaze, 1970). Obviously within both roles, there is an underlying emphasis on how the husband can better understand his wife's physical and emotional state during pregnancy. Given the goals of these programs, little of the focus for men has been on their "attitudes, affect and behavior" associated with their wife's pregnancy.

The research that has been carried out on expectant fathers describes this period for men as an important and at times turbulent, transition (Hobbs, 1965, 1968). Men must adopt a new "role task" (Rossi, 1968), due to the impending change in the family system. Some writers state that the possibilities for intrapsychic and extrapersonal conflict seem to be numerous (Pohlman & Pohlman, 1969). Because of the magnitude of change, Rossi (1968) has pointed to the necessity of social supports for the expectant father. Fein (1976) also found that during the latter part of their wife's pregnancy, men exhibited a high need for emotional support. One form of support that would help men through this transition period is an expectant father's training group which would explore, educate and support (Caplan, 1961; Gazda, 1970).
In reviewing psychoeducational programs specifically designed to help men more effectively and meaningfully engage in the fathering process, Moreland and Schwebel (1981) state:

Proponents of the psychoeducational model view problems and frustrations in living as stemming from individuals' inability to clarify goals, reconcile incongruities between attitudes and behaviors and learn behaviors which are required by environmental demands. Thus the psychoeducational model provides a conceptual framework for developing interventions to help men adopt a more emergent father role. (p. 48)

The present study is an attempt to address the needs of a small but important segment in the emerging role(s) of a father; i.e., the expectant fatherhood stage. There have been previous attempts at assisting men in this stage (Hott, 1977; Waldbaum, 1975; Fein, 1976; Gearing, 1978; Barnhill, Rubenstein, & Rockland, 1979). These attempts have met with varying degrees of success, but have suggested either by way of data or implication, that expectant fathers may be aided by specifically addressing their needs as prospective fathers. The present study compared one specific approach, a psychoeducational program oriented to the needs of expectant fathers with two non-specific approaches. It has been suggested that by allowing men to have the opportunity to share their feelings toward clarifying their goals and roles during the pregnancy stage, they have the opportunity to "reconcile incongruities between attitudes and behaviors" (Moreland & Schwebel, 1981), and as a consequence, have an easier transition to fatherhood.

The purpose of this proposed study is to assess whether men can benefit from a prenatal discussion group which is specifically
oriented to these issues relevant to expectant fathers.

**Statement of the Problem**

Expectant fatherhood has been described as an important transitional period in the developmental history of men. The ease of adjustment to fatherhood may be facilitated by examining and perhaps redirecting affective, behavioral and cognitive sets that exist prior to the birth of the child. It is hypothesized that by addressing the specific needs and issues of expectant fatherhood (these goals will be discussed later), trainees will experience positive growth and be better able to assume the psychological responsibilities of parenthood. The purpose of this study is to empirically determine whether a group of men benefit--have a greater ease of adjustment to their wife's pregnancy and birth--from a prenatal discussion group which is specifically oriented to relevant issues for expectant fathers.

**Hypotheses**

The hypotheses for the present research have been generated from both a review of the literature and pilot interviews conducted by the author on 50 first-time expectant fathers. In the present study group 3 is the experimental group which had a psychoeducational program which specifically addressed the needs of expectant fatherhood; Group 2 is a treatment control group which will be given information focusing on the "father as coach"; and, Group 1 is a non-treatment control group. These groups will be described fully in the Methodology section.
The following hypotheses will be investigated in this study:

1. a) There will be less state anxiety in group 3 than group 2 or group 1 at the 9th month of the pregnancy.
   b) There will be less state anxiety in group 3 than group 2 or group 1 at one month postpartum.

2. a) There will be less state anger in group 3 than group 2 or group 1 at the 9th month of pregnancy.
   b) There will be less state anger in group 3 than group 2 or group 1 at one month postpartum.

3. a) There will be more state curiosity in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be more state curiosity in group 3 than in group 2 or group 1 at one month postpartum.

4. a) There will be less marital conflict in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be less marital conflict in group 3 than in group 2 or group 1 at one month postpartum.

5. a) There will be less irritability and tension in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be less irritability and tension in group 3 than in group 2 or group 1 at one month postpartum.

6. a) There will be a greater desire for the pregnancy in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be a greater desire for the pregnancy in group 3 than in group 2 or group 1 at one month postpartum.
7. a) There will be less couvade symptomology in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be less couvade symptomology in group 3 than group 2 or group 1 at one month postpartum.

8. a) There will be a greater degree of anticipatory baby involvement in group 3 than group 2 or group 1 at the 9th month of pregnancy.
   b) There will be a greater degree of actual baby involvement in group 3 than in group 2 or group 1 at one month postpartum.

9. a) There will be less discrepancy between perception of oneself and their goal in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
   b) There will be less discrepancy between perception of oneself and their goal in group 3 than in group 2 or in group 1 at one month postpartum.

10. a) There will be less discrepancy between perception of oneself and how others perceive them in group 3 than in group 2 or group 1 at the 9th month of pregnancy.
    b) There will be less discrepancy between perception of oneself and how others perceive them in group 3 than in group 2 or group 1 at one month postpartum.
Subjects

The subjects (Ss) were 60 males solicited from men attending preparation for childbirth education classes\textsuperscript{2} in Urban South-Central Connecticut. All Ss received a five dollar incentive upon completing the study. The age range of the Ss was 21-40 years ($x = 29$). Their spouse's age range was 21-34 years ($x = 26.9$). The mean number of years of education was 14.9 years. Twenty-one and seven-tenths percent (13) of the Ss were high school graduates; 26.7\% (16) had some college; 36.7\% (22) were college graduates; and 15\% (9) had post-graduate education. According to self report, all Ss were employed and moderately satisfied with their jobs during the time of this study. Sixty percent (36) of the Ss were Catholic; 25\% (15) were Protestant; and 15\% (9) were Jewish.

All Ss were first-time expectant fathers married to women who were expecting their first child. This was the first marriage for \textsuperscript{2}Initially, a control section of the sample was to be selected from men not participating in preparation for childbirth education classes. Despite numerous incentives, an adequate sample could not be solicited. It appears that those men not "motivated" to participate in childbirth education classes also were not "motivated" to participate in this study.
98.3% (59) of the men; one subject had been previously married once for one year, ending five years prior to this study. This was also the first marriage for 98.3% (59) of the wives; one woman was married once for five years, ending two years prior to this study. None of the men had previously impregnated a woman, nor had any of the women previously been pregnant.

Design

The design of the study is represented in Figure 1. There were three training (treatment) conditions: expectant father training groups 3 and 2, and a non-training group 1. The members of all groups were administered questionnaires three times: early and late in the third trimester of their spouse's pregnancy, and again one month postpartum.
Description of the Groups

As mentioned earlier, there were three sets of interventions; two group interventions and one non-group control. The subjects were randomly assigned to one of the three groups, and were administered questionnaires on three occasions (see design). All interventions took place within three weeks following the administration of the first questionnaire; i.e., the groups were held in the eighth month of the pregnancy. The groups were structured, short term, intensive experiences which focused on one of two perspectives. Groups 3, the expectant father (experimental) treatment group, was geared to address the specific issues regarding prospective fathers; i.e., the male issues of pregnancy and fatherhood. Group 2, a control group, focused on women's issues of pregnancy, childbirth and parenting--with the role of the male being described as the coach or adjunct. Groups 1 was also a control "group" which did not meet for any formal training experience.\(^3\)

The groups were facilitated by the author, a doctoral candidate in clinical psychology, who was supervised by a licensed clinical psychologist. There were 20 subjects in each of the two groups, which were held in an informal setting. Each group lasted for four hours with two brief (10 minute) breaks, and one 20 minute break. The subjects were provided with refreshments.

\(^3\)It is important to reiterate that all groups were selected from a larger sample of men participating in preparation for childbirth classes--therefore, all men did experience some formal training experience.
Underlying Assumptions that Guided Group Process

The nature of the learning process of the treatment groups were based on the following assumptions (from Seashore, 1970):

1. Learning Responsibility. Each participant was responsible for his own learning. What a person learns depends upon his own style, readiness, and the relationship he develops with other members of the group.

2. Leader Role. The staff person's role is to facilitate the examination and understanding of the experiences in the group. He helps participants focus on the style of an individual's participation, and the issues that are facing the group. The staff person was supervised by a licensed clinical psychologist.

3. Experience and Conceptualization. Most learning is a combination of experience and conceptualization. A major aim is to provide a group setting in which individuals are encouraged to examine their experiences together in enough detail so that valid generalizations can be drawn.

4. Authentic Relationships and Learning. A person is most free to learn when he establishes authentic relationships with other people and thereby increases his sense of self esteem and decreases his defensiveness. In authentic relationships persons can be open, honest, and direct with one another so they are communicating what they are actually feeling rather than masking their feelings. This will be attempted to the degree possible in the session.

5. Skill Acquisition and Values. The development of new skills in working with people is maximized as a person examines the
basic values underlying his behavior, as he acquires appropriate concepts and theory (pp. 15-16).

Some expectant fathers may feel uneasy or reticent about being an active participant in the groups, i.e., some people are more comfortable being a listener than a participant. Since people generally learn more by actively participating, a climate that encouraged this was established. It was problem oriented, stressed equality among the members, used description rather than evaluation, and provision- alism rather than certainty (Gibb, 1961).

Content and Goals of the Groups

Given that there were two training groups (experimental and control), it was essential that the process of both groups be as similar as possible. It should be noted that the "personality" of every group is unique, but by standardizing the agenda and workings of the groups, and the methods of achieving it, groups may be matched for process as much as possible.

Early in the group meeting, an introductory statement of the purpose and goals of the training group was presented. This was followed by an exercise geared to "loosen up" the participants and allow them to meet one another. The exercise utilized was that the men divided into pairs and interviewed each other about the feelings of being a participant, an expectant father, and personal goals they hoped to achieve. They then returned to the large group and each member introduced and reported on their interview findings.

A list of concerns was generated by this process and were incorporated into the previously established agenda. Specific attention
was paid to issues discussed in the previous literature review, and salient topics were excerpted and included in the content of the groups.

The content of group 3, the experimental group included the following:

1. Marital conflict: the changing role of the husband in the marriage dyad, and conflicts which may arise from it. Role playing of specific pregnancy induced conflicts was utilized. Methods of amelioration and problem solving were generated.

2. Irritability and tension: how the pregnancy and the ensuing birthing process leading to fatherhood (may) create stress. A list of tensions already felt, and those anticipated were generated. Selye's (1976) model (to be explained later) was presented as a way of understanding and coping proactively with stress.

3. Desirability for the pregnancy and parenthood: what factors are part of a psychological readiness for parenthood. Motivations for becoming a father were generated and explored.

4. Self as father: a discussion of what attributes the man makes about fatherhood, and goodness of fit with his self concept. These attributes were discussed in terms of his own father or father surrogates, and images of fathers portrayed in the media.

5. Father as provider: A discussion of the responsibilities of the father as a provider through the pregnancy, childbirth, and post-partum. Once again, the role of provider was explored in relation to memories of their own father or father surrogate.
6. Traditional and non-traditional models of fathering: a discussion of different ways of fulfilling the man's needs, the needs of the family system, the cultural perspective, and the press of society. A de-emphasis of "shoulds" or the "correct" role was provided, with encouragement to explore how they would see themselves in differing roles.

The subjects in this experimental group were provided with a theoretical approach as a means to cognitively "fit" the aforementioned material. A brief discussion of the family life cycle was facilitated. The research of Levinson et al. (1978) was presented, specifically regarding the early childrearing years, and an investigation of the responsibilities both placed on men from society, and internal needs, were explored. Specifically, they were presented with eras in the male life cycle as presented by Levinson (1978): Early childhood transition, childhood and adolescence, early adult transition, early adulthood, mid-life transition, middle adulthood, late adult transition, and late adulthood. The reader will find explication of this theoretical approach in the introduction and discussion sections.

A handout was sent to the subjects two days following the intervention. Its intent was to review specific issues affecting expectant fatherhood. The subjects were informed the following: "These are a list of some of the questions that were generated from our discussion the other day. They are being sent to you as a summary, which you may find interesting to think about." The specific questions included were developed from pilot interviews and suggested
topics from the literature. The following is the list sent to the subjects:

What ideas do you have about fathering in general?
What are your aims and hopes for yourself as a father?
How do these fit your ideas about your father?
How do these fit your ideas about your mother?
What are your wife's hopes for you both as parents?
What do you think you'll enjoy most about being a father?
Do you anticipate any difficulties? Why those?
How will being parents change things for you and your wife?
Could you picture how you'll be with a child? Describe yourself.
How about your wife? What kind of mother will she be?
Do you look forward to all of this?
Are you nervous (of anything in particular)?
What about you is most "fatherly"? Least "fatherly"?
What about your wife is most "motherly"? Do you think she'll be "fatherly" too?
Do you have any idea about preferable regimens for looking after your child?
How did you arrive at them?
Who do you talk to about these things?
Have you been reading many things on the subject? What are your thoughts about them?
Did you ever picture your child to yourself (sex, age, activities in fantasy)?
What are your hopes for your child? (Wife's hopes?)
Do you have any idea what age you'll enjoy most?
Which do you think will be the hardest? (What about it?)
What were the best and worst periods of your childhood?
What about your wife? What will she enjoy most?

Group 2

The men in Group 2 were introduced to the relevant aspects of Hans Selye's theories of stress and adaptation (1976) as a way to conceptually and visually (charts were used) recognize the impact they may have in the pregnancy and childbirth. Although Selye's clinical experiments have dealt primarily with cardiac patients, application of his perspective were thought to be particularly relevant to the understanding of the "stress" of childbirth, and the role the expectant father may play to reduce such stress. According to
Selye, human beings exist simultaneously on three interrelated planes—the biological, or structural; the physiological, or functional; and the psychological, or mental. See below:

Any change in the state of these planes will result in a change in the other two. An example was used from Crawford (1968) who described the situation of a laboring woman: when the woman's anxiety increases (psychological plane), the adrenal glands secrete hormones (physiological plane), which suppress uterine muscle contractions (biological plane), thereby interfering with the labor process.

The group 2 discussion focused on how the expectant father may effect his wife's "psychological plane" to allow for a less stressful pregnancy and delivery. In order to accomplish this, a thorough review of the process of the pregnancy and birthing were undertaken, with the expectation that the more the husband knows, the better a "coach" he will be to his wife. The following is the agenda utilized:

1. Anatomy and physiology of the female reproductive system: Charts and diagrams were used to generate a discussion of fact and myth of the female reproductive tract.

2. Physical discomforts of the third trimester of pregnancy: A discussion of the common physical discomforts associated with the third trimester was generated. Reasons for their occurrence and ways to cope were explored. Among the complaints listed were:
a. indigestion 
b. constipation 
c. varicose veins and hemorrhoids 
d. insomnia and sleeplessness 
e. shortness of breath 
f. frequent and urgent urination

3. Process of labor and delivery. A discussion of the stages of labor and delivery was reviewed; i.e., the first stage, the transitional stage, the second stage, and the third stage, and the characteristics of these stages. A handout was supplied for review, which may be seen in Appendix C.

4. A glossary of terms relating to pregnancy and childbirth was presented and reviewed. See Appendix D.

Group 1

As previously mentioned, those assigned to group 1 were not called together for a formal meeting. They received no "training" handouts. The only material they received were the three questionnaires (see section on Measurement Instruments).

Measurement Instrument

A structured questionnaire format was used to collect the data. There were three forms of the Expectant Father Questionnaire (EFQ) (see Appendix B), each corresponding to one of its three administrations: i.e., EFQ1 for the first administration, etc. The only difference between them are: 1) EFQ1 is the only questionnaire to have demographic items; and, 2) EFQ3 has a change of tense on some of the items to reflect the timing of this postpartum questionnaire. The
demographic items will not be reviewed here but may be seen in Appendix B. Ten scales were built into the questionnaire to assess the hypotheses. A description of these scales follows.

**State Anxiety**

The items for this scale were taken in toto, from the State Trait Personality Inventory (Spielberger, 1979). The internal consistency for this scale, as well as the other dependent measures, are reported in the Results section. The items are scored on a four point Likert scale. They are:

1. I feel calm.
2. I am tense.
3. I feel at ease.
4. I am presently worrying over possible misfortunes.
5. I feel nervous.
6. I am jittery.
7. I am relaxed.
8. I am worried.
9. I feel steady.
10. I feel frightened.

**State Anger**

The items for this scale are taken in toto from the State Trait Personality Inventory (Spielberger, 1979). The items are scored on a four point Likert scale. They are:

1. I am furious.
2. I feel like banging on the table.
3. I feel angry.
4. I feel like yelling at somebody.
5. I feel like breaking things.
6. I am mad.
7. I feel irritated.
8. I feel like hitting someone.
9. I am burned up.
10. I feel like swearing.

---

4 All scales borrowed from other sources and used in this study have acceptable internal consistencies. They were however reanalyzed for this study, and the alpha's are reported in the results section.
State Curiosity

The items for this scale are taken in toto from the State Trait Personality Inventory (Spielberger, 1979). The items, as above, are scored on a four point Likert scale. They are:

1. I feel like exploring my environment.
2. I feel curious.
3. I feel interested.
4. I feel inquisitive.
5. I am in a questioning mood.
6. I feel stimulated.
7. I feel mentally active.
8. I feel bored.
9. I feel eager.
10. I feel disinterested.

Marital Conflict

A scale measuring marital conflict was taken from the Parental Attitude Research Instrument (Schaefer & Bell, 1959). The items are scored on a five point Likert scale. They are:

1. It is natural to have quarrels when two people who both have minds of their own get married.
2. No matter how well a married couple love one another, there are always differences which cause irritations and lead to arguments.
3. Some of the time it is necessary for a husband to tell off his wife in order to get his rights.
4. People who think they can get along in marriage without arguments just don't know the facts.

Irritability and Tension

A scale measuring irritability and tension due to the pregnancy was taken in toto from the Pregnancy Research Questionnaire (Schaefer & Manheimer, 1961). The items are scored on a five point Likert scale. They are:

1. I was (am) easily upset during my wife's pregnancy.
2. I was (am) restless and uneasy during my wife's pregnancy.
3. I was (am) hard to get along with during my wife's pregnancy.
4. I was (am) tense and edgy during my wife's pregnancy.

**Desire for Pregnancy and Parenthood**

A scale measuring desire for pregnancy and parenthood was adopted in toto from the Pregnancy Research Questionnaire (Schaefer & Manheimer, 1961). The items are scored on a five point Likert scale. They are:

1. When my wife was pregnant, the thought of soon being a father pleased me.
2. When my wife was pregnant, I sometimes wished we weren't going to have a baby.
3. When my wife was pregnant, I did not want her to have a baby at that time.
4. Before my wife's pregnancy, I had been looking forward to our having a baby.
5. Before my wife became pregnant, we were hoping to have a baby.
6. When I first found out that my wife was pregnant, I was: Delighted_____, Happy_____, Accepted it--neither happy nor unhappy_____, Somewhat unhappy_____, Extremely unhappy_____.

