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dissertation entitled

A COMPARATIVE ANALYSIS OF EXPECTANT FATHERS ON COUVADE SYMPTOMATOLOGY AND ASSOCIATED PERSONALITY TRAITS

presented by

Normand Adrien Gilbert

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Health Education, Counseling Psychology, and Human Performance

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Date May 6, 1987

A COMPARATIVE ANALYSIS OF EXPECTANT FATHERS ON COUVADE SYMPTOMATOLOGY AND ASSOCIATED PERSONALITY TRAITS

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Health Education, Counseling Psychology,
and Human Performance

1987

ABSTRACT

A COMPARATIVE ANALYSIS OF EXPECTANT FATHERS ON COUVADE SYMPTOMATOLOGY AND ASSOCIATED PERSONALITY TRAITS

By

Normand Adrien Gilbert

This study examined psychophysiological symptoms of expectant fathers. Anecdotal and empirical reports in the literature have suggested the presence of a specialized group of functional symptoms some expectant fathers experience. The purpose of this study was to clarify whether noted symptoms (toothaches, indigestion/heartburn, nausea, stomach aches, vomiting, diarrhea, constipation, leg aches, stomach swelling, weight gain or weight loss [unplanned], sties on the eyelid, excessive fatigue, and loss of appetite/increased appetite) constitute a syndrome or merely are related to other symptoms associated with general anxiety. The association of personality traits and acute couvade symptomatology of expectant fathers was assessed. The relationship of expectant fathers' partners' functioning with couvade symptomatology was also considered.

Fifty-two cohabiting expectant parents in their third trimester of pregnancy volunteered to participate in this study. Subjects were asked to complete two questionnaires. The General Information Questionnaire sought pertinent demographic and historical information and

included a checklist of symptoms (couvade and anxiety symptoms) on whose frequency and severity respondents reported. A distinction was made between chronic and acute symptomatology, with interest in considering only those symptoms associated in a timely fashion with the period of the pregnancy. The Personality Research Form--Form E devised by Jackson (1984) was used to assess functioning along eight personality traits (affiliation, nurturance, exhibition, social recognition, aggression, defendence, autonomy, and succorance).

Two groups were formed, based on the degree of acute couvade symptomatology reported by expectant fathers. A highly acute-symptomatic group was compared to a group of nonsymptomatic expectant fathers.

Sample means were compared on the variables under consideration, using a t-test. Significance was set at the .05 level. Highly acute-symptomatic expectant fathers exhibited significantly more chronic couvade symptoms, as well as chronic anxiety symptoms, than did nonsymptomatic expectant fathers. The highly acute-symptomatic group also exhibited a significantly higher degree of nurturance than did the nonsymptomatic expectant fathers. Partners of highly acute-symptomatic expectant fathers exhibited a significantly less degree of nurturance than did partners of nonsymptomatic expectant fathers. Additional correlational analyses comparing all expectant fathers on the variables under consideration supported the group differences noted in the comparative analyses.

This dissertation is dedicated to Edouard and Jeanne, my parents, whose thwarted aspirations for education were to be overshadowed by their support of and pleasure in their children's academic achievements.

ACKNOWLEDGMENTS

The completion of this study was accomplished with the support and guidance of many individuals. I wish to thank the members of my dissertation committee, Dr. Richard Johnson, who served as director and chairman along with Dr. William Hinds; Dr. Gilbert DeRath; and Dr. Christine Shafer. Their personal interest, availability, and support were appreciated. This committee's broad range of expertise provided the guidance from the inception of this study to accomplish a unique and worthwhile research investigation.

In addition, acknowledgments are extended to the following individuals: Lynn Snellman, for her availability in providing me valuable consultations regarding the retrieval and analysis of data for this study; Susan Cooley, for her efficient work in typing and expertise in editing this dissertation; Annette Whiting, for her availability and thoroughness in data preparation and coding of questionnaires; the staff and physicians of area hospitals, clinics, and offices providing services to expectant parents, for their help in securing subjects for this investigation; and Richard Hechtl, Professor of Psychology at St. Anselm College, for his challenging support that encouraged me to pursue graduate studies in psychology.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

RATIONALE FOR THE STUDY

Introduction and Statement of the Problem

Most research on expectant parenthood has focused on expectant mothers. Accordingly, expectant fathers have lacked a group identity and have been relatively ignored (Zalk, 1980). Underlying this situation is the stereotypical view and expectation that the male's role is merely to impregnate, and once this has occurred, his role is secondary or supportive (Jessner, Weigert, & Foy, 1970). Enhancing such beliefs have been traditional psychoanalytic conceptualizations that have accorded little importance to the father's role during the preoedipal stages of his child's development (Burlingham, 1973).

Recent developments have aroused interest in research on expectant fathers. Jessner et al. (1970) noted changes in thought, enhancing the importance of fathers in child development. The authors suggested that the presence of sociological shifts, particularly those occurring in the urban family, along with cultural redefinitions of masculinity, have contributed to an understanding of the role of fathers in this developmental process. Shifts in theoretical emphasis from the traditional psychoanalytic conceptualizations to more current ego-developmental, object-relations perspectives have helped

foster an interest in the role of fathers. Such theories view the father as playing an important role in the separation/individuation process, which is intrinsic to identity formation (Ross, 1979).

Research on aspects of expectant fatherhood is needed, particularly when expectant parenthood is conceptualized, not as a single event, but as a developmental process (Benedek, 1959; Ross, 1979). Benedek (1959, 1970b) viewed parenthood as a developmental process, possessing instinctual roots related to the procreative drive. As do other stages of development, expectant fatherhood is likely to present stress. It is during developmental "crisis" periods that one is likely to experience regression. Given the circumstances surrounding the pregnancy, expectant fathers are likely to experience an awakening of aggressive and sexual impulses (Ginath, 1974). In addition, a resurgence of primitive preoedipal conflicts (maternal envy, fear of engulfment, and deprivation) may occur (Gurwith, 1976).

Purpose

The present study concerns the developmental process of expectant fatherhood. Relatively few researchers have investigated this developmental-crisis period. In this study, particular attention was focused on expectant fathers' psychophysiological symptomatology signalling stress during their partner's pregnancy. Specific symptoms described in the literature as the couvade syndrome suggest the presence of a specialized phenomenon. This investigator assessed the presence of such symptoms. The targeted symptoms were toothaches, indigestion/heartburn, nausea, stomach aches, vomiting, diarrhea,

constipation, leg aches, stomach swelling, weight gain (not planned), weight loss (not planned), sties on the eyelid, excessive fatigue, loss of appetite, and increased appetite. An effort was made to clarify whether noted symptoms represent a distinct group of symptoms that comprises a syndrome or are merely related to other symptoms associated with general anxiety. To date, investigators have assumed, perhaps erroneously, the presence of a syndrome such as couvade.

In previous analyses of psychophysiological symptomatology of expectant fathers, attention has been focused on the functional nature of these symptoms, with particular attention to associated psychological experiences and processes such as anxiety, depression, guilt, aggression, dependency, and identification. Although helpful in raising questions about the phenomena of expectant fatherhood, findings in the literature have spawned more controversy than they have answered questions. Noticeably absent have been investigations of the "core" concepts that motivate behavior and play a more dynamic role in the psychological symptoms experienced. This researcher considered couvade symptomatology and its association with personality traits or needs. Such a study was needed to acquire a fundamental understanding of the crisis nature of expectant fatherhood and the dynamics of couvade symptomatology.

Anecdotal reports in the literature have discussed the role of dependency needs relative to couvade symptomatology. Based on such reports and personal interest, the researcher considered personality traits related to interpersonal orientation, using Jackson's (1984)

Personality Research Form. Measures of orientation to others (dependence/attachment) were obtained by assessing eight specific traits. The defining trait adjectives, as noted in the test manual (Jackson, 1984) are as follows:

Affiliation: "Neighborly, loyal, warm, amicable, good-natured, friendly, companionable, genial, affable, cooperative, gregarious, hospitable, sociable, affiliative, good-willed" (p. 6).

Nurturance: "Sympathetic, paternal, helpful, benevolent, encouraging, caring, protective, comforting, maternal, supporting, aiding, ministering, consoling, charitable, assisting" (p. 7).

Exhibition: "Colorful, entertaining, unusual, spellbinding, exhibitionistic, conspicuous, noticeable, expressive, ostentatious, immodest, demonstrative, flashy, dramatic, pretentious, showy" (p. 6).

Social Recognition: "Approval seeking, proper, well-behaved, seeks recognition, courteous, makes good impression, seeks respectability, accommodating, socially proper, seeks admiration, obliging, agreeable, socially sensitive, desirous of credit, behaves appropriately" (p. 7).

Measures assessing orientation away from others (independence/separation) were obtained by assessing the following traits (again with trait adjectives given in the test manual):

Aggression: "Aggressive, quarrelsome, irritable, argumentative, threatening, attacking, antagonistic, pushy, hot-tempered, easily-angered, hostile, revengeful, belligerent, blunt, retaliative" (p. 6).

Defendence: "Self-protective, justifying, denying, defensive, self-condoning, suspicious, secretive, has a 'chip on the shoulder,' resists inquiries, protesting, wary, self-excusing, rationalizing, guarded, touchy" (p. 6).

In addition, one's need for direction from others was assessed to consider further the measures of degree of dependence in contrast to measures of autonomy. Hence the following traits were measured (as described in the test manual):

Autonomy: "Unmanageable, free, self-reliant, independent, autonomous, rebellious, unconstrained, individualistic, ungovernable, self-determined, non-conforming, uncompliant, undominated, resistant, lone-wolf" (p. 6).

Succorance: "Trusting, ingratiating, dependent, entreating, appealing for help, seeks support, wants advice, helpless, confiding, needs protection, requesting, craves affection, pleading, help-seeking, defenseless" (p. 7).

It was expected that couvade fathers would exhibit a greater need for interpersonal relations and attachment than noncouvade fathers, while exhibiting less need for independence and autonomy. The findings of this research should make a valuable contribution to the literature on expectant fathers, particularly in relation to an ego developmental/object relations perspective of this phenomenon.

Limitations and Generalizability of the Study

As in any investigation, certain limitations were realized. A primary one concerned the use of volunteers as subjects for the study.

Volunteers are likely to differ from the general population of expectant fathers. Also, although the researcher attempted to obtain volunteers in both urban and rural areas, the sampling was limited to a relatively small area in mid- and western Michigan. Such factors could limit the generalizability of findings of the present study and are discussed further in Chapter V.

Overview of the Remainder of the Dissertation

Chapter II contains a review of pertinent literature in which a distinction is made between the couvade ritual and couvade syndrome. The historical roots and theoretical underpinnings of couvade syndrome are best understood by considering the couvade ritual. Thus both the practice and underlying beliefs of the couvade ritual are discussed before the literature on couvade syndrome is examined in detail.

The methodology of this investigation is described in Chapter III. Included is a discussion of the assessment tools, along with a statement of the research hypotheses and a description of the subjects used in the study.

Results of the analysis of data, including graphic displays of the findings, are found in Chapter IV.

Chapter V provides a summary of the results of this study. Special consideration is given to particular problems encountered in the study. Further topics of investigation are also suggested.

CHAPTER II

REVIEW OF THE LITERATURE

In this section, a brief review of the couvade ritual (as distinguished from couvade syndrome) is provided to help readers understand the historical roots and theoretical underpinnings of couvade syndrome. This is followed by an examination of the writings on couvade syndrome--its prevalence and theoretical foundations.

Historical Roots of Couvade Syndrome

The Couvade Ritual

Historical and anthropological writings and investigations of ritual practices in primitive cultures have provided numerous accounts of the couvade ritual. Driver (1964) summarized historical reports on couvade practices over the centuries. Studies of couvade have dichotomized the ritual forms based on observations of its practices, although the presence of the practices in their "pure" form is atypical. Two major types of couvade ritual have been described: (a) pseudomaternal and (b) dietetic.

Pseudomaternal practices involve the representation or simulation of childbirth by the father. Underlying such primitive practices is the magical belief that imitating the birthing process will relieve the mother while she is in labor. Reik (1946) reported that an

"animistic system of thought" is the foundation of the practice, whereby imitation of a process brings on the process itself. In this case, the process is a means of relieving maternal pain.

In dietetic rituals, it is customary for the father (and, on occasion, the mother) to avoid particular behaviors and to abstain from certain foods. Such practices are based on the belief that the father's relationship to the child is so close that the food he consumes or the behaviors he performs will directly affect the child.

