

ROLE EXPECTATION DISCREPANCY: A COMPARISON OF  
NONOBESE, MODERATELY OBESE, AND EXCESSIVELY  
OBESE PRIMIGRAVIDAS

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BY  
FRANCENE STEPANICH WEATHERBY, R.N.C., B.S.N., M.S.N., M.A.

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DENTON, TEXAS

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Date

To the Provost of the Graduate School:

I am submitting herewith a dissertation written by

Francene Stepanich Weatherby

entitled "Role Expectation Discrepancy: A Comparison

of Nonobese, Moderately Obese, and Excessively Obese  
Primigravidas."

I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Virginia A. Smith

We have read this dissertation  
and recommend its acceptance:

Helen A. Bush  
Margaret T. Beard  
David D. Marshall  
Leggy J. Draco

Accepted

Leslie M. Thompson  
Provost of the Graduate School

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Francene Stepanich Weatherly

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ABSTRACT

The purposes of this study were to develop an instrument to measure the new construct role expectation discrepancy and to test four specific hypotheses related to this construct. Using a conceptual framework based on interrelated conceptions from role theory, symbolic interactionism, Burr's role transition theory, and Rubin's theory of maternal role attainment, two research instruments, the Ideal Pregnancy Role Scale (IPRS) and the Self Perception in Pregnant Role Scale (SPPRS) were developed and pilot-tested. The final study involved 49 nonobese pregnancy subjects, 25 moderately obese pregnant subjects, and 23 excessively obese pregnant subjects.

Each 39-item instrument contained three subscales: Affective Aspects of the Pregnant Role subscale, Behavioral Aspects of the Pregnant Role subscale, and Social Aspects of the Pregnant Role subscale. Reliability was established

using Cronbach's coefficient alpha. Final estimations of internal consistency were .8185 for the IPRS and .7844 for the SPPRS. Content validity was built into the instruments from the inception through appropriate test-item selection using literature review, personal experience, and the expertise of a panel of experts. Criterion validity was established through correlational studies comparing scores on the researcher-developed instruments with scores on Cranley's Maternal-Fetal Attachment Scale.

Correlational studies between research instrument scores and 22 demographic variables were calculated. Statistically significant negative correlations were found between IPRS scores, SPPRS scores, and variables involving mass (height, current weight, and prepregnant weight), and statistically significant positive correlations were found between these mass variables and role expectation discrepancy scores. Statistically significant differences were also found between married subjects and single subjects regarding mean scores on the SPSOC, SOCDIFF, SPTOT, and TOTDIFF subscales and totals.

Hypothesis testing revealed no statistically significant differences between IPRS scores and SPPRS scores for nonobese subjects and moderately obese subjects. There



was, however, a statistically significant difference in these scores for excessively obese subjects. Finally, there was a statistically significant difference in role expectation discrepancy scores among the three study groups, with excessively obese pregnant subjects having significantly higher discrepancy scores than the other two groups.

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## CHAPTER I

### INTRODUCTION

Human growth and development are complex and involved processes. These processes do not occur in an even-spaced, standardized manner. Instead, an individual's life progresses in a unique spiral fashion, highlighted by life change and role transitions.

In caring for clients, nurses encounter numerous situations of role change. Such transitions are sources of stress and require adaptation on the client's part as well as on the part of significant others. These life changes have the potential for causing stress, which in turn can lead to such positive conclusions as personal growth and self-actualization or, conversely, to such negative consequences as depression, anxiety, inability to cope or physical and/or psychiatric difficulties.

Interest in the problem of the present study developed out of clinical observations and firsthand experiences with people who found themselves in the situation of role transition. This transition represented a turning point in their lives. Former roles had to be adjusted or abandoned in order to accommodate the new role; the

need for psychological and social integration of the role arose. The literature also contains numerous examples of such transitions including the transitions to fatherhood, professional nursing, mother/career person, thin person, and childlessness (Carty, 1970; Cronenwett & Kunst-Wilson, 1981; Gendron, 1981; Russell, 1974; Meyerowitz, 1970; Rubin, 1970; Schroeder, 1981; Wood, 1981).

In each of these instances, in order to resolve the crisis and grow, the individual is required to incorporate or integrate the new role into the self-concept. Unfortunately, in some instances this incorporation may be blocked. One type of blocking results when there is an incongruence or discrepancy between the individual's perception of societal expectations of the role and the individual's perception of himself or herself actually in that particular role. This phenomenon has been labeled role expectation discrepancy.

#### Statement of the Problem

The problem of the study is to measure and compare role expectation discrepancy in a group of nonobese primigravidas, a group of moderately obese primigravidas, and a group of excessively obese primigravidas using two instruments developed by the researcher. The instruments



are the Ideal Pregnant Role Scale (IPRS) and the Self-Perception in Pregnant Role Scale (SPPRS).

The questions which this research proposes to answer are:

1. Do role expectation discrepancy scores of moderately obese and excessively obese primigravidas differ significantly from the role expectation discrepancy scores of nonobese primigravidas?
2. What are the validity and reliability of the Ideal Pregnant Role Scale (IPRS) and the Self-Perception in Pregnant Role Scale (SPPRS)?

#### Justification of the Problem

Role behavior or role enactment is a complex social activity which permeates the life cycle. According to Malaznik (1976) and in accordance with Roy's adaptation model (1970; 1971; 1976; 1980), the role of nursing is to facilitate adaptation along the health-illness continuum. One aspect of that adaptation process involves adjustment to new roles in times of role transition. Such adaptation leads to social integrity or congruence between societal expectations of role behavior and the individual's actual role performance. It, therefore, seems obvious that knowledge of role theory and the ability to assess

and facilitate an individual's role performance are essential to the practice of nursing.

Of particular interest to the researcher is the phenomenon of role transition, specifically the role transition of pregnancy and factors which affect this transition. During role transition, identification with others and cue sending and receiving are frequently appraised in order to accommodate and affirm the new role. The need for social integration of the role arises. Roy (1976) described this as a basic need of the role function mode; that is, the need to know who one is in relation to others so that one can act. Validation and sanctioning of the role by significant others leads to increasing incorporation of the role into the self-identity and self-concept.

In some instances, however, incorporation and integration of the new role are blocked or delayed. One such disruption results when role cues are masked from the audience leading to a dissimilarity in the individual's personal expectations of the role by significant others. Consequently the actor fails to have his or her role enactment validated by the audience, and frustration and tension result. This phenomenon is labeled role expectation discrepancy.

Several examples of the phenomenon, role expectation discrepancy were found in the clinical setting. One particular example was repeatedly seen on the postpartum unit and involved mothers who had given birth prematurely and then had their sick neonates whisked away to the neonatal intensive unit shortly after birth. Lacking the objective reality of their ideal newborn infant in their arms, they were often heard to remark, "But I don't feel like a mother!"

A second example occurred when obesity and pregnancy were superimposed. Women in this special role transition commented that, "I feel like I've missed something. I don't feel like I was pregnant!" This second example of role expectation discrepancy was the focus of this study. The researcher hypothesized that the more obese the pregnant woman was, the greater the discrepancy would be between society's expectations of the pregnant role and the woman's perceptions of herself in the pregnant role.

The examination of the phenomenon role expectation discrepancy is specifically important to nursing in at least three ways. First, improvement in the quality of care delivered to clients may be achieved. A couple's first pregnancy constitutes a critical period in the evolution of a family. This pregnancy alters family

life in both subtle and extensive ways. During the past several decades, there have been a variety of disciplines interested in this critical event. Psychologists, psychiatrists, sociologists, and nurses, notably Bibring (1961), Menninger (1943), Caplan (1960), Coleman and Coleman (1971), Rubin (1967a; 1967b), Meleis (1975), and Mercer (1981) have written about the critical nature of this event and have at least alluded to the crisis implications of such a stressful event. Appropriate and timely nursing interventions may serve to reduce the stress of this situation and enhance the childbearing experience.

Second, health care may be delivered in a more cost-effective manner. Today a major problem facing the health care industry is the allocation of time and resources to meet health care needs. According to Rees (1979) all too frequently the decision about which family needs concentrated health care seems to be made on the basis of the individual's presumed inability to cope with changing roles and responsibilities. Obviously, further research is needed to identify those who would benefit most from concentrated health care interventions.

Finally, the theoretical knowledge base for nursing practice may be advanced. As nursing grows and develops as a profession and a scholarly discipline, there is

increased impetus to develop and strengthen the theoretical foundation of knowledge which is unique and useful to nursing. Since nursing is a practice-oriented discipline, one of the basic purposes of this knowledge is to provide service to people. Increased delineation and clarification of the phenomenon role expectation discrepancy will contribute to this purpose.

Research and experience have led to the identification of factors that threaten the well-being of pregnant women, postpartal women, the fetus-neonate, and the family. This knowledge has permitted the development of increasingly effective preventive and therapeutic measures that can minimize the incidence of morbidity, disability, and mortality of the mother and/or infant.

A major limitation of previous research findings is that these research studies have primarily focused on adaptation to the motherhood role, beginning at the time of delivery and in the early postpartum period. The role of pregnancy is not specifically addressed to any great extent. The present study is designed to identify individuals at risk for difficult role transition earlier in the childbearing experience, namely at thirty to thirty-four weeks' gestation when obesity is superimposed on pregnancy. This earlier identification may facilitate

role adaptation by allowing more time for appropriate intervention. Earlier identification may enable the individual to have increased time to synthesize and incorporate appropriate role behavior into her repertoire. Early identification may also provide increased opportunities for greater involvement of significant others.

#### Theoretical Framework: Concept Analysis

Role expectation discrepancy involves several inter-related concepts. The key words role, expectation, and discrepancy are examined individually and as a collective term.

The word role is a familiar term in common usage. Webster (1981, p. 995) defined role as (1) a character assigned or assumed; (2) a socially expected behavior pattern usually determined by an individual's status in a particular society; (3) a part played by an actor or singer; (4) a function.

According to Biddle and Thomas (1979) the term role originated from the Latin word "rotula" which referred to a round, wooden dowel on which sheets of parchment were fastened. The term was later used to mean an official volume of papers for law courts. Still later the word role was used to mean the part played by theatrical characters (p. 9).

Today the term role in common usage means either a part or character performed by an actor in a drama or a function taken or assumed by any person or structure. In current social science the term role has come to mean "a behavioral repertoire characteristic of a person or a position; or (less often) a position itself" (Biddle & Thomas, 1979, p. 9). Modern role theorists consequently draw many of their models and concepts from the specialized fields of drama (e.g., actor, role playing, psychodrama), and law (e.g., sanctioning, norm, law, custom).

The term expectation is derived from the Latin word "expectare" which means to look forward to. Webster (1981, p. 399) defined expect as follows: (1) to wait, stay; (2) to look forward to; (3) to be pregnant; (4) to suppose or think; (5) to anticipate; (6) to consider probable or certain.

Biddle and Thomas (1979, p. 10) further clarified the term by comparing the everyday meaning of expectation with the meaning given to it by role theorists. According to these authors the common-language meanings of expectation are (1) a state of affairs looked for in the future; anticipation; (2) a tentative or theoretical description or model of existing events; (3) a hoped-for state of affairs; (4) an ideal concerning what ought to occur.

By comparison expectation, from a role theorist's perspective, includes (1) a concept held about a behavior likely to be exhibited by a person, (2) a standard held for the behavior of a person, (3) an anticipation, (4) a norm, (5) an attitude.

A term more applicable to the concept investigated in this study is the term role expectation. Biddle (1979, p. 116) stated that this term has found wide use with both social scientists and lay persons. Unfortunately with this widespread use has come confusion of the term.

According to Biddle (1979, p. 116) the concept of role expectation began with the dramaturgical analogy. At first it was used to mean the life theatrical parts played by individuals. Just as the theatrical script dictates the action of the actor so role expectations control or predict the behavior of the individual.

As the analogy is extended into more real-life situations, three important additional assumptions evolved. First, theatrical scripts involve written specifications for actors' behavior. In life, written specifications for behavior come in such forms as rule books, codes of conduct, and laws enacted by legislatures. These written specifications carry with them sanctions to force compliance, e.g., jail sentences.



Secondly, both theatrical scripts and role expectations may involve spoken injunctions or orders as models for behavior. In terms of role expectations, it is very important that the speakers all say the same thing. For example, in order to convey clear role expectations for their children, both mother and father must prescribe corresponding behaviors. This condition is referred to as shared expectations or correspondence.

Finally, the concept of role expectations is in the mind of the performer. Once a role is learned, the individual no longer needs to be told what to do.

Role expectations, the standards of behavior for a given role, are formed as a result of prior experiences and socialization (Biddle, 1979, p. 116). These expectations control or predict role behavior. This suggests that persons conform their behavior to expectations they hold (Biddle, 1979, p. 116).

The final term in the concept role expectation discrepancy is discrepancy. The term discrepancy means (1) the quality or state of being at variance, disagreeing; (2) difference (Webster, 1981, p. 323).

Analysis and synthesis of the various definitions and explanations of the individual and collective terms leads to the identification of critical defining

attributes inherent in the concept role expectation discrepancy. These critical attributes are:

1. Role Transition. Role transition is defined as a process of moving in and out of roles (Burr, 1972, p. 407). Role transition can be viewed as a nonvariable (either the individual is in transition or not) or as a variable (one or more dimensions of the concept are identified through the literature and personal experience including type of role transition, value of the transition to the individual, degree of transition (point at which the individual is in the transition process), number of roles (including such subareas as clarity of role prescription, definiteness of transition procedures, availability of resources, role taking abilities, amount of anticipatory socialization), number of role transitions experienced previously, and the amount of time spent in transition.