**Couvade Symptomology**

The items for the couvade symptomology scale were selected and/or derived from a review of the literature as being the principle or likely symptoms to occur (Gorer, 1938; Hogbin, 1943; Alvarez, 1949; Curtis, 1955; McKennan, 1959; Trethowan & Conlon, 1965; Nydegger, 1966; Trethowan, 1965, 1968, 1972; Driver, 1969; Coleman & Coleman, 1971; Dickens & Trethowan, 1971; Munroe & Munroe, 1971). Fifteen symptoms were selected and were scored for their presence and severity (none, some, or much). The items are:

1. vomiting
2. nausea
3. backache
4. fatigue
5. cramps
6. weakness
7. change in heartbeat
8. difficulty in breathing
9. pelvic pain
10. sleeplessness
11. indigestion
12. headaches
13. increase in appetite
14. decrease in appetite
15. toothache

Baby Involvement

The items for assessing anticipated and actual involvement with the baby were selected from Bittman and Zalk (1978) who found these items to represent the major caretaking activities of the first year. The 12 items are scored on a five point Likert scale. They are:

1. diapering
2. feeding
3. dressing
4. bathing
5. holding
6. cutting nails
7. talking to
8. night wakes
9. playing
10. doctor visits
11. baby's laundry
12. food preparation

Self/Goal Discrepancy and Self/Other Discrepancy

The format and theoretical basis for these scales is modeled after the Miskimins Self-Goal-Other Discrepancy Scale-1 (Miskimins, 1976). The author assumes that the greater the disparity of an individual's self-assessment with his goal, and his perception of how others view him, the greater the degree of anxiety and frustration. Conversely, the greater the degree of concordance between these
factors, the more comfort the individual feels.

The subjects were presented with five pairs of statements constructed for this study:

1. Good provider for my family - Poor provider for my family
2. Get along with children - Don't get along with children
3. Concerned about being a good parent - Not concerned about being a good parent
4. Looking forward to become a parent - Dreading to become a parent
5. Calm about parenting issues - Nervous about parenting issues

Each of the pairs is on a nine point continuum. The subject is asked to respond to each pair along three dimensions: where they perceive themselves along the continuum; what their goal is along the continuum; and, where they perceive others view him along the continuum. The reader is referred to Appendix B to see the exact presentation format.
CHAPTER III
RESULTS

General Introductory Comments

Lag-1

The data were analyzed under the assumption that time 1 measures had no direct effect on time 3 measures (Wheaton et al., 1977; Joreskog, 1979). The decision to follow this assumption is based on the recognition that any effects which time 1 measures have on time 3 measures are measured by time 2 measures. That is, a person's condition at time 1 only influences his condition at time 3 by the effect it has at time 2. In technical terms, the system is assumed to be lag-1. These indirect effects of time 1 on time 3 may be calculated by multiplying the standardized regression coefficient of time 2 on time 3. For example, in Figure 1, the indirect effects of state anxiety at time 1 on state anxiety at time 3 are (.60)(.517) = .311. The calculation of indirect effects is discussed by Kerlinger and Pedhazur (1973).

Multiple Regression/Path Analysis

Psychologists would traditionally have approached data such as that in this study with an analysis of covariance with repeated measure technique. However multiple regression is as appropriate as it is derived statistically in a highly similar manner and as
Kerlinger (1973) notes, "analysis of covariance is a multiple regression procedure."

Multiple regression was chosen for the present study because of the following reasons:

a) Multiple regression produces a statistic which, when the treatment conditions are treated as dummy variables, allows one to interpret the metric regression coefficients as the mean deviations among treatment categories. Furthermore, the standardized coefficients permit a direct comparison of the magnitude of effects between treatments and demographic and control variables. (See Appendix F for discussion of Dummy Variables, Metric and Standardized Coefficients.)

b) Path analysis, the graphic representation of multiple regression results, is a useful device for displaying the pattern of correlations among a set of variables. (See Appendix E for a discussion of how to read a path diagram.)

c) The path model permits a decomposition of effects. One can calculate the direct and indirect effects of variables in the model.

d) If one were to use a multivariate analysis of covariance with repeated measures, there is difficulty with the inclusion of certain covariates. As Davidson (1980) notes, the multivariate approach to repeated measures analysis of covariance has not been clearly defined when covariates are measured at each level of a repeated measures factor with more than two levels. The inclusion of covariates in the multiple
regression model containing multiple dependent variables is no problem.

Cronbach's Alpha

For each scale, reliability coefficients (Cronbach's Alpha) were calculated. These are indicators of the internal consistency of a scale and assess how well the items measure the construct they were designed to measure. Carmines and Zeller (1979) report that generally an alpha value of .80 or higher is a reasonable cut-off point for assessing the adequacy of an indicator. An alpha of less than .80 means that the items are either measuring different underlying constructs or they are attenuated by measurement error. Nevertheless, an alpha of less than .80 may be acceptable to an investigator to the extent that it provides meaningful results (Carmines & Zeller, 1979).

Statistically Testing the Differences Between Groups

Two statistics were used to test the differences between groups. The first statistic was the metric regression coefficient (see Appendix F). This coefficient is the principle reason for doing multiple regression analysis because it provides that net of the effects of all the variables in a given path model, the difference between two groups on a scale is x number of units.

The second statistic which was used to test group differences was the F-ratio. This represents the ratio of the improvement in $R^2$ (the multiple correlation coefficient squared) which occurs when a variable is added to the equation. In analysis of variance terms:
\[
F = \frac{\text{Incremental Sum of Squares Due to } X/1}{\text{Residual Sum of Squares}/(N - K - 1)}
\]

Where \( N \) = sample size; \( K \) = number of independent variables.

It should be pointed out that the t-ratio was also used to test group differences. The t-ratio is closely related to the F-ratio in that \( F = t^2 \) (Blalock, 1972; Kerlinger & Pedhazur, 1973).

**Sample Size**

Finally, it should be noted that the sample is relatively small; 20 per cell, with a total \( N \) of 60. A smaller sample size may affect significance tests in that relationships are less likely to be significant in smaller samples. One therefore should note that these are conservative tests of the group effects.

**Identification of Groups**

In the following section, the groups will be identified as either group 1, group 2, or group 3. Group 1 is the non-group control. Group 2 is the male as "coach" control. Group 3 is the experimental group. For a detailed description of these groups the reader is referred to the Methods section (Chapter II).

**Results of the Analysis of the Major Dependent Measures**

Below, the major dependent measures of this study will be presented. They include the results of the analysis of the following scales: state anxiety; state anger; state curiosity; marital conflict; desire for pregnancy; couvade symptomology; baby involvement; self/goal discrepancy; and, self/other discrepancy. As will be noted in the following tables, the data are contrasted with Group 3, which has been selected as the reference variable. For example, in
Table 1, Group 2 (as contrasted with Group 3) at Time 2, scored 3.867 units higher on the State Anxiety measure.

Prerequisite to the presentation of the major analyses, Tables 1, 2 and 3 will depict the means and standard deviations obtained by Group 1, Group 2, and Group 3 for the dependent measures over time.

**State Anxiety Measures**

The internal consistencies of the state anxiety scale are:

- State Anxiety at Time 1 \( \alpha = 0.91 \)
- State Anxiety at Time 2 \( \alpha = 0.90 \)
- State Anxiety at Time 3 \( \alpha = 0.87 \)

These coefficients indicate that there is a high degree of inter-item correlation in the anxiety scales.

The data suggest that there are no significant differences among the three treatment groups on the time 1 measures of state anxiety. However, by time 2, groups 1 and 2 were found to be significantly higher on state anxiety than group 3. Compared to group 3, those in group 1 scored 4.31 units higher on the state anxiety 2 scale (\( b = 4.31; p < .01 \)). Similarly, those in group 2 scored 4.87 units higher on the time 2 state anxiety indicator than men in group 3 (\( b = 4.87; p < .001 \)).

The data suggest, however, that groups 1 and 2 were not significantly different with respect to state anxiety scores (\( p < .679 \)).

At time 3, there were no significant differences among the groups. This suggests one of two possibilities:

a) The effects of group treatment were of a temporary nature.

b) The state anxiety measures at time 3 would naturally be
Table 1
Scale Means Obtained by the Experimental Group for Dependent Measures Over Time

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>Time 1 M</th>
<th>Time 2 M</th>
<th>Time 3 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Anxiety</td>
<td>17.000</td>
<td>15.333^a</td>
<td>14.817^b</td>
</tr>
<tr>
<td>State Anger</td>
<td>10.333</td>
<td>10.150</td>
<td>9.500</td>
</tr>
<tr>
<td>State Curiosity</td>
<td>24.067</td>
<td>28.433^a</td>
<td>27.967^b</td>
</tr>
<tr>
<td>Marital Conflict</td>
<td>13.967</td>
<td>13.567</td>
<td>14.050</td>
</tr>
<tr>
<td>Irritability and Tension</td>
<td>11.433</td>
<td>10.150^a</td>
<td>10.967^b</td>
</tr>
<tr>
<td>Desire for Pregnancy</td>
<td>25.400</td>
<td>28.425^a</td>
<td>26.424</td>
</tr>
<tr>
<td>Couvade Symptomology</td>
<td>2.533</td>
<td>2.010^a</td>
<td>1.883</td>
</tr>
<tr>
<td>Baby Involvement</td>
<td>40.950</td>
<td>46.367^a</td>
<td>44.933</td>
</tr>
<tr>
<td>Self/Goal Discrepancy</td>
<td>4.283</td>
<td>4.000^a</td>
<td>2.724</td>
</tr>
<tr>
<td>Self/Other Discrepancy</td>
<td>2.150</td>
<td>1.750^a</td>
<td>1.250</td>
</tr>
</tbody>
</table>

^aScale Mean is significantly different (p < .05) between Time 1 and Time 2.

^bScale Mean is significantly different (p < .05) between Time 2 and Time 3.
Table 2
Scale Means Obtained by Control Group 2 for the Dependent Measures Over Time

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Time 1 M</th>
<th>Time 2 M</th>
<th>Time 3 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Anxiety</td>
<td>16.984</td>
<td>17.474</td>
<td>15.825(^b)</td>
</tr>
<tr>
<td>State Anger</td>
<td>10.420</td>
<td>10.833</td>
<td>9.500(^b)</td>
</tr>
<tr>
<td>State Curiosity</td>
<td>24.333</td>
<td>25.987</td>
<td>23.420(^b)</td>
</tr>
<tr>
<td>Marital Conflict</td>
<td>13.866</td>
<td>13.724</td>
<td>13.050</td>
</tr>
<tr>
<td>Irritability and Tension</td>
<td>11.302</td>
<td>12.802</td>
<td>11.425(^b)</td>
</tr>
<tr>
<td>Desire for Pregnancy</td>
<td>25.000</td>
<td>25.624</td>
<td>24.826</td>
</tr>
<tr>
<td>Couvade Symptomology</td>
<td>2.322</td>
<td>2.500</td>
<td>2.304</td>
</tr>
<tr>
<td>Baby Involvement</td>
<td>40.833</td>
<td>40.979</td>
<td>38.143(^b)</td>
</tr>
<tr>
<td>Self/Goal Discrepancy</td>
<td>4.233</td>
<td>4.188</td>
<td>4.204</td>
</tr>
<tr>
<td>Self/Other Discrepancy</td>
<td>2.155</td>
<td>2.012</td>
<td>1.974</td>
</tr>
</tbody>
</table>

\(^a\)Scale mean is significantly different (p < .05) between Time 1 and Time 2.

\(^b\)Scale mean is significantly different (p < .05) between Time 2 and Time 3.
Table 3

Scale Means Obtained by Control Group 1 for the Dependent Measures Over Time

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Time 1 M</th>
<th>Time 2 M</th>
<th>Time 3 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Anxiety</td>
<td>17.042</td>
<td>16.974</td>
<td>14.021(^b)</td>
</tr>
<tr>
<td>State Anger</td>
<td>10.309</td>
<td>10.666</td>
<td>9.927</td>
</tr>
<tr>
<td>State Curiosity</td>
<td>23.287</td>
<td>22.817</td>
<td>20.417(^b)</td>
</tr>
<tr>
<td>Marital Conflict</td>
<td>14.024</td>
<td>14.710</td>
<td>13.992</td>
</tr>
<tr>
<td>Irritability and Tension</td>
<td>12.010</td>
<td>12.217</td>
<td>11.104(^b)</td>
</tr>
<tr>
<td>Desire for Pregnancy</td>
<td>25.676</td>
<td>25.684</td>
<td>25.141</td>
</tr>
<tr>
<td>Couvade Symptomology</td>
<td>2.481</td>
<td>2.671</td>
<td>2.409</td>
</tr>
<tr>
<td>Baby Involvement</td>
<td>41.252</td>
<td>40.805</td>
<td>41.126</td>
</tr>
<tr>
<td>Self/Goal Discrepancy</td>
<td>4.133</td>
<td>4.246</td>
<td>4.381</td>
</tr>
<tr>
<td>Self/Other Discrepancy</td>
<td>2.066</td>
<td>2.124</td>
<td>2.033</td>
</tr>
</tbody>
</table>

\(^a\) Scale mean is significantly different (p < .05) between Time 1 and Time 2.

\(^b\) Scale mean is significantly different (p < .05) between Time 2 and Time 3.
lower for all groups because the measure was taken after childbirth, which is assumed to be a large source of the anxiety.

These findings will be elaborated on further in the discussion section.

The variables in the model explained 44 percent of the variance in the time-3 state anxiety measures; 55 percent of the variance in the time-2 measures; and 11 percent of the variance in the time-1 anxiety measure. These figures were provided by the multiple R² which provides an estimate of the degree of the explanatory power in a regression model.

The exogenous variables (age, education, years married, and whether the pregnancy was planned) in the model added little to the understanding of state anxiety. The exception to this is the effect of age on time-3 anxiety. This coefficient indicates that older men are better able to cope with anxiety following the birth of a child than younger men.

**State Anger Measures**

The Chronbach Alpha's for the State Anger measures are listed below:

- State anger at time 1 Alpha = .86
- State anger at time 2 Alpha = .85
- State anger at time 3 Alpha = .80

These coefficients indicate that there is a high degree of inter-item correlation in these measures.
Table 4

The Influence of Treatment Groups on State Anxiety Measures (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
</tr>
<tr>
<td>State</td>
<td>-.252&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Anxiety 3</td>
<td>-.304&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>State</td>
<td>.024&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Anxiety 2</td>
<td>.037&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>State</td>
<td>-.170&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Anxiety 1</td>
<td>-.286&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Group 2&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.050&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>.006&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Group 1&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-.120&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>-.015&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> = Dummy variable (0 = planned; 1 = not planned)
<sup>b</sup> = Standardized coefficients appear above metric coefficients throughout table
<sup>c</sup> = Metric coefficients appear below standardized coefficients throughout table
<sup>d</sup> = Dummy variable (1 = treatment condition 2; 0 = otherwise)
<sup>e</sup> = Dummy variable (1 = treatment condition 1; 0 = otherwise)

*<sup>p</sup> < .05
**<sup>p</sup> < .01
***<sup>p</sup> < .001
Figure 2

A Path Model of State Anxiety
The findings (see Table 5) indicate that there are no significant differences among the treatment groups at times 1, 2 or 3. The data shown in Figure 2 demonstrate that at time 1, those men who had not planned the pregnancy were significantly more state angry than those who had planned the pregnancy (Beta = .307; p < .05). At time 3, those men with more years of education were less state angry than those men with less years of education (Beta = .358; p < .05).

The variables in this model explain 48% of the variance in the time 3 state anger measure; 52% of the variance in the time 2 state anger measure; and, 12% of the variance in the time 1 measure.

A most curious phenomenon is that although state anger at time 1 strongly influences state anger at time 2 (Beta = .537), the degree of influence from time 2 to time 3 is nil.

**State Curiosity Measures**

The reliabilities for the state curiosity measures are listed below:

- State curiosity at time 1: Alpha = .88
- State curiosity at time 2: Alpha = .88
- State curiosity at time 3: Alpha = .90

The coefficients indicate that there is a high degree of inter-item correlation in these measures.

The findings (see Table 6) indicate that there are no significant differences among the three treatment groups on the state curiosity measure at time 1. Significant group differences do appear at time 2. The result suggests that compared to the men in group 3,
Table 5

The Influence of Treatments on State Anger Measures (N = 60)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned Pregnancy</th>
<th>State Anger 1</th>
<th>State Anger 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>-0.158&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.358&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-0.117</td>
<td>-0.066</td>
<td>-0.003</td>
<td>0.091</td>
<td>0.242</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger 3</td>
<td>-0.078&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.287</td>
<td>0.086</td>
<td>-0.259</td>
<td>-0.002</td>
<td>0.345</td>
<td>0.919</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>0.026&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.043</td>
<td>-0.112</td>
<td>0.031</td>
<td>0.537&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.219</td>
<td>0.168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger 2</td>
<td>0.016&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.045</td>
<td>-0.106</td>
<td>0.160</td>
<td>0.424</td>
<td>1.081</td>
<td>0.833</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>0.187&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.043</td>
<td>-0.085</td>
<td>0.307&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-0.034</td>
<td>0.115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger 1</td>
<td>0.151&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.057</td>
<td>-0.103</td>
<td>1.981</td>
<td>-0.211</td>
<td>0.723</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2&lt;sup&gt;d&lt;/sup&gt;</td>
<td>0.050&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.004</td>
<td>0.006</td>
<td>0.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.006&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.009</td>
<td>0.001</td>
<td>0.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-0.120&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.226</td>
<td>0.013</td>
<td>-0.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.015&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.048</td>
<td>0.002</td>
<td>-0.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> = Dummy variable (0 = planned; 1 = not planned)
<sup>b</sup> = Standardized coefficients appear above metric coefficients throughout table
<sup>c</sup> = Metric coefficients appear below standardized coefficients throughout table
<sup>d</sup> = Dummy variable (1 = treatment condition 2; 0 = otherwise)
<sup>e</sup> = Dummy variable (1 = treatment condition 1; 0 = otherwise)

<sup>*</sup><sub>p < .05</sub>
<sup>**</sup><sub>p < .01</sub>
<sup>***</sup><sub>p < .001</sub>
Figure 3
A Path Model of State Anger
Table 6
The Influence of Treatment Groups on State Curiosity Measures (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Planned</th>
<th>Married</th>
<th>Pregnancy</th>
<th>Planned a</th>
<th>State Curiosity 1</th>
<th>State Curiosity 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>.025 b</td>
<td>.119</td>
<td>-.057</td>
<td></td>
<td></td>
<td>.120</td>
<td>.710***</td>
<td>-.071</td>
<td>-.132</td>
<td></td>
</tr>
<tr>
<td>Curiosity</td>
<td>.045 c</td>
<td>.350</td>
<td>-.153</td>
<td>1.719</td>
<td></td>
<td></td>
<td>.755</td>
<td>-.994</td>
<td>-1.838</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>-.0005 b</td>
<td>-.037</td>
<td>-.133</td>
<td>-.010</td>
<td></td>
<td>.456**</td>
<td>-.618***</td>
<td>-.676***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curiosity 2</td>
<td>-.009 c</td>
<td>-.103</td>
<td>-.337</td>
<td>-.140</td>
<td></td>
<td>.466</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>-.270 b</td>
<td>.187</td>
<td>.124</td>
<td>.168</td>
<td></td>
<td></td>
<td>-.074</td>
<td>-.114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curiosity 3</td>
<td>-.447 c</td>
<td>.508</td>
<td>.306</td>
<td>2.222</td>
<td></td>
<td></td>
<td>-.954</td>
<td>-1.462</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2 d</td>
<td>.050 b</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1 e</td>
<td>-.120 b</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a = Dummy variable (0 = planned; 1 = not planned)
b = Standardized coefficients appear above metric coefficients throughout table
c = Metric coefficients appear below standardized coefficients throughout table
d = Dummy variable (1 = treatment condition 2; 0 = otherwise)
e = Dummy variable (1 = treatment condition 1; 0 = otherwise)

*p < .05
**p < .01
***p < .001
Figure 4

A Path Model of State Curiosity
those in group 2 are 8.88 units lower on the time 2 state curiosity measure (b = -8.88; p < .001). The men in group 1 were also found to report less state curiosity than men in group 3 (b = -8.05; p < .001), scoring 8.05 units lower on the state curiosity scale.