The driving point of both forms of couvade ritual is the highly visible role and involvement of the father in the birth process. Common to both practices is the apparent incapacitation of the father following the child's birth. In certain cases, as well, such as in Black Carib Indian ritual practices, it is customary for the father to be subjected to physically painful experiences (Reik, 1946).

The theoretical Zeitgeist has influenced explanations of couvade practices. Before the turn of the century, such explanations centered on evolutionary thoughts. Munroe, Munroe, and Whiting (1973) summarized explanations postulated by Bachofen, Tylor, and Frazer. Some explanations, such as those espoused by Bachofen in 1861, viewed couvade practices as fathers' attempts to establish or legalize their paternity in societies practicing "motherright." Munroe et al. noted that, in 1889, Tylor contended that such practices were a signal of change in a society moving from a matrilineal to a patrilineal organization. Such views were soon overturned and replaced by more "current" theories (such as Frazer's), influenced by the emergence of

Freud's dynamic conceptualizations, which focused attention on the irrational and unconscious source of behavior.

Primitive instinctual theories have also been postulated as an explanation of couvade practices (Malinowski, 1927). Theorists espousing this view believe the custom of couvade enhances a father's "natural" interest in his offspring. They also maintain that couvade customs are the result of underlying instinctual impulses between a father and his child, which are accentuated or supported by societal practices and reaffirm "the child's need for a father."

With the development of Freud's psychoanalytic concepts, particularly those related to drive theory, dynamic explanations of couvade practices gained prominence. The heightened interest in psychological factors underlying human behavior appears to have provided the impetus for sounder investigations and explanations of the couvade ritual. From this perspective, rituals are associated with man's irrational or instinctual functioning. The restrictions observed in couvade ritual are viewed as relating to the conflict present between the father's sexual and aggressive drives and society's needs and expectations. Rituals have thus been viewed as forms of displacement (Reik, 1946).

In couvade practices, impulses to kill the child are countered by restrictions on behavior, at times expiative, thus promoting the needs of society. The rekindling of oedipal conflicts is thought to be the dynamic source of behaviors, particularly when the newborn is male. Under this framework, sadistic impulses are redirected into more

"acceptable" masochistic behaviors (i.e., dietetic restrictions, emasculation by relatives and friends) (Malinowski, 1927; Reik, 1946). In psychoanalytic writing, ambivalence is characteristic of all relationships. Hostility toward the wife is also thought to be a source of conflict. Thus, in couvade practice, what remains conscious is the loving, involved aspect of the husband's ambivalence toward his wife. The husband's hostility remains unconscious. "His unconscious hostility tempts him to obtain pleasure out of the sight of the woman's pains, and thus temptation is severely repulsed by the conscious part of his mental life" (Reik, 1946, p. 50).

Given the irrational components of behavior, the couvade ritual serves two social purposes. The primary one is to protect the woman and child from the hostility and sexual aggressiveness of the father. The second is to mitigate labor pains (Reik, 1946).

Psychoanalytic thoughts regarding couvade practices were challenged by explanations based on identification theories. Reik (1946) believed the identification process is a plausible explanation of pseudo-maternal couvade practices. Identification theories have served as a foundation for subsequent socio-anthropological inquiries of couvade practices.

Munroe, Munroe, and Whiting (1973) undertook a psychological study of couvade practices by the Black Carib Indians of British Honduras. A basic premise of this study was that the "sociocultural" environment of female salience reflected in matri-oriented societies

contributes to the development of ritual couvade, the primary underlying psychological process being cross-sexual identification.

To support their views, they cited a 1958 anthropological report by Whiting, Kluchohn, and Anthony, who found that societies having puberty rites (clearly defined sex-role behaviors) did not practice ritual couvade. Their study, bridging the gap between the ritual couvade and couvade syndrome, went on to assess cross-sexed identification by way of behaviors manifested and language used by males in this tribe. Reported cases of intensive (versus nonintensive) symptomatology (i.e., toothaches, daytime sleepiness, fatigue, food cravings, fever, giddiness, headaches, and vomiting) were associated with significant differences in sex-role preferences and language usage. The group with intensive symptomatology was also found to have experienced significantly more instances of male absence. Rendering questionable the results of this study were the operational definitions of sex-role identification, as well as the methodology used, which relied on "reported" rather than directly observed behaviors. The authors noted the need for further research before attributing responsibility to the role of sex-role identification in couvade practices.

Couvade Syndrome

Couvade syndrome, derived from the French word couver, meaning to brood or to hatch, refers to psycho-physiological symptoms noted in expectant males during pregnancy. Symptoms are often similar although not limited to those experienced by the expectant mother. Such symptoms, given their timeliness and functional nature, can be assumed to

be a function of defense mechanisms from a psychoanalytic orientation. Symptoms are essentially attempts to redirect internal drives, fears, and conflicts that are burgeoning for expression yet threaten the ego's integrity.

The roots of the couvade syndrome appear to be embedded in history. The couvade ritual, a practice of primitive cultures, provides the prototype or foundation on which the couvade syndrome rests. One might view the couvade syndrome as a progression in emotional development and civilization from the couvade ritual. Reik (1946) suggested that couvade practices mark a "nodal point" in man's development, practices enabling man to "redirect the hate toward the woman and the child into love." Repression is increasingly practiced as the civilization progresses, diminishing the need for more primitive rituals and external sources of control. Freeman (1951) concurred with this concept, noting the protective role rituals play in dealing with instinctual drives in primitive societies. Symptom manifestations are thus viewed as serving a similar protective function in more civilized groups or, as Freeman suggested, "civilized neurotics."

Prevalence of Couvade Syndrome

As mentioned above, couvade syndrome is manifested by physiological symptomatology of expectant fathers during pregnancy or at the time of parturition. A variety of symptoms have been documented (Cavenar & Weddington, 1978; Trethowan, 1968, 1972; Trethowan & Conlon, 1965). In an investigation of 90 expectant fathers, Trethowan

(1972) found that couvade symptoms were likely to occur from the end of the second to the middle of the third month of pregnancy. Symptoms most commonly reported were nausea and vomiting (20%), toothaches (25%), and indigestion and heartburn (25%). Symptoms were likely to be experienced during the third month of pregnancy and at times persisted throughout the pregnancy. Trethowan (1968) also reviewed other studies on couvade syndrome and found incidence rates varying from one in nine expectant fathers (Trethowan, 1958) to one in two (Dickens & Trethowan, 1971). Trethowan asserted that a more accurate incidence rate is about one in four or five expectant fathers. This disparity may be a result of differences in the operational definitions that have been used in distinguishing the couvade syndrome.

Trethowan and Conlon (1965) conducted a descriptive study on the couvade syndrome, comparing 327 expectant fathers and 221 controls (matches for social and occupational status). Expectant fathers experienced significantly more symptoms than controls. Most-prominent symptoms noted were loss of appetite, toothaches, and nausea. The incidence rate of couvade syndrome was found to be one in nine expectant fathers or 11%, provided that the criterion for what was viewed as couvade syndrome was set at two or more symptoms. A significant relationship was also found between presence of symptoms and the experience of minor psychiatric disorders, namely anxiety, depression, tension, insomnia, and irritability. In one-third of the cases, symptoms dissipated before delivery. In another third of the cases, symptoms cleared following the birth. In approximately one-fourth of

the cases, the symptoms persisted after birth. Concerns with this study involve the methodology used, particularly the use of matched groups (for certain factors) while not controlling for other factors, such as age and number of previous pregnancies (the authors noted that the control group had experienced a greater number of pregnancies). Of interest was the apparent association between couvade syndrome and mental illness. Such an association was also discussed in a review by Trethowan (1968).

Anecdotal reports have noted the association between couvade symptomatology and mental illness. Towne and Afterman (1955) observed a temporal relationship between couvade symptoms and psychoses. They noted, however, that most of the observed cases had previous psychiatric histories. Jarvis (1962) reviewed four psychiatric cases in which couvade symptomatology was related to psychiatric illness, ranging from neurosis to overt psychosis. Wainwright (1966) reported ten case histories of hospitalized male psychiatric patients who had recently become fathers. Cavenar and Weddington (1978) reviewed three psychiatric histories of males who were either expectant or new fathers. The findings of both studies strongly suggested that symptomatology was closely associated with severe emotional dysfunction.

Lipkin and Lamb (1982) conducted an epidemiological retrospective study on couvade syndrome. The authors found couvade syndrome to be an appropriate psychosomatic illness because it met the criteria of being common, clearly identifiable, and distinguishable from other physical dysfunctions. The medical records of 267 new fathers were

analyzed, based on a systematic random sample of 300 couples. Records were all part of a 36,000-member health maintenance organization. Targeted symptoms were those acknowledged in the literature as being symptomatic of couvade illness: nausea, vomiting, anorexia, abdominal pain, bloating, and other symptoms (weight and bowel changes, toothaches, concerns about skin lesions, growths and inclusions, leg cramps, faintness, and lassitude). Each patient served as his own control. Couvade was defined as involving one or more of the above-mentioned symptoms not manifested during pre- (6 months before pregnancy) and post- (6 months and 2 weeks after delivery) control periods.

The researchers used an analysis of variance repeated-measures procedure. Almost 23% of the new fathers were found to have couvade symptomatology. Couvade men sought medical attention twice as often during the pregnancy as did noncouvade fathers and in comparison to their own number of visits before and after the pregnancy. Couvade fathers had four times as many symptoms as during control periods and received twice as many prescriptions for medication as did men without the syndrome. The authors reported that their findings were likely to underestimate the prevalence of couvade syndrome, given the size of the sample and the fact that use of services was a criterion on which findings were cited.

Theoretical Foundations of Couvade Syndrome

Various theoretical models have been postulated in conceptualizing the couvade syndrome. Psychodynamic tenets using major theoretical concepts of anxiety, guilt, dependence, hostility, envy, aggression, and identification have been noted in the literature. All have viewed expectant fatherhood as a crisis period. Colman and Colman (1971) concurred with the crisis model for expectant fatherhood; they suggested that pregnancy is a time of great psychological change, given alternations of roles and identities. As well, they suggested that expectant fatherhood is a frustrating experience because fathers' participation is vicarious--they often defer the masculine role to the obstetrician.

Jacobson (1950) addressed the role of pregnancy in promoting oedipal and preoedipal fantasies, which she viewed as being driven by sexual frustrations encountered during pregnancy. The sexual frustration experienced by expectant fathers was further supported by Hartman and Nicolay (1966) in their comparative analysis of arrest records of males (expectant versus nonexpectant). They found that expectant fathers committed significantly more sexual offenses than nonexpectant males. Exhibitionism and pedophilia accounted for more than 66% of these offenses. The authors attributed the findings to stress and a concomitant regression relative to sexual expression. The role of regression and subsequent erotization of previous stages of development was also cited by Zilboorg (1951).

Those espousing a psychodynamic/ego-developmental perspective view couvade symptoms as physical manifestations of underlying emotional conflicts. Several researchers have found anxiety to be a discriminating factor exhibited by expectant fathers (Davis, 1977; Gerzi & Berman, 1981; Trethowan, 1968). Anxiety, a symptom signaling conflict, has been considered a hallmark of neurosis. Greenacre (1952) theorized a "predisposition" to anxiety; the prototype is one's birth, which marks the initial separation of the individual from his/her mother. He further claimed that anxiety increases one's level of narcissism, which in turn results in inadequate development of one's sense of reality. Under this model, individuals who are subject to greater degrees of anxiety at early periods are more likely than others to suffer from the effects of increased narcissism.

Trethowan (1972), who believed that the anxiety manifested by expectant fathers was neurotic in nature, found a strong relationship between somatic symptoms and anxiety. Cavenar and Butts (1977) supported Trethowan's viewpoint in a review of four clinical case studies. They found that couvade symptoms were characteristic of those possessing neurotic character disorders and neuroses.

Recent studies on expectant fathers have used more rigorous methodologies than the heavily weighted anecdotal reports. Gerzi and Berman (1981) undertook a comparative study of 51 expectant fathers and 51 married men without children. The two groups were matched for educational level, age, and length of time married. Using the IPAT Anxiety Scale, the Blacky Picture Test, and interviews, the

researchers found statistically significant differences between groups. Expectant fathers exhibited a significantly greater degree of anxiety than the married men without children. On the Blacky Picture Test, the experimental group exhibited strong oedipal intensity, sibling rivalry, and guilt feelings. In interviews, expectant fathers expressed a rearousal of infantile fantasies, feminine identification, castration fears, and oedipal themes. The findings of this study were interesting, but concerns remain about the use of matched groups and the questionable validity and reliability of measures employed.