2. (Expectation) Correspondence. Correspondence is a term used to indicate those prescriptions or expectations for a given role which are commonly shared between the role occupant and significant others. Role expectations include not only knowledge of the role (a cognitive response) and particular overt motoric performance (a behavioral response) but also the holding of certain

beliefs, attitudes, and opinions (an affective response). To validate occupancy of a position successfully requires satisfaction of all components of role expectations (Sarbin & Allen, 1968, p. 555). It may be viewed as a nonvariable (present or not present) or as a variable (indicating varying degrees of agreement). Two dimensions of correspondence would be (a) the degree or strength of correspondence between role occupant and a given significant other in regard to cognitive, affective, and behavioral aspects of role enactment and (b) the number of individuals involved in correspondence (generality of the correspondence).

3. Masking. Masking is the unintentional concealing or partial concealment of overt or public behavioral cues. This concealing serves to prevent validation of role enactment. Several dimensions of masking can be identified. They include number of relevant cues concealed, types of cues concealed, frequency of cue sending, number of people to whom cues are sent, and degree of perceived closeness to people to whom cues are sent.

4. Discrepancy (incongruency). The term discrepancy means an incongruence or lack of similarity between the ideal role image and the actual self image in the particular role. Obviously, simply stating that a

difference was or was not present (nonvariable) would be possible. However, specifying the strength or degree of difference would be a much stronger statement. Dimensions for discrepancy include (a) the degree or strength of incongruence and (b) the number of individuals involved in the discrepant perception (generality of the discrepancy).

5. Negative Affective Response. Negative response is defined as an unpleasant, disagreeable feeling tone experienced in response to cognitive recognition of role expectation discrepancies. Cottrell (1942, p. 617) proposed that the amount of tension, anxiety, and frustration generated by the attempt to discover and play a given role is an index of the individual's adjustment to such a role. Once again rather than merely identifying the presence or absence of this response (nonvariable) different values can be measured for the concept dimensions. Two dimensions of negative affective response would be (a) the degree, intensity, or strength of the response and (b) the duration of the response. Role transition, correspondence, masking, discrepancy, and negative affective response thus constitute role expectation discrepancy.

Several consequences may result following role expectation discrepancy. Initially the individual may increase behavioral cues to try to influence others and self to conform to the ideal role expectations. If the person is successful, significant others will respond and role mastery and integration will occur. If the person is not successful, significant others will fail to respond and the individual will have increasing feelings of anxiety, frustration, and tension. Role failure results. Finally, if the idea of role failure is too overwhelming and threatening, the individual may deny the role exists despite the reality of the situation. Here again failure to integrate the role into the self concept will occur. Appendix A provides a schematic representation of the antecedents and consequences of role expectation discrepancy.

A comparison of the construct role expectation discrepancy to other related but different constructs can further help to place limits or boundaries around the construct and eliminate the meanings which are irrelevant. Walker and Avant (1983) outlined the development of borderline, related, and contrary cases as a means of further clarifying phenomena. As the main attributes for the construct role expectation discrepancy were delineated,

several similar yet different constructs were revealed.

Role uncertainty represents a borderline case of the concept. In role uncertainty, the individual is aware of the role prescriptions involved and shares common role expectations with others concerning this role. There is a lack of certainty, however, that the individual has, in fact, acquired the role. Thus, role transition is in question.

Four related cases for the concept role expectation discrepancy are role ambiguity, role distance, role conflict, and role failure. While each of these concepts are very close to role expectation discrepancy, in each case they lack one or two of the critical attributes.

Role ambiguity involves a lack of knowledge of the prescriptive behavior for the new role. This is clearly not the case in role expectation discrepancy.

In role distance the individual sees the new role as incompatible with the self concept. Performance of the new role is viewed as a threat to the self esteem. As a result the behavior which the individual then purposively displays is that which is designed to put distance between or separate the self from the undesirable role (Schofield, 1976, p. 273).

In role expectation discrepancy the new role is desired to enhance self esteem; it is, for the most part, hoped for and anticipated.

Role conflict is a phenomenon in which the person fails to demonstrate instrumental and/or expressive behaviors appropriate to the new role as a result of incompatible expectations from one or more persons in the environment concerning expected behavior (Schofield, 1976, p. 274). In role expectation discrepancy, expectations for the role are similar, but feedback mechanisms (lack of reciprocal cues) are a missing key ingredient.

Role failure occurs when there is an absence of expressive behavior and/or lack of instrumental behaviors appropriate to the new role (Schofield, 1976, p. 282). Role expectation discrepancy represents a varying degree of role failure in that behavior is decreased rather than absent altogether. In addition, role expectation discrepancy focuses heavily on expressive role behavior, the affective component of the new role.

Role mastery and integration clearly demonstrate the contrary cases of role expectation discrepancy. These cases represent the absence of nearly every critical attribute of role expectation discrepancy. Appendix B summarizes these points and illustrates the relationship

of critical attributes in each of these described cases.

#### Theoretical Framework: Theory Development

The approach to the study of role expectation discrepancy was facilitated by using a framework which incorporated aspects of the symbolic interaction approach to role theory including the theory of ease of role transition proposed by Burr (1972). The maternal role attainment framework devised by Rubin (1967a) was also used. Role theory provided a broad foundation for viewing role expectation discrepancy and role integration; Rubin's framework and Burr's reformulation of a theory of role transition provided the means for examining more of the specifics of the role transition of pregnancy.

Role theory is a collection of concepts and a variety of formulations that predict how actors will perform in a given role or under what circumstances certain types of behavior can be expected (Conway, 1978, p. 17). Conway (1978) describes two major perspectives from which roles have been studied in the behavioral sciences. These two points of view are the fundamentalist approach and the interactionist approach. According to Conway (p. 18) fundamentalists tend to view roles as essentially fixed, inflexible positions in society. The conception of role



held by interactionists, on the other hand, is more fluid and dynamic. From this perspective a unique individualized role is developed as the person interacts in society, choosing certain cues over others for reciprocal action; these selected cues have more personal meaning for the individual than other cues.

The interactionist perspective described in this study was based on the work of Mead (1934) and the more recent work of Blumer (1969) among others. From this symbolic interactionist point of view the self is defined as a product of social interactions. Thus, the person comes to know who he or she is by internalizing the attitudes of others as well as by internalizing personal experiences with the environment. In internalizing these attitudes and knowledge, a sense of self, the self-concept, is developed.

According to Meleis (1975) the role that the actor elects to play is a result of voluntary actions that are motivated by the returns expected and actually received from others (p. 265). The role assumed by an individual in a situation is confirmed when others reciprocate by indicating acceptance of the role. Social adjustment results through role modification, and psychological adjustment occurs in the individual's feeling congruence

of self and role (Mercer, 1981, p. 74). Sarbin and Allen (1968) indicated that behavioral changes in accordance with the new role performance precede change in attitudes and feelings concerning the new role. Through the role taking process and interaction with the significant others, each person's roles are discovered, created, modified, and defined.

Another important concept in role theory and one which is pertinent to this study is the concept of role transition. According to Burr (1972, p. 407), role transition refers to the process of moving in and out of roles in a social system. Role transition requires a person to acquire new knowledge, to alter behavior, and ultimately to redefine the self in a new social context. Such a transition is often stressful.

The ease of transition to a role is affected by many variables. These variables include level of commitment to the role, competency, role strain, role conflict, length of time in the role, value of the role, anticipatory socialization, and resources (Burr, 1972). The more mobile, stressful, and dynamic the society, the more intense the effects of role transition are (Meleis, 1975, p. 264). Resources, particularly significant human support, tend to be lacking in these complex societies.

Burr (1972) has constructed an enlightening diagram which synthesizes the results of several studies examining the variables impacting the ease of role transition. This diagram is included as Appendix C.

Pregnancy is one example of a particular role transition. During pregnancy the identification process of the maternal-child relationship begins to develop and progress into the postpartal period; the end result of this process is maternal role identity.

Reva Rubin has contributed much to the clarification of the maternal role transition (1961; 1964; 1967a; 1967b; 1970; 1975; 1977). Many of her ideas are based on the works of symbolic interactionists such as Mead (1934) and Sarbin (1964).

Rubin (1967a) described maternal role attainment as occurring in progressive stages through a series of six operations which serve to encourage the incorporation of the maternal role into the self concept. These operations included the taking-on operations of mimicry and role play; the taking-in operations of fantasy and introjection-projection-rejection; the letting-go operation of grief work and the ultimate result of the entire process, role identity. The operations were described in order of increasing involvement and tended to occur interdependently

and in waves rather than in a linear progression. Role identity involved all parts of the self system: ideal image, self image, and body image. As with any role transition, reinforcement of appropriate role behavior is sought to validate the new role. Rubin (1964) further proposed that whatever discrepancies occurred between role expectations and reality, the resulting dissatisfaction and disappointment might lead to a delay in the identification process. Thus, these discrepancies must be dealt with as a kind of bereavement.

According to Rubin (1970) identification with the pregnant role in early pregnancy is difficult and unstable due to a lack or minimal amount of communication with others to reinforce role expectations. Most signs are subjective and covert; amenorrhea, for example may be the only evidence of this situational transition.

Beginning with the perception of fetal movements and extending throughout the remainder of the typical pregnancy, overt physical signs in the woman's body increase, signaling the existing maternal condition. Both the child within and significant others in the external environment provide the woman with validating signs and reciprocal cues which reinforce maternal role enactment.

A final concept important to the conceptual framework of this study is the concept of obesity. Obesity represents the mask which disguises many of the cues of the pregnant woman role from the audience.

In discussing the concept of role earlier in this study, role enactment was viewed as a dependent variable affected by such independent variables as role clarity and role strain. However, role enactment may also be viewed as an independent variable with social identity as the dependent variable.

How a role is performed in public answers for society the question, "Who is she?" or "Who is he?" Is the actor's performance convincing? Appropriate? In other words, does the role enactment meet societal expectations of that role?

Sarbin and Allen (1968) make the observation that "both the actor and the observer may construct the inferences that establish social identity for the actor. Both are restricted to the cues generated in the interaction, but each may have unique expectations for the role of the actor. Thus, there is always the possibility of a discrepancy between the social identity one assigns to oneself and that assigned to one by another" (p. 554).

When a new role is acquired, role enactment must change. Sarbin and Allen (1968) compared this change in role enactment to "putting on a mask" or "playing a stage role" in order to provide cues to others of the change in identity. The "Who am I?" question may be answered differently when the old mask hides or disguises the performer's new role. Such may be the case with the obese woman who now finds herself pregnant.

Obesity superimposed on the pregnant state can mask the physical signs of advancing pregnancy. In this instance, significant others reinforce only the old identity of "obese person" through their own reciprocal role enactments. They fail to recognize and sanction the new added role of pregnant woman since the obesity masks many of the cues for this role. Thus, it is postulated that the more obese the woman is, the greater will be the discrepancy between societal expectations for the pregnant role and the woman's personal perceptions of herself in the pregnant woman role. This phenomenon of role expectation discrepancy has not previously been referred to in the literature (see Appendix D).

A theoretical model representing the proposed relationship between role expectation discrepancy and cue masking was constructed. Appendix E depicts this model.

### Assumptions

Based upon the theoretical framework presented, the following assumptions were made:

1. Roles are learned.
2. Pregnancy involves a role transition which demands a significant life change.

### Hypotheses

This study is designed to test the following null hypotheses:

1. There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of nonobese primigravidas in the last trimester of pregnancy.
2. There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of moderately obese primigravidas in the last trimester of pregnancy.
3. There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of excessively obese primigravidas in the last trimester of pregnancy.
4. There is no significant difference in discrepancy scores between the ideal role of pregnancy and perception

of self in the role of pregnancy among a group of nonobese primigravidas in the last trimester of pregnancy, a group of moderately obese primigravidas in the last trimester of pregnancy, and a group of excessively obese primigravidas in the last trimester of pregnancy.

#### Definition of Terms

For the purposes of this study, the following terms were operationally defined:

Role expectation discrepancy. Cognitive, affective, and behavioral state occurring at a time of transition to a role for which there are congruent role expectations or correspondence with significant others. The phenomenon arises when prescriptive role behavioral cues are masked or unintentionally concealed from others leading to a state of incongruency between role expectations and role enactment and subsequent reciprocal lack of validating cues from others. Negative affective responses are generated from this discrepancy and demonstrate the degree of difficulty with ease of role transition. The operational definition of role expectation discrepancy for the purposes of this study is the discrepancy score obtained by subtracting the Self Perception in Pregnancy Role Scale score from the Ideal Pregnancy Role Scale score.



Ideal Role of Pregnancy. Qualities, traits, attitudes, and behaviors that each respondent believes express societal expectations for the role of pregnancy. The operational definition of ideal role of pregnancy for the purposes of this study is the score measured by the Ideal Pregnant Role Scale (IPRS) instrument.

Perception of Self in the Role of Pregnancy. Representation of the consistent self (Rubin, 1967a, p. 240) in the role of pregnant woman. The operational definition of perception of self in the role of pregnancy for the purposes of this study is the score measured by the Self Perception in Pregnant Role Scale (SPPRS) instrument.

Moderately Obese Primigravida. A woman experiencing her first pregnancy of thirty to thirty-four weeks' gestation and whose bodily state is such that there is a moderate accumulation of fat in both the relative and absolute sense, that is, the percent of body weight present as fat is moderately greater than normal and the total body weight is abnormally moderately high (White, 1982, p. 191). The operational definition of moderate obesity for the purpose of this study is a nonpregnancy body weight 120% to 139% of the standard weight-for-height-for-age taken from charts established by the Metropolitan Life Insurance Company (Metropolitan Insurance Company, 1983a).