No significant differences were found among the treatment groups on state curiosity at time 3.

Overall, the variables in this model accounted for 68% of the variance in the state curiosity measure at time 3, 68% of the variance at time 2, and 11% of the variance at the time 1 measure of state curiosity.

The demographic variable contributed little to the understanding of the factors which influence state curiosity measures.

**Marital Conflict Measures**

The reliabilities for the marital conflict measures are as follows:

- Marital conflict at time 1: Alpha = .70
- Marital conflict at time 2: Alpha = .70
- Marital conflict at time 3: Alpha = .75

These statistics suggest that the psychometric properties of the marital conflict measure are below the standard level of acceptability. One factor in this may be the fact that the scale had only four items and that reliabilities tend to be lower when scales involve fewer number of items (Carmines & Zeller, 1979).

The data in Table 7 suggests no significant differences existed in treatment conditions with respect to any of the marital conflict measures. Similarly, none of the demographic variables exerted a
Table 7

The Influence of Treatment Groups on Marital Conflict Measures (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
</tr>
<tr>
<td>Marital</td>
<td>.153&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict 3</td>
<td>.147&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Marital</td>
<td>-.003&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict 2</td>
<td>-.003&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Marital</td>
<td>-.217&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict 1</td>
<td>-.214&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Group 2&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.050&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>.006&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Group 1&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-.120&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>-.015&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> = Dummy variable (0 = planned; 1 = not planned)
<sup>b</sup> = Standardized coefficients appear above metric coefficients throughout table
<sup>c</sup> = Metric coefficients appear below standardized coefficients throughout table
<sup>d</sup> = Dummy variable (1 = treatment condition 2; 0 = otherwise)
<sup>e</sup> = Dummy variable (1 = treatment condition 1; 0 = otherwise)

*p < .05
**p < .01
***p < .001
significant influence on any of the variables in the model.

Irritability and Tension Measures

The measures of internal consistency for the irritability and tension measures are:

- Irritability at time 1: $\alpha = 0.85$
- Irritability at time 2: $\alpha = 0.76$
- Irritability at time 3: $\alpha = 0.79$

These statistics indicate that the irritability indices generally have acceptable statistical properties (Carmine & Zeller, 1979).

No significant group differences were found with respect to the time 1 outcome measure. However, statistically significant differences were found at time 2. The data in Table 8 indicate that the men in group 1 were more irritable than the men in group 3. That is, compared to those in group 3, the men in group 1 scored 3.46 units higher on the irritability score ($b = 3.46; p < .001$). In addition, the men in group 2 scored 4.76 units higher on the irritability measure than did the men in group 3 ($b = 4.76; p < .001$). No significant differences were found between groups 1 and 2 on the time 2 irritability and tension measure ($p = .108$). No statistically significant differences were found among the treatment groups with regard to the time 3 irritability measures.

Overall, the variables in the model depicted in Figure 5 explained 57% of the variance in the irritability scores at time 3, 65% of the variance at time 2, and 57% of the variance in the time 1 outcomes. Finally, the data in Table 8 indicate that none of the demographic variables exerted a significant influence on any of the
Table 8
The Influence of Treatment Groups on Irritability and Tension Measures (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned Pregnancy</th>
<th>Irritability 1</th>
<th>Irritability 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability 3</td>
<td>-.060&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.047</td>
<td>-.042</td>
<td>-.114</td>
<td>.668***</td>
<td>.198</td>
<td>.155</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.065&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.081</td>
<td>-.067</td>
<td>-.962</td>
<td>.676</td>
<td>1.630</td>
<td>1.278</td>
<td></td>
</tr>
<tr>
<td>Irritability 2</td>
<td>.173&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.095</td>
<td>-.046</td>
<td>.164</td>
<td>.560***</td>
<td>.425***</td>
<td>.586***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.181&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.162</td>
<td>-.073</td>
<td>1.369</td>
<td>.442</td>
<td>3.458</td>
<td>4.761</td>
<td></td>
</tr>
<tr>
<td>Irritability 1</td>
<td>-.136&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.102</td>
<td>.096</td>
<td>.043</td>
<td>-.114</td>
<td>.062</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.180&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.222</td>
<td>.191</td>
<td>.454</td>
<td>-1.175</td>
<td>.650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.050&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.006&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-.120&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.015&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.048</td>
<td>.002</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Dummy variable (0 = planned; 1 = not planned)
<sup>b</sup> Standardized coefficients appear above metric coefficients throughout table
<sup>c</sup> Metric coefficients appear below standardized coefficients throughout table
<sup>d</sup> Dummy variable (1 = treatment condition 2; 0 = otherwise)
<sup>e</sup> Dummy variable (1 = treatment condition 1; 0 = otherwise)

* p < .05
** p < .01
*** p < .001
Figure 5

A Path Model of Marital Conflict
Figure 6

A Path Model of Irritability and Tension
group irritability and tension measures.

**Desire for Pregnancy Scales**

The reliability estimates for the desire for pregnancy scales are listed below:

- Desire for pregnancy at time 1 \( \text{Alpha} = .85 \)
- Desire for pregnancy at time 2 \( \text{Alpha} = .85 \)
- Desire for pregnancy at time 3 \( \text{Alpha} = .84 \)

The coefficients indicate that there is a high degree of inter-item correlation in these measures.

As the data in Table 9 reveal, there were no significant differences in the time 1 desire for pregnancy scores with regard to the three treatment groups. The findings do suggest, however, that at time 2, compared to those men in group 3, those men in group 1 scored 1.73 units lower on the desire for pregnancy scale (\( b = -1.73; p < .05 \)). No significant differences were found between groups 2 and 3, nor were significant differences noted between groups 1 and 2 on the time 2 desire for pregnancy measures. Consistent with the analyses on the other scales, no significant group differences were found with respect to the time 3 desire for pregnancy measures.

Overall, the variables in Figure 7 were found to explain a high percentage of the variance in the desire for pregnancy measures. Eighty-six percent of the variance was explained at time 3, 79% of the variance was explained at time 2, and 34% of the variance was explained at time 1. It should be emphasized that most of the variance which was explained can be attributed to the prior desire for pregnancy measures, and not to the influence of the treatment.
Table 9

The Influence of Treatment Groups on the Desire for Pregnancy Measures (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned (^a) Pregnancy</th>
<th>Desire 1</th>
<th>Desire 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desire 3</td>
<td>-.048(^b)</td>
<td>-.0003</td>
<td>.045</td>
<td>-.104</td>
<td>.845(^***)</td>
<td>-.040</td>
<td>-.055</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.060(^c)</td>
<td>-.0005</td>
<td>.083</td>
<td>-1.027</td>
<td>.767</td>
<td>-.382</td>
<td>-.529</td>
<td></td>
</tr>
<tr>
<td>Desire 2</td>
<td>-.083(^b)</td>
<td>.011</td>
<td>.072</td>
<td>-.145</td>
<td>.766</td>
<td>-.164(^*)</td>
<td>-.139</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.113(^c)</td>
<td>.025</td>
<td>.146</td>
<td>-1.575</td>
<td>.742</td>
<td>-1.725</td>
<td>-1.460</td>
<td></td>
</tr>
<tr>
<td>Desire 1</td>
<td>-.157(^b)</td>
<td>.142</td>
<td>.012</td>
<td>-.528(^***)</td>
<td>.067</td>
<td>-.094</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.220(^c)</td>
<td>.325</td>
<td>-.024</td>
<td>-5.907</td>
<td>.727</td>
<td>-1.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2 (^d)</td>
<td>.050(^b)</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.006(^c)</td>
<td>.0009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1 (^e)</td>
<td>-.120(^b)</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.015(^c)</td>
<td>-.048</td>
<td>.002</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) = Dummy variable (0 = planned; 1 = not planned)
\(^b\) = Standardized coefficients appear above metric coefficients throughout table
\(^c\) = Metric coefficients appear below standardized coefficients throughout table
\(^d\) = Dummy variable (1 = treatment condition 2; 0 = otherwise)
\(^e\) = Dummy variable (1 = treatment condition 1; 0 = otherwise)

\(^*p < .05\)
\(^**p < .01\)
\(^***p < .001\)
Figure 7
A Path Model of Desire for Pregnancy
As hypothesized, whether or not a pregnancy was planned was found to exert a strong influence on the desire for pregnancy at time 1, the seventh month of pregnancy (Beta = -.528; p < .001). This statistic indicates that compared to those who planned the pregnancy, those who did not plan the pregnancy report a lower desire for the pregnancy.

**Couvade Symptoms Scales**

Chronbach's Alpha was not calculated for this scale as its usefulness and appropriateness in this instance would be questionable. As the couvade symptom scale is presently conceptualized, it measures both the presence of a symptom and its intensity. It should be noted that the presence of any of the items is sufficient to constitute the presence of a couvade phenomenon. Furthermore, it is highly unlikely that more than 3-4 items (symptoms) would be present at the same time. Hence, the inter-item correlations would add little to one's sense of efficacy of this scale.

Unlike in the previous analyses, group membership was found to exert a significant impact on a time 1 measure. The data in Table 10 indicate that compared to group 3 members, those in group 1 reported 2.09 units lower on the couvade symptoms score (b = -2.09; p < .05). No significant differences in time 1 were found with regard to group 2 (b = -1.53; p < .099).

At time 2, however, the data in Table 10 suggests that compared to those in group 3, the men in group 2 scored 4.18 units higher on the couvade symptom score (b = 4.18; p < .001). Similarly, men in group 1 were found to score 4.08 units higher on the measure of
Table 10
The Influence of Treatment Groups on Couvade Symptoms (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned\textsuperscript{a}</th>
<th>Pregnancy</th>
<th>Couvade 1</th>
<th>Couvade 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couvade 3</td>
<td>-.055\textsuperscript{b}</td>
<td>-.123</td>
<td>.044</td>
<td>-.023</td>
<td>.726\textsuperscript{***}</td>
<td>.150</td>
<td>.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.028\textsuperscript{c}</td>
<td>-.104</td>
<td>.033</td>
<td>-.094</td>
<td>.566</td>
<td>.600</td>
<td>.538</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couvade 2</td>
<td>.040\textsuperscript{b}</td>
<td>.033</td>
<td>-.084</td>
<td>.185\textsuperscript{*}</td>
<td>.695\textsuperscript{***}</td>
<td>4.080</td>
<td>4.175</td>
<td>.759\textsuperscript{***}</td>
<td>.777\textsuperscript{***}</td>
</tr>
<tr>
<td></td>
<td>.028\textsuperscript{c}</td>
<td>.037</td>
<td>-.088</td>
<td>1.025</td>
<td>.583</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couvade 1</td>
<td>.047\textsuperscript{b}</td>
<td>.154</td>
<td>-.074</td>
<td>-.258</td>
<td></td>
<td>-.325\textsuperscript{*}</td>
<td>-.238</td>
<td>.208</td>
<td>-1.525</td>
</tr>
<tr>
<td></td>
<td>.039\textsuperscript{c}</td>
<td>.208</td>
<td>-.091</td>
<td>-1.699</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2\textsuperscript{d}</td>
<td>.050\textsuperscript{b}</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.006\textsuperscript{c}</td>
<td>.0009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1\textsuperscript{e}</td>
<td>-.120\textsuperscript{b}</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.015\textsuperscript{c}</td>
<td>-.048</td>
<td>.002</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a} = Dummy variable (0 = planned; 1 = not planned)
\textsuperscript{b} = Standardized coefficients appear above metric coefficients throughout table
\textsuperscript{c} = Metric coefficients appear below standardized coefficients throughout table
\textsuperscript{d} = Dummy variable (1 = treatment condition 2; 0 = otherwise)
\textsuperscript{e} = Dummy variable (1 = treatment condition 1; 0 = otherwise)

\*p < .05
\**p < .01
\***p < .001
Figure 8

A Path Model of Couvade Symptoms
couvade symptoms ($b = 4.08; p < .001$). In other words, men in group 3 actually had higher couvade symptom scores than men in group 2 at time 1. After the intervention, however, the direction of the difference was reversed at time 2. The magnitude of the impact is further illustrated by the time 2 standardized regression coefficients. The Path coefficients in Figure 7 show that group membership was more strongly related to couvade symptoms at time 2 than the time 1 couvade symptom measure. Finally, no statistical differences were found in the influence of group 1 and group 2 membership on time 2 couvade symptoms ($p < .847$).

The variables in Figure 7 were found to explain 71% of the variance in the time 3 couvade symptoms measure, 70% in the time 2 measure, and 24% in the time 1 indicator.

The only demographic factor to exert a significant impact on couvade symptomology was the planned pregnancy variable. The data in Table 10 indicate that compared to those who planned the pregnancy, those who did not reported more couvade symptoms at time 2 ($Beta = .185; p < .05$).

**Baby Involvement Indices**

The measures of internal consistency for the baby involvement indices are presented below:

- Baby involvement at time 1  Alpha = .84
- Baby involvement at time 2  Alpha = .89
- Baby involvement at time 3  Alpha = .88

These coefficients indicate that there is a high degree of inter-item correlation in these measures.
The data in Table 11 indicate that group membership has no significant effects on the time 1 baby involvement indicators, suggesting that expectant fathers in all three treatment conditions initially expressed the same levels of anticipated involvement with their baby. At time 2, as sharp differences between groups 3 and groups 1 and 2 begin to emerge. The data in Table 11 suggest that compared to those in group 3, the men in group 1 score 9.53 units lower on the baby involvement score at time 2 (b = -9.53; p < .001). Also at time 2 members of group 2 were found to score 9.86 units lower on the baby involvement measure than the men in group 3 (b = -9.86; p < .001), and members of group 1 were found to not be significantly different than members of group 2. The data in Table 11 further suggest that there were no treatment group differences at time 3.

The variables in Figure 9 explain 69% of the variance in time 3 baby involvement measures, 79% of the variance in time 2 indicators, and 13% of the variance in the time 1 scales.

Two demographic variables significantly influenced the baby involvement measures. The first of these was the planned pregnancy variable. The data in Table 11 indicate that compared to those men whose pregnancy was planned, those who had not planned the pregnancy scored higher on the time 2 baby involvement measures (Beta = .137; p < .05). Age also tended to influence the baby involvement measure. Those men who were older, tended to score higher on the time 2 measure of baby involvement (Beta = -.226; p < .057).
<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned^</th>
<th>Baby 1</th>
<th>Baby 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby 3</td>
<td>-.073^</td>
<td>-.075</td>
<td>.094</td>
<td>-.156</td>
<td>.738***</td>
<td>-.114</td>
<td>-.171</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.161^c</td>
<td>-.272</td>
<td>.312</td>
<td>-2.773</td>
<td>.779</td>
<td>-1.967</td>
<td>-2.946</td>
<td></td>
</tr>
<tr>
<td>Baby 2</td>
<td>-.226**^b</td>
<td>-.031</td>
<td>.118</td>
<td>.137*</td>
<td>.580***</td>
<td>-.584***</td>
<td>-.604***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.475^c</td>
<td>-.105</td>
<td>.369</td>
<td>2.307</td>
<td>.667</td>
<td>-9.530</td>
<td>-9.856</td>
<td></td>
</tr>
<tr>
<td>Baby 1</td>
<td>-.300*^b</td>
<td>.173</td>
<td>.105</td>
<td>.207</td>
<td>.009</td>
<td>-.062</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.549</td>
<td>.517</td>
<td>.286</td>
<td>3.019</td>
<td>.130</td>
<td>-.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2^d</td>
<td>.050</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.006</td>
<td>.0009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1^e</td>
<td>-.120</td>
<td>-.226</td>
<td>.013</td>
<td>.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.015</td>
<td>-.048</td>
<td>.002</td>
<td>.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a = Dummy variable (0 = planned; 1 = not planned)
b = Standardized coefficients appear above metric coefficients throughout table
c = Metric coefficients appear below standardized coefficients throughout table
d = Dummy variable (1 = treatment condition 2; 0 = otherwise)
e = Dummy variable (1 = treatment condition 1; 0 = otherwise)

*p < .05
**p < .01
***p < .001
Figure 9

A Path Model of Baby Involvement
Self/Goal Discrepancy Measures

The estimates of internal consistency of the self/goal discrepancy indicators are presented below:

- Self/goal at time 1: \( \alpha = .46 \)
- Self/goal at time 2: \( \alpha = .70 \)
- Self/goal at time 3: \( \alpha = .70 \)

These estimates are marginal for times 2 and 3, and are clearly unacceptable at time 1. This could reflect the timing of the measures and the crystallization of self and goal with the approaching pregnancy. That is, in the seventh month of the pregnancy, it may not be clear, to the expectant father, how he views himself as a potential provider, or how he envisions himself getting along with a child, etc. By the ninth month of the pregnancy, and the nearness of the birth, the expectant father may have a clearer, albeit uncertain, picture of himself and his goals. Another plausible reason for the overall low inter-item correlations may be the small number of items in the scale (five items) (see Carmines & Zeller, 1979).

The results presented in Table 12 suggest that group members differ in the degree of self/goal discrepancy at time 1. The findings indicate that compared to those in group 3, the men in group 1 scored 2.03 units lower on the self/goal measures (\( b = -2.03; \ p < .05 \)). Similarly, men in group 2 scored 2.01 units lower on the self/goal index than men in group 3 (\( b = -2.01; \ p < .05 \)). The differences between groups 1 and 2 however are not statistically significant (\( p < .983 \)). These findings suggest that men in group 3 enter treatment with more severe self/goal discrepancies than the men in
Table 12
The Influence of Treatment Groups on Self/Goal Discrepancies (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned Pregnancy</th>
<th>Self/Goal 1</th>
<th>Self/Goal 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self/Goal 3</td>
<td>.003(^{b})</td>
<td>-.223(^*)</td>
<td>.092</td>
<td>-.070</td>
<td>.451(^{***})</td>
<td>.301(^*)</td>
<td>.214</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.003(^{c})</td>
<td>-.305</td>
<td>.116</td>
<td>-.467</td>
<td>.401</td>
<td>1.956</td>
<td>1.390</td>
<td></td>
</tr>
<tr>
<td>Self/Goal 2</td>
<td>.109(^{b})</td>
<td>-.073</td>
<td>-.073</td>
<td>.185</td>
<td>.387(^{***})</td>
<td>.498(^{***})</td>
<td>.651(^{***})</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.103(^{c})</td>
<td>-.113</td>
<td>-.103</td>
<td>1.396</td>
<td>.433</td>
<td>3.644</td>
<td>4.767</td>
<td></td>
</tr>
<tr>
<td>Self/Goal 1</td>
<td>.004(^{b})</td>
<td>.091</td>
<td>-.207</td>
<td>-.088</td>
<td>- .311(^*)</td>
<td>-.308(^*)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.004(^{c})</td>
<td>.125</td>
<td>-.261</td>
<td>-.593</td>
<td>-2.033</td>
<td>-2.012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1(^{d})</td>
<td>.050(^{b})</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.006(^{c})</td>
<td>.0009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2(^{e})</td>
<td>-.120(^{b})</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.015(^{c})</td>
<td>-.048</td>
<td>.002</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{a}\) Dummy variable (0 = planned; 1 = not planned)
\(^{b}\) Standardized coefficients appear above metric coefficients throughout table
\(^{c}\) Metric coefficients appear below standardized coefficients throughout table
\(^{d}\) Dummy variable (1 = treatment condition 2; 0 = otherwise)
\(^{e}\) Dummy variable (1 = treatment condition 1; 0 = otherwise)

\(^*p < .05\)
\(^{**}p < .01\)
\(^{***}p < .001\)
Figure 10

A Path Model of Self/Goal Discrepancies
groups 1 or 2.