Depression, guilt, and rivalry. Depression associated with underlying feelings of guilt was cited in the literature as an explanation of the manifestation of couvade symptomatology. Zilboorg (1931) presented an explanation of the stress of expectant fatherhood and its concomitant symptomatology. His explanation, rooted in psychodynamic theory, was that the expectant father experiences strong incestuous drives, and guilt thus ensues. The accompanying guilt drives the male into a "passive homosexual state," in which he experiences a sense of conflict because what he wants (masculinity and parenthood) is what he fears, as well. Zilboorg stated that certain symptoms were related to depression, which he saw as a form of emotional repression. Parental depression, he suggested, is a function of denying parenthood because of underlying guilt about incestuous feelings. The author said gastro-intestinal complaints are related to the regression to "anal-sadistic eroticism," which often accompanies depression. He discussed the role of primitive identification in

depression and noted its presence in both clinical psychopathology and the unconscious fantasies of patients undergoing psychoanalysis. Zilboorg went on to theorize that feelings of envy (of wife) increase the father's hatred of the child.

In his analysis of psychopathology of expectant fathers, Freeman (1951) attributed difficulties to guilt and hostility, given a rearousal of oedipal conflicts. He posited that the rivalry men originally felt toward their own fathers is reactivated during pregnancy. The child is thus viewed as a new representation of the expectant father's own father.

Trethowan (1972) also addressed the presence and dynamics of hostility relative to couvade symptomatology. Like Reik, he contended that ambivalence accompanies every emotional relationship. Thus, marriage itself is subject to feelings of ambivalence. Trethowan began by assuming there is a basic antagonism between husband and wife.

Couvade symptoms are believed to be related to defensive attempts to assuage feelings of guilt. Guilt is aroused because of fantasies of impregnating one's wife out of hostility, coupled with the woman's apparently increased vulnerability and jeopardy during pregnancy. Similar to Freeman (1951), Trethowan viewed symptoms as being related to feelings of rivalry experienced by the expectant father, who likely views the child as a rival for his wife's attention, given her heightened level of introspection and withdrawal during pregnancy.

Identification. Associated with concerns regarding preoedipal and oedipal development is the role of identification. Boehm (1930) addressed the notion of parturition envy, which he viewed as a negative oedipal reaction whereby men envy a woman's capacity to bear children. In a discussion of preoedipal development, Mack-Brunswick (1940) suggested that the wish to have a child is a function of a primitive identification with the "active" mother. The anal phase of development, with the modes of giving and receiving, is realized in the child's wish to give his/her mother a child. In normal development, the passive role assumed by the preoedipal male, marked by identification with the active mother, is replaced by identification with the father. From this perspective, couvade symptomatology can be viewed as a form of regression in the identification process.

Evans (1951) discussed male hysterics presenting couvade symptomatology. He said that couvade symptoms are related to fears of castration and emphasized that unresolved oedipal conflicts contribute to difficulties in the identification process. Jessner et al. (1970) believed that couvade is essentially part of a husband's identification with his spouse. Jaffe (1968) said that couvade results from masculine envy of a woman's reproductive capacity. From this theoretical approach, envy, emerging from the first three developmental stages, is viewed as a defense against fear of castration.

In discussing major theoretical views on couvade syndrome, Zalk (1980) focused on the identification process, with particular attention to preoedipal concerns. Identification with and envy of the

pregnant partner suggest a renewal of preoedipal feelings of attachment to the mother. The identification process, however, is viewed positively--the regression promotes empathy with the expectant mother and the expectant father's involvement in the pregnancy, child care, and nurturing of the child. The possible role of regression in identification was supported in a study by Gerzi (1981). He found that expectant fathers displayed greater feelings of ambivalence than non-expectant fathers relative to the rearousal of infantile fantasies, feminine identification, and castration fears.

Opposing views have also been noted in the literature. Cavenar (1977) maintained that regression to oedipal and preoedipal stages of development has not been sufficiently supported by research findings. He contended that rage relative to sibling rivalry is the main factor contributing to the syndrome. The effect of sibling rivalry was supported by Gerzi's (1981) findings, as well.

Personality traits/dependency. The effect of psychological needs and personality traits on behavior has been discussed in the literature on couvade syndrome. In her writing on fatherhood, Benedek (1970a) addressed the role of dependency needs. Dependency, which underlies regressive tendencies, is likely to be unconscious, given its dissonance with one's ego ideal. The desire to procreate counters such regressive tendencies through one's virility. The child is thus viewed as an example of one's maturity, countering any anxiety aroused by regressive trends. From this perspective, the role of dependency needs warrants further attention in studies on expectant fathers.

Dependency needs are subject to disruptions during pregnancy. Several authors have claimed that such needs underlie couvade symptomatology. Although citing hostility and rivalry as contributory factors, Towne and Afterman (1955) noted the primary contribution of dependency needs to symptom formation. In a study of ten males hospitalized following the birth of a child, Wainwright (1966) noted a variety of trends, one being disruption of dependency needs. Ginath (1974) asserted that dependency needs relative to the feelings of abandonment that dependent males are likely to experience contribute to a variety of psychological dysfunctions, including psychoses.

Wapner (1975) addressed the conflicts related to dependency needs contributing to dysfunctions, given strong needs for attachment, countered by the expectant mother's need for support. Zalk (1980) wrote that dependency needs that are either insufficiently or ambivalently satisfied contribute to the expectant father's fears of loss of love and thus contribute to feelings of rivalry.

Other investigations of the couvade syndrome have focused on the nature of specific personality dynamics and broad-range interpersonal factors relative to symptom presentation. Such studies have entailed rigorous methods of investigation. The research discussed in the following pages relied more on objective measures and less on clinical observations and anecdotal reports.

Moore (1975) investigated personality variables and family relationships related to couvade syndrome. Sixty subjects were divided into two groups: expectant fathers and nonexpectant fathers.

These two groups were dichotomized into four subgroups: (a) couvade expectant fathers, (b) noncouvade expectant fathers, (c) symptomatic nonexpectant fathers, and (d) asymptomatic nonexpectant fathers. Groups were matched on marital status, age, primary language, and socioeconomic factors. Subjects were equally distributed in each of the four cells. As compared to noncouvade fathers, couvade fathers were expected to display stronger dependency needs, to experience greater hostility and more conversion symptoms, to exhibit more feminine identification, and to express a closer feeling to their mothers while growing up and as adults. They were also expected to express a greater degree of unhappiness in regard to the pregnancy. Measures used were the Minnesota Multiphasic Personality Inventory (MMPI), the General Information Screening Form, and the Self-Report Couvade Syndrome Symptom Check List. Findings disclosed no significant differences between couvade and noncouvade subjects on personality variables of dependency, hostility, conversion, or femininity.

Analysis of other variables, such as having been a father, number of moves or job changes, and incidences of stress or worry, yielded nonsignificant findings. The lack of significant differences between groups on those factors was attributed to the number of groups used and the small sample size. Other methodological questions could also be raised, including the research tools used (i.e., the MMPI) and Moore's operational definition of couvade syndrome as the presence of two or more symptoms.

In a study of 128 expectant fathers participating in Lamaze classes, Wapner (1975) found that husbands reporting physical symptoms rated themselves as being more involved in the pregnancy than did their partners. Wapner suggested that the expectant fathers were essentially practicing the ancient couvade ritual. His explanation was based on the presumed conflict between the expectant father and his partner. The father sought closeness and involvement at a time when the partner would have preferred support over close involvement.

Davis (1977) studied expectant fatherhood from a crisis perspective. He explored progressive changes during pregnancy (early, middle, late) in an attempt to predict those who are most likely to experience symptoms and greater anxiety, depression, and hostility. The sample comprised 91 expectant fathers, including both working- and middle-class Blacks and Caucasians. Using multi-factorial analysis of variance on responses to the Multiple Affect Adjective Check List, statistically significant results were realized. Working-class fathers with unplanned pregnancies experienced greater degrees of anxiety, depression, and hostility than other sample members during the progression of the pregnancy. Concerning symptomatology, no significant differences were found between new and experienced fathers. However, expectant fathers with unplanned pregnancies reported significantly more symptoms than did those with planned pregnancies. Working-class expectant fathers were more symptomatic than middle-class fathers, and black expectant fathers were significantly more symptomatic than white fathers. The number of symptoms increased as

the pregnancies progressed. In addition, the number of symptoms was significantly positively correlated with anxiety and depression, whereas personal satisfaction was found to be inversely related to symptomatology. Of concern in this study is the exclusive use of an adjective check list in considering such factors as anxiety, depression, and hostility.

Walton (1982) studied couvade syndrome relative to personality factors, views on the father's level of participation in childbirth, and the expectant father's phenomenology of anticipated childbirth. Measurement instruments were the MMPI, the Early Memories Test (EMT), and semi-structured interviews. The sample comprised 44 expectant fathers whose wives were in their third trimester. In this study, the incidence rate of symptoms was 32.6%. Symptomatic subjects were placed in one of three groups (high, medium, low), based on the symptomatology reported. Those in the high group were found to have low ego strength and significantly elevated scores on the Hysteria, Depression, and Psychasthenia scales of the MMPI. Data from the EMT did not reveal significant differences between groups, as anticipated, relative to pre-oedipal and passive-fighting themes involving female figures. Expectant fathers' self-ratings on their involvement in the pregnancy did not differ significantly between groups. This observation led Walton to reject the hypothesis that involvement would serve to channel anxiety and thus diminish symptomatology. Of interest was the association between high couvade symptomatology and birth order. Walton found that highly symptomatic subjects were more likely to be

the younger brother of older sisters or the older brother of all male siblings.

The findings of Walton's study remain questionable because of certain methodological problems. The sample was relatively small, particularly as the group-comparison method of analysis was used. One could also question the exclusive use of the MMPI in separating the sample into three groups and in measuring the same sample on specific personality traits. The artificial division of the sample into three groups is open to debate because the distinctness of the three groups is questionable.

Summary

The literature on couvade syndrome contains a diversity of descriptive observations and theoretical explanations regarding its manifestations. A wide range of studies were reviewed, noting the progression of investigations. Earlier anecdotal reports were followed by more scientific investigations. Common to most studies has been the focus on physiological symptomatology and its association with psychological experiences such as anxiety, depression, hostility, and guilt and processes such as identification. Although stimulating, the findings of most of these studies are inconclusive and at times questionable because of the methodology used in those investigations. Discrepancies in research findings support a need for additional and more rigorous investigation of the couvade syndrome.

CHAPTER III

METHODOLOGY

Introduction

This study was an empirical investigation of the couvade syndrome. The investigator considered personality traits related to interpersonal orientation and their association with couvade symptoms. The study was undertaken to assess the function of motivational factors and their relationship to the symptomatology under consideration. In addition, the relationship between the syndrome and both recent and historic life stressors was assessed. Data gathered by means of the General Information Questionnaire and the Personality Research Form--Form E were used in assessing the role of such factors.

Subjects

A sample of 52 expectant couples was included in this study. Only cohabiting couples in their third trimester of pregnancy were asked to participate. Subjects were primarily from urban and suburban locations in the central and western parts of Michigan. They were found through contact with area groups providing services to expectant parents (i.e., the Expectant Parent Organization in Lansing, Lamaze classes, family-practice physicians, obstetricians, hospitals, and clinics). Subjects were approached by a staff member or the

primary-care provider and asked to volunteer for a study on expectant parents. If they were interested, couples were given a packet containing the research instruments for both partners to complete at their convenience. All subjects were assured of confidentiality and anonymity of responses because they were specifically asked not to place their names on the research instruments. Participants were asked to return the completed questionnaires to a staff member or to mail them directly to the investigator in the stamped and addressed envelope provided. Subjects were informed that both partners had to complete the two questionnaires in order to be considered for the study. Data were gathered over a 17-month period from September 1985 through February 1987. During that time, approximately 150 questionnaire packets were distributed. Of the 57 packets returned, one was disqualified because the couple were in their second trimester. Four couples were not included in the study because the expectant fathers failed to complete both questionnaires.

Instrumentation

The General Information Questionnaire

The General Information Questionnaire, which was developed for this study, contained questions seeking pertinent demographic and historical information. Some items were designed to assess feelings about the pregnancy, including whether or not it was planned. Demographic items (marital status, occupation, and educational level) were followed by questions about events that had occurred in the expectant fathers' family of origin. Birth order, parent-child relationships,

and emotional trauma (deaths, separations, illnesses, divorces) were considered because of their timeliness and potential effects on one's developing object relations and interpersonal orientation.