Excessively Obese Primigravida. A woman experiencing her first pregnancy of thirty to thirty-four weeks' gestation and whose bodily state is such that there is an excessive accumulation of fat in both the relative and absolute sense, that is, the percent of body weight present as fat is moderately greater than normal and the total body weight is excessively high (White, 1982, p. 191). The operational definition of excessive obesity for the purpose of this study is a nonpregnant body weight 140% or more of the standard weight-for-height-for age taken from 1983 charts established by the Metropolitan Life Insurance Company (Metropolitan Life Insurance Company, 1983a).

Nonobese Primigravida. A woman experiencing her first pregnancy of thirty to thirty-four weeks' gestation and whose bodily state is such that there is no excessive accumulation of fat. The operational definition of nonobesity for the purpose of this study is a nonpregnant body weight no greater than 120% of the standard weight-for-height-for age as taken from the 1983 charts established by the Metropolitan Life Insurance Company (Metropolitan Life Insurance Company, 1983a).

### Limitations

The limitations of the study are present. Generalizability of the study was limited to the particular study population. All data were obtained in one institutional setting with one particular population of maternity clients. Self-selection for participation in the study rather than a true random sampling technique was used. A possible threat to external validity of the instrument may have occurred with exposure to the research instruments themselves, that is, the reactive effects of the instruments may have caused subjects to alter their attitudes and responses (Polit & Hungler, 1983).

### Summary

An overview for the study of the phenomenon role expectation discrepancy has been provided. The theoretical framework based primarily on role theory was described and justification for the problem explained. Hypotheses, assumptions, definition of terms, and limitations of the study were included.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

#### Role Theory

A review of the literature reveals extensive use of role theory as an organizing framework for research. Examples of work based on role theory appear in a variety of fields; for example, sociology, psychology, nutrition, psychiatry, and nursing.

Conceptions of the nurse's role and discrepancies between ideal perceptions of the role and the reality of the role in the organizational setting were examined by Corwin (1961). Subjects of the study included baccalaureate degree and diploma nursing students and graduates. Corwin found that inherent conflicts between the professional role and the bureaucratic role created varying degrees of role conflict for the student/graduate requiring reclassifying and reassessing of the career and the self.

In a study conducted by Morakinyo and Johnson (1983), nurses' perceptions of their roles were compared with the perceptions which physicians and patients had of the nurses' role. Aims of the research were to explore

underlying reasons for the discrepancies discovered and to examine the effects of the discrepancies in role perceptions on the effectiveness of patient care in Nigeria. Role expectations for the nurse were based on The American Nurses Association Statement of Functions, Standards, and Qualifications, The National League for Nursing Viewpoint on Curriculum Development, and the expert opinions of 40 nurse educators in seven schools of nursing across Nigeria. Results of the study indicated that nurses saw their role as equally technical/instrumental and expressive/humanitarian; physicians and patients, on the other hand, saw the nurse's role as more expressive/humanitarian, with patients in particular being more inclined to this perception.

In a similar study of role perception within a hospital matrix organization, Langill et al. (1981) found a great disparity in the responses of three study groups consisting respectively of physicians, administrators, and staff members. The researchers concluded that the great diversity in responses represented a lack of role clarity within the organization.

Expectation discrepancies were also examined by Bochner, Krueger, and Chmielewski (1982). The researchers discovered that dissatisfaction in the marital relationship

arose when a spouse experienced a discrepancy between expectations set and expectations met; that is, between what one expected one's spouse to do (expectations) and what one perceived the spouse as actually doing (enactment). The less the discrepancy was, the greater the satisfaction and marital adjustment were.

In testing implications drawn from Mead's theory of symbolic interactionism, Stryker (1957) concluded that role taking, the process of adapting one's behaviors to the expectations of others was not always desirable. Following his study of family units consisting of a married pair and the parents of one member of the pair, Stryker stated, "that one will always become better adjusted in the sense of happier or more satisfied, through role taking must . . . be doubted" (p. 295).

Similarly Dessonville et al. (1983) found that rehearsal for the role of widowhood was not related to a better adjustment to bereavement, and, in some cases, was actually associated with a poorer adjustment.

Mead's theory was also used by Bozett (1979; 1981) in his examination of the integration of the roles of father and gay through a process he called integrative sanctioning. Using a grounded theory approach, and a framework based on role theory, the researcher conducted indepth interviews

with eighteen gay men who were or had been married and who were also fathers. Behavioral clustering of the data revealed a series of steps the individual passed through in the process of integrating gay role and father role. The steps were identified as (1) disclosure of the gay identity to the heterosexual world, (2) disclosure of the father identity to the homosexual world, (3) positive and negative sanctioning of the respective roles by significant others, and finally (4) integration in which the gay identity and the father identity became congruent in the self-concept.

Smith (1983) used a variety of concepts from role theory in her factor-isolating exploratory study of how families incorporate a teenage mother and her child into the household during the infant's first year. Three basic patterns of incorporation were identified and labeled role-blocking, role-binding, and role-sharing. Role-sharing was the predominant pattern. Closer examination revealed four steps in the evolution of the role-sharing pattern. These steps were confirmation of the pregnancy to the family, commitment to the new system developing, redefinition of relationships in the family, and finally role-sharing. A developmental framework of family life cycle

theory also contributed to the conceptual basis for the study.

Using a definition of role strain developed by Goode (1960), O'Shea (1982) explored the relationship between role orientation (student-centered or patient-centered) and role strain in 453 clinical nursing faculty in 41 baccalaureate programs across the United States. She concluded that faculty tended to be slightly more student-oriented than patient-oriented but that there was no statistically significant relationship between a faculty's role orientation and the amount of role strain experienced.

A final example of research based on role theory is found in a study by Bedeian and others (1983). The focus of the investigation was on the relationship role ambiguity and role conflict to the outcomes of job performance and job satisfaction. The population studied was nursing employees at a large medical center in the southeastern United States. The researchers found that role ambiguity could be moderated by a variety of factors which would in turn influence job satisfaction, the employees' perceived likelihood of leaving and the job performance as rated by superiors. An important implication of the results, according to the investigators, was that organizations could influence the extent of experienced role strain and



thus affect work-related outcomes of their employees by modifying certain situational characteristics. Similar results were reported in a study by Veninga (1981).

### Role Transition

A multiplicity of role concepts have been examined by researchers; for example, role acquisition (Thronton & Nardi, 1975; Gendron, 1981) and role strain (Goode, 1960; O'Shea, 1982). The process of role transition was the focus of this study.

According to Burr (1972) role transition may involve the addition or termination of a role without any change in other roles. It may also involve the termination of one or more roles and the beginning of another.

While they did not specifically use the term role transition in their writing, Sarbin and Allen (1968) discussed the process of role enactment and the independent variables which impact on this process. These variables included role expectations, role location, role demands, role skills, self-role congruence, and the effects of the audience on role enactment.

Burr (1972) offered a more specific framework for the conceptualization of role transition in his paper "Role Transition: A Reformulation of Theory." Based on the

initial work of Cottrell (1942), the proposal offered nineteen propositions which delineated direct hypothesized relationships between the dependent variable ease of role transition and the independent and intervening variables, amount of anticipatory socialization, role clarity, role conflict, role strain, role incompatibility, amount of role compartmentalization, total amount of activity normatively prescribed, degree to which the role facilitates goal attainment, value of goals, length of time in a role, availability of substitute gratifications, importance and/or definiteness of the transition procedure in role transition, and finally the amount of normative change that occurs in a role transition. Appendix C contains a diagram representing the relationships of these variables as proposed by Burr.

The literature reveals further examination by other researchers of a variety of specific role transitions. Several examples of these studies are included to demonstrate the variety of transitions which have been explored.

Wood (1981) analyzed a selection of bereavement studies in order to scrutinize the role transition from wife to widow. Wood described this transition as a time for reassessing one's view of the world and one's part in

that world. The grieving process was viewed as the individual's way of restoring equilibrium to life, of regaining balance.

Howell and Frese (1982) examined predictor variables in fifth- and sixth-graders in search of determinants of early transition into adult roles. These transitions involved the changing from student to spouse, to parent, or to school dropout. Unlike the findings in other studies, the results of this study revealed that the determinants of early transition to the role of parent or spouse did not appear to be the individual's socioeconomic origins, parental childrearing techniques, academic ability, academic performance, or preadolescent aspirations. Only dropping out of school early appeared to be related to preadolescent career decisions and academic performance in high school.

#### Transition to Parenthood

The transition to parenthood is a role transition particularly germane to the study presented here. A number of investigators have examined this important role transition.

In her writings, Benedek (1959) discussed parenthood as a developmental phase. A psychoanalytical perspective

was adapted, and the libido theory of psychosexual development incorporated. According to Benedek "personality development continues beyond adolescence, under the influence of reproductive physiology and . . . parenthood utilizes the same primary processes which operate from infancy on in mental growth and development" (p. 389).

Rossi (1968) compared the transition to parenthood with the transitions of marriage and career. In her paper, she concluded that the transition to parenthood was more difficult than marital or occupational adjustment in American society due to four primary factors. These factors included (1) varying degrees of cultural pressure to assume the role of parenthood, (2) a shift from marriage to the first pregnancy as the major transition point in adult women's lives, (3) the abruptness of the transition to parenthood at childbirth, and (4) the lack of guidelines and preparation for successful parenting in American society.

Van House (1976) compared the emotional status of expectant mothers and expectant fathers with the emotional status of couples who had had a child within a calendar year of the testing period. Three personality variables were examined as measures of emotional stability, perception of internal-external control, and parental role

identification. Two significant results were found: (1) expectant mothers tended to identify more often with parental figures than present mothers did and (2) present fathers were found to be less emotionally stable than expectant fathers. The four remaining comparisons failed to show significant differences.

Wylie (1977) conducted a study to determine the relationship between selected variables and ease of transition into parenthood. Significant positive relationships were found between prenatal expectations and age while a significant negative relationship between education and ease of role transition occurred. There was no significant relationship between ease of role transition and the variables of preparation for the role, role consensus between spouses, role incompatibility, planned pregnancy, and perceived importance of the role. The researcher concluded that expectations of an experience appeared to be a strong determinant of the perception of that experience.

In a study by Duncan (1984) adaptation to parenthood was assessed in relation to the variables of feelings of anxiety and sadness, marital adjustment, life stress, division of labor/decision making, parenting problems, and satisfaction with parenting. The investigator

concluded that the transition to parenthood was not a particularly traumatic time for the study sample of largely well-educated and well-prepared parents; the problems of parenthood appeared to be offset by new satisfactions and pleasures.

Similar results were reported by Lenz et al. (1985). These investigators reported positive changes in intimacy and the overall marital relationship were positively related to marital quality at four months postpartum.

A particularly relevant study investigating the transition to parenthood was conducted by Meleis and Swendson (1978). The researchers postulated that "life change had the potential for producing stress which, in turn, could lead to consequences such as anxiety, depression, inability to cope, or psychiatric problems" (p. 11).

In an earlier work Meleis (1975) used the term role insufficiency to describe "any difficulty in the cognizance and/or performance of a role or of the sentiments and goals associated with the role behavior as perceived by self or by significant others" (p. 266). Meleis hypothesized that once the diagnosis of role insufficiency was made, the nursing intervention of role supplementation might be used to assist the client. To test this

hypothesis, an extensive study using an experimental design was formulated using a conceptual framework based on the symbolic interactionist's approach to role theory as well as selected propositions from Burr's theory of role transitions. The extensive investigation involved three study groups with a total of fifty-eight couples. From twelve to twenty-eight contacts (prenatal classes, phone calls, visits, etc.) were made with the experimental group during the course of the year-long study. A total of twenty-four tests were administered to all subjects involving the use of some twenty different research instruments. The results of the study yielded several statistically significant findings. First, the actual birth of the infant helped to improve the role perceptions of husbands (to more equalitarian perceptions) more than did participation in the role supplementation intervention or FamCap program. Secondly, husbands who consented to participate in the role supplementation program originally manifested a significantly higher level of anxiety than the control group or the FamCap group. Following the nursing intervention, the anxiety level of the experimental group husbands was significantly lower and the mean anxiety level for all groups became comparable. Thus, anxiety level increased during the study in all

participants, especially women, except in experimental group husbands; role supplementation apparently succeeded in lowering the level of anxiety in these husbands.

From the general topic of transition to parenthood, several investigators narrowed the scope of their research to one of the two complementary parental roles--fatherhood or motherhood. Evans (1978) and Cronenwett and Kunst-Wilson (1981), for example, concentrated their investigative efforts on the role of fatherhood.

Using Meleis and Swendsen's study (1978) of role insufficiency as a conceptual base, Evans (1978) examined the role transition of the father. An experimental design was used to examine the effect of role supplementation on the role evaluation for a volunteer group of forty-one first-time expectant fathers as compared to the control group of thirty-eight first time expectant fathers. The experimental treatment consisted of one two-hour session designed to allow the experimental group of fathers in attendance an opportunity to express their fears and concerns related to their anticipated roles as new fathers (p. 57). The investigator concluded that the experimental prenatal treatment was shown to be insufficient to produce a significant change in the ideal or



actual role evaluations of the first-time expectant fathers who participated in the study.

In a paper entitled "Stress, Social Support, and the Transition to Fatherhood," Cronenwett and Kunst-Wilson (1981) noted that the transition to parenthood had been examined from a variety of theoretical perspectives; for example, developmental tasks approach, crisis framework, and a framework that used life change units as indicators of crisis. They added that while specific findings differ according to the framework used, there was general agreement among researchers that becoming a parent was a stressful event. In addition, they found that some efforts supported the idea that social support was an important mediator of the effect of stress on health. Cronenwett and Kunst-Wilson recommended that the proposed relationship between social support and the stress associated with the transition to parenthood needed further clarification and additional research (p. 196).