By time 2 a rather dramatic shift has occurred. Instead of reporting lower self/goal discrepancies, men in groups 1 and 2 now report greater self/goal discrepancies than the men in group 3. The findings indicate that compared to the men in group 3, the men in group 1 score 3.64 units higher on the self/goal discrepancy measure ($b = 3.64; p < .001$). Similarly, men in group 2 score 4.77 units higher on the self/goal discrepancy measure ($b = 4.77; p < .001$). While both groups 1 and 2 were found to differ from group 3, group 1 scores were not found to be significantly different from group 2 scores ($p < .222$).

The data in Figure 12 further reveal that the differences between groups 1 and 3 continue to exist at the third time point. Here the results indicate that the men in group 1 score 1.96 units higher on the self/goal measure than do the men in group 3 ($b = 1.96; p < .05$). No significant differences were found between groups 2 and 3 ($b = 1.40; p < .825$), or between groups 1 and 2 ($p < .983$).

Education was the only exogenous variable to exert a significant influence on any of the self/goal measures. The data in Table 12 show that less educated men are more likely to report greater self/goal discrepancies than more educated men at time 3 (Beta = -.223; $p < .05$).

Overall, the variables in Figure 10 explain 46% of the variance in the time 3 self/goal measures, 42% of the variance in the time 2 measures, and 17% of the variance in the self/goal discrepancies at time 1.
Self/Other Discrepancy Measures

The Cronbach alphas for the self/other discrepancy measures are as follows:

- Self/other at time 1: alpha = 0.59
- Self/other at time 2: alpha = 0.75
- Self/other at time 3: alpha = 0.69

Again, these statistics are marginally acceptable reliabilities at times 2 and 3, and an unacceptable reliability at time 1. The explanation here is the same as with the self/goal measure.

No relationships were found among the group memberships and the time 1 self/other discrepancy scores. The data in Table 13 and Figure 10 indicate at time 2, members of both group 1 and 2 report greater discrepancies between how they view themselves and they perceive others view them than do men who are in group 3. The data suggest that compared to those men in group 3, the men in group 1 score 1.58 units higher on the self/other discrepancy measure ($b = 1.58; p < .01$). Similarly, the men in group 2 scored 2.77 units higher on the self/other measure than the men in group 3 ($b = 2.77; p < .001$). The self/other discrepancy scores of group 2 men were found to differ significantly from the scores reported by the men in group 1 at the second time period ($p < .045$). No significant differences were found with regard to the time 3 self/other discrepancy scores and none of the exogenous variables were found to significantly influence any of the self/other discrepancy measures.

Overall, the variables in Figure 11 explained 45% of the variance in the time 3 self/other discrepancy measures, 52% of the variance
### Table 13

The Influence of Treatment Groups on Self/Other Discrepancies (N = 60)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Age</th>
<th>Education</th>
<th>Years Married</th>
<th>Planned Pregnancy</th>
<th>Self/Other 1</th>
<th>Self/Other 2</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self/Other 3</td>
<td></td>
<td>-.215&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.115</td>
<td>.101</td>
<td>-.063</td>
<td>.643***</td>
<td>.069</td>
<td>-.020</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.131&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.115</td>
<td>.092</td>
<td>-.309</td>
<td>.596</td>
<td>.327</td>
<td>-.093</td>
<td></td>
</tr>
<tr>
<td>Self/Other 2</td>
<td></td>
<td>.210&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.047</td>
<td>-.076</td>
<td>.039</td>
<td>.539***</td>
<td>.309**</td>
<td>.541***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.138&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.050</td>
<td>-.070</td>
<td>.206</td>
<td>.527</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self/Other 1</td>
<td></td>
<td>-.002&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.109</td>
<td>-.005</td>
<td>.241</td>
<td></td>
<td></td>
<td>-.138</td>
<td>-.136</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.001&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.120</td>
<td>-.005</td>
<td>1.293</td>
<td></td>
<td></td>
<td>-.719</td>
<td>-.712</td>
</tr>
<tr>
<td>Group 2&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
<td>.050&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.004</td>
<td>.006</td>
<td>.166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>.006&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.0009</td>
<td>.001</td>
<td>.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1&lt;sup&gt;e&lt;/sup&gt;</td>
<td></td>
<td>-.120&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.226</td>
<td>.013</td>
<td>-.064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.015&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.048</td>
<td>.002</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> = Dummy variable (0 = planned; 1 = not planned)  
<sup>b</sup> = Standardized coefficients appear above metric coefficients throughout table  
<sup>c</sup> = Metric coefficients appear below standardized coefficients throughout table  
<sup>d</sup> = Dummy variable (1 = treatment condition 2; 0 = otherwise)  
<sup>e</sup> = Dummy variable (1 = treatment condition 1; 0 = otherwise)  

*p < .05  
**p < .01  
***p < .001
Figure 11

A Path Model of Self/Other Discrepancies
in the time 2 indicators, and 8% of the variance in the time 1 scales.

**Summary of the Results**

The results indicate that treatment intervention of a specific nature, e.g., an expectant father's training group, has a positive and proactive effect on how prospective fathers think and feel during the third trimester of their wife's pregnancy. The results of the analysis of the data indicate that the subjects in the experimental group had a more positive adjustment to the pregnancy than men who received other kinds of intervention; e.g., material not specifically oriented for expectant fathers. The data further indicate that generally, the differences exhibited between the experimental and control groups do not generalize to one month postpartum. A summary of the results may be seen in Table 14.
### Table 14

Summary of Results

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>Expectant Fatherhood Questionnaire Administrations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
<td>Time 2</td>
</tr>
<tr>
<td><strong>State Anxiety</strong></td>
<td>No effects</td>
<td>Groups 1 and 2 had more anxiety than group 3. There was no difference between groups 1 and 2.</td>
</tr>
<tr>
<td><strong>State Anger</strong></td>
<td>Men who had not planned the pregnancy had more anger.</td>
<td>No effects.</td>
</tr>
<tr>
<td><strong>State Curiosity</strong></td>
<td>No effects.</td>
<td>Men in group 3 had more curiosity than men in groups 1 and 2. No difference between groups 1 and 2.</td>
</tr>
<tr>
<td><strong>Marital Conflict</strong></td>
<td>No effects.</td>
<td>No effects.</td>
</tr>
<tr>
<td><strong>Irritability &amp; Tension</strong></td>
<td>No effects.</td>
<td>Group 3 had less irritability and tension than groups 1 and 2. No difference between groups 1 and 2.</td>
</tr>
</tbody>
</table>
Table 14 (Continued)

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>Expectant Fatherhood Questionnaire Administrations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time 1</td>
</tr>
<tr>
<td>Desire for Pregnancy</td>
<td>Men who had planned the pregnancy stated a greater desire for the pregnancy.</td>
</tr>
<tr>
<td>Couvade Symptom-ology</td>
<td>Group 3 had more couvade symptoms.</td>
</tr>
<tr>
<td>Baby Involvement</td>
<td>No effects</td>
</tr>
</tbody>
</table>
Table 14 (Continued)

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self/Goal Discrepancy</td>
<td>Group 3 had greater discrepancies than groups 1 and 2. Those men with less education had greater discrepancies.</td>
<td>Group 3 had less discrepancies than groups 1 and 2. No differences between groups 1 and 2.</td>
<td>Group 3 had fewer discrepancies than group 1. No differences between group 1 and 2.</td>
</tr>
<tr>
<td>Self-Other Discrepancy</td>
<td>No effects.</td>
<td>Group 3 had fewer discrepancies than group 2 which had fewer than group 1.</td>
<td>No effects.</td>
</tr>
</tbody>
</table>
Overview

The purpose of the present study was to evaluate whether a brief treatment/intervention would lower the concomitant stress reactions and increase the adaptivity of men toward the pregnancy and birth of their first child. An experimental group of men who received a program aimed at their needs was compared with two kinds of control groups; those who were not members of a group and those who received an intervention addressing the women's needs of the pregnancy (the husband as a coach model).

In general, it is concluded that the specific intervention addressing itself to the psychological needs of the expectant father had a positive though temporary effect on the psychological adjustment of the men towards the pregnancy of their wives. Further, the effects generated by the intervention given this experimental group were more positive and proactive than the effects observed in the two control groups. However, the obtained effects generally tended not to be found one month following the birth of the child.
Discussion of Specific Hypotheses

State Anxiety

Research has demonstrated that pregnancy causes anxiety for the expectant father and that this anxiety tends to increase as the birth of the child nears (LeMasters, 1957). One subject in the present study, in describing his feelings on the nearing of the "due date" of his child's birth stated:

> It's like waiting for the ball to drop in Times Square on New Year's Eve. I just can't wait for that count down to begin; and yet, the closer the time comes, the more uptight I get. Just thinking about it makes my heart beat faster; I even feel my stomach getting tighter.

To help subjects lessen the "nervousness" associated with this expectancy, the experimental group discussed specific issues such as providership and nurturance during their meeting. Interestingly, the data showed that providing information about the pregnancy and birth to one control group, or using the traditional psychoprophylactic methods so effective with easing the woman's anxiety at the time of the birth, to another control, was not as effective as the experimental group.

One may speculate as to the specific origins of the different anxiety "sets" experienced by men and women during the pregnancy. Certainly, the women is going through massive physiological/hormonal changes, as well as concomitant psychological effects during the perinatal period. The husband, although he may experience varying couvade symptoms of a physiological nature, primarily experiences psychologically induced effects. This may account for differing
"sets" of anxieties. Alternatively, it may be that men and women experience similar "sets" of anxiety, but that the alleviation of it is facilitated by addressing the individual directly as the person experiencing it. This individual attention is quite different than addressing the expectant father as a person who is "coaching" the pregnant woman. It is therefore suggested that either different types of treatment plans may be required or that similar plans may need to be articulated differently to address these sets of anxiety.

Once the child has been born, there may in fact be a "leveling off" of anxiety in all men (see Tables 1, 2 and 3). The emotional impact of the birth of the child may serve to eradicate at best, or minimize the previously existing "negative" emotions. As one subject stated in a letter following the birth of his daughter:

Before my wife went into labor, I was laboring over so many worries of what was happening and what was to come, that I thought my head would split. When her labor began, strangely enough I felt calmer. And when my daughter was born, it was like the slate of worries had been wiped clean. What a feeling!

This finding, that anxiety is diminished following the birth of the baby, is consistent with the results of Fein (1976). Although there were no differences between groups one month postpartum, there was one independent variable, age, which had an effect. Specifically, older men, that is, men in their late 30's as opposed to early 30's, had less state anxiety after the baby was born. Perhaps, as Levinson (1978) suggests, there is a "settling down" as a man matures, which eases, albeit temporarily, some of the inner conflicts and outer strivings. As will be addressed elsewhere in this discussion, this
"settling down" phenomenon effected other transitional issues as well.

**State Anger**

As the results indicate, there were no differences between treatment groups with respect to state anger. However, at time 1, in the seventh month of the pregnancy, those men who had not planned the pregnancy reported more state anger than men who had. It is interesting to note that this was the only time at which this effect was noted. By nine months many subjects apparently felt as one S reported:

> After hearing that (my wife) was going to have a baby, I spent the next few weeks worrying about money, space in the apartment, and the relationship. I just wasn't ready. After a time, a terrible time at that, I started coming around. Now I can't wait.

If they had not found some satisfactory way to reconcile the pregnancy, they may very well have expressed a great deal of anger about the impending birth.

Another way to view the finding of anger at time 1 may be that at about seven months there is an end to what Coleman and Coleman (1971) call the "honeymoon" stage of the pregnancy, a time during which the woman experiences the least physiological distress, and the man feels less concurrent stress in the pregnancy. As this "honeymoon" comes to an end, it is plausible that there may be an awakening of the previously repressed or denied reality that there is going to be an unplanned baby, generating anger. As the pregnancy proceeds, this anger may be dealt with or repressed in the face of the growing awareness and anticipation of the birth and parenthood.
At one month postpartum, less educated men reported more state anger than men with more education. One explanation of the difference is the impact of an education. Another is that less educated men probably earn less money, and work at jobs which have less flexibility with regard to time off for childbirth. Hence, one may posit that they have anger due to the greater number of obstacles and thus more difficult adjustment compared with the more educated (higher paid, etc.) men. More research is necessary to explore this finding.

State Curiosity

Pregnancy is a time of curiosity; what will life be like after the birth of the first child is the implicit if not the explicit question. The men in the experimental group raised specific questions ranging from: "How will I affect my child," "How will my child affect me," "Will people at work see me as a different person when I am a father"; to questions such as: "Will I have to clean up my act--no more obscenities--now that I'll have a child," "Will my name be permanently changed in my wife's eyes, from Jim to daddy," "Will I have to learn that new math." These are but a very few of the questions raised by the expectant fathers in the experimental group. It seemed as though one question would elicit another, and so on.

Exploring options allows the expectant father to examine the parameters of his role, perhaps expanding them, and finding those which he feels most comfortable with. The experimental group members addressed a series of questions, such as desire for the pregnancy and birth, providership roles, etc. (see Methods section, Chapter II)
which allowed them to explore their curiosity, investigate their fantasies and realities of future fatherhood. While the experimental group reported greater state curiosity than either of the two controls in the ninth month of the pregnancy, it did not at one month postpartum. The fact that there was no difference after the babies' arrival may be explained by the "leveling" phenomenon (see Tables 1, 2, and 3), previously mentioned. The essence of this phenomenon may be noted in the statement one father-to-be made: "I have hundreds of questions of what will be, but for the time being I'll just wait to see if it's a boy or a girl, and if it has ten fingers and toes (if the baby is healthy)."

Marital Conflict

As the results show, there were no differences over time between groups or by demographic variables with regard to marital conflict. It's possible that the present brief intervention had no effect on marital conflict or that the predictive power of the measures used to assess marital conflict may have been weakened by the desire on the part of the respondent to give socially desirable responses. Another plausible reason may be not having the wife present at the experimental group intervention. If she had been there, perhaps differences in needs, attitudes and values of the expectant couple may have come to the fore, with the consequent possibility of reducing marital conflict that was present. Finally, it is possible for some men that the impact of a pregnancy may serve to temporarily reduce marital conflict, which may account for the tendency by all subjects to deny more than minimal amounts of marital conflict. One subject
stated:

Before my wife got pregnant almost everything seemed tense between us. This was made worse by the fact that many of our friends were splitting up and getting divorced—we were sure we were next. When my wife became pregnant, and began to "show," we started to get real close again. It was like all of our problems went away. (He then leaned over and "knocked on wood" with a laugh, which was greeted by nods of agreement by other group members.)

As the above quotation suggests, the conflict that exists may in fact be superceded by the more pronounced effect of the pregnancy. Nevertheless, the added "topper" of "knocking on wood" further suggests that the conflict was not removed, but perhaps temporarily set aside.

**Irritability and Tension**

In contrast with the conflict between husband and wife, this scale measured the individual's degree of irritability and tension. On this measure the experimental group reported less irritability and tension prior to the birth of their child than those in the controls. The men in the experimental group were able to reduce their irritability and tension as a consequence of the structured, psychoeducational approach. Within this approach, there was a specific content area which focused on understanding the stresses which an expectant father may feel during the pregnancy, and later in the parenting stages. These included societal expectations such as financial providership; marital expectations such as providing comfort and support during labor and delivery, negotiating the evolution from a dyad to a triad; intrapsychic expectations such as defining
one's goals as a father and living up to them; extended family modification of roles, e.g., mother to grandmother, and hence a change of familial boundaries.

Finally, there were no differences between the control groups before or after the children, and no differences among the control and experimental group after the child was born. As with other measures, the "leveling effect" (see Tables 1, 2, and 3) of having a baby, may temporarily or permanently diminish the experiencing or reporting of tension and irritability. It should be noted that Fein (1976) found that there was a general decline of anxiety and anxiety related stress up to six weeks postpartum. Fein asserted that the crisis of becoming a father was most striking prior to having the child than within the first few months.

Desire for Pregnancy

Those men that felt that the pregnancy was planned stated a greater desire for the pregnancy, in all groups, at the seventh month of the pregnancy. While in the ninth month, as the baby neared, whether the pregnancy was planned did not effect the stated desire for pregnancy. This is possible due to the increased anticipation of the ensuing birth. As one "control" subject stated:

Early in the pregnancy I could forget about the pregnancy if I wanted to. But now (ninth month) she is forever reminding me with her bulging belly. Also, there are baby shower presents in all the corners, and relatives and friends are always asking me if I'm nervous, do I want a boy or girl, or something. Since I can't beat it, I've joined it. Now I can't wait for the baby to be born.
There were differences between the experimental and control groups in the ninth month of the pregnancy. Specifically, those men in the experimental group stated a greater desire for the pregnancy. Perhaps having the opportunity to explore "his pregnancy" as contrasted to "her pregnancy" or "our pregnancy" adds not only increased curiosity, but also to the increasing desire for the pregnancy and ensuing birth. It should be reiterated that a principle content area of the experimental group was desire for pregnancy and parenthood (see discussion of content of groups in the Methodology section, Chapter II).

Couvade Symptomology

Couvade symptoms identified by Trethowan (1965, 1972) were examined in the present study, and found to be reported in some form by over a third (38%) of all the men at the seventh month of the pregnancy. While the experimental group reported more couvade symptoms in the seventh month, the experimental group, compared to the controls, reported a significant drop in symptoms following the intervention.

Curtis (1955) and Trethowan (1965, 1972) suggested that the couvade syndrome is a neurotic reaction with somatic manifestations. Viewed from this perspective, the apparent reduction in neurotic anxieties, and therefore symptomology, may be due to the efficacy of the treatment intervention. Boehm (1930) suggested that couvade symptoms may be due to parturition envy. It is possible that the Group 3 psychoeducational intervention provided the expectant father a greater opportunity to feel emotionally involved and therefore
lessened this degree of jealousy of the women's role.

An interesting finding was that men who felt that the pregnancy was planned generally had fewer reported couvade symptoms in the ninth month of the pregnancy; (as may be seen in Table 14, there were not similar results in the seventh month or postpartum). It is plausible to suggest that men who felt that the pregnancy had been planned felt less anger and a greater desire for the pregnancy, and consequently less neurotic symptomology.

Of those men reporting couvade symptomology, the most common symptoms indicated were: nausea, fatigue, sleeplessness and toothache, in decreasing frequency. The fewest reported symptoms were reported to be change in heartbeat and pelvic pain. These are consistent with the findings of Trethowan (1972).

Finally, unlike Munroe and Munroe (1971), the present study did not demonstrate that there is an inverse relationship between years of education and couvade symptomology. More research is needed to clarify this relationship.

**Baby Involvement**

The baby involvement scale was comprised of a series of activities regarding care taking of the child. It was presumed that the more activities and the greater the intensity of involvement with the child both anticipated (prior to the birth), and actual (postpartum), the more positive the experience would be for the father, and the family as well.

The results showed that the experimental group responded by anticipating greater involvement on the twelve item scale than did
the control groups. Near the end of the treatment intervention group, one of the expectant fathers said the following:

You know, it was always very confusing to me—when does a father start playing with the child. I mean, men are into roughing it, and you can't do that kind of stuff with a little kid. I always thought that I'd really start playing with my child when he started playing baseball or something. I think I've changed my mind now. Maybe I could play with his toes while changing his diaper, or play while I bathe him—maybe even a bath together. I mean, that could be playing too.