Concluding the questionnaire were two check lists. The first was devised from items included in the Life Experiences Questionnaire (Sarason, Johnson, & Siegel, 1978) to assess timely situational stressors. Stress levels were measured for two time periods: 0-6 months and 7-12 months. Under consideration was the association of life stressors with symptom formation.

The second check list comprised the physical symptoms assessed in the study. Two sets of symptoms were used in devising this list. The first set included those symptoms noted in the literature as being most commonly associated with the couvade syndrome. These symptoms were toothaches, indigestion/heartburn, nausea, stomach aches, vomiting, diarrhea, constipation, leg aches, stomach swelling, weight gain (not planned), weight loss (not planned), sties on the eyelid, excessive fatigue, loss of appetite, and increased appetite. The second set of symptoms comprised selected items from the Hamilton Anxiety Rating Scale. These symptoms were worrying, inability to relax, fear of being alone, unsatisfying sleep, difficulty in concentration, depression, feelings of weakness, chest pain, choking feeling, difficulty swallowing, frequent urination, tension headaches, and pains and aches. For both sets of symptoms, ratings of only those symptoms experienced by the expectant father during the pregnancy, which had not been regularly experienced before the pregnancy, were

considered. The use of both types of items was unique to this investigation. Both couvade symptoms and symptoms of anxiety were assessed in order to investigate the possible relationship or link between couvade symptomatology and symptoms of general anxiety.

Personality Research Form--Form E

The Personality Research Form is a self-report personality inventory devised by Douglas Jackson (1984). The test is designed to measure personality along 20 dimensions or traits, which were based on the initial work of Murray and associates on personality structure and need theory (Buros, 1972). The test has five basic forms, which were developed between 1965 and 1974. It has two parallel short forms (Standard Edition) and two parallel long forms (Long Editions). The short forms provide 14 trait scores and one "validity score" (Infrequency Scale). The long forms contain six additional traits and an additional validity score (Desirability). The fifth form, the Wide-Range Edition, Form E, provides the same scores as the Long Edition but was devised for use with a broader range of subjects (grades 7-16 and adults) than the previous forms, which were designed to be used exclusively with a college population. Traits measured on the long form are achievement, affiliation, aggression, autonomy, dominance, endurance, exhibition, harm avoidance, impulsivity, nurturance, order play, social recognition, understanding, infrequency, abasement, change, cognitive structure, defendence, sentience, succorance, and desirability.

Critical reviews of the Personality Research Form have been favorable (Buros, 1972, 1978). Most have emphasized the rigorous nature of the research that went into the construction of the inventory. Its use as a research tool has also been supported (Buros, 1972, 1978).

Jackson (1984) provided pertinent reliability and validity data used in constructing the test. Reliabilities were derived by using the Spearman-Brown correction formula on the odd-even reliabilities. Table 3.1 contains the data on two separate samples for the scales used in the present study.

Table 3.1.--Reliability scores of two samples on eight pertinent scales of the Personality Research Form--Form E.

Scale	Psychiatric Sample (N = 83)	College Sample (N = 84)
Affiliation	.82	.86
Aggression	.74	.63
Autonomy	.61	.66
Defendence	.77	.66
Exhibition	.82	.85
Nurturance	.79	.65
Social Recognition	.81	.73
Succorance	.73	.73

Jackson also provided data on the test's convergent validity. He cited a study on a college sample by Paunonen and Jackson (1979). Validity scores, which were all significant at the .01 level, are presented in Table 3.2 for the traits under consideration.

Correlations were between self-ratings on the Personality Research Form--Form E and roommate ratings.

Table 3.2.--Convergent validity scores of a college sample on eight pertinent scales of the Personality Research Form--Form E (N = 90).

Scale	Validity Score
Affiliation	.57
Aggression	.36
Autonomy	.57
Defendence	.34
Exhibition	.62
Nurturance	.61
Social Recognition	.38
Succorance	.52

Additional data supporting discriminant validity is provided in correlating Personality Research Form--Form E scores with those on a variety of inventories (i.e., the Jackson Personality Inventory, the Jackson Vocation Interest Survey, and the Bentler Psychological Inventory).

Two overall categories of traits were considered in this study. One category measured interpersonal orientation, broken down into attachment and separation. Traits related to attachment were affiliation, nurturance, exhibition, and social recognition. Traits related to separation were aggression and defendence. The other category measured need for direction from people. The trait of succorance was related to the need for direction from others, as opposed to the

more independent trait of autonomy. Jackson (1984) presented this dichotomy of factors in describing two of seven superordinate categories enumerated in the Personality Research Form.

Data-Analysis Procedures

A two-group comparison method of analysis was performed on the research data. The researcher believed this comparison of two distinct groups (nonsymptomatic and highly symptomatic) to be a more appropriate analytical method than the procedures used in previous investigations. Former researchers have relied primarily on multi-group comparison methods, artificially dividing expectant fathers into various groups according to their level of symptomatology and likely violating the assumption of distinctness between groups.

In testing the hypotheses of this study, comparisons between scores of nonsymptomatic and highly symptomatic expectant fathers on the eight selected personality variables was computed. In addition, a series of analyses was performed, assessing differences on a variety of factors including but not limited to anxiety (acute and chronic) and situational stress. The results of these and other analyses are discussed in Chapter IV.

Hypotheses

The investigator was interested in the possible role of object relations, and, in particular, issues of interpersonal attachment and separation, in regard to symptom formation during expectant parenthood. It was anticipated that expectant fathers experiencing more

couvade symptoms had experienced more early trauma (object loss) than those not experiencing as many, if any, symptoms. From this perspective, couvade symptomatology is viewed as a response to the partner's pregnancy, which rekindles early issues of loss, activating primitive dependency needs.

The following hypotheses were formulated to guide the analysis of data for this study.

Hypothesis 1: Highly acute-symptomatic expectant fathers will manifest a higher degree of affiliation than will nonsymptomatic expectant fathers.

Hypothesis 2: Highly acute-symptomatic expectant fathers will manifest a higher degree of nurturance than will nonsymptomatic expectant fathers.

Hypothesis 3: Highly acute-symptomatic expectant fathers will manifest a higher degree of exhibition than will nonsymptomatic expectant fathers.

Hypothesis 4: Highly acute-symptomatic expectant fathers will manifest a higher degree of social recognition than will nonsymptomatic expectant fathers.

Hypothesis 5: Highly acute-symptomatic expectant fathers will manifest a higher degree of succorance than will nonsymptomatic expectant fathers.

Hypothesis 6: Highly acute-symptomatic expectant fathers will manifest a lower degree of aggression than will nonsymptomatic expectant fathers.

Hypothesis 7: Highly acute-symptomatic expectant fathers will manifest a lower degree of defendence than will nonsymptomatic expectant fathers.

Hypothesis 8: Highly acute-symptomatic expectant fathers will manifest a lower degree of autonomy than will nonsymptomatic expectant fathers.

CHAPTER IV

RESULTS

This chapter contains the data of the research investigation. Descriptive information on the couples studied is followed by an explanation of the procedures followed in assigning expectant fathers to their respective groups. Next, each of the main hypotheses is restated, followed by the results of the analysis for that hypothesis. The remaining sections contain the results of additional analyses.

Descriptive Information on the Sample

Fifty-two cohabiting couples in their third trimester of pregnancy voluntarily participated in this investigation. The average age of the participants was 28 years. Fifty of the couples were married. Three individuals were single, and one was divorced. The average length of marriage was 4.2 years. In terms of education, subjects had attended school an average of 14.6 years. Table 4.1 presents additional information on these factors. Table 4.2 shows a frequency distribution on the number of years couples had been married. Information regarding racial or ethnic origin, religious affiliation, and occupation is presented in Tables 4.3, 4.4, and 4.5, respectively.

Table 4.1.--Identifying data on expectant parents (in years) (N = 104).

	Mean	Standard Deviation
Age	28.0	4.80
Married	4.2	2.95
Education	14.6	2.50

Table 4.2.--Frequency distribution on number of years married for married expectant parents. (N = 50)

Years	Frequency
1	5
2	9
3	9
4	10
5	3
6	5
7	2
8	2
9	1
10	3
15	1

Table 4.3.--Racial or ethnic origins of expectant parents (N = 104).

Race	Frequency
Caucasian	100
Black	1
Indian (Asian)	2
Other	1

Table 4.4.--Religious affiliation of expectant parents (N = 104).

Religious Affiliation	Frequency
None	13
Protestant	56
Catholic	23
Jewish	2
Atheist	1
Other	5
Not reported	4

Table 4.5.--Occupation of expectant parents (N = 104).

Occupation	Frequency
Professional/technical	28
Managerial	13
Service/clerical/laborer	44
Student	4
Not working	15

In this investigation, attention was centered on the symptomatology presented by expectant fathers. Unique to this investigation was the dichotomy of symptomatology under consideration. Expectant fathers were thus assigned separate couvade scores. Couvade I are scores related to the severity and frequency of chronic symptoms. Couvade II are scores that pertain to the frequency and severity of more acute symptoms. Attention was focused on the acute scores (Couvade II), given their timeliness in relation to the period of the pregnancy.

Couvade scores (both Couvade I and II) were derived from the symptom checklist found in the General Information Questionnaire. Targeted symptoms were toothaches, indigestion/heartburn, nausea, stomach aches, vomiting, diarrhea, constipation, leg aches, stomach swelling, weight gain, weight loss, sties on the eyelid, excessive fatigue, loss of appetite, and increased appetite. Subjects were asked to rate the frequency of symptoms on a 4-point scale (never, rarely, sometimes, frequently). The severity of symptoms was rated on a 3-point scale (mild, moderate, severe). Ratings on frequency and severity were multiplied. Couvade I scores were derived by summing individual products for each of the symptoms noted above. Couvade II scores were derived similarly, except that only those symptoms that had not been experienced during the previous 6 months were considered.

A reliability analysis of the two separate factors (Couvade I and Couvade II) was performed. For Couvade I, $r = .64$, whereas the reliability for Couvade II diminished substantially, $r = .38$. The scale as originally presented did not prove as reliable when considering more acute symptomatology in contrast to chronic symptomatology. Therefore, a series of item analyses was performed to derive a more reliable scale for Couvade II, minimizing the loss of information. Two items were deleted (stomach swelling and weight loss) because they did not contribute any variance to the scale. Two more symptoms were removed (toothaches and stomach aches), increasing the reliability to $r = .47$. The final set of symptoms considered in deriving the

Couvade II scores was as follows: indigestion/heartburn, nausea, vomiting, diarrhea, constipation, leg aches, weight gain, sties on the eye, excessive fatigue, loss of appetite, and increased appetite. In further discussions of Couvade II, this revised form is the only one under consideration. Table 4.6 shows the frequency distribution of both Couvade I and Couvade II for comparison.

Table 4.6.--Frequency distribution of Couvade I and Couvade II (N = 52).

Frequency	Couvade I	Couvade II
0	7	27
1	3	4
2	5	6
3	3	3
4	1	1
5	2	2
6	4	1
7	4	2
8	1	1
9	1	-
10	-	1
11	2	1
12	4	-
13	2	1
14	1	-
15	-	2
16	1	-
18	3	-
19	2	-
20	3	-
21	2	-
40	1	-
Total	52	52
	Mean = 8.9	Mean = 2.5
	S.D. = 8.2	S.D. = 4.03

Anxiety scores assigned to expectant fathers were derived from different items on the same checklist of symptoms used for couvade scores. Symptoms targeted were worrying, inability to relax, fear of being alone, unsatisfying sleep, difficulty in concentration, depression, feelings of weakness, chest pain, choking feeling, difficulty swallowing, frequent urination, tension headache, and pains and aches. The frequency and severity of symptoms were assessed on 4- and 3-point scales, respectively. The sum of the products of these two scales across each anxiety symptom yielded an anxiety score. Once again, a distinction was made between chronic and acute symptomatology. Anxiety I was more chronic anxiety experienced during the pregnancy, and Anxiety II was more acute anxiety.

Reliability tests were also performed on the eight personality traits under consideration: affiliation, nurturance, exhibition, social recognition, succorance, aggression, defendence, and autonomy. Table 4.7 presents each of these traits and their respective reliabilities, along with the reliabilities for Anxiety I and Anxiety II.

The data on the expectant fathers' partners were subjected to a similar analysis for couvade and anxiety symptoms. With regard to couvade scores, Couvade II for partners was derived from the same revised list of symptoms for expectant fathers. This was implemented to maintain consistency in the analysis of the Couvade II factor. Table 4.8 shows the reliabilities for all couvade and anxiety factors, along with those for the eight personality traits.