#### The Maternal Role

Numerous studies of the maternal role have been conducted. A representative sample of these studies is included.

Pickens (1982) conducted a descriptive study of five career-oriented women who had recently delivered healthy infants. The study was designed to determine the processes used by career-oriented women to reformulate identity and to learn more about how the maternal role is integrated with the career role. Using content analysis of unstructured semi-directive interviews and identification of clusters of behaviors, the researcher identified six processes involved in the integration of the new maternal role. These processes were reviewing, projecting, planning, cost accounting, weighing, and assessing. Many of these processes were similar to Rubin's findings described below (1967a, 1967b).

In a descriptive study by Curry (1983) twenty-five percent of the twenty women in the study group reported that they experienced a very difficult adaptation to motherhood. Adaptation was found to be related to the variables of previous experience with infants and children, perception of support from postpartum nurses and husbands, help during the first week at home, and postpartum self-concept.

Majewski (1986) also examined the transition to the maternal role in a correlational descriptive study of eighty-six first-time postpartum mothers. The study

examined relationships among the variables of employment status, role conflict, marital satisfaction, employment role attitude, and ease of transition to the maternal role. A significant finding in this study was that mothers who had attended a parent support group regardless of their work status, experienced more conflict between the parent and self roles; these women also tended to have more difficulty making the transition to the maternal role.

Using Kelly's theory of Personal Construct Psychology which proposed that an individual's processes are psychologically channeled by the way in which events are anticipated, Alden (1984) examined the quality of changes in self-concept and interpersonal construct systems during the transition of first pregnancy. The investigator concluded that new transitions involve expectations which have a greater probability of proving false than expectations of repeated events.

Several investigators concentrated their research efforts on the development of instruments to measure various aspects of the motherhood role. Schaefer, Bell, and Bayley (1959) and Schaefer (1959) constructed the Maternal Behavior Research Instrument for the purposes of providing a means of organizing and quantifying maternal behavior as the mother interacted with her child. The

tool was also designed to permit reliable ratings by relatively unskilled personnel. Interrater reliabilities ranged from 0.75 to 0.95 with a median combined reliability of 0.85.

Rees (1979, 1980) developed an instrument which was aimed at measuring a primigravida's identification with the mothering role. The construct, identification with the mothering role, was defined as "the extent to which a woman formulates a mental conception of the attitudinal and behavioral attributes that characterize a mother and then assumes these attitudinal and behavioral attributes herself" (1980, p. 49). Rees proposed that the concepts of Feelings of Motherliness (M Scale), Conception of the Fetus as a Person (F Scale), and Appropriateness of the Fantasies about the Baby-To-Be (B Scale) represented three different aspects of the construct, identification with the mothering role. She developed three summated rating scales designed to measure these three concepts. Using Cronbach's coefficient alpha, estimations of internal consistency for the final version of Scales M, F, and B were 0.87, 0.89, and 0.68 respectively.

Kumar, Robson, and Smith (1983) developed a 60-item, self-administered questionnaire, Maternal Adjustment and Maternal Attitudes (MAMA). This tool was designed to

measure a mother's perceptions of her body, of somatic symptoms, the marital relationship, attitudes toward sex, and attitudes to the pregnancy and the baby. Reliability of the questionnaire was examined by the test-retest method and the split-half reliability. Test-retest correlation coefficients ranged from 0.81 to 0.95. Split-half reliability correlation coefficients ranged from 0.58 to 0.82. Validity was established by comparing MAMA scores with a variety of independent measures designed to measure the same attributes as the MAMA subscales.

One of the most well-known investigators of motherhood and maternal role attainment is Reva Rubin. In one investigation, Rubin (1967a, 1967b) studied nine women throughout their pregnancy and for one month following delivery. Using a qualitative research approach, she described maternal role attainment as it occurred in progressive stages through the operations of mimicry, role play, fantasy, introjection-projection-rejection, and grief work (1967a).

Rubin also proposed four tasks of pregnancy which she called the "qualitative matrix of mothering." The tasks were seeking safe passage for herself and her child through pregnancy, labor, and delivery; insuring acceptance of the child she bears by significant persons in her

family; binding-in to her unborn child, and learning to give of herself (1975, p. 114). Rubin carefully described the women's behaviors as they worked on each task throughout the three trimesters of pregnancy.

Using a theoretical framework based on role theory and Rubin's maternal attainment theory, Mercer (1981) developed a theoretical model for studying a number of variables that influence or are influenced by the maternal role. She believed that role acquisition was a process that developed over four stages--the anticipatory stage which was a period occurring prior to actual role incumbency during which the individual began to make social and psychological adjustments to the role by learning the expectations of the role, the formal stage which begins with actual role incumbency and during which role behavior is largely guided by the consensual expectations of others in the individual's social system, the informal stage which begins as the individual develops unique ways of dealing with the role which are not conveyed by the social system, and finally, the personal stage in which an individual imposes a particular style on the role performance and others largely accept the enactment (p. 74). The infant was considered an active partner in the maternal

role-taking process and affected role enactment as well as was affected by that role enactment.

Using this role acquisition framework Mercer (1985) conducted a study to explore the process of maternal role attainment in three age groups over the first year of motherhood. She defined maternal role attainment as "a process in which the mother achieves competence in the role and integrates the mothering behaviors into her established role set so that she is comfortable with her identity as a mother" (p. 198). The concept was operationalized and measured using a series of four previously developed tools: (1) Feelings About the Baby, (2) Gratification in the Mothering Role, (3) interviewer-rated Maternal Behaviors, and (4) self-reported Ways of Handling Irritating Child Behaviors. From the study findings she concluded that role attainment behaviors did not show a positive linear increase over the year, but rather behaviors peaked at four months postbirth then declined at eight months. Walker, Crain, and Thompson (1986) extended Mercer's work to examine subjective and behavioral components of maternal role attainment in postpartal women.

#### The Pregnant Woman Role

In the career of motherhood, pregnancy has been recognized as a time when individuals begin to form images

of themselves as mothers and make adaptations to function in their evolving new roles as parents (Wuerger, 1976). Several researchers have investigated the interaction of women and their fetuses during this period.

Leifer (1977) extensively studied women's involvement with their fetuses. Several attachment behaviors were identified; for example, talking to the fetus, reprimanding the fetus for moving too much, offering food to the fetus when the mother was eating, calling the fetus by a pet name, engaging the husband in conversations with the fetus, and pushing the fetus around in order to watch the movement or so the husband could observe the movement.

Cranley also examined the phenomenon of maternal-fetal attachment. She defined this term as the "extent to which women engage in behaviors that represent an affiliation and interaction with their unborn child" (1981a, p. 282). She developed the Maternal-Fetal Attachment Scale which contained five subscales: differentiation of self from the fetus, interaction with the fetus, attributing characteristics and intentions to the fetus, giving of self, and role-taking. Cronbach's alpha coefficient of reliability was 0.85 for the total scale; the subscales had coefficient alphas ranging from 0.52 to 0.73.



A modification of Cranley's Maternal-Fetal Attachment Scale was used in a later study by Weaver and Cranley (1983) to explore the attachment process between father and fetus. Scores on the Paternal-Fetal Attachment Scale were positively correlated ( $r = 0.51$ ;  $p = 0.01$ ) with the strength of the marital relationship as perceived by the expectant father during pregnancy. A weakly positive association ( $r = 0.22$ ;  $p = 0.05$ ) was shown between paternal-fetal attachment and the incidence of physical symptoms resembling pregnancy in the expectant father.

Studies abound related to psychosocial or emotional aspects of pregnancy. An idea of the scope of these studies is revealed by an examination of examples of investigated topics. Such topics included psychological processes in pregnancy and the earliest mother-child relationship (Bibring et al., 1961); satisfaction during pregnancy (Meyerowitz, 1970); gender role identity and self-concept in late pregnancy (Brouse, 1984, 1985); and psychological factors in pregnancy related to progress in labor (Lederman, Lederman, Work, and McCann, 1977, 1979, 1981a, 1981b; Lederman, 1984). Body image during pregnancy has also received considerable attention by researchers (Carty, 1970; Iffrig, 1972; Tolor and Degrazia, 1977; Slade, 1977; Burritt and Fawcett, 1980;

Strang and Sullivan, 1985; Fawcett, Bliss-Holtz, Haas, Leventhal, and Rubin, 1986).

A more relevant area of investigation for the purpose of this study is the area of pregnancy as a social role. Though limited in number, several studies were found involving the role of pregnancy. Most of these studies compared the role of pregnancy with the traditional sick role.

A primary investigator in the area was sociologist William R. Rosengren (1962a, 1962b). Using Parsons' concept of the "sick role" Rosengren conducted several investigations into the adoption of a "sick role" model during pregnancy. The purpose of one such was to "attempt to determine the sociocultural attributes of women who express sick role expectations during pregnancy" (1962b, p. 213). Rosengren's hypothesis, that women who expect to enact the sick role during pregnancy would be characterized by general social instability, was supported. Measures of conflicts in cultural values and measures of self-esteem were used as indicators of social stability (1962a).

Auerbach (1976) examined pregnancy as a process during which women interact with doctors and husbands in ways which help define their roles before, as well as during the childbirth experience. The findings of Rosengren mentioned

above were retested in Auerbach's study. His original proposal that "social class and illness conditions would support sick role assumption during pregnancy" was not supported (p. 3918-A). The husband was perceived to support whatever role the wife took. Women were found to act as if they were healthy throughout the pregnancy. Interestingly enough, however, they perceived that their husbands supported their assuming the sick role during pregnancy. Doctors were also perceived by the women as supporting sick role assumption during pregnancy; doctors who were most perceived as supporting sick role assumption during pregnancy were also found to be more mechanistic in approach to prenatal care and delivery; that is, they used more medication and included the patient and her husband less in decisions of care. Finally, although Rosengren had speculated in his work that childbirth preparation might operate in favor of nonsick role assumption, Auerbach's study indicated that such preparation was less important than age and parity in supporting nonsick role behavior. The socialization of the woman to parenthood occupied a more important position in predicting her behavior during pregnancy than other social factors, even outweighing the support for sick role behavior by both the doctor and the husband (p. 3918-A).

Martindale (1977) also examined the pregnant role in relation to Parsons' "sick role" model. Her study focused on how pregnancy was perceived by pregnant women and the extent to which they adopted the sick role as delineated by Parsons, as well as how they perceived the physician's role. Questionnaires from 122 subjects were analyzed with the following results. Most women did not define pregnancy as illness. Three distinct pregnancy roles emerged in the study: the Normal Pregnant Role, the Abortion Role, and the Complicated Pregnant Role. The Normal Pregnant Role contradicted Parsons' "sick role" model in that pregnant women adopting this role were characterized by (1) nonexemption from social role obligation, (2) the taking of responsibility for one's condition, and (3) the seeking of preventive medical care.

### Obesity

The final area of relevance to this study is the topic of obesity. Theoretical and operational definitions of obesity, proposed etiologies of obesity, the "fat person" role, and obesity in pregnancy were examined in the literature review.

The review of the literature revealed a number of definitions for obesity (Burton & Foster, 1985; Metropolitan

Life Insurance Company, 1983b; Rose et al., 1982). Perhaps the most comprehensive definition was offered by MacBryde (1964) and subsequently adopted by other researchers (Craft, 1972; White, 1982). In these writings obesity was defined as "that bodily state in which there is an excessive accumulation of fat in both the relative and absolute sense; that is, the percentage of body weight present as fat is greater than normal and the total body weight also is abnormally high" (MacBryde, 1964, p. 1308).

Operationally, obesity has been defined in three major ways: Relative Body Weight, Body Mass Index or Quetelet's Index, and triceps skinfold thickness. Regarding these measures, researchers (Sood et al., 1984; Burton & Foster, 1984; Metropolitan Life Insurance Company, 1983b) concluded that the Relative Body Weight and the Body Mass Index were the two best indicators of obesity; skinfold thickness was subject to more error than was desirable. Sood and others (1983) reported no significant differences in the prevalence rates for obesity given by the Body Mass Index and the Relative Body Weight.

The cut-off point between obesity and nonobesity revealed some variation in standards among researchers. Craft (1972) and Orr (1984) operationally defined obesity as a condition in which body weight was 15% above the ideal

weight for the individual's age, sex, and height. Young and Powell (1985) used 40% above the client's best weight or desirable weight as the demarcation between obesity and nonobesity. The majority of studies reviewed, however, (Roe et al., 1982; White 1982; Palgi et al., 1985) used 120% of the standard weight or greater for height for age as the equivalence for obesity.

Factors described in the literature in regard to the etiology of obesity were multiple and included genetic, metabolic, endocrinal, emotional, and social elements (Horsfall, 1985; White, 1982; Craft, 1972). The social aspect of obesity and its relation to the pregnant role were the focal interest of this study.

Schroeder (1981) pointed out that fat people engage in playing the "fat role." The fat role encompassed not only situations of overeating and dieting but a cluster of emotional attributes and beliefs as well. Steiner (1979) likewise discussed the "script of fat people" in his book Scripts People Live: Transactional Analysis of Life Scripts.

Craft (1972) and Kalisch (1972) described society's negative view of the obese role. Craft further proposed that these negative feelings toward obesity were reflected in attempts by society to deny existence of the obese

state; for example, by the use of size 10 models only to display clothing in department stores.

The attitudes of health professionals toward the obese likewise often reflected the attitudes of society in general. In a study by Young and Powell (1985), for example, different standards of mental health were applied to the obese and nonobese. The researchers found that mental health workers in the study group were more likely to assign negative psychological symptoms to the obese model than to the overweight or best-weight model. In addition, male respondents were less negative than female respondents in their assessment of the obese female model client.