The man quoted above summarizes quite succinctly the essence of "baby involvement"; the father is, and can be a caretaker who experiences the joys of his endeavors, while aiding in the development of his child.

Older men, and men who were involved in a planned pregnancy also scored higher on the baby involvement scale, regardless of their group affiliation. As mentioned earlier, Levinson (1978) would suggest more of a "settling down" with older men. Concomitant with this "settling down" is a lessening of the younger, stereotypically "macho" overtone of having to prove one's manhood. There may now be more of an androgenous mixture of roles tolerated by the individual, and by society. Perhaps feeling less threatened by heretofore thought of as female roles, the older man may engage in these baby involvement tasks more readily. Further research is necessary to explore this issue.

Rapoport, Rapoport and Strelitz (1980) describe the "older" male parent as more nurturant and willing to participate in caretaking. The fact that this finding did not emerge until the ninth month of
the pregnancy (as opposed to the seventh month) may be due to the heightened anticipation just prior to the birth. As one "older" subject stated:

For all these long months I have been ready. Now as the time gets really close I'm filled with dreams of me taking care of my baby. My wife has had him all these months...and it will be my turn to do the caretaking after he's out; I'll be fair, though, I'll let my wife help (laughs).

With regard to the greater anticipated baby involvement of men who had planned the pregnancy, one may assume that there was a somewhat elevated (positive) anticipation with them as well. This may be due to their sense of "duty"; they were involved in the planning of the pregnancy, and now they plan to continue with its fruition.

There were not lasting effects of baby involvement differences into the postpartum period. Bittman and Zalk (1978) also found that a greater percentage of fathers reported that they intended to be involved in caretaking activities prior to the birth, than was actually reported by new fathers. A note written on the final questionnaire by one of the subjects stated: "There is probably no way that I'm going to be able to live up to all the plans I had, and how involved I wanted to be with my baby girl, but I sure am going to have a lot of fun trying."

Self/Goal and Self/Other Discrepancy

There were five sets of items presented to assess the degree of congruence or discrepancy on issues relating to pregnancy and parenting. The concept underlying the inclusion of these items was based on research by Fein (1976). Fein noted that both traditional and
nontraditional fathers adapted easily to fathering roles. The men that seemed least able to adjust to parenthood were those whose behavior did not fit well with their self concept or goals (Fein, 1976). To this end, it had been hypothesized that the fewer discrepancies between a man's self-view, his desired goal, and how he viewed how others perceived him, then the less anxious he would feel, and the more proactive an adjustment he would have to the pregnancy and birth of his child.

The results show that those men in the experimental group had fewer self/goal and self/other discrepancies than the control groups at the ninth month of the pregnancy. It is recommended that the reader refer to the content of the groups in the Methods section (Chapter II). One will note that a preponderance of the material presented in experimental group explored issues relating to how the man views himself and his goals. Specific emphasis was on how these views were tempered with regard to how he was raised and community and cultural expectations.

At the ninth month of the pregnancy, the experimental group had fewer discrepancies in the Self/Other category, than the "male as coach" control group, which in turn had fewer discrepancies than the non-control group. In this instance, the "male as coach" group had the opportunity to get feedback from other men as in the experimental group. The reification of their view of themselves as "adjuncts" or "coaches" while yielding fewer discrepancies than the non-group control did not provide the opportunity to explore more fully their view of "his pregnancy" and the corresponding range of roles.
The power of the experimental group may be seen in the result that these men had fewer self/goal discrepancies one month postpartum than the two control groups. This was the only dependent measure to differentiate the experimental from the control groups postpartum and may be due to the emphasis on this issue in the expectant father (experimental) group.

The Role of Mediating and Antecedent Factors in Expectant Fatherhood

Mediating Factors. In the following section the present data will be examined in relationship to the role of mediating factors, antecedent factors, and normative age graded phenomena. Mediating factors are the "biological, psychological, and contextual factors that influence the individual's perception to the event" (Alpert, 1981, p. 26). Antecedent factors precede and qualify the actual events themselves. The expectant fatherhood (experimental) group addressed mostly psychologically oriented mediating factors. Hultsch and Plemons (1979), in examining mediating factors, suggested the following are important psychological mediating factors: cognitive abilities, knowledge, anticipatory socialization, coping strategies and personality factors. These factors were addressed in the experimental group (see Methods section: content and goals of the groups). It was not intended to focus on these factors, per se, but rather to facilitate better usage of preexisting strengths with regard to the developmental tasks at hand, i.e., the stage related tasks combined with the task of becoming a father.

Antecedent Factors: Timing. Timing and sequencing, two antecedent factors, played roles in the planning and outcome of this
study. It was found, for example, that the age of the expectant father affected certain response patterns, regardless of the group the subject was in. The older the male, the more likely he was to experience less anxiety at the ensuing birth, and the greater his anticipated involvement with the baby. The antecedent factor of timing, a Life Events Theory notion, may be enhanced by incorporating theory from the stage developmentalists. Fathering one's first child normally occurs between the ages of 18 to 45 (Rossi, 1968). If one were to view this age range developmentally, it could be labeled to include the following periods: early adult transition (age 17-22), entering the adult world (age 22-28), age 50 transition (age 28-33), settling down (age 33-40), and midlife transition (age 40-45) (Levinson et al., 1978). Each of these stages are shaped to some degree by the developmental tasks assigned to them. For example, a man aged 22-28 years has two primary tasks:

He needs to explore the possibilities for adult living: to keep his options open, avoid strong commitments and maximize the alternatives... (and)...to create a stable life structure: become more responsible and 'make something of my life.' (Levinson et al., 1978, p. 58)

In contrast with these tasks, the man aged 40 to 45 years old has three different primary tasks: Reappraising the past; modifying the life structure; and, continuation of the individuation process (Levinson et al., 1978). As may be seen, the former stage requires the man to explore and establish an external life structure, while the latter addresses more of an intrapsychic exploration and assessment. These tasks most certainly affect the thoughts, feelings and
behaviors of expectant fathers. These factors may modify the life events which are occurring, which in turn, may modify his developmental tasks.

**Antecedent Factor: Sequencing.** An aspect of the antecedent factor of sequencing was held constant in this investigation. As was mentioned, all subjects were first time expectant fathers. It has been found that the transitional "crisis" for these men is greater than for the multiparous male (Rollins & Galligan, 1978). One must view this assertion cautiously though, because a man may have fathered his first child when he was 18 years old, and continued to have children until age 45. As was pointed out above, these ages require different developmental task orientations. Research is necessary to ascertain whether the second, third, etc., birth of a child is more or less stressful than the first depending upon the developmental task requirements of that age range. For example, one may speculate whether the birth of a second child is more stressful during the "midlife transition" (age 40-45) than the "settling down" (age 33-40), even though the father is "older" in the former stage, and it is his second child. The interaction of the mediating factors, antecedent factors, and normative age graded phenomenon need further investigation.

**Problems and Limitations**

**Soliciting Subjects for the Study**

As mentioned earlier in this dissertation, a broad based sample of expectant fathers was extremely difficult to locate and involve for the purpose of this study. If advertisements were used, a biased
population would certainly respond. Physicians (obstetrician-gynecologists) were approached to cooperate, but were unresponsive or even resistant in referring subjects. In discussing this lack of cooperation with three of the physicians at a subsequent date, the issues underlying their initial reticence emerged. One spoke openly about the time factor: "Time is money, and if I start filling up my appointments with expectant fatherhood issues, I will lose money (laughter)." Another physician spoke of the consequences of including the expectant father: "Men are bossy and ask a lot of questions. When these ladies come here for medical assistance, I know what they want and need--I've been doing this for over 15 years--and I don't need their husbands breathing down my neck." This implied threat of loss of control was apparent as well in the third physician (a woman) who added: "This is a woman's affair (pregnancy), and if I start including men more than I now do (they are invited to the first examination) they'll try to take the whole thing over." More than creating a problem in the soliciting of subjects, the attitudes expressed by the physicians contacted reflect the lack of knowledge or concern placed on the role of the expectant father.

Generalizability of the Results

It was difficult for the present author to solicit a broad-based sample of subjects for this study, and it is expected that other researchers will encounter similar problems in the foreseeable future. Men's resistance to participate as subjects in part may be due to the cultural attitudes about the male role.
Because the present study used male subjects who were willing to participate in research about men's issues, it may be accordingly limited in its generalizability to the larger male population.

Lack of Input from Spouse

A significant limitation of the present study may be noted in the exclusion of the expectant mother from the treatment interventions, as well as not having her responses to the questionnaires. Pregnancy is a product of the interaction of the man and woman, and adaptation to parenthood is likewise an interactive process. Having an expectant mother's input may have added more of an understanding about her husband's response to the pregnancy (and vice versa). While her exclusion from the groups do not diminish the findings that the experimental group was more effective than the controls (her absence was held constant across groups), her presence may have changed the degree of stress or adaptiveness of the subjects. Future research is needed to address this issue.

Training and Assessment Issues

Future research and treatment application pertaining to expectant fatherhood may be enhanced by including more extensive training during the pregnancy period. These extra psychoeducational classes could also allow for behavioral assessment of the expectant father. Behavioral observation would also be helpful in assessing the relationship between the father, mother and infant during the postpartum period.
Suggestions for Psychoeducational Groups for Expectant Fathers

The present research was undertaken to examine whether expectant fathers can make a more effective transition to parenthood by participation in psychoeducational training. It has been shown that there are indeed emotional, attitudinal, and behavioral benefits to having an intervention specifically organized to meet the needs of these men. Based on the author's experience in conducting this project, the following includes suggestions for establishing a psychoeducational program for first time expectant fathers.

The groups, with a maximum of 10-15 men, should be scheduled to meet corresponding with the latter parts of the 2nd and 3rd trimesters of the pregnancy. The second trimester has been named the "honeymoon" stage of the pregnancy (Coleman & Coleman, 1971), and transition from it to the third trimester appears to be accompanied by increased anticipation and "crisis." The ninth month appears to be the most heightened state of emergent parenthood. Due dates are usually accurate ± two weeks, and the anticipation of labor and childbirth bring concomitant restlessness and anxiety. Having the opportunity to intervene at these crisis transitions may serve to: 1) normalize the experience through peer support, 2) educate the expectant father to allow a greater understanding of his experience, and 3) explore familial (present and generational) issues, addressing

Subjects in the present study anecdotally reported an earlier "crisis" stage, occurring at the time they heard that their wife was pregnant (about 1 1/2 - 2 months pregnant). Although it would be an ideal time to have contact with the expectant fathers then, over 80% of the present sample said that they would not have attended a meeting during that time. Research is necessary to assess why, and possible ways to motivate men to attend.
the expectant father's perceived roles and anticipated goals.

The subjects in the present study seemed to be the most contemplative and forthright about the following issues: traits of their father; the range of roles a father may play in his family; what his particular goals are and why; other people's perception of him as a prospective father; and, how having a child is going to modify his present relationship with his wife. These issues, as well as those described more fully in Chapter II, appear to reduce some of the stress associated with anticipatory fatherhood.

Given the present research design, couvade symptomology, per se, was not discussed with the men in the experimental group. These issues should be raised with expectant fathers though, as it may alleviate some anxiety knowing that other men may experience similar effects. Furthermore, exploring some cross cultural phenomenon may also serve the prospective father, in that it may generate a perspective to view some of the intracultural factors affecting him.

Finally, even though the intervention is oriented toward the expectant father, an emphasis should be placed on the familial context. The father-to-be should be encouraged to talk with his wife, parents, grandparents, etc., about the issues generated. To enhance this process, it is suggested that instead of having one class meet at the designated point in the pregnancy, there be two classes scheduled a week apart, to allow the expectant father the opportunity to discuss the issues raised, and thereby generate other issues to bring back to the next group meeting.
APPENDIX A

PSYCHOANALYTIC PERSPECTIVE ON EXPECTANT FATHERHOOD
Psychoanalytic Perspective on Expectant Fatherhood

The most prolific disciple of the psychoanalytic tradition concerning pregnancy and parenthood is Benedek who maintains that personality development continues past adolescence largely as a function of pregnancy and parenthood. The child revives in his parent the parent's own developmental conflicts. This begins in pregnancy but by no means ends there. In, for example, the oral phase, the new mother "works through" the primary oral conflicts which she had experienced in her childhood with her own mother and in this way motherhood allows for the possible resolution of such conflicts. This is the basic paradigm of all such reciprocal interactions between mother and child and provides the vehicle of further ego development for the mother.

Such dynamics are not restricted to the mother but also occur in the father. Benedek (1959) is one of the more enthusiastic proponents among those that maintain that pregnancy and parenthood have a significant impact upon fathers as well. Concerning this, Benedek states: "Sharing her fantasies and projecting his own about their yet unborn child, the father revives and relieves his identifications with his mother and father in their specific developmental significance" (1959, p. 399). In this sense, pregnancy is a phase characterized by regressive tendencies for both male and female. She further contends that the child represents, for both parents, the parent's self as a child and their potential for self realization through the child. To be a good mother (nurturant) is the realization of one aspect of a woman's ego ideal. Like women, men too, manifest a
second goal (besides procreation) of the reproductive drive. This role for men primarily embodies the role of protector and provider (Benedek, 1970). This will be discussed in greater detail later.

Deutsch (1945) notes that pregnancy and motherhood are the fulfillment of a woman's destiny. Pregnancy as a biological fact and as a psychological prelude to motherhood is a period of transformation of instinctual tendencies: sexual to motherly tendencies, aggressive to protective activity, narcissistic to maternal love and masochistic to sacrifice. Pregnancy provokes a return to infantile instinctual impulses and is further characterized by intensified introversion, not, in some ways, unlike the narcissism of adolescence. Such provoked impulses and conflicts may or may not find eventual gratification in motherhood, but the fact that this potential is provided by pregnancy and motherhood in itself denotes that this phase is one of great import for the life cycle.

Unlike Bibring who views pregnancy as a maturational crisis with an accompanying intense upheaval of psychic processes, Benedek sees the state of pregnancy as potentially one of "vegetative calm" (Benedek, 1970). She maintains, as Deutsch does, that an upsurge of narcissism is a result of pregnancy, but adds that it is this very self-centeredness which affords the expectant mother hope, pleasure and diminishing anxieties. This same psychic organization which may provide a "vegetative calm" may conversely give rise to stress and conflict in less well adjusted women. As Benedek explains, conflicts, fears and anxieties may be elicited or exaggerated by pregnancy and those less endowed with coping abilities or more debilitated
by problems may find the period of pregnancy arduous and negative
(Benedek, 1970). Motherhood, the role of nurturing, may harbor its
own potential conflicts as well. Benedek (1970) notes that the
extroverted masculine ego ideal that women in our culture often incul­
cate, may conflict with the passive nurturance of motherliness.

Benedek's (1970) position regarding the role of the father is
very similar to Erikson's (1959) view of generativity. Benedek
(1970) asserts that men not only derive self esteem from their
sexual potency and virility but also from their nonsexual potency
and creative potential. Thus, in providing for his family, his com­
munity benefits which in turn can further enhance his self esteem.
This direct investment in one's children and indirect investment in
the well being of the community and its institutions is the essence
of Erikson's construct of generativity (Erikson, 1959).

The significance of parenthood to an individual's development
has also been elaborated upon by Wyatt (1971). Parenthood is a
socially defined role with collective expectations and duties and a
unique status. As such its successful performance is partially
definitive of maturity and represents a facet of the adult's compe­
tence. This maturity and competence lends itself to the well being
of the family structure.

Handel (1959) also views the well being of the community, but
on a larger scale than Wyatt's (1971) stance. Handel (1959) states
that "no society commits suicide. Every society seeks in various
ways to maintain itself, to preserve its continuity" by recruiting
new members through reproduction. Parents then, are society's
agents for replenishing its population (Handel, 1959).

The Father as Provider--A Psychoanalytic Perspective

One of the traditionally accepted roles of the father is that of the provider (Benedek, 1970). He provides to his children in many ways both directly and indirectly, thereby creating a structure and guidance for the child's intellectual and moral upbringing. Compared to the clinical and theoretical knowledge about expectant motherhood, the literature about expectant fatherhood and fatherhood is slight. The following speaks to the psychoanalytic perspective of the father as provider; his role in the intellectual and moral development of his children.

In most living organisms in which the survival of the species depends upon the interrelated functions of two sexes, it is the male's role to protect the territory, the next, thus to provide some degree of security to the female during the time of labor, and to supply her with food while she is tied to the next by her litter. Even in predatory mammals such division of labor is recognizable. In animals such behavior impresses us as fatherly providing, just as the female's mothering behavior appears to be tender, unfailing motherliness. While in females, mothering behavior is regulated by a pituitary hormone, in males no hormonal regulation of the providing is recognizable. Yet this behavior in the male disappears when the particular reproductive cycle of the female is terminated. Thus the correlations between male and female parental function are evidently biologic "givens" (Benedek, 1970).
The human father's role as a provider is a more distant derivative of the instinct of survival. It extends beyond the periods of particular reproductive cycles of his wife and, as far as his children are concerned, is expected to last until the children are able to earn their living. Through the permanence of the human family and its consequences in socioeconomic organizations, all significant cultures have developed on the basis that the husband-father is the chief provider and protector of the family (Benedek, 1970). Repeated through generations, transferred from father to son, man's role as provider has become relatively independent of its biological roots.

Jarvis (1962) published a clinical article in which he noted the effects of pregnancy and childbirth upon husbands who were in psychoanalysis. Wainwright (1966) has written of fatherhood as a significant precipitant of mental illness, while reporting briefly on ten relevant cases. Liebenberg (1967) discussed the anxieties and symptoms of a group of 64 first-time expectant fathers. Theoretic articles published by Brunswick (1940), Benedek (1959) and Jacobson (1950) relate to the adaptational situation of fatherhood. In Erikson's (1959) papers there is explicit emphasis on generativity and generosity within the adult stages of ego development.

Benedek (1959) has written:

The emotional attitude of the father in the family is significant from conception on. He responds to the receptive-dependent needs of his wife which are increased by her pregnancy, by her anxieties about parturition and the care of the child... Independent of hormonal stimulation (in contrast to the pregnant wife), the father's relationship to the child is directed more by hope than by drive.
Benedek, in a later article suggests that fatherhood, i.e., the human male's role in procreation, has instinctual roots beyond the drive organization of mating behavior. She refers to this function as that of provider (1970).

Father as Provider--Intellectual Development

As the provider or "instrumental parent" (Parsons, 1955) the father is the major representative within the family of values in our society that lays great stress on academic achievement. It therefore follows that the father would be concerned with the intellectual development of his offspring. Research findings indicate that this is indeed the case. Fathers encourage competence in their children (particularly sons) from infancy, though their ambivalence about cognitive competence in women may retard their daughter's development (Lamb, 1976). Fathers, then, are undeniably playing an important role in child development, and this role is qualitatively different from that of mothers (Murrell & Stachowiat, 1965; Mussen, 1973). Further, the paternal role is important from very early in the child's life. Indeed, just as Bowlby argued there may be a sensitive period in the formation of the mother-infant relationship, Nash (1954, 1965) has suggested that there may be an early, critical period during which the father-child relationship is most important. There is evidence showing that many fathers interact extensively with their infants, that the type of interaction differs from that between mothers and infants, and that infants do not show consistent preferences for either parent. There can be little doubt that the father is often an important person in the life of the infant and
the young child (Nash, 1954). As Radin (1976) adds, "Paternal nur-
turance appears to be closely associated with cognitive competence
of boys...(and that) fathers have particular influence on their
daughters through the impact men have on their wives" (p. 269).