Table 4.7.--Reliability scores for personality traits of expectant fathers.

Factor	Reliability Score
Anxiety I	.80
Anxiety II	.64
Affiliation	.72
Nurturance	.69
Exhibition	.80
Social recognition	.56
Succorance	.64
Aggression	.69
Defendence	.57
Autonomy	.77

Table 4.8.--Reliability scores for Couvade I and II, Anxiety I and II, and personality traits of partners of expectant fathers.

Factor	Reliability Score
Couvade I	.72
Couvade II	.62
Anxiety I	.85
Anxiety II	.67
Affiliation	.74
Nurturance	.75
Exhibition	.84
Social recognition	.76
Succorance	.78
Aggression	.76
Defendence	.69
Autonomy	.80

Results of Hypothesis Testing

The data analysis was based on a comparative model using two groups. Previous researchers arbitrarily divided symptomatic fathers

into groups whose distinction was questionable, posing problems in the interpretation of results. To avoid such difficulties as artificially dividing subjects into multiple groups, a two-group design was implemented. The groups were derived from scores on Couvade II. Group I comprised 27 nonsymptomatic fathers. Included in Group II were eight highly symptomatic fathers who had scores of 7 or more on the Couvade II factor. The intention was to compare clearly distinct groups of expectant fathers. The most conservative approach was to compare nonsymptomatic expectant fathers to highly symptomatic individuals. Group I comprised 52% of the original sample. Group II totaled 15.4% of the 52 fathers sampled. Table 4.9 contains descriptive information regarding these two groups.

Table 4.9.--Descriptive data on asymptomatic and symptomatic couvade symptomatology.

	Age	Years Married	Education
Asymptomatic	Mean = 27.9 S.D. = 3.7	Mean = 4.1 S.D. = 2.4	Mean = 14.9 S.D. = 2.9
Symptomatic	Mean = 30.9 S.D. = 7.2	Mean = 2.4 S.D. = 1.5	Mean = 13.6 S.D. = 1.5

An analysis of differences in means was performed using standard *t*-tests for independent samples. The null and alternative hypotheses are symbolically written as follows:

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_1 = \mu_1 - \mu_2 \neq 0$$

An F-test analysis of variance between groups was performed on each of the dependent variables under consideration. This analysis was undertaken to eliminate any violation of the assumptions of homogeneous variances between groups (an assumption underlying the t-test).

The analyses of the eight main hypotheses concerning personality factors and couvade symptomatology were performed using a one-tailed t-test with significance set at .05, given that a specific directionality was anticipated. Symbolically, Hypotheses 1 through 5 can be written as:

$$H_o = \mu_1 - \mu_2 = 0$$

$$H_1 = \mu_1 - \mu_2 < 0$$

For Hypotheses 6 through 8, the direction of the hypotheses was reversed. Those hypotheses can be symbolically written as:

$$H_o = \mu_1 - \mu_2 = 0$$

$$H_1 = \mu_1 - \mu_2 > 0$$

In the following paragraphs, each of the major hypotheses under consideration in this investigation is restated, followed by the results of the analysis of data for that hypothesis.

Hypothesis 1: Highly acute-symptomatic expectant fathers will manifest a higher degree of affiliation than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a higher degree of affiliation than nonsymptomatic expectant fathers. (See Table 4.10.) Therefore, Hypothesis 1 was rejected.

Table 4.10.--Results of t-test for Hypothesis 1.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	7.9	3.6	-.63	33	.27
Symptomatic	8.7	1.8			

Hypothesis 2: Highly acute-symptomatic expectant fathers will manifest a higher degree of nurturance than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers manifested a higher degree of nurturance than nonsymptomatic expectant fathers. (See Table 4.11.) Therefore, Hypothesis 2 was accepted.

Table 4.11.--Results of t-test for Hypothesis 2.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	8.7	3.3	-1.68	33	.05*
Symptomatic	10.8	2.9			

*Significant at the .05 level.

Hypothesis 3: Highly acute-symptomatic expectant fathers will manifest a higher degree of exhibition than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a higher degree of exhibition than nonsymptomatic expectant fathers. (See Table 4.12.) Therefore, Hypothesis 3 was rejected.

Table 4.12.--Results of t-test for Hypothesis 3.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	7.19	3.8	-.04	33	.48
Symptomatic	7.25	5.0			

Hypothesis 4: Highly acute-symptomatic expectant fathers will manifest a higher degree of social recognition than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a higher degree of recognition than nonsymptomatic expectant fathers. (See Table 4.13.) Therefore, Hypothesis 4 was rejected.

Table 4.13.--Results of t-test for Hypothesis 4.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	7.29	2.68	.04	33	.48
Symptomatic	7.25	2.43			

Hypothesis 5: Highly acute-symptomatic expectant fathers will manifest a higher degree of succorance than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a higher degree of succorance than nonsymptomatic expectant fathers. (See Table 4.14.) Therefore, Hypothesis 5 was rejected.

Table 4.14.--Results of *t*-test for Hypothesis 5.

	Mean	S.D.	*t*-Value	df	1-Tail Prob.
Asymptomatic	6.4	3.25	1.12	33	.13
Symptomatic	5.0	2.56			

Hypothesis 6: Highly acute-symptomatic expectant fathers will manifest a lower degree of aggression than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a lower degree of aggression than nonsymptomatic expectant fathers. (See Table 4.15.) Therefore, Hypothesis 6 was rejected.

Table 4.15.--Results of *t*-test for Hypothesis 6.

	Mean	S.D.	*t*-Value	df	1-Tail Prob.
Asymptomatic	8.37	3.14	-.41	33	.34
Symptomatic	8.87	2.90			

Hypothesis 7: Highly acute-symptomatic expectant fathers will manifest a lower degree of defendence than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a lower degree of defendence than nonsymptomatic expectant fathers. (See Table 4.16.) Therefore, Hypothesis 7 was rejected.

Table 4.16. Results of t-test for Hypothesis 7.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	5.89	2.91	-.89	33	.19
Symptomatic	6.87	2.03			

Hypothesis 8: Highly acute-symptomatic expectant fathers will manifest a lower degree of autonomy than will nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers did not manifest a lower degree of autonomy than nonsymptomatic expectant fathers. (See Table 4.17.) Therefore, Hypothesis 8 was rejected.

Table 4.17.--Results of t-test for Hypothesis 8.

	Mean	S.D.	t-Value	df	1-Tail Prob.
Asymptomatic	6.48	3.54	-.88	33	.19
Symptomatic	7.75	3.73			

Results of Supplementary Comparative Analyses

Additional analyses were performed on variables for which differences between groups were anticipated but not specifically hypothesized. Significant findings are reported in the following paragraphs. Two-tailed tests were performed, with significance set at the .05 alpha level.

As shown in Table 4.18, highly acute-symptomatic expectant fathers experienced significantly more chronic couvade symptomatology than did nonsymptomatic expectant fathers.

Highly acute-symptomatic expectant fathers experienced significantly more chronic anxiety symptoms than did nonsymptomatic expectant fathers. (See Table 4.19.)

Table 4.18.--Results of *t*-test for chronic couvade symptomatology (Couvade I).

	Mean	S.D.	*t*-Value	df	2-Tail Prob.
Asymptomatic	6.37	6.6	-4.25	33	.000
Symptomatic	18.88	9.5			

Table 4.19.--Results of *t*-test for chronic anxiety symptoms (Anxiety I).

	Mean	S.D.	*t*-Value	df	2-Tail Prob.
Asymptomatic	10.59	11.26	-2.16	33	.038
Symptomatic	20.00	8.93			

Highly acute-symptomatic expectant fathers' partners had significantly more chronic anxiety symptomatology than did the partners of nonsymptomatic expectant fathers. (See Table 4.20.)

Table 4.20.--Results of t-test for partner's Anxiety I.

	Mean	S.D.	t-Value	df	2-Tail Prob.
Aymptomatic	23.52	16.09	-3.17	33	.003
Symptomatic	43.37	13.36			

In the analysis of differences in personality traits on partners of the two groups under consideration, one subject in the highly acute symptomatic group was deleted. The analysis proceeded in such a fashion because this one subject had only partially completed the Personality Research Form. Hence, for greater accuracy, the seven remaining subjects in this group were compared to the partners of the asymptomatic expectant fathers. The following significant result was found. The partners of highly acute-symptomatic expectant fathers had significantly less need for nurturance than did the partners of non-symptomatic expectant fathers. (See Table 4.21.)

Table 4.21.--Results of t-test for partner's nurturance.

	Mean	S.D.	t-Value	df	2-Tail Prob.
Asymptomatic	11.7	2.43	1.99	32	.05
Symptomatic	9.7	2.29			

Results of Correlational Analyses

Pearson correlational analyses were performed on the data, as well. This was done as additional analyses, bearing in mind certain limitations given the sampling distribution of all expectant fathers in this study. The analysis was performed, and results have been provided to note possible significant associations between variables. Significant findings are provided in Table 4.22.

Of particular interest are the findings of significant relationships between couvade symptomatology of expectant fathers and their anxiety symptoms. Although both chronic and acute couvade and anxiety symptoms were significantly related to one another, the strongest relationships were noted between the acute types of symptoms and those between chronic symptoms.

Significant relationships were found between acute stress and chronic and acute anxiety. Long-term stress was found to be significantly related to both chronic couvade and anxiety symptomatology.

Significant findings were also realized between expectant fathers and their partners' functioning. Partners' chronic couvade symptomatology was significantly related to the expectant fathers' chronic anxiety as well as chronic and acute couvade scores. Partners' chronic anxiety scores were significantly related to the expectant fathers' anxiety symptoms, both chronic and acute. Partners' acute anxiety significantly related to the expectant fathers' acute and chronic couvade scores.

Table 4.22.--Pearson correlation coefficients (r) for dependent variables; all expectant fathers (N = 52).

	Pregnancy Unplanned	Education (in Years)	Time Spent Living Alone Before Marriage	# Miles Apart From Parents	Time Apart From Parents in Childhood & Adolescence	Separation From Parents	Stress I 0-6 Months	Stress II 7-12 Months
Couvade I	.36**	-.10	-.09	.19	.36	-.12	.22	.27*
Couvade II	.17	-.17	-.12	.29*	.23	-.21	.20	.18
Anxiety I	.35**	-.07	-.17*	.15	.12	-.48***	.23*	.26*
Anxiety II	.21	.09*	-.07*	.25*	.42*	.39***	.29*	.16

Table 4.24.--Continued.

	Anxiety I	Anxiety II	Nurtur-ance	Defend-ence	Partner's Couvade I	Partner's Couvade II	Partner's Anxiety I	Partner's Anxiety II	Partner's Stress II 7-12 Mos.	Partner's Affilia-tion	Partner's Nurtur-ance	Partner's Exhibi-tion
Couvade I	.65****	.23*	.48****	.23*	.24*	.23*	.47****	.31*	.13	-.21	-.35***	.02
Couvade II	.35***	.43****	.30*	.11	.23*	.17	.43****	.26*	.16	-.38***	-.35***	-.26*
Anxiety I	1.0	.46****	.38***	.07	.39***	.19	.54****	.33**	.19	-.09	.02	.03
Anxiety II	.46****	1.0	.51****	-.01	.02	.01	.23*	.22	.32**	-.17	-.18	-.22

*Significant at the .05 level.

**Significant at the .01 level.

***Significant at the .005 level.

****Significant at the .001 level.

Relative to the personality traits considered, only nurturance was significantly related to all factors of acute and chronic couvade and anxiety symptomatology. Significant negative correlations were found between expectant fathers' acute couvade symptomatology and their partners' scores on the personality traits of nurturance, affiliation, and exhibition.

Some anticipated significant relationships were not found. As in the comparative analysis, no significant relationships were found between level of education and couvade symptoms. As well, the amount of time an expectant father had lived alone before marriage was not associated significantly with couvade symptomatology. Separation from parents proved to be significantly related only to chronic and acute anxiety and not to couvade symptoms. Surprisingly, the trait defendence was significantly related to chronic couvade scores but in an opposite direction to the one anticipated. Other personality trait scores were not significantly related to couvade or anxiety symptomatology.

Summary

This chapter contained the results concerning group differences between highly acute-symptomatic expectant fathers and nonsymptomatic expectant fathers. Although only one of the main hypotheses was supported, additional analyses on these two groups yielded several significant findings. First, highly acute-symptomatic fathers (a) experienced more chronic couvade symptoms, (b) experienced more chronic anxiety, and (c) exhibited greater degrees of nurturance than

did nonsymptomatic expectant fathers. In addition, the partners of highly acute-symptomatic expectant fathers experienced more chronic anxiety and exhibited a lesser degree of nurturance than did the partners of nonsymptomatic expectant fathers.