One paper was found which addressed obesity and pregnancy. McBride (1982) examined the psychosocial and physiologic aspects of obesity in women during the child-bearing years. In her writing she analyzed five key issues that she believed shape women's physical appearance during these years. The five components contributing to obesity were (1) inclination to conform to social standards of appearance, (2) desire to be "more" than the "little woman," (3) motherhood itself as a physiologically fattening state, (4) emphasis on little exercise and increased cooking, and (5) the rôle of woman as nurturer.

While a great deal of work has been done in the area of maternal role attainment and some work done in the area of the pregnant role, no study was found which specifically addressed the issue of the influence of obesity on the assumption of this pregnant role. It is the aim of the current investigation to extend knowledge in this area.

#### Summary

A review of the literature has provided a sociological, psychological, medical, and nursing perspective of role theory, role transition, transition to parenthood, maternal role attainment, the pregnant role, and obesity. The paucity of literature dealing with the relationship between obesity and pregnant role attainment suggested a need to investigate this aspect of maternal-child health.



### CHAPTER III

#### PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

A descriptive comparative study design was used to examine levels of role expectation discrepancy in nonobese, moderately obese, and excessively obese primigravidas in the final trimester of pregnancy. The women who agreed to participate in this study were attending prenatal clinics in a large metropolitan health sciences center.

The concept role expectation discrepancy had not been investigated in any other study. For this reason and after careful concept analysis, two researcher-developed instruments were devised: the Ideal Pregnant Role Scale (IPRS) and the Self Perception in Pregnant Role Scale (SPPRS). In order to focus the study, items for the instruments were developed using the concepts from general role theory and Rubin's maternal role attainment theory as well as incorporating the current literature regarding pregnancy.

#### Setting

Data was collected from subjects attending a women's clinic for prenatal care in a large metropolitan city

in midwestern United States. The clinic was a part of a sizable health sciences complex and provided both prenatal care and gynecological care for women in the surrounding metroplex area. The women's clinic contained several subclinics which were staffed by nurse practitioners, certified nurse midwives, OB-GYN residents, family medicine residents, and attending OB-GYN physicians. The subclinics used in this study were the Return OB clinic, the Nurse Practitioner Return OB clinic, and the Nurse Midwives' Prenatal clinic. Data collection took place from January, 1987 through June, 1987, on Thursdays and Fridays during the clinics' operating hours, approximately 7:45 a.m. to 4:30 p.m.

#### Population and Sample

The sample for this study was drawn from a population of pregnant women attending the Return OB clinic, the Nurse Practitioners' Return OB clinic, and the Nurse Midwives' Prenatal clinic. Approximately 1,100 visits occur each month among the three clinics. While the clinics provide services to all socioeconomic levels and cultural groups, the vast majority of the clientele were in the lower socioeconomic category.

General criteria for admission to the study included: (1) the ability to speak and write English, (2) between the ages of 18 and 34 years, (3) primigravida, and (4) between 30 and 34 weeks' gestation. Weeks' gestation was determined by the respective health care clinicians using the parameters of menstrual history, fundal height, ultrasound determinations, and occurrence of physical signs such as detection of fetal heart tones and the mother's report of quickening.

In addition to these general criteria, three additional weight criteria were used to place subjects in the three study groups. Subjects in the moderately obese group consisted of individuals having a nonpregnant body weight 120% to 139% of the standard weight for height for age taken from 1983 charts established by the Metropolitan Life Insurance Company. This group was composed of 25 subjects. Subjects in the excessively obese group consisted of individuals having a nonpregnant body weight 140% or more of the standard weight for height for age taken from the 1983 charts established by the Metropolitan Life Insurance Company. This group was composed of 23 subjects. Finally, subjects in the nonobese group consisted of individuals having a nonpregnant body weight not greater than 120% of the standard weight for height for

age taken from 1983 charts established by the Metropolitan Life Insurance Company. This group was composed of 49 subjects.

A nonrandom sampling technique was used to select subjects from the clinic population. The sample consisted of 97 individuals who volunteered to participate in the study and who met the study's eligibility criteria. Subjects were distributed among the three subclinics as follows: Nurse Midwives' clinic - 8 subjects; Nurse Practitioners' Return OB clinic - 23 subjects, and Return OB clinic - 66 subjects.

#### Protection of Human Subjects

Approval for the study was obtained from the investigator's Research Committee, the Dean of the College of Nursing (see Appendix F), and the Provost of the Graduate School, Texas Woman's University (see Appendix G). Since the research project involved essentially no risk to the subjects and consisted only of the completion of an anonymous questionnaire by the subjects with no follow-up contacts, it was exempt from submission to the Human Subjects Review Committee at Texas Woman's University.

Institutional permission to conduct the research was obtained from the Nursing Research Forum, State of

Oklahoma Teaching Hospitals (see Appendix H), and from the University of Oklahoma Health Sciences Center Institutional Review Board (see Appendix I). Protection of potential subjects during the participant selection process is further explained in the section entitled Procedure.

#### Instrument Development

Three instruments were developed by the researcher for this study. They were the Demographic Data Sheet, the Ideal Pregnant Role Scale (IPRS), and the Self Perception in Pregnant Role Scale (SPPRS). The final forms of these tools are found in Appendices J, K, and L, respectively. The method for creating the research tools to measure role expectation discrepancy in pregnancy was adopted from the procedure for questionnaire development outlined by Waltz et al. (1984, pp. 275-281).

Instrument development began with a concept analysis of the construct role expectation discrepancy. The purpose of the analysis was to identify major aspects of the construct. Three principle areas of role expectations were identified for item development. These areas were behavioral aspects of the pregnant role, affective aspects of the pregnant role, and social aspects of the pregnant role.

Behavioral aspects of the pregnant role was defined as the motoric cues, consisting of acts and appearances which are overtly displayed by the role occupant and which serve to help others identify the person as occupying a particular position. According to Sarbin and Allen (1968) behavioral aspects include (1) gross skeletal movements, (2) verbal acts, (3) physique, (4) clothing, (5) posture, (6) gait, (7) adornments, and (8) visible emblems and "badges of office."

Affective aspects of the pregnant role were defined as the expected emotional overtones which would occur as the role of pregnancy is enacted. Affective aspects include (1) feelings of women in regard to pregnancy, (2) attitudes regarding pregnancy, and (3) general feeling tones present during pregnancy.

Social aspects of the pregnancy role were defined as the expected relationships with others as the role of pregnancy is enacted. Social aspects include (1) general kind and quality of relationships with others, (2) expectations of behavior of others toward pregnant women, and (3) amount of contact with others during pregnancy.

Specific questions for the tools were developed in three major ways: (1) a review of relevant literature, (2) examination of personal clinical and nonclinical

experiences, and (3) suggestions from experts in the maternal-child field. Questions were periodically reviewed by colleagues to evaluate clarity, accuracy of wording, simplicity of terminology, degree of ambiguity, readability, and comprehensiveness. In this manner, sixty-one items were generated. The questionnaire form had the following composition: 22 items related to the behavioral aspects of the pregnant role; 20 items related to the affective aspects, and 19 items related to social aspects.

Once the items were generated, they were assigned a number from one to sixty-one. A table of random numbers was then used to order the numbered items. The completed questionnaires and rating instructions were then submitted to a panel of experts (see Appendix M). The panel consisted of two nurse midwives who were also members of a graduate nursing faculty and one maternity nurse clinician who was also a member of a baccalaureate nursing faculty.

The panel was first asked to determine if the item was relevant to the role of pregnancy. Next, the experts were asked to categorize each item as representative of a behavioral aspect of the pregnancy role, an affective aspect of the pregnancy role, or a social aspect of the pregnancy role. Items which were classified similarly by all three experts were retained for inclusion in the

second form of the questionnaire. The second form consisted of 39 total items; there were eight items related to behavioral aspects of the pregnancy role, 16 items related to affective aspects, and 15 items related to social aspects.

Intrarater reliability was checked by resubmitting the 61-item questionnaire approximately three weeks after the initial rating. There was an 84.6% consistency of response for the total 61-item tool and 100% consistency of response for the 39-item version.

The original 61-item questionnaire was drafted in two forms. Part One, the Ideal Role of Pregnancy Scale (IPRS), consisted of the 61 items previously described; subjects were asked to use a Likert-like scale to evaluate what they thought most people believed about the role of pregnancy. Part Two, the Self Perception of Pregnant Role Scale (SPPRS) consisted of the same 61 items reworded to reflect a personal perspective of the pregnancy role; respondents were asked to mark the column that they believed best described their personal perceptions about their own current pregnancy role.

The questionnaire was pilot-tested on two sample groups--a group of nonpregnant individuals in the



childbearing years and a group of pregnant women. Results were tabulated and scored. Internal consistency for the first form of the questionnaire with 61 items as well as the second form of the questionnaire with 39 items was determined. Cronbach's alpha coefficient of reliability for each of the total scales is found in Table 1.

### Setting

Data collection for the pilot study was done through the use of a researcher-developed instrument. The questionnaires were distributed to people in a large metropolitan city in the midwest. The instruments were completed privately in a setting selected by the subjects and returned by mail to the researcher.

### Sampling

Two groups were used for the pilot study: (1) a group of forty-eight individuals randomly selected from a class of 128 junior-level students in a baccalaureate nursing program located on the urban campus of a large midwestern university and (2) a group of 18 pregnant women from a prepared childbirth class and individual subjects in a health sciences center complex.

Table 1

Estimations of Internal Consistency for the Ideal  
Pregnant Role Scale (IPRS) and Self Perception in  
Pregnant Role Scale (SPPRS)

Scale	Number of cases	Cronbach's Alpha
IPRS		
61 items	45	0.77
39 items	48	0.74
SPPRS		
61 items	17	0.81
39 items	17	0.91

For the first group a table of random numbers was used to select subjects from the class of 128 junior baccalaureate nursing students. Of the 48 questionnaires distributed 37 (77%) were returned. A nonrandom sample consisting of 18 pregnant women who volunteered to participate in the study was obtained for the second group.

#### Protection of the Subjects

The following steps were taken in order to protect the rights and welfare of the individuals involved in this pilot study:

1. Permission was requested and received from the Research Request Review Committee of the University of Oklahoma College of Nursing to place questionnaires in the baccalaureate students' University mailboxes.
2. Subjects were told the purpose of the study in a cover letter on the research instruments (see Appendix N).
3. Participation in the study was on a voluntary basis. Completion and return of the questionnaire served as the subjects' consent to participate.
4. Code numbers were placed on each questionnaire for the purpose of sending follow-up reminders

only. They were not used to identify subjects when results were tabulated.

5. No participant was referred to by name in the presentation of the results of the pilot study.

### Instruments

Three researcher-developed instruments were specifically designed for this study (see Appendices J, K, and L). These tools were the Demographic Data Sheet designed to elicit descriptive information concerning important sample population variables, the Ideal Pregnant Role Scale (IPRS) to measure societal expectations of the pregnant role, and the Self Perception in Pregnant Role Scale (SPPRS) to measure perceptions of the self in the role of pregnancy. A detailed description of the tool development process was included earlier in the text.

### Data Collection

In order to collect information about societal expectations concerning the role of pregnancy, the Ideal Pregnant Role Scale (IPRS) was distributed to two groups. The first group consisted of 48 baccalaureate nursing students. The second group of subjects consisted of women in various stages of pregnancy. Subjects were either mailed or given copies of the three research

instruments and asked to complete the tools; place them in the enclosed stamped, addressed envelope, and then mail these to the investigator.

### Results

Following collection of the questionnaires, the data was tabulated. Results are presented below.

The number of subjects in Group I, the nonpregnant sample, was 37. The number of subjects in Group II, the pregnant women sample, was 18. The total number of subjects in the pilot was 55.

Table 2 presents demographic data regarding sex, age, marital status, ethnicity, and religion for Group I, Group II, and the total sample population. This table illustrates that the majority of subjects in Group I were female, between 20 and 25 years of age typically, mainly single, caucasian and protestant. Subjects in Group II were all female, typically between 30 and 35 years of age, married, white, and protestant. On a whole the majority of the entire sample population was typically female, between 20 and 25 years of age, married, white, and protestant.

Table 3 shows data regarding the educational level of the sample pilot study population. Generally speaking,

Table 2

Demographic Variables for Pilot Study Sample Population

Characteristic	Group I n = 37		Group II n = 18		Total n = 55	
	No.	%	No.	%	No.	%
Sex						
Male	3	8.1	0	0.0	3	5.5
Female	34	91.9	18	100.0	52	94.5
Age						
15-20	2	5.4	1	5.6	3	5.5
20-25	24	64.9	6	33.3	30	54.5
25-30	5	13.5	4	22.2	9	16.4
30-35	2	5.4	7	38.9	9	16.4
35-40	2	5.4	0	0.0	2	3.6
40-45	1	2.7	0	0.0	1	1.8
45-50	1	2.7	0	0.0	1	1.8
Marital Status						
Single	21	56.8	1	5.6	22	40.0
Married	15	40.5	16	88.9	31	56.4
Divorced	0	0.0	1	5.6	1	1.8
Cohabiting	1	2.7	0	0.0	1	1.8
Ethnic Background						
Caucasian	36	97.3	14	77.8	50	90.9
Native American	1	2.7	4	22.2	5	9.1
Religion						
Catholic	6	16.2	5	27.8	11	20.0
Protestant	26	70.3	6	33.3	32	58.2
Other	4	10.8	6	33.3	10	18.2
No Preference	1	2.7	1	5.6	2	3.6

Table 3

Highest Educational Level for Pilot Study Sample Population

Educational Level	Group I		Group II		Total	
	n = 37		n = 18		n = 55	
	No.	%	No.	%	No.	%
Grade 10-12	0	0.0	3	16.7	3	5.5
Some college work	26	70.3	3	16.7	29	52.7
Jr. college/Voch. tech.	8	21.6	6	33.3	14	25.5
Baccalaureate degree	3	8.1	0	0.0	3	5.5
Postgraduate work	0	0.0	2	11.1	2	3.6
Master's degree	0	0.0	4	22.2	4	7.3

the subjects in Group II tended to have a higher educational level than the subjects in Group I.