More recently, in a study by Pedersen and Robson (1969), it
was found that not only were there differences between how mothers
and fathers interacted with their infants, but that there were
preferences for mother or father for different types of play, e.g.,
infants and young children showed a preference for fathers to
engage in "roughhousing" types of play.

Radin (1981), in reviewing the literature on the role of the
father in cognitive, academic and intellectual development, state
the following:

...a father influences his children's mental
development through many and diverse channels:
through his genetic background, through his
manifest behavior with his offspring, through
the attitudes he holds about himself and his
children, through the behavior he models,
through his position in the family system,
through the material resources he is able to
supply for his children, through the influence
he exerts on his wife's behavior, through
his ethnic heritage, and through the vision
he holds for his children. (p. 419)

Certain researchers (Billingsley, 1968; Bronfenbrenner, 1975;
Glick, 1979) have looked at the role of father absence to assess his
role in intellectual development. Mischel (1970) found that the
severity of father absence is negatively correlated with the age of
the child at the age of the time of separation. Perhaps this is
because extra familial factors become increasingly important as the
child grows older and thus compensates for the father's absence.
As Radin (1981) adds, when the father dies or separates from the family, the memories he leaves with his family will continue to exert an influence perhaps equal to the impressions he made on the youngsters when he was physically present. Nevertheless, the loss may certainly affect the child's overall development.

Father as Provider--Moral Development

There is far less unanimity among theorists about the father's role in moral development than about his contributions in other areas of "providing." The development of conscience was ascribed by Freud to the formation of the superego following the oedipal crisis. This was probably the most influential factor in the theoretical statement of the father as a major figure in moral development. Nevertheless, this mechanism postulated by the psychoanalysts can only be indirectly investigated.

Parson's theory (1955) would also attribute this role to the father because he is seen as the representative within the family of the values and standards of the society; without his mediation, the values would not be transmitted effectively. Unlike the psychoanalysts and Parsons, the cognitive developmental theorists do not see sexual identity and moral development as joint products of identification (Kohlberg, 1963, 1964, 1966, 1969) and do not place great emphasis on the father's role.

Hoffman (1981) suggests four mechanisms of moral development, and the role the father has in generating them. They are: arousal of deviation anxiety, identification, arousal of empathy and guilt, and cognitive and moral conflict and equilibration. Following a
review of the literature Hoffman (1981) concludes:

...contrary to Freud and others, fathers are far less important than mothers as direct agents of moral socialization. Fathers do appear to serve as identification figures that help foster the acquisition of overt moral behavior by their sons as well as the use of moral standards in evaluating the actions of other people. Fathers generally do not appear to have such influence on their daughters...The fathers do appear to have an indirect role: they contribute to the credibility that mothers have with their children, and this may be an important factor in the mother's effectiveness. (p. 375)

In summary, the above discussion points out that the scientific community that the father does have varied and important roles in the development of his child. Some of his input is direct and some indirect through the mother. This role is not limited to infancy or early childhood; it continues to contribute throughout the development of the child as a person through his/her entire life. Since it is the contention of this review that parenting dynamics begin with the acceptance of the pregnancy, it is important to recognize the father's role in the pregnancy period.

**Emotional Impact of Pregnancy on Men**

There is a small but growing body of literature concerned with pregnancy as a stressful period for husbands as well. As it has already been pointed out, the psychoanalytic school was the first to put forth this idea. Their major contributions rest on both theory and corroborating research (Benedek, 1959, 1970; Cohen, 1966; Erikson, 1960; Jessner et al., 1970; Wenner et al., 1969). The following discussion presents further data to expand and elucidate the position that expectant fathers may also find pregnancy a
stressful period. It should be noted that almost the entire spec-
trum of research in this area has involved the presentation of case
material of a clinical nature.

Zilboorg (1931) was apparently the first to report stress
reactions in expectant fathers. He discussed several cases of depres-
sive reactions which had been precipitated by the advent of pregnancy
in the patient's wives. Zilboorg posited fear of incest as a major
etiological consideration since the wives of these patients were
frequently mother substitutes. Freeman (1951) noted that psychi-
atrists have paid little attention to male reactions to pregnancy
and childbirth and asked how and why pregnancy acts as a pathogenic
agent. He reported on six cases of psychopathology in males where
the wife's pregnancy was the precipitating factor. Some of the
dynamics he said were involved were sibling rivalry, oedipal con-
flicts and fear for the wife's safety. Towne and Afterman (1955)
studied 28 V.A. hospital patients, and explored the temporal rela-
tionship between the onset of psychosis and the birth of a child.
The dynamic characteristic of this group were largely unfulfilled,
demanding dependency needs who perceived the advent of a child as a
threat to this dependent role.

Jarvis (1962) concurred with Freeman (1951) in noting the lack
of interest with respect to the effect of pregnancy and childbirth
on males and suggested that pregnancy and childbirth always have a
psychological effect on the father. He further suggested that
fatherhood be included in the "great universal biological occurrences
of mankind." Jarvis went on to cite four cases of psychological
disequilibrium due to their wives' pregnancies. Wainwright (1966), Rettersol (1968) and Lacoursiere (1972) also reported psychopathology in association with expectant fatherhood. These investigators believed that psychopathological reactions to fatherhood are probably more frequent than the literature recognizes.

Husbands who do not have an opportunity to play an active part during the pregnancy "are in trouble," Caplan (1959, p. 55) writes. Many of them identify with their wives. This is partly a rivalry situation because little boys have fantasies about having children just as little girls do. Karen Horney (1926) feels that boys' intense envy of motherhood has hardly received due consideration. Out of her analytic experience, she is impressed with masculine envy of pregnancy, childbirth, motherhood, and breastfeeding. Van Leeuwen (1947) also sees pregnancy envy in men who are essentially masculine in their choice of love object but who long to usurp the place of the woman, based on their inability to magically create a baby.

One may conclude from the analytic perspective that although the father may not play a direct role in the development of his child, he may have a profound impact in his indirect capacity. Furthermore, he in return may experience a wide range of psychological reactions as a consequence of his role as a provider.
APPENDIX B

EXPECTANT FATHERHOOD QUESTIONNAIRE
EXPECTANT FATHERHOOD QUESTIONNAIRE

Section One

1. Name (Optional) ________________________________________________

2. Social Security Number __ __ __ __ __ __ __ __ __ __ __ __ __ __

3. How old are you? ________

4. How old is your wife? ________

5. For how many months has your wife been pregnant? (circle one)
   1 2 3 4 5 6 7 8 9

6. This pregnancy was (circle one) planned  unplanned

7. Education (Circle highest grade completed)
   1 2 3 4 5 6 7 8 9 10 11 12
   College 1 2 3 4
   Post graduate 1 2 3 4  Degree received ________________________

8. Present Occupation: ________________________________
   If not employed, how long out of work? ________________________
   If employed, how satisfied with present job? (circle appropriate number)
   1 2 3 4 5
   Not at all  Very Satisfied
   Satisfied

9. Religious affiliation: (Circle correct number)
   1. Catholic
   2. Protestant
   3. Jewish
   4. Moslem
   5. Other
   How religious do you consider yourself to be? (Circle appropriate number)
   1 2 3 4 5
   Not at all  Very Religious
   Religious

10. How long have you been married? ________________________________

11. How long did you know your wife before you married? _____________
12. Is this your first marriage? Yes  No  
   If no, how many previous marriages and for how long?  
   Reason(s) for previous marriage(s) ending  

13. Have you ever lived with another woman for a significant length of time? Yes  No  
   If yes, how long?  
   Reason for changing the living situation (breaking up)  

14. Is this your wife's first marriage? Yes  No  
   If no, how many previous marriages and for how long?  
   Reason(s) for previous marriage(s) ending?  

15. Has your wife ever lived with another man for a significant length of time? Yes  No  
   If yes, how long?  
   Reason for changing the living situation (breaking up)  

16. Have you fathered any previous children? Yes  No  
   If yes, how many  
   If yes, how long ago  

17. Have you ever gotten another woman pregnant who then either had an abortion (Yes  No) or lost the baby during pregnancy? Yes  No  
   If yes to either, how long ago?  

18. Has your wife had any previous children? Yes  No  
   If yes, how many  
   If yes, how long ago  

19. Has your wife ever been pregnant before and either had an abortion (Yes  No) or lost the baby during pregnancy? Yes  No  
   If yes, to either, how long ago?  

20. Are your parents living together?  
   Yes  
   No  Father is deceased; Year  
   No  Mother is deceased; Year  
   No  Parents are separated or divorced (circle one): Year  
   No  Other (Specify)  


21. How far do you live from your parents?
   □ Within 10 miles
   □ 11-50 miles
   □ 51-100 miles
   □ More than 100 miles. About how far? ________

22. Are your wife's parents living together?
   Yes
   No, Father is deceased; Year ______
   No, Mother is deceased; Year ______
   No, Parents are separated or divorced (circle one); Year ______
   No, Other (Specify) ________________________________

23. How far do you live from your wife's parents?
   □ Within 10 miles
   □ 11-50 miles
   □ 51-100 miles
   □ More than 100 miles. About how far? ________

24. How often do you speak with your parents by telephone? (Circle one)
   1  2  3  4 5
   Less than About once About twice About once More than
   once a month a month a month a week once a week

25. How often do you see your parents? (Circle the appropriate number)
   1  2  3  4 5
   Less than About once About twice About once More than
   once a month a month a month a week once a week

26. How often does your wife see her parents? (circle the appropriate number)
   1  2  3  4 5
   Less than About once About twice About once More than
   once a month a month a month a week once a week

27. How often does your wife speak to her parents by telephone? (circle appropriate number)
   1  2  3  4 5
   Less than About once About twice About once More than
   once a month a month a month a week once a week

28. Do you have any brothers? Yes____ No____
    If yes, how many______; how old are they? ____________
29. Do you have any sisters? Yes _____ No _____
   If yes, how many _______; how old are they? ________________

30. Does your wife have any brothers? Yes _____ No _____
   If yes, how many _______; how old are they? ________________

31. Does your wife have any sisters? Yes _____ No _____
   If yes, how many _______; how old are they? ________________

32. When you were growing up, were you generally closer to your
    (check one)
    _____Father or _____Mother?

33. I would describe my childhood as (circle the right number)
   1  2  3  4  5
   Very happy Somewhat happy Very unhappy

34. Taking care of an infant (changing diapers, getting up in the
    middle of the night, etc.) is a father's role. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree

35. I feel emotionally involved in the pregnancy. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree

The following questions refer to how you remember your father
    during your growing up years. Circle the number which shows
    how strongly you agree or disagree.

36. My father was a good provider for the family. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree

37. My father got along well with children. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree

38. My father was concerned about being a good parent. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree

39. My father was calm about parenting issues. (Circle one)
   1  2  3  4  5
   Strongly Somewhat Strongly Agree Agree Disagree
During your wife's pregnancy to what extent do you have any of the following symptoms or physical conditions? Circle the appropriate number.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>NONE</th>
<th>SOME</th>
<th>MUCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. Vomiting</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>41. Nausea</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>42. Backaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>43. Fatigue</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>44. Cramps</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>45. Weakness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>46. Change in heartbeat</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>47. Difficulty in breathing</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>48. Pelvic pain</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>49. Sleeplessness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>50. Indigestion</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>51. Headaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>52. Increase in appetite</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>53. Decrease in appetite</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>54. Toothache</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

To what extent do you agree or disagree with the following statements? Circle the appropriate number.

55. When I first found out that my wife was pregnant, I was very happy.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

56. People who think they can get along in marriage without arguments just don't know the facts.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

57. Before my wife's pregnancy, I had been looking forward to our having a baby.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

58. It is natural to have quarrels when two people who both have minds of their own get married.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

59. Some of the time it is necessary for a husband to tell off his wife in order to get his rights.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree
60. I am more short tempered during my wife's pregnancy.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

61. No matter how well a married couple love one another, there are always differences which cause irritation and lead to arguments.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

62. I am hard to get along with during my wife's pregnancy.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

63. When my wife became pregnant I did not want her to have a baby at that time.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

64. When I think about the pregnancy now, I sometimes wish that we weren't going to have a baby.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

65. I feel that my wife's pregnancy is long and tiresome to me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

66. When I think of my wife's pregnancy, the thought of soon being a father pleases me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

67. I am restless and uneasy during my wife's pregnancy.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

68. Before my wife became pregnant we were hoping to have a baby.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
69. I am less patient with family and friends during my wife's pregnancy.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

70. I am easily upset during my wife's pregnancy.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

71. Do you want a (check one): Boy____, Girl____, No Preference____.

72. Does your wife want a (check one): Boy____, Girl____, No Preference____.

73. How neglected (left out) have you felt in light of the attention your wife is/was receiving during the pregnancy? (Circle appropriate number)
   1  2  3  4  5
   Not Neglected Somewhat Very
   At All Neglected Neglected

To what degree do you intend to be involved in the following child care activities after the baby is born?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not At All</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diapering</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeding</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dressing</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathing</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holding</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting Nails</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking To</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night Wakes</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor Visits</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby Laundry</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Preparation</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INSTRUCTIONS FOR THE FOLLOWING FOR SETS OF QUESTIONS:

You will be asked to look at each pair of word-opposites in three different ways. These are:

1. **SELF** - This is defined as the way in which you see yourself, or how you would describe your own experience and feelings. Thus, if you were dealing with the opposite words "good - bad," you would have to decide WHERE YOU ARE on the scale between "good" and "bad."

2. **GOAL** - This is defined as how you would most like to be. Thus, if you were dealing with the opposites "good - bad," you would have to decide WHERE YOU WANT TO BE on the scale between "good" and "bad."

3. **OTHERS** - This is defined as how you think other people see you. For the opposites "good - bad," you would have to decide WHERE OTHERS SEE YOU on the scale, nearer to "good" or nearer to "bad" or somewhere in between.

PUT AN X IN THE APPROPRIATE BOX - THE PLACE WHICH BEST DESCRIBES YOUR FEELINGS.

<table>
<thead>
<tr>
<th>85. Good Provider for my Family</th>
<th>Self</th>
<th></th>
<th>Self</th>
<th>Poor Provider for my Family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td></td>
<td>Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>86. Get Along with Children</th>
<th>Self</th>
<th></th>
<th>Self</th>
<th>Don't Get Along with Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td></td>
<td>Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>87. Concerned about being a good parent</th>
<th>Self</th>
<th></th>
<th>Self</th>
<th>Not Concerned about being a good parent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td></td>
<td>Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>88. Looking forward to becoming a parent</th>
<th>Self</th>
<th></th>
<th>Self</th>
<th>Dreading to become a parent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td></td>
<td>Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>89. Calm about parenting issues</th>
<th>Self</th>
<th></th>
<th>Self</th>
<th>Nervous about parenting issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td></td>
<td>Goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>
Directions

Read each of the following statements and then circle the appropriate number that indicates how you are feeling right now, that is, at this moment.

1. I feel calm. .............................................................. 1 2 3 4
2. I feel like exploring my environment ......................... 1 2 3 4
3. I am furious .................................................................. 1 2 3 4
4. I am tense ..................................................................... 1 2 3 4
5. I feel curious .............................................................. 1 2 3 4
6. I feel like banging on the table ................................. 1 2 3 4
7. I feel at ease .............................................................. 1 2 3 4
8. I feel interested. ......................................................... 1 2 3 4
9. I feel angry ................................................................... 1 2 3 4
10. I am presently worrying over possible misfortunes. .... 1 2 3 4
11. I feel inquisitive .......................................................... 1 2 3 4
12. I feel like yelling at somebody. ................................. 1 2 3 4
13. I feel nervous ............................................................ 1 2 3 4
14. I am in a questioning mood ...................................... 1 2 3 4
15. I feel like breaking things. ....................................... 1 2 3 4
16. I am jittery ............................................................... 1 2 3 4
17. I feel stimulated. ....................................................... 1 2 3 4
18. I am mad .................................................................... 1 2 3 4
19. I am relaxed .............................................................. 1 2 3 4
20. I feel mentally active ................................................. 1 2 3 4
21. I feel irritated ............................................................ 1 2 3 4
22. I am worried ............................................................. 1 2 3 4
23. I feel bored .............................................................. 1 2 3 4
24. I feel like hitting someone. ...................................... 1 2 3 4
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>NOT AT ALL</th>
<th>SOMewhat</th>
<th>MODERATELY</th>
<th>VERY MUCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.</td>
<td>I feel steady.</td>
<td></td>
<td>2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>I feel eager</td>
<td></td>
<td>2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>I am burned up</td>
<td></td>
<td>2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>I feel frightened.</td>
<td></td>
<td>2 3 4 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>I feel disinterested</td>
<td></td>
<td>2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>I feel like swearing</td>
<td></td>
<td>2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EXPECTANT FATHERHOOD QUESTIONNAIRE II
Section One

1. Name (Optional) __________________________________________

2. Social Security Number __ __ __ __ __ __ __ __ __ __

3. For how many months has your wife been pregnant? (Circle one)
   1 2 3 4 5 6 7 8 9

4. I would describe my childhood as (circle the right number)
   1 2 3 4 5
   Very happy Somewhat happy Very unhappy

5. Taking care of an infant (changing diapers, getting up in the
   middle of the night, etc.) is a father's role. (Circle one)
   1 2 3 4 5
   Strongly Agree Somewhat Agree Strongly Disagree

6. I feel emotionally involved in the pregnancy. (Circle one)
   1 2 3 4 5
   Strongly Agree Somewhat Agree Strongly Disagree

During your wife's pregnancy to what extent do you have any of
the following symptoms or physical conditions? Circle the
appropriate number.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>NONE</th>
<th>SOME</th>
<th>MUCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Nausea</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Backaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Fatigue</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Cramps</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Weakness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Change in heartbeat</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Difficulty in breathing</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Pelvic pain</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Sleeplessness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>indigestion</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Headaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>increase in appetite</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Decrease in appetite</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Toothache</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

To what extent do you agree or disagree with the following
statements? Circle the appropriate number.
22. When I first found out that my wife was pregnant, I was very happy.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

23. People who think they can get along in marriage without arguments just don't know the facts.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

24. Before my wife's pregnancy, I had been looking forward to our having a baby.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

25. It is natural to have quarrels when two people who both have minds of their own get married.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

26. Some of the time it is necessary for a husband to tell off his wife in order to get his rights.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

27. I am more short tempered during my wife's pregnancy.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

28. No matter how well a married couple love one another, there are always differences which cause irritation and lead to arguments.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

29. I am hard to get along with during my wife's pregnancy.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree

30. When my wife became pregnant I did not want her to have a baby at that time.
   1 2 3 4 5
   Strongly Somewhat Strongly Agree Agree
   Disagree Agree
31. When I think about the pregnancy now, I sometimes wish that we weren't going to have a baby.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

32. I feel that my wife's pregnancy is long and tiresome to me.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

33. When I think of my wife's pregnancy, the thought of soon being a father pleases me.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

34. I am restless and uneasy during my wife's pregnancy.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

35. Before my wife became pregnant we were hoping to have a baby.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

36. I am less patient with family and friends during my wife's pregnancy.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

37. I am easily upset during my wife's pregnancy.

1  2  3  4  5
Strongly Somewhat Strongly
Disagree Agree Agree

38. Do you want a (check one): Boy____, Girl____, No preference____.

39. Does your wife want a (check one): Boy____, Girl____, No preference____.

40. How neglected (left out) have you felt in light of the attention your wife is/was receiving during the pregnancy? (circle appropriate number)

1  2  3  4  5
Not neglected Somewhat Very
at all Neglected Neglected
To what degree do you intend to be involved in the following child care activities after the baby is born?