Although not statistically significant, a few anticipated trends were noted. Highly acute symptomatic expectant fathers had a higher average score on acute anxiety than did nonsymptomatic expectant fathers. As well, the partners of the highly acute symptomatic group generally had higher scores on acute couvade symptoms than did the partners of asymptomatic expectant fathers.

Secondary analyses were performed to assess further the relationship between the symptomatology of all expectant fathers in this study relative to a number of variables under consideration. Results supported the association of nurturance with the experience of acute couvade symptomatology. As well, the association between expectant fathers' acute couvade symptomatology and their partners' functioning was noted.

CHAPTER V

SUMMARY, LIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to broaden the understanding of events relative to the crisis-development period of expectant parenthood. Although many researchers have focused on this general topic, few have centered attention on expectant fathers. The study was undertaken to answer questions about expectant fathers' experiences, with particular attention to psychophysiological changes manifested at the time of pregnancy.

The interest in psychophysiological manifestations was raised by anecdotal reports the investigator encountered in the literature, as well as in personal contacts. Noted in the literature was the disproportionate number of anecdotal reports in comparison to empirical investigations. The literature to date has raised more questions than have been answered, in part because of the methodology of the studies and the variables assessed. Of particular interest was the very concept of a syndrome such as the couvade syndrome. Was it truly a syndrome with timely and specific symptoms associated with the onset of expectant parenthood, or was it merely an exacerbation of more chronic symptomatology? Were the lists of symptoms too inclusive? If so, which symptoms were more related to the couvade syndrome? In

addition, in an attempt to understand the psychological dynamics of symptoms, motivational factors were considered. The measurement of personality traits was chosen to broaden the understanding of this phenomenon. Other related concerns were the association of a partner's symptomatology and personality dynamics with the presentation of couvade symptoms in expectant fathers. The role of situational stress was another factor considered in this study on the couvade syndrome.

This investigation was undertaken with the questions noted above in mind. A sample of 52 expectant parents was used in this study. Subjects were cohabiting and in their third trimester of pregnancy. All volunteered without compensation. Two questionnaires were used in obtaining data on dependent variables.

In the assessment of couvade symptomatology, a distinction was made between chronic and acute onset. Only acute symptomatology was considered, given its timeliness with the pregnancy. The distribution of expectant fathers on acute couvade symptomatology resulted in 27 expectant fathers being asymptomatic and 25 symptomatic. A two-group comparison method of analysis was selected, given the frequency distribution of expectant fathers on acute couvade symptomatology. The intention was to compare the most symptomatic expectant fathers with nonsymptomatic expectant fathers. The researcher decided to include only those expectant fathers whose acute symptomatic couvade scores were 7 or more. The selection of such individuals was thought to provide the most effective contrasts between symptomatic and nonsymptomatic expectant fathers.

Comparative analyses of the two groups were performed for all main hypotheses. Secondary analyses of the variables in question were also performed using this two-group comparative method. Results indicated that highly acute-symptomatic expectant fathers (a) experienced more chronic couvade symptoms, (b) experienced more chronic anxiety symptoms, and (c) exhibited greater need for nurturance than did nonsymptomatic expectant fathers. The partners of highly acute-symptomatic expectant fathers (a) experienced more chronic anxiety symptoms and (b) exhibited less of a degree for nurturance than did the partners of nonsymptomatic expectant fathers.

A series of correlational analyses was performed, using the entire sample of expectant fathers, to consider their functioning in relation to a number of variables. Certain relationships were noted, which supported the findings of the between-groups comparative analyses. The association between the expectant father's degree of nurturance and his experience of acute couvade symptomatology was noted. In addition, a significant positive relationship was found between chronic and acute anxiety symptomatology and the experience of acute couvade symptoms.

The correlational analyses were particularly useful in considering the association of stress, acute and chronic, and symptom formation. The association between chronic stress and chronic couvade symptomatology as well as acute stress with chronic anxiety is especially interesting to note, given that chronic anxiety and couvade

symptoms were experienced in greater degree by highly acute-symptomatic expectant fathers. One cannot help but consider the function of both acute and more long-term stressors in the acute couvade symptomatology of expectant fathers. Coupled with such findings are those related to the partners of expectant fathers. Partners' chronic couvade and anxiety symptomatology was significantly associated with the expectant fathers' chronic anxiety, while the former's chronic couvade and stress scores were significantly related to the latter's chronic couvade symptomatology. The association of stress with anxiety and couvade symptomatology, coupled with the associations noted between expectant fathers' chronic couvade scores and their partners' functioning, suggests the presence of both longstanding and more acute external stressors in relation to couvade symptomatology, as well as factors within the dyad or partnership playing a role in symptom manifestation of expectant fathers. Stress was not found to be directly significantly related to expectant fathers' acute couvade symptomatology. However, in reviewing the various significant associations noted above, an interaction between stress, chronic couvade and anxiety, and partner's functioning is suggested in relation to acute couvade symptom manifestation.

Limitations

As in any research undertaking, certain limitations were realized and had to be scrutinized, particularly with regard to the generalizability of results. The study involved subjects who had volunteered for the investigation. It is likely that this was a specialized

sample from the population of expectant parents because of the use of volunteers, as well as the limitations of the geographic area in which the sample was gathered. In addition, the time span of 17 months sheds emphasis on the specialized nature of this sample. The collection of data was hampered primarily by expectant fathers who refused to participate. The results were not from a random sample and likely were biased because of the sample obtained in this investigation.

The sample size of 52 fathers posed particular limitations because the groups (symptomatic versus nonsymptomatic) were unequal. Findings were likely to be conservative, given the limited number of highly acute-symptomatic expectant fathers. The limited number of highly acute-symptomatic expectant fathers may have been a result of factors other than the size of the original sample. Difficulties with self-reports, in particular retrospective ones, pose particular barriers to investigations of such phenomena. Recollections may often be unclear or incomplete, influenced by an individual's affective functioning, which in turn affects one's self-perceptions. Expectant parenthood, being a time of crisis, may affect one's accuracy on self-reports. A second concern possibly playing a role in affecting self-perceptions may be the expectant fathers' defensiveness, particularly in regard to acknowledging the experience of possibly psychosomatic symptomatology. It is probably less threatening to acknowledge clearly physical experiences. Yet as questions regarding physical functioning are presented with interest as to the interface of these experiences and pregnancy, the functional nature of symptoms is raised

and may be defended against. This defensiveness is likely to be evident in sophisticated samples. This study sampled expectant fathers who averaged slightly above 14 years of education. The possible role of defensiveness in the reporting of symptomatology should be considered.

As in all studies, the methodology employed in this study posed certain limitations. The use of volunteers and the limited number of highly acute-symptomatic expectant fathers were two such limitations. Other limitations likely to affect studies of this nature were the possible inaccuracies and inconsistencies in self-reports, along with the possible role of defensiveness in the self-disclosure of symptoms that are functional in nature.

Conclusions

Couvade and Anxiety Factors

The results of this investigation, although hindered by certain limitations, have been useful in gaining a better understanding of factors likely to contribute to the psychophysiological experiences of expectant fathers. The phenomenon of the psychophysiological experiences of expectant fathers, well known in the literature as couvade syndrome, was found in this study to be associated with symptoms of chronic anxiety. Highly acute-symptomatic fathers experienced significantly more chronic anxiety symptoms than did asymptomatic expectant fathers. The highly acute-symptomatic group displayed more chronic couvade symptoms than did the nonsymptomatic group. The

interrelationship between anxiety and couvade symptomatology was further supported by the correlational analyses on these factors. Consequently, at issue and under consideration is the use of the term "syndrome" related to couvade symptomatology. The strong association found in this study between chronic symptomatology and couvade symptoms does not support the qualification of the symptomatology as a specific definable set of phenomena or syndrome. The findings suggest that the psychophysiological experiences of expectant father may be a function of, and at times an exacerbation of, more longstanding dysfunctions, particularly anxiety. The study findings also suggest the need to consider and compare levels of functioning before the targeted period under consideration or else risk making false assumptions about the interaction of symptoms and specific events.

Personality Factors--
Expectant Fathers

Highly acute-symptomatic expectant fathers exhibited significantly more need for nurturance than did nonsymptomatic expectant fathers. Their average score of 11 on the nurturance scale was at the 72nd percentile, in comparison to the 51st percentile for the average score of nonsymptomatic expectant fathers on a normative scale for males (Jackson, 1984, p. 12). Such men could be characterized as caring, protective, and sympathetic. The role of such factors in relation to couvade symptomatology has been noted in the literature, often being termed "sympathy pains." Under consideration in this investigation was the expectant fathers' degree of interpersonal

orientation. However, the differences and associations of couvade symptomatology did not support such other personality traits as affiliation, exhibition, and social recognition. Nor were differences found in the contrasting traits of aggression and defendence. From this study, only one specific interpersonal trait, nurturance, was suggested as being associated with couvade symptomatology. Hence a particular quality on only one aspect in one's interpersonal orientation toward others is at issue in the analysis of couvade symptomatology. Functioning relative to orientation away from others as aggression and defendence is not at issue. In contrasting nurturance with the other traits in this cluster, a quality of passivity was noted. Lacking was the active quality found in traits of affiliation, exhibition, social recognition, aggression, and defendence. The passive attempts in associating or relating appear similar to that noted in the psychoanalytic explanations of couvade symptoms regarding regression to a passive-homosexual stage of the expectant father's emotional development. Although more research is necessary in understanding the role of development and trait formation, such findings are helpful in directing research in this area along a psychodynamic/object-relations perspective. Unfortunately, anticipated differences between groups relative to early trauma (i.e., separation from parents, losses) were not supported. Associations between separation and anxiety (both acute and chronic) were found but were not realized in relation to acute couvade symptomatology. An association between these variables would have provided needed direction in understanding the underlying

dynamics of possible regression occurring during the period of expectant fatherhood.

There were no significant findings to report relative to the second cluster of traits under consideration: succorance and autonomy. Although no relationships or differences were found, the results may be helpful in theorizing and specifying to what stage in development the possible regression occurred. The regression features associated with succorance are of a more primitive dependent nature (suggested, as well, in the defining adjectives of the trait) than those of nurturance. A more "incorporative" receiving mode as opposed to the passive "giving" mode characteristic of nurturance is suggested in a more "clinical" analytic analysis of traits. Common to both is the suspected role of dependency in a regression process. Given the findings on nurturance, the regression may likely be centered on phases of separation/individuation rather than more primitive "incorporative" symbiotic ones.

The lack of any significant relationship of trauma or losses with acute couvade symptomatology raises questions as to the sources of regression in relation to couvade symptomatology. The regression may be a function of longstanding and more pervasive dynamics within the expectant father's family of origin, which is recapitulated in adult relationships. The regression could possibly be triggered by the perception of events regarding expectant fatherhood, as well as the functioning of his partner. The role of the expectant father's partner appears to be an integral part of the dynamics of couvade

symptomatology, as supported by the noted correlational findings on anxiety, couvade symptomatology, and personality variables.

Personality Factors--Personality Traits of Partners of Highly Acute-Symptomatic Expectant Fathers

Perhaps the most intriguing finding in this study was that related to the partners of expectant fathers. Of particular interest was the significant trait difference noted between the partners of highly acute-symptomatic expectant fathers in comparison to the partners of nonsymptomatic expectant fathers. A significant difference was noted with the trait of nurturance. Partners of highly acute symptomatic expectant fathers scored lower than the partners of asymptomatic expectant fathers. In relation to female norms (Jackson, 1984), the groups' average scores on affiliation were at the 63rd percentile for the asymptomatic group of males and the 40th percentile for highly acute-symptomatic expectant fathers. The correlational analysis of this trait with acute couvade symptomatology provided significant negative correlations, further supporting the distinctions noted in the comparative analysis. As well, significant negative correlations were found on traits of affiliation and exhibition.

The correlational analyses failed to show differences or associations relative to the other personality traits. At issue are traits related to interpersonal orientations with a characteristic quality of withholding and reticence in one's interpersonal style. Uncertainty remains as to the nature of this interpersonal orientation, whether it is longstanding or a function of more acute changes as pregnancy.