A variety of occupations were listed in both Group I and Group II. The main occupation of the individuals in Group I was listed as "student". In Group II, the majority of the subjects (61.1%) listed their main occupation as educator, nurse, or computer operator.

The spouses' occupations varied in a manner similar to that of the subjects' occupations. Once again, the individuals in Group II reflected a higher socioeconomic level than individuals in Group I.

The groups varied in regard to actual experience with pregnancy. The majority of subjects in Group I (73%) had not been pregnant. All of the subjects in Group II, however, had had at least one pregnancy. For over 50% (55.6%) of Group II, this current pregnancy was the first full-term pregnancy the subjects had had.

The length of gestation for subjects in Group II varied from 4 weeks to 38 weeks. Two subjects reported a gestation length of 1 to 12 weeks; two subjects reported a gestation length of 13 to 24 weeks. The majority of subjects (77.8%) reported gestation lengths of 25 to 38 weeks.



The weight-height ratio was examined for the members of Group II to determine if any of the subjects fit the proposed study definition of obesity (a nonpregnant body weight equal to or greater than 120% or more of the standard weight for height for age taken from the 1983 charts established by the Metropolitan Life Insurance Company). All 18 of the pregnant subjects in Group II fell into the nonobese weight group.

Sources of information about the role of pregnancy were next examined. In Group I the most frequently checked sources were textbooks (73%), "my mother" (67.6%), "my friends" (45.9%), classes in high school (45.9%), and classes in college (43.2%). Of the 18 subjects who indicated THE MOST IMPORTANT RESOURCE about the role of pregnancy, 40.5% rated their first choice as classes in college followed by "my mother" (13.5%). In Group II, the most frequently checked sources were "my mother" (61.1%), "my friends" (61.1%), "my relatives" (50%), and textbooks (50%). The most frequently marked sources in Group II for THE MOST IMPORTANT RESOURCE were courses in college (16.7%) and textbooks (16.7%).

Finally, subjects were asked to indicate how much they believed their perceptions of the pregnancy role matched or were congruent with beliefs about the role of pregnancy

held by the general public. Twenty-five (69.4%) of the subjects in Group I felt their beliefs were pretty much like, or very much like, the views of most people; 3 (8.1%) were neutral on the issue, and 8 (21.6%) felt that their views were not very much like or were very different from the views of most people on this subject. In Group II, 13 (72.2%) of the respondents believed that their views about the role of pregnancy were pretty much like or very much like others regarding the pregnancy role; 5 subjects (27.8%) felt that their views were not very much like or were very different from other people regarding the role of pregnancy.

Next, scores from the questionnaires for the Ideal Pregnant Role Scale were tabulated for both Group I and Group II. A t-test for independent samples when the groups are not equal ( $N_1 \neq N_2$ ) compared the means of scores on the Ideal Pregnant Role Scale between Group I and Group II subjects. No significant difference at the .05 level of significance was found between the two pilot sample populations. The conclusion reached was that no significant difference in perceptions of societal expectations of the pregnancy role occurred between pregnant subjects and the "general" nonpregnant population sampled in the pilot study.

For the subjects in Group II, the scores on the Ideal Pregnant Role Scale were compared with each subject's score on the Self Perception in Pregnant Role Scale. The Pearson Product-Moment Correlation Coefficient was .6175 indicating a moderate correlation between the two scores.

There were no obese pregnant women in the pilot study group. Therefore, the comparison between Ideal Pregnant Role Scale scores minus the Self Perception in Pregnant Role Scale scores for nonobese, moderately obese, and excessively obese women could not be made.

#### Procedure

Women attending three prenatal clinics were given a verbal individual explanation by the investigator regarding the nature of the research project including potential risks and asked if they would like to participate. In addition, a cover letter accompanied the research instruments explaining the purpose of the study (see Appendix O). Agreement to participate and completion of the instruments constituted informed consent.

Those who agreed to participate were taken to a quiet office in the clinic area to complete the research instruments in private. Half of the subjects were given the 39-item Ideal Pregnant Role Scale to complete first

followed by the 39-item Self Perception in Pregnant Role; The other half of the subjects received the 39-item Self Perception in Pregnant Role Scale to complete first. Selection of the instrument to be completed first by the subject was done on a random basis. Finally, each subject was given the Demographic Data Sheet to complete. Information regarding the subjects' height, current weight, and prepregnant weight were obtained from the clinic records and entered on the Demographic Data Sheet by the researcher. This insured consistency of measures since all subjects were weighed and measured on the same standing-type, balance-beam, upright scale with special height measurement apparatus by one of three assigned clinic staff members.

Each instrument was coded prior to the data collection in order to identify all data for a given subject. The subject's name, however, was never placed on any of the research materials, thus preserving anonymity of response.

Eight people declined to participate, and one partially completed instrument was discarded because the subject did not have a sufficient reading level to complete the instruments but did not inform the researcher of this fact prior to accepting the research tools. The overall participation rate was 91.5%. Those individuals who

declined to participate were thanked for their consideration and assured that their decision would be held in confidence and would in no way affect their subsequent care in the clinic. Clinic staff did not know if an individual had participated in the study or not.

There were essentially no risks identified with this study. Subjects were instructed in the cover letter to contact the researcher if they had further questions or comments concerning the study. None of the subjects contacted the researcher.

#### Treatment of the Data

##### Demographics

Descriptive statistics including percentages, means, median, modes, and ranges were used to examine the demographic variables. Demographic variables included age, marital status, ethnic group, educational level, subject's occupation, partner's occupation, social position, number of pregnancies, gestational age of this pregnancy, height, current weight, prepregnant weight, resources used to learn about the role of pregnancy, and estimation of the congruence of personal beliefs about the role of pregnancy with the beliefs of other people regarding this role.

Hollingshead's Two-Factor Index of Social Position was used to classify the subjects' occupations and the partners' occupations (1977). Each occupation was placed in a group on Hollingshead's 7-point occupational scale. The seven points included: (1) higher executives of large concerns, proprietors, and major professionals; (2) business managers, proprietors of medium-sized businesses, and lesser professionals; (3) administrative personnel, owners of small businesses, and minor professionals; (4) clerical and sales workers, technicians, and owners of little businesses; (5) skilled manual employees; (6) machine operators and semiskilled employees; and (7) unskilled employees and the unemployed.

Social position was then determined using Hollingshead's Two-Factor Index of Social Position. This two-factor index is composed of an occupational scale and an education scale. The example below illustrates how social position was calculated using the index:

<u>Factor</u>	<u>Scale Score</u>	X	<u>Factor Weight</u>	= <u>Partial Score</u>
Occupation	6		7	42
Education	4		4	<u>16</u>
Index of Social Position Score:				58

Range of Scores in Each Social Class

<u>Class</u>	<u>Range of Scores</u>
I	11-17
II	18-31
III	32-47
IV	48-63
V	64-77

Hollingshead and Redlich reported a correlation between judged class with education and occupation as  $R_{1(23)} = .906$  and judged class with residence, education, and occupation as  $R_{.(234)} = .942$  (Hollingshead, 1977, p. 230). The two-factor index has a high correlation and also has the advantage of using only occupation and education rather than including the more difficult to determine residential information.

The homogeneity of the groups was determined using the Pearson Product-Moment Correlations. The Pearson Product-Moment Correlations "measures the extent to which two sets of scores in two-dimensional space follow a straight line trend" (Waltz et al., 1984, p. 58). The value of  $r$  ranges between  $-1.00$  and  $+1.00$ , with  $-1.00$  representing a perfect negative relationship and  $+1.00$  representing a perfect positive relationship. For this study the IPRS, the SPPRS, and Cranley's Maternal-Fetal

Attachment Scale and each of these instruments' respective subscales were correlated with the 22 demographic variables on the Demographic Data Sheet.

The Student-Newman-Keuls procedure, which is a post hoc multiple range comparison test, was selected to determine exactly where, that is, between which groups, significant differences existed (Hair, et al., 1979, p. 135) on the multiple-leveled, nominal variables of marital status, ethnicity, education, and social position.

The purpose of these correlational studies was to identify existing relationships among variables. Conversely, verification that no relationship existed between the variables was also discerned.

### Hypothesis Testing

The first question of the study (Do role expectation discrepancy scores differ significantly among nonobese, moderately obese, and excessively obese primigravidas?) was used to generate four hypotheses. A one-way analysis of variance (ANOVA) followed by a multiple range test, the Student-Newman-Keuls procedure was used to test these four hypotheses. The one-way ANOVA is an inferential statistical procedure used to investigate the effect of a single parametric independent variable or factor on a



single dependent variable where the independent variable has two or more levels, that is, two or more treatment or experimental groups (Hair et al., 1979, p. 133). The Student-Newman-Keuls extends the examination when the difference among groups is significant by identifying exactly where the difference lies. These tests were appropriate for examining the difference scores between the IPRS and the SPPRS, the dependent variable, among the three study groups, the independent variable. The level of significance for the analysis of the data was specified as .05.

#### Instrument Development

The second purpose of the study was to answer the questions, Are the Ideal Pregnant Role Scale (IPRS) and the Self Perception in Pregnant Role Scale (SPPRS) reliable and valid instruments? The IPRS and the SPPRS were developed by the researcher and described in Instrument Development and Pilot Testing.

According to Waltz et al. (1984) reliability is "the consistency with which a device or method assigns scores to subjects" (p. 3). Validity is defined as whether or not a device "measures what it purports to measure" (p. 3).

Reliability and validity can also be described in terms of variance (Kerlinger, 1973).

The purpose of any measuring device is to measure variance of some type. In this study, for example, the purpose was to measure the variance in role expectation discrepancy among pregnant women who were nonobese, moderately obese, and excessively obese. Several measures of reliability and validity were used in this study to assess the validity and reliability of the research tools measuring role expectation discrepancy.

The final form of the IPRS instrument consisted of 39 items. Within these items, there were three subscales which related to the three aspects of the pregnant role. Questions relating to the affective aspects of the pregnant role were 2, 8, 11, 12, 124, 15, 16, 18, 21, 25, 26, 27, 28, 31, 34, and 37 for a total of 16 items in the Affective subscale. Questions relating to the social aspects of the pregnant role were 3, 6, 10, 13, 17, 20, 22, 23, 29, 30, 32, 35, 36, 38, and 39 for a total of 15 in the Social subscale. Questions relating to the behavioral aspects of the pregnant role were 1, 4, 5, 7, 9, 19, 24, and 33 for a total of eight items in the Behavioral subscale. The SPPRS followed the same pattern and plan as the IPRS. The difference was that questions on the IPRS were worded in

a general fashion while wording on the SPPRS asked for an opinion from a personal standpoint (see Appendcies K and L). Each scale and subscale was scored on a scale of 1 to 5, with 5 being the most positive statement. Based on an analysis of the items and correlational studies, the scoring of items 17, 23, 30, 33, 34, and 36 for both the IPRS and the SPPRS were reversed.

### Reliability

In this study reliability was determined by computing the internal consistency of the research tools using Cronbach's alpha coefficient. The test-retest procedure was not considered an appropriate means for determining reliability since the nature of role expectation discrepancy in pregnancy was considered to be a dynamic, changing phenomenon and therefore, relatively unstable over time.

According to Waltz et al. (1984) "the alpha coefficient is the preferred index of internal consistency reliability because (1) it has a single value for any given set of data and (2) it is equal in value to the mean of the distribution of all possible split-half coefficients associated with a particular set of test data. Alpha measures the extent to which performance on any one item

on an instrument is a good indicator of performance on any other item in the same instrument" (p. 136).

### Validity

In this study three types of validity were examined for the IPRS and the SPPRS. The three types of validity were content validity, construct validity, and concurrent criterion validity.

Content validity refers to the representativeness of the content of a measuring instrument in relation to the content domain to be measured (Kerlinger, 1973; Waltz et al., 1984). Content validity was built into the instruments from the inception through the choice of appropriate test items. Both the literature and subject matter expertise of experts in the field were used to construct and select test items. Since content validity is basically judgemental in nature, agreement among several experts was used to determine the appropriateness of the items.

A second type of validity was construct validity or "the extent to which the test may be said to measure a theoretical construct or trait" (Anastasi, 1976, p. 151). Construct validity was examined using the factor analysis approach. Factor analysis is a method for reducing a

large number of measures to a smaller number of measures or factors. In short, factor analysis identifies "what measures measure the same thing and to what extent they measure what they measure" (Kerlinger, 1973, p. 468).

The third type of validity, concurrent criterion validity, is estimated by comparing scores obtained by the measuring instrument in question with a criterion measure known to measure the attribute under study (Kerlinger, 1973, p. 459). In concurrent criterion validity the criterion measure is obtained at the same time as the test scores on the measuring instrument in question. In this study concurrent criterion validity was assessed using the Pearson Product-Moment Correlation Coefficient to compare the subscale scores, subscale difference scores, total scale scores, and total difference scores on the IPRS and the SPPRS with the subscale scores and total scores on Cranley's Maternal-Fetal Attachment Scale.