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>41. Diapering</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42. Feeding</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43. Dressing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44. Bathing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45. Holding</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46. Cutting Nails</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47. Talking To</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>48. Night Wakes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>49. Playing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>50. Doctor Visits</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>51. Baby Laundry</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>52. Food Preparation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

CONTINUED ON NEXT PAGE - - -
INSTRUCTIONS FOR THE FOLLOWING FOR SETS OF QUESTIONS:

You will be asked to look at each pair of word-opposites in three different ways. These are:

1. SELF - This is defined as the way in which you see yourself, or how you would describe your own experience and feelings. Thus, if you were dealing with the opposite words "good - bad," you would have to decide WHERE YOU ARE on the scale between "good" and "bad."

2. GOAL - This is defined as how you would most like to be. Thus, if you were dealing with the opposite words "good - bad," you would have to decide WHERE YOU WANT TO BE on the scale between "good" and "bad."

3. OTHERS - This is defined as how you think other people see you. For the opposites "good - bad," you would have to decide WHERE OTHERS SEE YOU on the scale, nearer to "good" or nearer to "bad" or somewhere in between.

PUT AN X IN THE APPROPRIATE BOX - THE PLACE WHICH BEST DESCRIBES YOUR FEELINGS.

<table>
<thead>
<tr>
<th></th>
<th>85. Good Provider for my Family</th>
<th>86. Get Along with Children</th>
<th>87. Concerned about being a good parent</th>
<th>88. Looking forward to becoming a parent</th>
<th>89. Calm about parenting issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self</td>
<td>Self</td>
<td>Self</td>
<td>Self</td>
<td>Self</td>
</tr>
<tr>
<td></td>
<td>Goal</td>
<td>Goal</td>
<td>Goal</td>
<td>Goal</td>
<td>Goal</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>Others</td>
<td>Others</td>
<td>Others</td>
<td>Others</td>
</tr>
</tbody>
</table>
Directions

Read each of the following statements and then circle the appropriate number that indicates how you are feeling right now, that is, at this moment.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel calm</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I feel like exploring my environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I am furious</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel curious</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I feel like banging on the table</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I feel at ease</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I feel interested</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. I feel angry</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. I am presently worrying over possible misfortunes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. I feel inquisitive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. I feel like yelling at somebody</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. I feel nervous</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. I am in a questioning mood</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. I feel like breaking things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. I am jittery</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. I feel stimulated</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. I am sad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. I am relaxed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. I feel mentally active</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. I feel irritated</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. I am worried</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23. I feel bored</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24. I feel like hitting someone</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25. I feel bored</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
<td>SOMEWHAT</td>
<td>MODERATELY</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>25. I feel steady.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I feel eager.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I am burned up.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. I feel frightened.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I feel disinterested.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I feel like swearing.</td>
<td></td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EXPECTANT FATHERHOOD QUESTIONNAIRE III
Section One

1. Name (Optional) _____________________________________________

2. Social Security Number ____ ____ ____ ____ ____ ____ ____ ____

3. How long ago was your baby born? ______________ weeks

4. I would describe my childhood as (circle the right number)
   1 2 3 4 5
   Very happy Somewhat happy Very unhappy

5. Taking care of an infant (changing diapers, getting up in the
   middle of the night, etc.) is a father's role. (circle one)
   1 2 3 4 5
   Strongly Agree Somewhat Agree Strongly Disagree

6. I felt emotionally involved in the pregnancy. (circle one)
   1 2 3 4 5
   Strongly Agree Somewhat Agree Strongly Disagree

   During your wife's pregnancy to what extent did you have any
   of the following symptoms or physical conditions? Circle the
   appropriate number.

   7. Vomiting
      NONE SOME MUCH
      0 1 2

   8. Nausea
      0 1 2

   9. Backaches
      0 1 2

   10. Fatigue
       0 1 2

   11. Cramps
       0 1 2

   12. Weakness
       0 1 2

   13. Change in heartbeat
       0 1 2

   14. Difficulty in breathing
       0 1 2

   15. Pelvic pain
       0 1 2

   16. Sleeplessness
       0 1 2

   17. Indigestion
       0 1 2

   18. Headaches
       0 1 2

   19. Increase in appetite
       0 1 2

   20. Decrease in appetite
       0 1 2

   21. Toothache
       0 1 2
To what extent do you agree or disagree with the following statements? Circle the appropriate number.

22. When I first found out that my wife was pregnant, I was very happy.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

23. People who think they can get along in marriage without arguments just don't know the facts.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

24. Before my wife's pregnancy, I had been looking forward to our having a baby.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

25. It is natural to have quarrels when two people who both have minds of their own get married.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

26. Some of the time it is necessary for a husband to tell off his wife in order to get his rights.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

27. I was more short tempered during my wife's pregnancy.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

28. No matter how well a married couple love one another, there are always differences which cause irritation and lead to arguments.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree

29. I was hard to get along with during my wife's pregnancy.
   1  2  3  4  5
   Strongly Somewhat Strongly
   Disagree Agree Agree
30. When my wife became pregnant I did not want her to have a baby at that time.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

31. When I think about the pregnancy now, I sometimes wish that we didn't have a baby.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

32. I felt that my wife's pregnancy is long and tiresome to me.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

33. When I think of my wife's pregnancy, the thought of now being a father pleases me.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

34. I was restless and uneasy during my wife's pregnancy.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

35. Before my wife became pregnant we were hoping to have a baby.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

36. I was less patient with family and friends during my wife's pregnancy.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. I was easily upset during my wife's pregnancy.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Is your child a: Boy_____, Girl_____?

39. How neglected (left out) did you feel in light of the attention your wife was receiving during the pregnancy? (Circle appropriate number)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Neglected Somewhat Very</td>
<td>At All Neglected Neglected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To what degree do you intend to be involved in the following child care activities now that the baby is born?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not At All</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>40. Diapering</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Feeding</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. Dressing</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. Bathing</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. Holding</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. Cutting Nails</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. Talking To</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. Night Wakes</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Playing</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. Doctor Visits</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. Baby Laundry</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. Food Preparation</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

52. Were you present in the delivery room at the time of your child's birth?
   Yes_____, No_____
INSTRUCTIONS FOR THE FOLLOWING FOR SETS OF QUESTIONS:

You will be asked to look at each pair of word-opposites in three different ways. These are:

1. **SELF** - This is defined as the way in which you see yourself, or how you would describe your own experience and feelings. Thus, if you were dealing with the opposite words "good - bad," you would have to decide WHERE YOU ARE on the scale between "good" and "bad."

2. **GOAL** - This is defined as how you would most like to be. Thus, if you were dealing with the opposite words "good - bad," you would have to decide WHERE YOU WANT TO BE on the scale between "good" and "bad."

3. **OTHERS** - This is defined as how you think other people see you. For the opposites "good - bad," you would have to decide WHERE OTHERS SEE YOU on the scale, nearer to "good" or nearer to "bad" or somewhere in between.

PUT AN X IN THE APPROPRIATE BOX - THE PLACE WHICH BEST DESCRIBES YOUR FEELINGS.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>53. Good Provider for my Family</td>
<td>Self</td>
<td>Goal</td>
<td>Self</td>
<td>Poor Provider for my family</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. Get Along with Children</td>
<td>Self</td>
<td>Goal</td>
<td>Self</td>
<td>Don't get along with Children</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. Concerned About Being a Good Parent</td>
<td>Self</td>
<td>Goal</td>
<td>Self</td>
<td>Not Concerned about being a good parent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. Enjoying Being a Parent</td>
<td>Self</td>
<td>Goal</td>
<td>Self</td>
<td>Dreading Being a Parent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. Calm About Parenting Issues</td>
<td>Self</td>
<td>Goal</td>
<td>Self</td>
<td>Nervous About Parenting Issues</td>
</tr>
</tbody>
</table>
Directions

Read each of the following statements and then circle the appropriate number that indicates how you are feeling right now, that is, at this moment.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All</th>
<th>Somewhat</th>
<th>Moderately</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel calm.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel like exploring my environment.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I am furious</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am tense</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel curious</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I feel like banging on the table.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I feel at ease</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I feel interested.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I feel angry</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I am presently worrying over possible misfortunes.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I feel inquisitive.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I feel like yelling at somebody.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I feel nervous</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I am in a questioning mood.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I feel like breaking things.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I am jittery</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I feel stimulated.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I am mad</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I am relaxed</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I feel mentally active</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I feel irritated</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I am worried</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I feel bored</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I feel like hitting someone.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
<td>SOMERIAT</td>
<td>MODERATELY</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>25.</td>
<td>I feel steady.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>I feel eager.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>I am burned up.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>I feel frightened.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>I feel disinterested.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>I feel like swearing.</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

(Note: The following chart was given to subjects in group 2. As previously mentioned, all subjects were drawn from a larger sample of men attending preparation for childbirth classes, and had already been introduced to the jargon which is used in the following chart. The reader who may be unfamiliar with the terminology is referred to the glossary in Appendix C. Those concepts not explained there will be defined following this appendix.)

Labor Chart

<table>
<thead>
<tr>
<th>Phase of Labor</th>
<th>What your Wife Might Feel</th>
<th>What You and Your Wife Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Early phase</td>
<td>Backache</td>
<td>Time contractions</td>
</tr>
<tr>
<td>0-1/2 fingers</td>
<td>Diarrhea</td>
<td>Call doctor</td>
</tr>
<tr>
<td>dilated or 0-3 cm.</td>
<td>Abdominal Cramps</td>
<td>Pelvic rock for backache</td>
</tr>
<tr>
<td>Contraction: 45-60 seconds long; 5 minutes or more apart</td>
<td>&quot;Bloody show&quot;</td>
<td>Urinate every hour</td>
</tr>
<tr>
<td></td>
<td>Ruptured membranes</td>
<td>Slow deep breathing</td>
</tr>
<tr>
<td></td>
<td>Talkative or &quot;hyper&quot;</td>
<td>Conscious relaxation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Get supplied ready</td>
</tr>
<tr>
<td>B. Mid-phase</td>
<td>Stronger, more frequent contractions</td>
<td>Deep chest breathing</td>
</tr>
<tr>
<td>2-4 fingers dilated or 4-8 cm.</td>
<td>More serious concentration</td>
<td>Effleurage</td>
</tr>
<tr>
<td>Contraction: 60 seconds long; 2-5 minutes apart</td>
<td>Preoccupied</td>
<td>Ice chips</td>
</tr>
<tr>
<td></td>
<td>Dependent on companionship</td>
<td>Vary position of pillows and laboring woman</td>
</tr>
<tr>
<td></td>
<td>Restlessness</td>
<td>Back rub during and between contractions</td>
</tr>
<tr>
<td></td>
<td>Back and/or leg pain</td>
<td></td>
</tr>
<tr>
<td>C. Transition</td>
<td>Leg cramps and shaking</td>
<td>Breathing: pant, pant-blow, and blow</td>
</tr>
<tr>
<td>4-5 fingers dilated or 8-10 cm.</td>
<td>Nausea and vomiting</td>
<td>Monitor technique rate and rhythm</td>
</tr>
<tr>
<td>Contraction: 60-90 seconds long; 2-3 minutes apart or back to back and double peak</td>
<td>Heavy show</td>
<td>Encourage her to stay in the present</td>
</tr>
<tr>
<td></td>
<td>Hot and perspiring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Sleeping&quot; between contractions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total involvement and detachment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apprehension</td>
<td></td>
</tr>
</tbody>
</table>
### Labor Chart (Continued)

<table>
<thead>
<tr>
<th>Phase of Labor</th>
<th>What Your Wife Might Feel</th>
<th>What You and Your Wife Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1 (Continued)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>Increased pressure</td>
<td>Massage thighs between contractions</td>
</tr>
<tr>
<td></td>
<td>Desire to push</td>
<td>Use eye to eye contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Make sure room is quiet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encourage comfortable positions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No pushing until told to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage 2.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expulsion of Baby</td>
<td>Contractions may slow down</td>
<td>Encouragement for each contrac-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tion</td>
</tr>
<tr>
<td></td>
<td>Pressure on rectum</td>
<td>Relax perineal muscle</td>
</tr>
<tr>
<td></td>
<td>and perineum</td>
<td>Push down and forward</td>
</tr>
<tr>
<td></td>
<td>Total involvement</td>
<td>Don't be afraid to push hard</td>
</tr>
<tr>
<td></td>
<td>Stretching sensation</td>
<td>Provide physical support for</td>
</tr>
<tr>
<td></td>
<td>Feel head moving down</td>
<td>your wife</td>
</tr>
<tr>
<td></td>
<td>Burning sensation as</td>
<td>Stop pushing when head crowns-</td>
</tr>
<tr>
<td></td>
<td>baby's head is presented (crowning)</td>
<td>pant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage 3.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expulsion of placenta</td>
<td>Slight contraction</td>
<td></td>
</tr>
</tbody>
</table>

***"Get supplies ready" - gather materials that will be necessary or helpful in the labor and delivery, e.g., extra pillow, washcloth, mirror, bathrobe, etc.***

***"Effleurage" - a gentle, light massage, which may ease the woman during labor.***

***"Breathing: pant, pant-blow and blow" - Breathing techniques aimed at increasing relaxation during labor and delivery.***

***"Eye contact" - a way for the husband to maintain support of his wife.***
APPENDIX D

GLOSSARY - HANDOUT FOR GROUP 2
GLOSSARY

ACTIVE LABOR: The second part of the first stage of labor; contractions are from two to five minutes apart and last sixty seconds or more; the cervix dilates to three to four fingers (six to eight centimeters).

ADRENAL GLANDS: Two small glands located on the upper part of the kidneys which secrete hormones, stimulate the metabolic rate, raise the blood pressure, increase the rate of respiration and heartbeat, and generally prepare the body for a "fight or flight" response.

AFTERBIRTH: The placenta and other membranes that are expelled (or delivered) during the third stage of labor, after the baby is born.

AFTER PAINS: Contractions of the uterus after the birth of a baby which are felt as cramping discomfort by some women. These contractions help the uterus return to its normal size. See involution.

AMNIOCENTESIS: A procedure in which some of the amniotic fluid surrounding the fetus is removed by passing a needle through the abdominal wall of the mother. Often done in order to perform tests which give some information about the fetus.

AMNION: The innermost membranes of the placenta enveloping the embryo and amniotic fluid.

AMNIOTIC FLUID: The three or four pints of liquid surrounded by the amnion, in which the fetus floats while in utero. It serves to protect the fetus from outside shocks, as insulation from heat and cold, and allows the fetus to move unhampered. This is the fluid which escapes when the "bag of water" breaks at the outset of labor.

AMNIOTIC SAC: The membranes surrounding the amnion and fetus. See amnion, placenta.

ANALGESIC: A drug, gas, or other agent that relieves or reduces pain without causing unconsciousness.

ANEMIA: A condition of the blood in which there is a reduction of red blood cells or of hemoglobin, or of both.

ANESTHETIC: A drug, gas, or other agent that deadens, numbs, or otherwise prevents pain. General anesthetics induce sleep while local anesthetics desensitize specific areas of the body through an injection into muscle or other tissue or into the spinal canal. See block.
APGAR TEST: A test given to the newborn at one minute and five minutes after birth to check the infant's physical condition. It includes: heart rate, respiratory rate, muscle tone, cry, and color.

AREOLA: The colored or pigmented area surrounding the nipple of the breast.

BAG OF WATERS: The sac or bag surrounding the amniotic fluid and fetus. The common name for the amniotic sac and amniotic fluid. See amniotic sac, amniotic fluid.

BIRTH CANAL: The passageway from the uterus through which the baby is born (i.e., the cervix, the vagina, and the vulva).

BLASTOCYTE OR CLASTULA: An early stage in the development of the embryo, when it consists of a hollow sphere made of one or several layers of cells.

BLOCK: A type of local analgesia in which the passage of a nervous impulse is stopped. Most often used to stop pain when it is necessary for the patient to remain awake and alert. A caudal block is an injection into the lowest region of the spine near the coccyx, numbing the pelvic region. An epidural block is injected into the lumbar region of the spine, numbing the abdomen and feet.

"BLOODY SHOW": A mucous discharge streaked with blood which can occur as much as a week before labor actually begins and may signal impending labor.

BOND (BONDED, BONDING): The feelings of attachment between parent and child.

BRADYCARDIA: Unusually slow heartbeat.

BRAXTON-HICKS: Practice contractions of the uterus occurring late in pregnancy, which prepare the cervix for delivery by effacing and dilating the cervix. Also called ripening of cervix.

BREECH (DELIVERY): Position of the baby during delivery in which the buttocks are presented first instead of the head.

CAESAREAN PROCEDURE: A surgical procedure in which the baby is delivered by cutting through the mother's abdominal and uterine walls.

CATHETERIZATION: The insertion of a small pliable tube into the bladder through the urethra, to draw off urine.
CEPHALOPELVIC DISPROPORTION: A condition in which the opening through the bones of the mother's pelvis is too small to allow for the passage of the baby's head; usually indicating that a Caesarean procedure is necessary.

CERVIX: A thick disclike apparatus that is the mouth of the uterus and opens into the vagina.

CLITORIS: In the woman, a highly sensitive piece of erectile tissue located in front of the urethra opening and covered by the labia minora.

COCXY: The last two or four fused vertebra at the end of the spine; "tail bone."

COITUS: Sexual intercourse. See copulate.

COLOSTRUM: The watery fluid secreted by the breasts immediately preceding and shortly after childbirth before milk is produced.

CONCEPTION: The fertilization of the egg; the beginning of a new life.

CONTRACEPTIVE: Any device used to prevent pregnancy, i.e., diaphragm, condom, foam, pill, intrauterine device.

CONTRACTION: The tightening and shortening of the uterine muscles during labor which force the baby downward and outward. The pressure against the cervix from the baby's head is what causes the cervix to efface and dilate until the baby can pass through.

COPULATE: To engage in sexual intercourse.

COUVADE RITUAL: A primitive ritual of sympathetic magic during which an expectant father simulates labor and birth, ostensibly to decoy evil spirits from the mother and new child. Sometimes the ritual involves the postpartum period as well.

COUVADE SYNDROME: A set of physical symptoms experienced by an expectant father which disappear almost immediately after his wife has given birth.

"CROWNING": The appearance at the vaginal opening of the presenting part of the baby, usually the top of the head, during the second stage of labor.

DEFENSE MECHANISM: A generally unconscious and reality-distorting psychological strategy intended to maintain an individual's feelings of adequacy, self-worth, and self-image, by avoiding awareness of an impulse or reality, rather than coping directly with the anxiety-producing situation or thought.
DELIBERY: Giving birth; the child's passage from the uterus into the external world through the birth canal.

DEMEROL: A synthetic narcotic used as an analgesic agent for labor. It acts as a depressant to the central nervous system (CNS).

DILATATION (DILATION): The gradual opening up of the cervix to allow the baby to pass through. It is one of the indicators of the progress of the labor, and when "complete" the diameter of the cervical opening is ten centimeters, or five fingers.

EARLY LABOR: The first part of the first stage of labor. Contractions range from five to twenty-five minutes apart and last forty-five to sixty seconds. The dilation of the cervix goes from zero to three centimeters, or zero to one and a half fingers.

EDEMA: Abnormal retention of water by body tissues causing weight gain and swelling.

EFFACE: The process of stretching and thinning that occurs to the cervix during labor to allow it to dilate so that the baby can pass through. See cervix.

EFFLEURAGE: A type of massage that is effective in relieving some of the pain of contractions during labor.

EJACULATION: The release of semen that takes place during most orgasms in the male.

EMBOLISM: A bubble of air in the blood stream.

EMBRYO: Term for the baby during the first two months of life in the uterus.

EMPTY-NEST SYNDROME: Anxiety, along with feelings of loneliness and isolation, encountered with the realization that one's own children have grown up and left the parents' home.