In discussing these results, the question as to the nature and stability of traits, particularly during developmental "crisis" periods, is raised. The high degree of nurturance exhibited by acute-symptomatic expectant fathers may have been a reaction to the sensed emotional distance from their partners. The question remains whether this relationship was present before the couple's cohabitation or was a function of the pregnancy. Women with less need for nurturance may be attracted to the nurturance found in a male acquaintance and may indeed seek out such males to fill a personal void. Equally plausible are the emotional effects of pregnancy, prompting a shift in attention away from the relationship in favor of a more introspective or focused attention to one's self. A shift in one's interpersonal orientation could occur for some females, given changes (psychological, emotional) that are experienced during the progression of their pregnancy. This shift in orientation may rekindle earlier fears of object loss for the expectant father and trigger a regression to a more passive nurturing mode of interaction.

Recommendations

The study of expectant parenthood is undoubtedly stimulating. The crisis nature of this developmental process lends itself to a variety of avenues of investigation. Of special interest in this study was the psychophysiological experiences of expectant fathers, with particular attention to associated personality traits. Results, although interesting, are not conclusive, yet they may provide needed

direction in the investigation of such phenomena in the future. A main point of emphasis to be made, resulting from the findings of this study, is that the investigation of the general area of expectant parenthood should be undertaken, assessing factors for both partners in a relationship. The exclusive attention on either expectant mother or expectant father may provide only limited information and in so doing run the risk of making inaccurate assumptions relative to personality factors and dynamics of expectant parenthood.

The implications of the results of this study are likely to affect both theoretical and applied areas in psychology. Certainly more research is needed to verify the results of this investigation, as well as to expand the general knowledge of the field of expectant parenthood. Ideally, a longitudinal investigation of the symptomatology experienced by expectant fathers would be beneficial. The design of such a study could allow for more accurate reporting of symptoms, particularly if symptomatology was monitored weekly or monthly. Personality variables could be assessed at each trimester of the pregnancy to note possible fluctuations in traits. The use of in-depth clinical interviews would be helpful in obtaining more information relative to early childhood history, with particular emphasis on emotional trauma and/or losses. Subjects for such a study would ideally be a random sample from a large pool of expectant parents (i.e., a large university clinic or a health maintenance organization). Although such a study would present certain limitations, it could provide additional information on this subject.

The goal of this type of research is to provide information to practitioners in the field. In this situation, both physicians and psychotherapists should be aware of the possible association of physiological symptoms they are witnessing in their patients with the pregnancy of a partner. Although the exact source of symptoms remains in question, there appears to be sufficient evidence to suggest that expectant fathers may be experiencing physical symptoms associated with expectant fatherhood, be it a specific cluster of symptoms known as couvade syndrome or more likely an exacerbation of chronic symptoms related to anxiety. If symptoms are noted that are functional in nature, psychotherapy may be useful in mitigating difficulties the expectant father is experiencing.

More research is needed with emphasis on personality dynamics of expectant couples, to provide added direction to practitioners involved in the care of expectant parents. With such concerns in mind, expectant fathers will be less likely to be overlooked or "forgotten" as a group, and the importance of their role, both during and following a pregnancy, will be realized and accepted.

APPENDIX

MICHIGAN STATE UNIVERSITY

COLLEGE OF EDUCATION · DEPARTMENT OF COUNSELING, EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

EAST LANSING · MICHIGAN · 48824-1034

August 6, 1985

Dr. Henry E. Bredeck, Chairperson
University Committee on Research
on Human Subjects
232 Administration Building
Campus

Dear Dr. Bredeck:

Norm Gilbert's dissertation committee and I have read and approved his dissertation proposal and believe that it protects the rights of the subjects involved.

Sincerely,

Richard G. Johnson
Professor

RGJ/mh

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824-1046

August 22, 1985

Normand Gilbert
Graduate Student
Dept. of Counseling and Educational Psychology
Campus

Dear Mr. Gilbert:

Subject: "A Study of Expectant Parents."

I am pleased to advise that I concur with your evaluation that this project is exempt from full UCRIHS review, and approval is herewith granted for conduct of the project.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to August 22, 1986.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to my attention. If I can be of any future help, please do not hesitate to let me know.

Sincerely,

Henry E. Bredeck
Chairman, UCRIHS

mt

cc: Dr. Richard Johnson

A STUDY OF EXPECTANT PARENTS

Dear Expectant Parent,

The period of pregnancy is no doubt a time of many changes. However, there have been few studies that have been done in order to understand the changes and their effects on both expectant mothers and expectant fathers. This study aims to do this needed work with your help. That is why this request is made of both you and your partner. The information you provide regarding the changes and possible stressors you have faced during this time in your life will be helpful to other expectant parents in the future.

Your participation will involve answering questions found in two written questionnaires. Both questionnaires require very brief answers. Questions will center on you, your family, as well as recent changes you have experienced. The total time commitment is likely to be approximately 2 hours and can be completed at your home.

The information you provide will be completely anonymous and will be combined with information provided by other expectant parents. There is no penalty for nonparticipation or quitting. Your decision will in no way affect the treatment or care you are receiving. Please keep in mind that this is an anonymous survey, and as such do not place your name on any of the questionnaires.

Your voluntary participation in this investigation is both needed and appreciated. If you have questions regarding this study or need assistance in completing the questionnaires, please call me at home: (517) 349-5146 (call collect).

Upon completion, please mail the entire package of questions and answers in the addressed and stamped envelope provided. Completion and return of materials constitutes consent for participation in this research project.

Thank you for your cooperation.

Sincerely,

Normand Gilbert
Graduate Student--Michigan State Univ.
College of Education; School of Health
Education, Counseling Psychology, and
Human Performance
Under the supervision of Richard Johnson, Ph.D.

IMPORTANT: Before you begin, please read the following.

--In order to be included in the study, both parents must complete both questionnaires.

--Given that no names will be utilized, please be sure to check the MALE/FEMALE items on both forms. This will help in keeping responses of partners separate.

--The second questionnaire has a separate question booklet and answer forms. You have been given two answer forms (one for each of you) and one question booklet (that you are asked to share). To be noted is that each question is to be answered TRUE or FALSE by placing an X in the appropriate box.

--You are asked to answer the questionnaires privately without the help of your partner.

--If you have any questions or are uncertain of what is being asked, please call me at home: (517) 349-5146.

COMPLETED FORMS:

--Place each of the GENERAL INFORMATION QUESTIONNAIRES and both answer sheets of the PRF--FORM E in the PRF--FORM E question booklet.

--Place the booklet in the addressed and stamped envelope provided.

--Please mail.

--Your cooperation in this study is appreciated.

GENERAL INFORMATION QUESTIONNAIRE

SEX: MALE_____ FEMALE_____

The following questions will consider information regarding the pregnancy as well as issues regarding your family history.

1. AGE: _____
2. ARE YOU CURRENTLY AN EXPECTANT PARENT? YES_____ NO_____
3. WAS THIS A PLANNED PREGNANCY? YES_____ NO_____
4. IF SO, HOW LONG DID IT TAKE TO ACHIEVE PREGNANCY?_____
5. HOW ARE YOU FEELING ABOUT THE PREGNANCY?

1----------5
VERY HAPPY 2 3 4 VERY UNHAPPY

6. MARITAL STATUS: SINGLE_____ MARRIED_____ DIVORCED_____
7. ARE YOU LIVING WITH YOUR PARTNER? YES_____ NO_____
8. IN WHAT TRIMESTER OF PREGNANCY ARE YOU OR YOUR PARTNER IN?

FIRST_____ SECOND_____ THIRD_____

9. HAVE YOU EVER BEEN DIVORCED? YES_____ NO_____
   IF SO, HOW MANY TIMES? _____
10. IF CURRENTLY MARRIED, HOW MANY YEARS? _____
11. HOW MANY PEOPLE LIVE WITH YOU? _____
12. WHO ARE THESE PEOPLE? (CHECK ALL THAT APPLY TO YOUR SITUATION)

____SPOUSE/PARTNER
____CHILDREN OF BOTH YOU AND YOUR SPOUSE/PARTNER HOW MANY_____
____YOUR CHILDREN FROM A PREVIOUS RELATIONSHIP HOW MANY_____
____SPOUSE/PARTNER'S CHILDREN FROM A PREVIOUS RELATIONSHIP
HOW MANY _____
____YOUR PARENTS ONE_____ BOTH_____
____YOUR SPOUSE/PARTNER'S PARENTS ONE_____ BOTH_____
____OTHER PLEASE SPECIFY RELATIONSHIP IF ANY_____
HOW MANY_____

13. YOUR OCCUPATION _____

14. HIGHEST GRADE COMPLETED _____

15. RELIGIOUS AFFILIATION

None_____ Jewish_____
Protestant_____ Atheist_____
Catholic_____ Other - Specify_____

16. RACE/ETHNIC GROUP

White/Caucasian_____
Black/Negro_____
Oriental _____
Other - Specify _____

17. AGE WHEN YOU LEFT HOME? _____

18. UNDER WHAT CIRCUMSTANCES? SCHOOL_____ MARRIAGE_____ WORK_____
OTHER_____

19. DID YOU EVER LIVE ALONE BEFORE YOU WERE MARRIED?

YES_____ NO_____ IF SO, HOW LONG?_____

20. YOUR FATHERS'S AGE WHEN YOU WERE BORN_____

21. YOUR MOTHERS'S AGE WHEN YOU WERE BORN_____

(Some of the following questions refer to your parents. If stepparents or grandparents or others were the ones who had a greater influence in you life, please answer questions based on this relationship.)

22. YOUR FATHER'S OCCUPATION_____(If deceased or retired, previous occupation)

23. MOTHER'S OCCUPATION_____

24. IF APPROPRIATE, YOUR AGE WHEN YOUR MOTHER DIED_____

25. IF APPROPRIATE, YOUR AGE WHEN YOUR FATHER DIED_____

26. NUMBER OF MILES SEPARATING YOU AND YOUR PARENTS_____

27. THE NUMBER OF MONTHLY CONTACTS (FACE TO FACE OR BY PHONE, MAIL) YOU HAVE ON AN AVERAGE WITH YOUR PARENTS.

0- 5 _____ 6-10_____ 11-15_____ 15- OR MORE_____

28. FATHER'S LEVEL OF INVOLVEMENT IN RAISING THE CHILDREN
LOW_____ MODERATE_____ HIGH_____

29. MOTHER'S LEVEL OF INVOLVEMENT IN RAISING THE CHILDREN
LOW_____ MODERATE_____ HIGH_____

30. HOW MANY BROTHERS AND SISTERS DO YOU HAVE?_____
PLEASE LIST THEIR SEX AND AGE SEX_____ AGE_____
_____ _____
_____ _____
_____ _____
_____ _____

31. ANY DECEASED BROTHERS OR SISTERS?
YES_____ NO_____
IF SO, PLEASE NOTE THEIR SEX AND YOUR AGE WHEN THEY DIED
Sex_____ Your age when they died_____
Sex_____ Your age when they died_____

32. WHILE LIVING WITH YOUR PARENTS, WERE YOUR PARENTS SERIOUSLY ILL?
YES___ NO_____ IF SO, YOUR AGE AT THAT TIME_____

33. WHILE LIVING WITH YOUR PARENTS, WERE ANY OF YOUR BROTHERS OR SISTERS SERIOUSLY ILL? YES_____ NO_____
IF SO, YOUR AGE AT THE TIME_____

34. WHILE LIVING WITH YOUR PARENTS, WHO DID YOU FEEL CLOSEST TO EMOTIONALLY? _____AND NOW _____

35. DID YOUR PARENTS EVER UNDERGO A MARITAL SEPARATION?
YES_____ NO_____ IF SO, HOW LONG DID IT LAST _____
YOUR AGE AT THE TIME_____

36. DID YOUR PARENTS EVER DIVORCE? YES_____ NO_____
IF SO, YOUR AGE AT THE TIME_____

37. CAN YOU RECALL EVER BEING SEPARATED OR WERE YOU EVER TOLD THAT YOU WERE SEPARATED FROM EITHER PARENT FOR ANY SIGNIFICANT PERIOD OF TIME (one week or more)? YES_____ NO_____
IF SO, PLEASE SPECIFY THE LENGTH OF TIME_____
YOUR AGE AT THE TIME_____

The following questions will focus attention on YOUR physical health.

38. Please list any major illness you have had and when.

_____

_____

_____

40. Please list any surgery that your have had and when.

_____

_____

_____

41. Please list any medications you are taking at the present time.

_____

_____

_____

42. Your partner's health prior to the pregnancy

POOR_____ FAIR_____ AVERAGE_____ GOOD_____ EXCELLENT_____

43. Your health prior to the pregnancy

POOR_____ FAIR_____ AVERAGE_____ GOOD_____ EXCELLENT_____

44. Your partner's health during the pregnancy

POOR_____ FAIR_____ AVERAGE_____ GOOD_____ EXCELLENT_____

45. Your health during the pregnancy

POOR_____ FAIR_____ AVERAGE_____ GOOD_____ EXCELLENT_____

46. Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced and the time period during which you have experienced each event.