The Maternal-Fetal Attachment Scale developed by Cranley (1981) was designed to measure the construct maternal-fetal attachment during pregnancy (see Appendix P). The Maternal-Fetal Attachment Scale (M-FAS) consisted of 24 questions. Within these 24 questions there were

five subscales (see Appendix Q). Questions relating to the subscale Roletaking were 4, 8, 18, and 19 for a total of four questions in this subscale. Questions relating to the subscale Differentiation of Self From Fetus were 3, 5, 10, and 13 for a total of four questions in this subscale. Questions relating to the subscale Attributing Characteristics to the Fetus were 6, 9, 12, 14, 16, and 21 for a total of six questions in this subscale. Questions relating to the subscale Interaction With Fetus were 1, 7, 17, 20, and 24 for a total of five questions in this subscale. Questions relating to the subscale Giving of Self were 2, 11, 15, 22, and 23 for a total of five questions in this subscale. The scale and subscales were scored on a scale of 1 to 5 with 5 being the most positive statement. The score for item 22 was reversed according to the author's directions for scoring. Content validity was built into the M-FAS. A coefficient of reliability of .85 was reported for the scale with the reliability for the subscales ranging from .52 to .73 (Cranley, 1981, p. 282). Permission to use the Maternal-Fetal Attachment Scale was received from the author (see Appendix R).

Statistics for the study were run on the DEC System computer at Texas Woman's University, Denton campus. Statistical analyses of the data were run under release

2.1 of the Statistical Package for the Social Sciences - X (SPSS-X) (Statistical Package for the Social Sciences - X Manual, 1986).

### Summary

The descriptive comparative research design used to examine role expectation discrepancy in nonobese, moderately obese, and excessively obese primigravidas in the last trimester of pregnancy was described. Setting, population and sample, protection of human rights, procedure and treatment of the data were included. Detailed descriptions of the procedure used in instrument development and pilot testing of the instruments were provided.

## CHAPTER IV

### ANALYSIS OF DATA

Data were collected as previously described. Analysis of the data included the use of descriptive statistics for the demographic data and the use of inferential statistics to address the four research hypotheses. Results from reliability and validity testing for the IPRS and the SPPRS were also examined.

#### Description of Sample

The sample for this study consisted of 97 primigravidas attending one of three prenatal clinics in a large metropolitan women's clinic between January and July, 1987. All subjects met the qualifications for participation in the study specified in the section on procedure. Of the 106 women who were approached to participate in the study, eight declined to complete the research instruments, and one subject's questionnaire had to be discarded because of inappropriate responses. It was later determined that this subject was unable to read adequately enough to participate. With this one exception, no incomplete questionnaires were obtained. The overall response rate for the study was 91.5%.



Demographic information regarding the study sample was obtained from the Demographic Data Sheet (see Appendix J) and the subjects' prenatal clinic charts. The subjects ranged in age from 18 years to 30 years with a mean age of 20.5 years. Twenty-five subjects (25.8%) were 18 years old, 20 subjects (20.6%) were 19 years old, 18 subjects (18.6%) were 20 years old, nine subjects (9.3%) were 21 years old, four subjects (4.1%) were 22 years old, five subjects (5.2%) were 23 years old; seven subjects (7.2%) were 24 years old, five subjects (5.2%) were 25 years old, one subject (1%) was 28 years old, one subject (1%) was 29 years old, and two subjects (2.1%) were 30 years old. Thus, 73.7% (n=72) of the sample population was between the ages of 18 and 21.

Fifty-seven (58.8%) of the subjects were single; 30 subjects (30.9%) were married; none (0%) were widowed; three subjects (3.1%) were divorced; one (1%) was separated from her spouse; and three subjects (3.1%) were cohabitating. The remaining three subjects (3.1%) identified their marital status as "other". In specifying what "other" meant, two subjects (2.1%) stated that they were involved in a common-law marriage and one subject (1%) said that she and her partner were "living together part-time."

The majority of the subjects (n=65, 67%) were white, 30 of the subjects (30.9%) were black and one subject (1%) was American Indian. The remaining subject (1%) indicated her ethnicity as "other" but did not specify what "other" indicated.

The educational level of the group ranged from 10 to 12 years of high school but with high school uncompleted to obtaining an associate degree in college. Twenty-three subjects (23.7%) indicated that they had completed 10 to 12 years of high school but had not finished high school; 48 subjects (49.5%) had graduated from high school; 24 subjects (24.7%) had completed some college work, and two subjects (2.1%) had completed associate degrees.

The subjects' occupations were categorized using Hollingshead's classifications as described previously. Using this classification system, two subjects' (2.1%) stated occupations were classified as Level 3 (Administrative Personnel, Owners of Small Businesses, and Minor Professionals); 24 subjects' occupations (24.7%) were classified as Level 4 (Clerical and Sales Workers, Technicians, and Owners of Little Businesses); one subject's occupation was classified as Level 5 (Skilled Manual Employees); 18 subjects' occupations (18.6%) were classified as Level 6 (Machine Operators and Semiskilled

Employees) and 52 subjects' occupations (53.6%) were classified as Level 7 (Unskilled Employees and Unemployed). The majority of the subjects ( $n=70$ , 72.2%) were in semi-skilled or unskilled occupations or were unemployed.

The subjects' partners' main occupations were also categorized using Hollingshead's occupational classifications. Two of the subjects' partners' occupations were classified as Level 2 (Business Managers, Proprietors of Medium-Sized Businesses, and Lesser Professionals); two of the subjects' partners' occupations were classified as Level 3 (Administrative Personnel, Owners of Small Businesses and Minor Professionals); five of the subjects' partners' occupations were classified as Level 4; 16 of the subjects' partners' occupations (16.5%) were classified as Level 5; 12 of the subjects' partners' occupations (12.4%) were classified as Level 6, and 27 of the subjects' partners' occupations (27.8%) were classified as Level 7. Thirty-three subjects (34%) did not indicate a partner's occupation. Of the occupations indicated, the majority ( $n=55$ , 85.9%) were in skilled manual, semiskilled or unskilled occupations, or were unemployed.

Social position was calculated using Hollingshead's Two-Factor Index of Social Position. In this two-factor index, occupation was given a weight of seven, and

education was given a weight of four. Nineteen subjects (19.6%) were identified as Class III - Middle Class; 40 subjects (41.2%) were identified as Class IV - Lower Middle Class, and 38 subjects (39.2%) were identified as Class V - Lower Class. The majority of subjects (n=78, 80.4%) were in Class IV - Lower Middle Class and Class V - Lower Class.

The majority of the subjects (n=78, 80.4%) were experiencing their first pregnancies. Thirteen subjects (13.4%) had had one previous pregnancy, and six (6.2%) had had two previous pregnancies. All previous pregnancies had ended in spontaneous or induced abortions in the first trimester or prior to 12 weeks' gestation. Since identification with the pregnant role is limited in the first trimester due to minimal subjective and objective data to confirm and reinforce the new role, inclusion of subjects with previous pregnancies which ended prior to the second trimester was justified.

All subjects (n=97, 100%) were experiencing their first full-term pregnancy. This question was included in the Demographic Data Sheet to serve as a check with chart information for insuring that the subjects would all be primiparas following delivery.

Twenty of the subjects (20.6%) were 30 weeks' gestation, four subjects (4.1%) were 31 weeks' gestation, eight subjects (8.2%) were 32 weeks' gestation, 12 subjects (12.4%) were 33 weeks' gestation, and 53 (54.6%) were 34 weeks' gestation. The majority of subjects (n=65, 67%) were 33 to 34 weeks pregnant.

The subjects' heights ranged from 57 inches to 71 inches. The mean was 54.3 inches; the mode was 54.0 inches, and the median was 54.0 inches.

The subjects' weights ranged from 110 pounds to 322 pounds. The mean current weight was 173.1 pounds; the median current weight was 161.0 pounds and the mode was 139.0 pounds.

The subjects' prepregnant weights ranged from 91 pounds to 304 pounds. The mean was 153.8 pounds; the median was 145.0 pounds and the mode was 125.0 pounds.

Using the heights and prepregnant weights, each subject was classified as nonobese, moderately obese, and excessively obese employing the 1983 standard weight-for-height-for-age chart of the Metropolitan Life Insurance Company. Based on the chart and the study definitions, 49 subjects (50.5%) were classified as nonobese, 25 subjects (25.8%) were classified as moderately obese, and 23 subjects (23.7%) were classified as excessively obese.

A variety of resources were identified as important or most important to the subjects in learning the role of pregnancy. In terms of Important Resources, 29 subjects (29.9%) identified television, 17 subjects (17.5%) identified popular books, 27 subjects (27.8%) identified textbooks, 17 subjects (17.5%) identified movies, 23 subjects (23.7%) identified newspapers and magazines, 29 subjects (29.9%) identified classes in high school, nine subjects (9.3%) identified classes in college, 39 subjects (40.2%) identified "my mother", 42 subjects (43.3%) identified "my friends", 44 subjects (45.4%) identified "my relatives", 39 subjects (40.2%) identified "my doctor", 26 subjects (26.8%) identified nurses, 12 subjects (12.4%) identified other health care workers, and eight subjects (8.2%) identified "others". Table 4 summarizes the important resources used in learning the pregnancy role.

In specifying relatives who were important in learning the pregnancy role, seven subjects (7.2%) identified "my sister(s)", four subjects (4.1%) identified "my aunt(s)", two subjects (2.1%) identified "my grandmother", one subject (1%) identified "my sister-in-law", one subject (1%) identified "my mother-in-law", one subject (1%) identified aunts/grandmother, one subject (1%) identified sister/aunt, and 27 subjects (27.8%) did not specify a

Table 4

Summary of Important Resources and Most Important Resources Used To  
Learn the Role of Pregnancy By Ninety-Seven Primigravida Subjects

Resource	Important		Most Important	
	Frequency	%	Frequency	%
Television	29	29.9	4	4.1
Popular Books	17	17.5	0	0.0
Textbooks	27	27.8	6	6.2
Movies	17	17.5	0	0.0
Newspapers/Magazines	23	23.7	1	1.0
High School Classes	29	29.9	7	7.2
College Classes	9	9.3	1	1.0
My mother	39	40.2	33	34.0
My friends	42	43.3	12	12.4
My relatives	44	45.4	5	5.2
My doctor	39	40.2	2	2.1
Nurses	26	26.8	3	3.1
Other Health Care Workers	12	12.4	0	0.0
Others	8	8.2	0	0.0
Did Not Specify			23	23.7

particular relative. In specifying "other health care personnel" who were important in learning the pregnancy role, one subject (1%) identified the nurse, one subject (1%) identified the health department/WIC personnel, two subjects (2.1%) identified the midwife, and eight subjects (8.2%) did not identify a particular health care worker. In specifying other resources important in learning the role of pregnancy, the following were mentioned by at least one subject: grade school (n=1, 1%), "my church ladies' auxiliary" (n=1, 1%), childbirth classes (n=1, 1%), employer (n=1, 1%), a VCR film from the library (n=1, 1%), and a book on pregnancy (n=1, 1%). Two subjects (2.1%) did not specify the "other" resources they considered important.

In terms of the Most Important Resource in learning the role of pregnancy, four subjects (4.1%) identified television, six subjects (6.2%) identified textbooks, one subject (1%) identified newspapers and magazines, seven subjects (7.2%) identified classes in high school, one subject (1%) identified classes in college, 31 (34%) subjects identified "my mother", 12 subjects identified "my friends", five subjects (5.2%) identified "my relatives", two subjects (2.1%) identified "my doctor", three subjects (3.1%) identified nurses, and 23 subjects (23.7%) did not



specify a Most Important Resource. In specifying relatives who were the Most Important Resource in learning the role of pregnancy, two subjects (2.1%) identified "my sister(s)", two subjects (2.1%) identified "my aunt", and one subject (1%) identified "my grandmother". Table 5 contains a summary of the data regarding specific relatives and other health care personnel identified by subjects as important resources or the most important resource in learning the role of pregnancy.

Finally, subjects were asked to estimate how much their beliefs about the role of pregnancy matched or were like the beliefs about the role of pregnancy held by most other people. Eight subjects (8.2%) indicated they felt their beliefs were very much like others, 60 subjects (61.9%) indicated they felt their beliefs were pretty much like others, 16 subjects (16.5%) indicated they couldn't decide how they compared to others, six subjects (6.2%) indicated they felt their beliefs were not very much like others, and seven subjects (7.2%) indicated that they felt their beliefs were very different from others. Thus, the majority of subjects (n=68, 70.1%) felt their beliefs about pregnancy were pretty much like or very much like others.

Table 5

Specific Relatives and Specific Other Health Care Personnel Identified  
As Important Resources or The Most Important Resource In Learning The  
Role Of Pregnancy By Ninety-Seven Primigravida Subjects

Relatives: <u>Important Resources</u>	Frequency	%
My sister(s)	7	7.2
My aunt(s)	4	4.1
Grandmother	2	2.1
Sister-in-law	1	1.0
Mother-in-law	1	1.0
Aunt/grandmother	1	1.0
Sister/aunt	1	1.0
Did not specify	27	27.8
<u>Most Important Resource</u>		
Sister(s)	2	2.1
Aunt	2	2.1
Grandmother	1	1.0
Other Health Care Workers:		
<u>Important Resources</u>		
Nurse	1	1.0
Health Department/ WIC Personnel	1	1.0
Midwife	2	2.1
Did not specify	8	8.2

Variables for the subjects were examined using the Pearson Product-Moment Correlation and the One-Way Analysis of Variance in order to discover possible relationships or differences between means within the sample population. Several statistically significant relationships and differences in means were found.