ENDOMETRIUM: The lining of the uterus containing many blood vessels. It is shed during menstruation but remains during pregnancy to support the development of the placenta.

ENGAGEMENT: The positioning of the fetus into the upper opening of the pelvic canal, readying itself for passage through this structure. See "lightening."

ENGORGEMENT: Congested with blood or other fluid; refers to the excessive fullness of the breasts and genitals (male and female) during sexual arousal, when they become filled with blood.
EPISIOTOMY: A lengthwise incision of the perineum to relieve the pressure of the baby's head and reduce the hazard of uneven tearing of vaginal tissue.

ESTROGEN: A female hormone produced in the ovaries and adrenal glands. It affects the functioning of the reproductive cycle and the development of secondary sexual characteristics.

FALLOPIAN TUBES: In the female, the tubes extending from the uterus to the ovaries. The mature egg, which travels from the ovary down the fallopian tubes to the uterus, is fertilized in the fallopian tubes.

FERTILIZED: The joining of egg and sperm to form a complete set of chromosomes, constituting the beginning of an organism. See conception.

FETAL DISTRESS: A term that describes a condition where the blood supply and oxygen of the fetus are threatened.

FETAL HEART TONES: The infant's heartbeat as monitored through the mother's abdomen.

FETUS: The unborn child, still in the uterus, from three months prenatal until birth.

"FINGERS": Unit of measure used to describe the progress of dilation. One finger equals two centimeters. Full dilation is five fingers. See dilatation.

FIRST STAGE OF LABOR: The longest part of labor during which the cervix dilates to let the baby pass through. It ends when the cervix is dilated ten centimeters.

FONTANEL: The soft spot on the top of the baby's head where the cranial bones have not grown together. This allows the head to be flexible enough to change shape during birth and allows the skull to grow after birth. The bones fuse between nine months and two years of age.

FORCEPS: An obstetrical instrument sometimes used by the doctor to assist the delivery and help lift the baby's head out of the birth canal.

FUNDUS (OF THE UTERUS): The top, or bulged portion, of the uterus.

GENES: The fundamental units of heredity, each consisting of a unique configuration of DNA. Their configuration on the chromosomes determines physical characteristics (hair color, height, etc.).
GENITALIA: The reproductive organs, either male or female.

GESTATION: The length of time necessary for the development of the egg into an individual capable of surviving outside the mother's body; pregnancy.

GRAVIDA: A pregnant woman. A woman who is pregnant for the first time is called a primigravida, and one who has had previous children is a multigravida.

HEMORRHOIDS: A swelling (or varicosity) of veins in the anus, sometimes causing discomfort and bleeding. Also called "piles."

HIGH-RISK BABY: An infant whose mother has been exposed to one or more of the complications of pregnancy.

HIGH-RISK PREGNANCY: One which is complicated by one or more various conditions that may cause the loss of the pregnancy or be injurious to the health of the mother and/or infant. For example, conditions of toxemia, diabetes, and previous poor obstetrical history.

"HUSBAND-COACHED" BIRTH: A childbirth in which the husband participates by offering support in the form of reminding his wife to breathe, monitoring contractions, etc. See natural childbirth, Lamaze classes/course.

HYPERVENTILATION: Overbreathing, causing an imbalance in the oxygen-carbon dioxide levels in the system leading to giddiness, dizziness, or numbness.

HYPOTENSION: Blood pressure that is below normal; can be caused by blood loss or drugs.

IMPLANTATION OF EGG: The attaching of the fertilized egg to the wall of the uterus occurring six to seven days after fertilization.

IMPOTENCY: In the male, the inability to achieve an erection.

INCEST: Sexual relations between closely related individuals, e.g., parent and child or brother and sister.

INDUCTION: Artificial initiation of labor either through the administration of medications or surgical rupture of the membranes surrounding the fetus.

INFERTILITY: Not capable of producing ova (female) or sufficient sperm (male) for conception to take place; inability to conceive.

INTRAUTERINE LIFE: Life within the uterus, i.e., the fetus.
INTRAVENTOUS: Medication that is delivered directly to the bloodstream via a needle inserted into a vein or artery.

IN UTERO: Literally within the uterus.

INVOLUTION: The return to normal size of the uterus after the birth of the baby. The process generally takes five or six weeks but will occur sooner if the mother nurses. See after pains.

LABIA: Literally meaning lips. The folds of skin surrounding the genital and urinary openings in the female.

LABOR: The process a woman's body goes through when giving birth, consisting of the contractions of the uterus, the dilatation of the cervix, and the final expelling of the child.

LABOR PAINS: Discomfort caused by the contractions of the uterus in its attempt to expel the baby.

LACERATION: A tear; as a baby passes through the birth canal, this may happen to the tissues near the vagina. Episiotomy is performed as a precaution to a large or uneven tearing. Superficial tears in this area heal easily.

LACTATION: The production of milk by the mammary glands.

LAMAZE CLASSES/COURSE: Classes for expectant parents in the techniques of Dr. Fernand Lamaze. See natural childbirth, prophylaxis.

LANUGO: The soft, downy hairlike growth that appears on the body of the newborn infant which eventually falls out.

LET-DOWN REFLEX: The involuntary ejection of milk that occurs during breast-feeding as a result of stimulation, hormone secretion, and muscle contractions around the milk ducts.

LIBIDO: More narrowly, the drive for sexual gratification, i.e., sex drive. In general psychoanalytic terms, the constructive instinctual drive, the basic energy of life, generally sexual in nature.

"LIGHTENING": During late pregnancy, a dropping of the uterus as the fetus engages its head in the upper birth canal in preparation of labor.

"LITHOTOMY" POSITION: The standard hospital delivery position in which the woman lies on her back with her legs up in stirrups.

LOCHIA: Vaginal discharge occurring for five to six weeks after delivery. The color is initially red, changing to pink, to brown, and finally to white.
MASTURBATION: Generally referring to stimulation of one's own genitals; can also refer to sex play (mutual masturbation) that is not specifically intercourse but involves stimulating one's partner's genitals.

MATRICENTRIC: Mother-centered, the emphasis being placed on the mother's role and experiences.

MECONIUM: A baby's first stool, consisting of waste materials usually normally suspended in the amniotic fluid, passed within the first twenty-four hours. It is extremely sticky and greenish black in color.

MIDWIFE: Traditionally women, now anyone, who delivers babies and is not a medical doctor. Today midwives are usually nurses who received special obstetrical training. There are still lay midwives.

MIDWIFERY CENTERS: Often a special section of a hospital where labor and delivery is attended by midwives rather than medical doctors. Many of them have a more comfortable homelike setting.

MISCARRIAGE: See spontaneous abortion.

MOLDING: The process of adjusting the shape of the baby's head to fit the size and shape of the birth canal.

MORNING SICKNESS: The nausea experienced by many women in the first trimester of pregnancy.

MUCOUS MEMBRANES: The thin mucus-secreting tissue that lines body cavities connecting with the outside air, including the alimentary canal, respiratory tract, vagina, etc.

MUCOUS PLUG: The heavy mucus that blocks the opening of the cervix during pregnancy.

MUCUS: The clear viscous secretion of the mucus membranes that serve to keep the membranes moist.

MULTIGRAVIDA: A woman who has had more than one pregnancy.

MULTIPAROUS: A woman who has given birth more than once.

NATURAL CHILDBIRTH: A term that has come to be applied to any method of training and preparation for labor that reduces the need for anesthesia. See psychoprophylaxis, Lamaze classes/course, "husband-coached" birth.

"NESTING" BEHAVIOR: A need among expectant parents to put their environment in order, or create a place for the baby, much as animals build a nest.
NURTURING: Engaging in those activities that promote development or growth in another, such as feeding and caring for a baby.

ONTGENY: The biological development of a single individual organism; as contrasted to phylogeny.

OS: The (opening) passageway from the cervix to the uterus. See cervix.

OVARY: The female reproductive gland in which the ova are developed and released. The gland is responsible for the secretion of the hormones estrogen and progesterone.

OVULATION: The release of a mature egg from the female.

OVUM: The mature egg cell produced by the ovaries that contain one-half of the chromosomes necessary for a complete cell. The other half will be supplied by a sperm cell during fertilization.

PALPATION: A technique of medical examination in which the physician uses his/her hands to feel for certain signs of the condition of the baby.

PELVIC, OR "INTERNAL," EXAMINATION: An examination of the female internal organs, i.e., vagina, uterus, and ovaries.

PELVIC ORGANS: Those organs contained within the ring of the pelvic bones, including the uterus, ovaries, vagina, fallopian tubes, bladder, and rectum.

PELVIS: The bony ring in the lower torso that supports and transfers weight of the body to the legs. It consists of the two hip bones joined in front by the pubic bone and in the back by the sacral vertebra. In the female this ring forms the walls of the birth canal.

PERINEAL MUSCLE: The floor of the pelvis through which the urethra, vagina, and rectum pass. Covers the same area as the perineum and supports the pelvic organs. See perineum.

PERINEUM: The area between the anus and the base of the vulva (in females) or scrotum (in males).

PERIPHERAL NERVOUS SYSTEM (PNS). Bundles of sensory and motor nerves that radiate from the brain and spinal cord and reach all parts of the body.

PHYLOGENETIC/PHYLOGENY: The evolutionary development of a species.

PITOCIN: A hormone of the pituitary gland that is often injected to stimulate the uterus to contract and deliver the placenta.
PLACENTA: A broad flat organ partially surrounding the baby. It attaches to the uterine wall and the baby's umbilical cord and is responsible for the exchange of nutrients and wastes between mother and child. See afterbirth.

PLACENTA PREVIA: Meaning "placenta first," when the placenta is attached to the walls of the uterus in such a position that it covers the cervical opening and blocks the baby's passage through the birth canal. May indicate a Caesarean procedure.

POSTPARTUM: Refers to the time after the birth of the baby.

POSTPARTUM DEPRESSION: Feelings of depression after the birth of the child.

"PREEMY": A baby delivered prematurely, i.e., before the ninth month. See premature.

PREMATURE: The birth of an infant between the seventh month (twenty-ninth week) and the thirty-sixth week of pregnancy and when a newborn weighs under five pounds. Survival may require extra medical provisions.

PRENATAL: The expectancy period (after conception and before the birth of the child), i.e., pregnancy.

PREPPED: The procedure performed at the hospital to prepare the woman for childbirth.

PRESENTATION: The position the baby's body is in when she/he first appears at the external opening of the birth canal, i.e., breech, vertex, posterior, and anterior.

PRIMIPARA: A woman who is pregnant for the first time.

PROCAINE: A local anesthetic; trade name Novocaine (name literally means "instead of cocaine").

PROGESTERONE: A female hormone secreted by the ovaries that is responsible for the building up of the endometrium (lining of the uterus) to receive the fertilized egg and for maintaining the lining during the pregnancy.

PSYCHOPROPHYLAXIS: The methods of preparation for labor and delivery brought to the West by Dr. Fernand Lamaze. The mother is taught the physiological and psychological processes of childbirth along with exercises and breathing techniques to help her participate effectively in the labor and delivery.

PUBLIC BONES: The front bones of the pelvic girdle that join the two hip bones.
PUERPERIUM: The six weeks following delivery.

QUICKENING: The first movements of the fetus in utero that are felt by the mother, generally around the fifth month of pregnancy.

"RIPE": A descriptive term for the condition of the cervix when it is ready for labor to begin.

"RIPENING" OF THE CERVIX: A prelabor process involving slight contractions that serve to prepare the cervix for the actual delivery by effacing and dilating it.

ROOMING-IN: A method of postdelivery care in which the infant stays in the same room as its mother, rather than in the nursery.

ROOTING REFLEX: Present in newborn infants, it is the instinctual movements of the head and mouth toward a touch on the cheek or mouth area.

SCROTUM: In the male, it is the sac of skin in which the testes are suspended.

SECOND STAGE OF LABOR: The point of labor in which the baby is actually born. Contractions are from two to five minutes apart and last forty-five to ninety seconds.

SEMINAL FLUID: The fluid produced by the seminal vesicles in the male and which serve as a transport medium for the sperm cells.

SPERM: The male reproductive cell. Like the egg (ovum) it contains twenty-three chromosomes. It unites with the ovum in the fallopian tubes to cause conception.

SPERM COUNT: The number of sperm per milliliter of semen. The average ejaculate contains 200-500 million sperm.

SPERM MOTILITY: The ability of the sperm to travel through the vagina and cervix to the fallopian tubes where they can fertilize the ovum.

SPHINCTER MUSCLE: A muscle in the shape of a ring that in its normal state of contraction closes an opening. For example, the anal sphincter closes the rectum.

SPONTANEOUS ABORTION: The premature delivery of the embryo, generally occurring during the first trimester, also called miscarriage.

STRIAE: "Stretch marks"; the pinkish purple lines appearing on a woman's abdomen, thighs, buttocks, and breasts due to the overstretching of the skin during pregnancy. They later fade to white scars or disappear.
SYMPATHY PAINS: See couvade syndrome.

TERM: The completed cycle of pregnancy, full term being forty weeks.

TESTICLES: The sperm-producing organs in the male. They also produce the male hormone testosterone. The testicles are suspended in the scrotal sac below the penis.

THIRD STAGE OF LABOR: Expulsion of the placenta, occurring after the baby has been delivered.

TOXEMIA: A metabolic disorder of pregnancy. Symptoms are hypertension, swelling, and albumin in the urine.

TRANSITION: The last and most intense period of the first stage of labor that accomplishes full cervical dilation (ten centimeters). Contractions are two minutes apart and last about ninety seconds.

TRIMESTER: One-third of the time span of the pregnancy, or a three-month period. There are three trimesters in the pregnancy, each having its characteristic changes.

UMBILICAL CORD: The three blood vessels that transport oxygen and nourishment to the fetus and take wastes back to the mother's blood stream while in utero. The navel, or belly button, is what remains after it is cut.

UMBILICUS: See umbilical cord.

URETHRA: The canal between the bladder and the outside world through which urine passes.

UTERUS: A hollow muscular pear-shaped organ located in the pelvis of the female in which the embryo develops to a child; womb.

VAGINA: The canal leading from the uterus to the outside of the body; part of the birth canal.

VARICOSE VEINS: Abnormally swollen blood vessels, generally in the legs. See hemorrhoids.

VERNX CASEOSA: A whitish, cheeselike substance covering the baby's skin while in the uterus that acts as protection from constant exposure to the amniotic fluid.

VERSION: An obstetric procedure in which the doctor attempts to turn the baby in the birth canal to the most advantageous position for delivery.
VERTEX: The top or crown of the head; in childbirth, the baby is usually born in the vertex position, that is, head down.

VIABLE: The point of development at which the child or fetus can survive outside the uterus.
APPENDIX E

INTERPRETING PATH ANALYSIS FIGURES
Interpreting Path Analysis Figures

This discussion will be based on Figure 2. A path model is constructed so that it reflects a causal ordering among the variables. That is, some variables are considered to occur or exist prior to others, and prior variables are thought to causally influence subsequent variables.

In Figure 2, the exogenous variables (age, education, years married, and planned pregnancy) are something which existed prior to the group treatments and state anxiety assessments. They are placed to the extreme left of the figure. (The endogenous variables are the three state anxiety indicators and the treatment conditions.) The next variables which occurred chronologically are the treatment assignments (group 1, group 2) and the first state anxiety measure. These variables are placed to the right of the exogenous variables. The exogenous variables are thought to exert a causal influence on the state anxiety measure at time 1. Moving to the right of the figure, state anxiety as measured at time 2 and state anxiety as measured at time 3 are entered in their respective temporal orders.

In the data analysis phase, the exogenous variables were allowed to influence all three state anxiety measures as well as the treatment group indicators. Only the significant effects ($p < .05$) of the exogenous on the endogenous variables are presented in the diagram. In this figure, only one significant effect was found: age was found to exert a negative effect on state anxiety at time 3. The line with the arrow from age to state anxiety 3 shows this significant
association. The coefficient above the line (-.252) is a standardized regression coefficient. The other paths in the model are interpreted in exactly the same manner. For example, the path, and its associated standardized regression coefficient, for the effects of state anxiety as measured at time one on time 2 is .601. This indicates that a person's state anxiety measure at time 1 has a strong positive effect on his state anxiety measure at time 2.

The only other coefficients in the model which may be discussed are the residual variables. These are represented by the vertical lines which point to each endogenous variable and run from a coefficient instead of another variable. It is generally impossible to include every variable which influences state anxiety in the model. The residual variables therefore stand for the effects of variables which are not included in the model. They are calculated by $\sqrt{1 - R^2}$. See Kerlinger and Pedhazur (1973) for a more detailed discussion of path analysis.
APPENDIX F

STATISTICAL DEFINITIONS AND APPLICATION
Statistical Definitions and Application

**Dummy Variable**

The use of multivariate techniques such as multiple regression and analysis of variance requires that variables be measured at the internal level of measurement; that is, it may be viewed as a metric measurement. This poses problems for researchers who want to include nominal-level or categorical variables in regression analysis which require metric data. This problem is handled through the creation of dummy variables. A set of dummy variables is created by treating each category of a nominal variable as a separate variable. All cases are assigned an arbitrary score depending upon the presence or absence in each category. That is, a one is assigned for the presence, and a zero for the absence in that category. In the present study, membership in a group represents one such categorical variable. Three dummy variables were therefore created. A person is assigned a value of 1 for the group they are in, and a zero for the remaining groups. The dummy variables are then treated as interval variables and inserted into the regression equation. However, all three dummy variables cannot be included in the equation at one time because of multicollinearity. It is therefore necessary to exclude one dummy variable from the equation. This excluded group becomes a reference point against which the effects of the other dummy variables are judged and interpreted. This excluded dummy variable is called the reference category. For a more detailed review, the reader is referred to Kerlinger and Pedhazur (1973) and Blalock (1972).
Standardized and Metric Coefficients

The metric regression coefficient is also known as an unstandardized partial regression coefficient and represents the change that would occur in the dependent variable if one of the independent variables were to change by one unit and if the other independent variables in the regression equation were to remain constant. Since independent variables are measured in different units (age is measured in years, and anxiety in arbitrary metrics), it is difficult to compare the relative effects of two or more independent variables. Regression therefore calculates standardized partial regression coefficients, or Beta weights, which mean that the relationships are examined when the variables are in standard score form. Standardized regression coefficients are obtained by multiplying the metric coefficient by the ratio of the standard deviation of the independent variable to the dependent variable. The reader is referred to Blalock (1972) for more information.
BIBLIOGRAPHY


Alvarez, W.C. Hysterical abdominal bloating. Archives of Internal Medicine, 1949, 84, 217.

Amstein, H.S. The crisis of becoming a father. Sex Behavior, 2, 42-47.


Cronenwett, L., & Newmark, L. Fathers' responses to childbirth. Nursing Research, 1974, 23 (3) (May), 210-217.


Fein, R.A. Men's entrance to parenthood. The Family Coordinator, 1976, (October), 341-348.


Gazda, G.M. Basic approaches to group psychotherapy and group counseling. Illinois: Charles Thomas, 1970.


Horowitz, S. Expectant fatherhood: A review of the literature. Unpublished manuscript (General examination paper), The Ohio State University, 1976.


Mead, Shasta L. The role of the father in normal psychosocial development. *Psychological Reports, 1979, 45*, 923-931.


Raum, O.F. Chaga childhood. London: Oxford University Press, 1940.


Roussak, N.J. Hysterical abdominal proptosis. Gastroenterology, 1951, 17, 133.


Thornburg, H.D. The male as a family role model. Family Therapy, 1979, 6, #3.