As well, please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred.

	0 to 6 mos.	7 mos. to 1yr.	EXTREMELY NEGATIVE	MODERATELY NEGATIVE	SOMEWHAT NEGATIVE	NO IMPACT	SLIGHTLY POSITIVE	MODERATELY POSITIVE	EXTREMELY POSITIVE
FORECLOSURE ON MORTGAGE OR LOAN									
DEATH OF CLOSE FRIEND									
NEW JOB									
TROUBLE WITH EMPLOYER (in danger of losing job, being suspended, demoted)									
TROUBLE WITH IN-LAWS									
MAJOR CHANGE IN FINANCIAL STATUS (a lot better off or a lot worse off)									
CHANGE OF RESIDENCE									
MARITAL RECONCILIATION WITH MATE									
BORROWING MORE THAN $10,000 (buying home, business, etc.)									
BEING FIRED FROM JOB									

47. In this section specific symptoms are listed. For EACH symptom please rate the FREQUENCY and SEVERITY of that symptom you may have experienced during the last six months.

As well, please indicate if such symptoms were regular ongoing symptoms you experienced before the last six months.

Please use the following scales to rate each symptom by placing the number in the appropriate blank which best describes your experience.

FREQUENCY: 0-NEVER
1-RARELY
2-SOMETIMES
3-FREQUENTLY

SEVERITY: 1-MILD
2-MODERATE
3-SEVERE

SYMPTOMS	FREQUENCY	SEVERITY	WAS THIS A REGULAR ONGOING SYMPTOM BEFORE THE LAST SI) MONTHS? YES	NO
TOOTHACHES				
WORRYING				
INABILITY TO RELAX				
INDIGESTION/HEARTBURN				
NAUSEA				
FEAR OF BEING ALONE				
STOMACH ACHES				
UNSATISFYING SLEEP				
DIFFICULTY IN CONCENTRATION				
VOMITING				
DIARRHEA				
CONSTIPATION				
DEPRESSION				
LEG ACHES				
FEELINGS OF WEAKNESS				
STOMACH SWELLING				
CHEST PAIN				
CHOKING FEELING				
DIFFICULTY IN SWALLOWING				
WEIGHT GAIN (not planned)				
WEIGHT LOSS (not planned)				
FREQUENT URINATION				
TENSION HEADACHE				
STYES ON THE EYELID				
EXCESSIVE FATIGUE				
PAINS AND ACHES				
LOSS OF APPETITE				
INCREASED APPETITE				

LIST OF REFERENCES

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References Cited

Benedek, T. (1959). Parenthood as a developmental phase: A contribution to the libido theory. Journal of the American Psychoanalytic Association, 7(3), 389-417.

Benedek, T. (1970a). Fatherhood and providing. In E. Anthony & T. Benedek (Eds.), Parenthood: Its psychology and psychopathology. Boston: Little, Brown.

Benedek, T. (1970b). The psychobiology of pregnancy. In E. Anthony & T. Benedek (Eds.), Parenthood: Its psychology and psychopathology. Boston: Little, Brown.

Burlingham, D. (1973). The preoedipal infant-father relationship. Psychoanalytic Study of the Child, 28, 23-47.

Buros, O. (1972). The seventh mental measurements yearbook. Highland Park: The Gryphon Press.

Buros, O. (1978). The eighth mental measurements yearbook. Highland Park: The Gryphon Press, 1978.

Cavenar, J., & Butts, N. (1977). Fatherhood and emotional illness. American Journal of Psychiatry, 134(4), 429-431.

Cavenar, J., & Weddington, W. (1978). Abdominal pain in expectant fathers. Psychosomatics, 19(12), 761-768.

Colman, A., & Colman, L. (1971). Pregnancy: The psychological experience. New York: Herder & Herder.

Davis, O. (1977). Mood and symptoms of expectant fathers during the course of pregnancy: A study of the crisis perspective of expectant fatherhood. Unpublished doctoral dissertation, University of North Carolina.

Dickens, G., & Trethowan, W. (1971). Cravings and aversions during pregnancy. Journal of Psychosomatic Research, 15, 259-268.

Driver, H. (1964). Couvade. Encyclopedia Britannica (Vol. 6).

Evans, W. (1951). Simulated pregnancy in a male. Psychiatric Quarterly, 20, 165-178.

Freeman, T. (1951). Pregnancy as a precipitant of mental illness in men. British Journal of Medical Psychology, 24, 49-54.

Gerzi, S., & Berman, E. (1981). Emotional reactions of expectant fathers to their wives' first pregnancy. British Journal of Medical Psychology, 54, 259-265.

Ginath, Y. (1974). Psychoses in males in relation to their wives' pregnancy and childbirth. The Israel Annals of Psychiatry and Related Disciplines, 12(3), 228-237.

Greenacre, P. (1952). Trauma, growth and personality. New York: W. W. Norton.

Gurwith, A. (1976). Aspects of prospective fatherhood. The Psychoanalytic Study of the Child, 31, 237-271.

Hartman, A., & Nicolay, R. (1966). Sexually deviant behavior in expectant fathers. Journal of Abnormal Psychology, 71, 232-234.

Jackson, D. (1984). Personality Research Form manual. Port Huron, MI: Research Psychologists Press.

Jacobson, E. (1950). Development of the wish for a child in boys. Psychoanalytic Study of the Child, 5, 139-152.

Jaffe, D. (1968). The masculine envy of woman's procreative function. Journal of the American Psychoanalytic Association, 16, 521-548.

Jarvis, W. (1962). Some effects of pregnancy and childbirth on men. Journal of the American Psychoanalytic Association, 10, 689-700.

Jessner, L., Weigert, E., & Foy, J. (1970). The development of parental attitudes during pregnancy. In E. Anthony & T. Benedek (Eds.), Parenthood: Its Psychology and Psychopathology. Boston: Little, Brown.

Lipkin, M., & Lamb, G. (1982). The couvade syndrome: An epidemiologic study. Annals of Internal Medicine, 96, 599-611.

Mack-Brunswick, R. (1940). The preoedipal phase of the libido development. Psychoanalytic Quarterly, 9, 293-319.

Malinowski, B. (1927). Sex and repression in savage society. New York: Harcourt, Brace.

Moore, J. (1975). The couvade syndrome: A study of personality variables and family relationships. Unpublished doctoral dissertation, California School of Professional Psychology.

Munroe, R., Munroe, R., & Whiting, J. (1973). The couvade: A psychological analysis. Ethos, 1, 30-74.

Paunonen, S. V., & Jackson, D. N. (1979). Nonverbal trait inference. Journal of Personality and Social Psychology, 37, 1645-1659.

Reik, T. (1946). Ritual. New York: International Universities Press.

Ross, J. (1979). Fathering: A review of some psychoanalytic contributions on paternity. International Journal of Psycho-Analysis, 60, 317-327.

Sarason, I., Johnson, J., & Siegel, J. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 46, 932-946.

Towne, R., & Afterman, J. (1955). Psychosis in males related to parenthood. Bulletin of the Menninger Clinic, 19, 19-26.

Trethowan, W. (1958). Early manifestations of schizophrenia. Medical Journal of Australia, 2, 722.

Trethowan, W. (1968). The couvade syndrome: Some further observations. Journal of Psychosomatic Research, 12, 107-115.

Trethowan, W. (1972). The couvade syndrome. In J. Howell (Ed.), Modern perspectives in psycho-obstetrics. New York: Brunner-Mazel.

Trethowan, W., & Conlon, M. (1965). The couvade syndrome. British Journal of Psychiatry, 111, 57-66.

Wainwright, W. (1966). Fatherhood as a precipitant of mental illness. American Journal of Psychiatry, 123, 40-44.

Walton, C. (1982). Expectant fatherhood: An investigation of the couvade syndrome and an exploration of anticipating childbirth for fathers. Unpublished doctoral dissertation, University of Tennessee.

Wapner, J. (1975). An empirical approach to the attitude, feelings and behavior of expectant fathers. Unpublished doctoral dissertation, Northwestern University.

Zalk, S. (1980). Psychosexual conflicts in expectant fathers. In B. Blum (Ed.), Psychological aspects of pregnancy, birthing, and bonding. New York: Human Sciences Press.

Zilboorg, G. (1931). Depressive reactions related to parenthood. American Journal of Psychiatry, 87, 927-962.

General References

Alexander, F. (1950). Psychosomatic medicine: Its principles and applications. New York: W. W. Norton.

Bellack, L., Hurvich, M., & Gediman, H. (1973). Ego functions in schizophrenics, neurotics and normals. New York: John Wiley & Sons.

Bettelheim, B. (1954). Symbolic wounds. Glencoe: The Free Press.

Biller, H. (1971). Father, child and sex role: Paternal determinants of personality development. Lexington: Heath Lexington Books.

Blanck, G., & Blanck, R. (1974). Ego psychology: Theory and practice. New York: Columbia University Press.

Boehm, F. (1930). The femininity complex in men. Interpersonal Journal of Psychoanalysis, 11, 444-469.

Brenner, C. (1971). The psychoanalytic concept of aggression. International Journal of Psychoanalysis, 52(2), 137-144.

Chertok, L., Mindzain, L., & Bonnaud, M. (1963). Vomiting and the wish to have a child. Psychosomatic Medicine, 25, 13-17.

Dally, P., & Mullins, A. (1954). Mysterious pain. British Medical Journal, 2, 757.

Engel, G. (1959). Psychogenic pain and the pain-prone patient. American Journal of Medicine, 26, 899-918.

Enoch, M., & Trethowan, W. (1979). Uncommon psychiatric syndromes (2nd Ed.). Bristol: John Wright & Sons.

Gayton, R. (1975). A comparison of natural and non-natural childbirth fathers on state-trait anxiety, attitude and self-concept. Unpublished doctoral dissertation, United States International University.

Haynal, A. (1977). Men facing reproduction. Dynamische Psychiatric, 10, 360-368.

Heinowitz, J. (1977). Becoming a father for the first time: A phenomenological study. Unpublished doctoral dissertation, California School of Professional Psychology, San Diego.

Inman, W. (1941). The couvade in modern England. British Journal of Medical Psychology, 19, 37-55.

Kroeber, A. (1923). Anthropology. New York: Harcourt, Brace.

Lamb, M. (1981). The role of the father in child development. New York: John Wiley & Sons.

Lefer, L. (1966). A psychoanalytic view of a dental phenomenon. Contemporary Psychoanalysis, 2, 135-150.

Liebenberg, B. (1969). Expectant fathers. Child and Family, 8, 265-277.

May, D. (1979). Management of detachment and involvement in pregnancy by first-time expectant fathers. Unpublished doctoral dissertation, University of California, San Francisco.

Mitchell, J. (1983). Tests in print: An index to tests, test reviews, and the literature of specific tests. Lincoln: University of Nebraska Press.

Munroe, R., & Munroe, R. (1971). Male pregnancy symptoms and cross-sex identity in three societies. Journal of Social Psychology, 84, 11-25.

Munroe, R., Munroe, R., & Nerlove, S. (1973). Male pregnancy symptoms and cross-sex identity: Two replications. The Journal of Social Psychology, 89, 149-150.

Price-Bonham, S., Pittman, J., & Welch, C. III. (1981). The father role: An update. Infant Mental Health Journal, 2.

Reid, K. (1975). Fatherhood and emotional stress: The couvade syndrome. Journal of Social Welfare, 2, 3-14.

Retterstol, N. (1968). Paranoid psychoses associated with impending or newly established fatherhood. Acta Psychiatrica Scandinavia, 44, 51-61.

Roehmer, J. (1976). Fatherhood in pregnancy and birth. Journal of Nurse-Midwifery, 21, 13-18.

Rose, G. (1961). Pregenital aspects of pregnancy fantasies. International Journal of Psycho-Analysis, 42, 544-549.

Ross, J. (1975). The development of paternal identity: A critical review of the literature on nurturance and generatibity in boys and men. International Journal of Psycho-Analysis, 23, 783-817.

Weiner, M., & Land, M. (1967). Psychiatry, psychosomatics and dentistry. Psychosomatics, 8, 338-341.

Wenner, N. et al. (1969). Emotional problems in pregnancy. Psychiatry, 32, 389-410.