Twenty-two demographic variables which yielded interval data were compared to IPRS and SPPRS total scale scores, subscale scores, and difference scores using the Pearson Product-Moment Correlation. The demographic variables were age (AGE); number of pregnancies (NPREG); number of full-term pregnancies (FTPREG); number of weeks' gestation (GEST); height (HT); current weight (WEIGHT); prepregnant weight (PREWT); important resources in learning the role of pregnancy which included specifically television (RES1), popular books (RES2), textbooks (RES3), movies (RES4), newspapers and magazines (RES5), classes in high school (RES6), classes in college (RES7), my mother (RES8), my friends (RES9), my relatives (RES10), my doctor (RES11), nurses (RES12), other health care workers (RES13), and other resources (RES14). In performing the correlations between scores and resources each resource was ranked by the subject as follows: 0 = not considered an important resource; 1 = an important resource; 2 = the most

important resource. The correlated scale scores, subscores, and difference scores included the mean of the scores on the Affective subscale of the IPRS (IPAFF), the mean of the scores on the Affective subscale of the SPPRS (SPAFF), the mean of the scores on the Social subscale of the IPRS (IPSOC), the mean of the scores on the Social subscale of the SPPRS (SPSOC), the mean of the scores on the Behavioral subscale of the IPRS (IPBEH), the mean of the scores on the Behavioral subscale of the SPPRS (SPBEH), the difference score (AFFDIFF) on the Affective subscale determined by subtracting SPAFF from IPAFF, the difference score (SOCDIFF) on the Social subscale determined by subtracting SPSOC from IPSOC, the difference score (BEHDIFF) on the Behavioral subscale determined by subtracting SPBEH from IPBEH, the total IPRS score determined by summing the scores of all the items on the IPRS (IPTOT) and dividing by the number of items, the total SPPRS score determined by summing the scores of all the items on the SPPRS (SPTOT) and dividing by the number of items, and the total difference score (TOTDIFF) determined by subtracting SPTOT from IPTOT. The total difference score (TOTDIFF) represented the measure for the concept role expectation discrepancy.

The Pearson Product-Moment Correlation calculation resulted in the following statistically significant

correlations. Age (AGE) was positively correlated with IPAFF ( $r = .1701$ ,  $p = .048$ ), SPBEH ( $r = .2030$ ,  $p = .023$ ) and negatively correlated with BEHDIFF ( $r = -.1693$ ,  $p = .049$ ).

Height (HT) was negatively correlated with IPAFF ( $r = -.3006$ ,  $p = .001$ ), SPAFF, ( $r = -.3959$ ,  $p = .001$ ), SPSOC ( $r = -.3327$ ,  $p = .001$ ), IPBEH ( $r = -.1721$ ,  $p = .046$ ), SPBEH ( $r = -.3170$ ,  $p = .001$ ), IPTOT ( $r = -.2805$ ,  $p = .003$ ), and SPTOT ( $r = -.2805$ ,  $p = .001$ ), and positively correlated with SOCDIFF ( $r = .1782$ ,  $p = .040$ ) and TOTDIFF ( $r = .1806$ ,  $p = .038$ ). These correlations suggested that as height increased scores on the six subscales and total scores for the IPRS and the SPPRS tended to decrease and conversely as height decreased scores on these scales and subscales tended to increase. In addition, as height increased, the difference scores on the three subscales (AFFDIFF, SOCDIFF, and BEHDIFF) as well as the total difference score tended to increase and vice versa.

Current weight (WEIGHT) was negatively correlated with SPAFF ( $r = -.2455$ ,  $p = .008$ ), SPSOC ( $r = -.2751$ ,  $p = .003$ ) and SPTOT ( $r = -.2988$ ,  $p = .001$ ) and positively correlated with AFFDIFF ( $r = .2686$ ,  $p = .004$ ) and TOTDIFF ( $r = .2129$ ,  $p = .018$ ). The correlations suggested that as the current weight increased, scores on the subscales and

total scores for the IPRS and the SPPRS tended to decrease, and conversely as the current weight decreased, scores on the subscales and the total scores for the IPRS and SPPRS tended to increase. Additionally, as the current weight increased, the difference scores on the subscales as well as the total difference score tended to increase and vice versa. These results were similar to the results found for the correlations between scores and height (HT) with the exception that only five statistically significant correlations out of 12 total correlations were found in this group correlating scores with current weight as opposed to nine statistically significant correlations found in the group of correlations between scores and height (HT).

Prepregnant weight (PREWT) was negatively correlated with SPAFF ( $r = -.2898$ ,  $p = .002$ ), SPSOC ( $r = -.2750$ ,  $p = .003$ ), and SPTOT ( $r = -.3207$ ,  $p = .001$ ) and positively correlated with AFFDIFF ( $r = .2925$ ,  $p = .002$ ) and TOTDIFF ( $r = .2273$ ,  $p = .019$ ). Like the correlations between scores and current weight, these correlations suggested that as the prepregnant weight increased, the scores on the subscales and the total scores for the IPRS and the SPPRS tended to decrease and, conversely, as the prepregnant weight decreased, scores on the subscales and the total scores for the IPRS and the SPPRS tended to increase.

Additionally, as the prepregnant weight increased, the difference scores between the three subscales (AFFDIFF, SOCDIFF, and BEHDIFF) as well as the total difference score (TOTDIFF) tended to increase and vice versa. The results were similar to the results found for the correlations between the scores and current weight (WEIGHT) with five statistically significant correlations found in the group of 12 correlations. The correlations which were statistically significant between scores and current weight were the same correlations which were statistically significant between scores and prepregnant weight.

Perceptions regarding the congruence of personal beliefs about pregnancy with the beliefs of others (BELIEFS) was negatively correlated with IPSOC ( $r = -.2730$ ,  $p = .003$ ) and SPSOC ( $r = -.2760$ ,  $p = .003$ ). The correlations suggested that as perceptions of personal beliefs regarding pregnancy are more like others were increased toward being more like others, the scores on the Social subscales for the IPRS and the SPPRS tended to decrease, becoming less positive. Conversely, as perception of personal beliefs regarding pregnancy were described as different from others were increased, the scores on the Social subscales for the IPRS and the SPPRS tended to increase becoming more positive.

A summary of the correlations between the scores and five significant variables previously described are found in Table 6. There were no statistically significant relationships found between the number of pregnancies (NPREG) and any score, the number of full-term pregnancies (FTPREG) and any score or the number of weeks' gestation (GEST) and any score.

The subscale scores, total scale scores, and difference scores were also correlated with the identified importance of 14 resources. Statistically significant correlations were found in RES1 (television), RES2 (popular books), RES6 (classes in high school), RES7 (classes in college), RES8 (my mother), and RES9 (my friends). There were no statistically significant relationships found between any score and RES3 (textbooks), between any score and RES4 (movies), between any score and RES 5 (newspapers and magazines), between any score and RES10 (my relatives), between any score and RES11 (my doctor), between any score and RES12 (nurses), between any score and RES13 (other health care workers), and between any score and RES14 (other resources). Table 7 presents a summary of the correlations between scores and resources which were statistically significant.



Table 6

Correlation Coefficients Between Instrument Scores and Five Specific  
Demographic Variables

Scores	AGE	HT	WEIGHT	PREWT	BELIEFS
IPAFF	.1701*	-.3006***	-.0097	-.0316	-.0016
SPAFF	.0888	-.3959***	-.2455**	-.2898**	-.0484
AFFDIFF	.1061	.0854	.2686**	.2925**	.0533
IPSOC	-.1592	-.1659	-.1668	-.1639	-.2730**
SPSOC	-.0892	-.3327***	-.2751**	-.2750**	-.2760**
SOCDIFF	-.0604	.1782*	.1194	.1220	.0202
IPBEH	.0006	-.1721*	-.0246	-.0180	-.1164
SPBEH	.2030*	-.3170***	-.1331	-.1362	.0274
BEHDIFF	-.1693*	.1340	.0925	.1001	-.1114
IPTOT	.0079	-.2805**	-.0941	-.1021	-.1666
SPTOT	.0530	-.4528***	-.2988***	-.3207***	-.1602
TOTDIFF	-.0468	.1806*	.2129*	.2273*	-.0054

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

Table 7

Correlation Coefficients Between Instrument Scores and Specific  
Resources For Learning The Role Of Pregnancy

Scores	RES1	RES2	RES6	RES7	RES8	RES9
IPAFF	-.1440	-.1440	.0338*	.0338	-.0876	.1907*
SPAFF	.0370	.1388	.0979	.1758*	.0079	.1525
APFDIFF	-.2180*	-.1743*	-.0714	-.1596	-.1160	.0585
IPSOC	-.0941	-.0217	.0131	.0069	-.1344	-.0341
SPSOC	-.0945	.1526	.0746	.1619	.0722	-.0377
SOCDIFF	.0062	-.1739*	-.0626	-.1563	-.1994	.0058
IPBEH	-.0385	-.0762	-.2045*	.0764	.0727	-.0060
SPBEH	.1173	-.0079	.0679	.0283	-.1303	.1464
BEHDIFF	-.1273	-.0514	-.2124*	.0345	.1642	-.1269
IPTOT	-.1302	-.0372	-.0299	.0406	-.0924	.0788
SPTOT	.0013	.1438	.1049	.1765*	.0046	.0941
TOTDIFF	-.1354	-.1873*	-.1396	-.1412	-.1000	-.0164

\*p &lt; .05

The differences between four demographic variables which yielded multileveled nominal or ordinal data and the subscale scores, total scores, and difference scores on the IPRS and SPPRS were examined using a one-way analysis of variance (ANOVA). When statistically significant results were found, the multiple range Student-Newman-Keuls procedure was used to determine between which groups the differences occurred. The demographic variables were marital status (MARSTST), ethnic group (ETHNIC), educational level (EDUC), and social position (SOCPOS). Since four of the marital status groups contained three subjects or less, a t-test was used to analyze differences between the two largest groups, married subjects and single subjects. Four statistically significant differences were found.

There was a statistically significant difference found between single subjects ( $n=57$ ) and married subjects ( $n=30$ ) regarding SPSOC mean scores ( $t = -3.12$ ,  $df = 85$ ,  $p = .002$ ). Table 8 presents the summary data for the t-test analysis.

There was a statistically significant difference between married subjects and single subjects regarding SOCDIFF mean scores ( $t = 2.64$ ,  $df = 85$ ,  $p = .010$ ). Table 9 presents the summary data for the t-test analysis.

Table 8

Independent t-test Analysis of Mean SPSOC Score for  
Married Subjects and Single Subjects

Variable	n	mean	S.D.	df	t	2-tail p
Single	57	3.4772	.433	85	-3.12	.002
Married	30	3.7844	.445			

Table 9

Independent t-test Analysis of Mean SOCDIFF Scores for  
Married Subjects and Single Subjects

Variable	n	mean	S.D.	df	t	2-tail p
Single	57	0.0889	.496	85	2.64	.010
Married	30	-0.1911	.416			

There was a statistically significant difference between married subjects and single subjects regarding SPTOT mean scores ( $t = -2.37$ ,  $df = 85$ ,  $p = .020$ ). Table 10 presents the summary data for the t-test analysis.

There was a statistically significant difference between married subjects and single subjects regarding TOTDIFF mean scores ( $t = 2.48$ ,  $df = 85$ ,  $p = .015$ ). Table 11 presents the summary data for the t-test analysis.

No statistically significant results were found among the groups related to ethnicity or social position.

In summary, correlational studies between research instrument scores and 22 demographic variables were calculated. Statistically significant correlations were found with regard to the scores and the variables of height, current weight, and prepregnant weight. These three variables were related to the mass of the subject. In general, the greater the mass, the lower (less positive) the specific subscale and total scale scores were; the less the mass, the higher (more positive) the specific subscale and total scale scores were. Additionally, the greater the mass, the higher the specific difference scores were.

Analyses of variance, multiple range tests, and t-tests between research instruments' scores and four demographic

Table 10

Independent t-test Analysis of Mean SPTOT Scores for  
Married Subjects and Single Subjects

Variable	n	mean	S.D.	df	t	2-tail p
Single	57	3.5879	.343	85	-2.37	.020
Married	30	3.7718	.344			

Table 11

Independent t-test Analysis of Mean TOTDIFF Scores for  
Married Subjects and Single Subjects

Variable	n	mean	S.D.	df	t	2-tail p
Single	57	0.0868	.345	85	2.48	.015
Married	30	-0.0966	0.291			



variables were calculated. Statistically significant differences were found between the Married group and the Single group regarding the mean scores on the SPSOC, SOCDIFF, and TOTDIFF.

### Hypothesis Testing

Inferential statistics were applied to the IPRS scores, the SPPRS scores, and the role expectation discrepancy scores (TOTDIFF) in order to examine the four research hypotheses. Paired t-tests and one-way analysis of variance were used to test for differences between scores and among groups. The Student-Newman-Keuls procedure was used to identify the source of difference among groups when the F ratio was significant.

Hypothesis 1 was: "There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of nonobese primigravidas in the last trimester of pregnancy." Using a t-test for paired samples, the mean of the scores on the IPRS was compared with the mean score on the SPPRS for the sample group of 49 nonobese primigravidas. Table 12 presents the paired t-test summary table. Scores on the IPRS were not found to be statistically different from the scores on the SPPRS ( $t = -.94$ ,  $p = .351$ ). Therefore,

Table 12

Paired t-test Analysis of IPRS Scores and SPPRS Scores  
in a Group of Nonobese Primigravidas

Variable	n	mean	S.D.	df	t	2-tail p
IPTOT	49	3.6489	.363	48	-.94	.351
SPTOT		6.6939	.376			

the null hypothesis was accepted,  $H_0 = H_1$ .

Hypothesis 2 was: "There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of moderately obese primigravidas in the last trimester of pregnancy." The mean of the scores on the IPRS was compared to the mean of the scores on the SPPRS for the sample population of 25 moderately obese primigravidas using a t-test for paired samples. Table 13 depicts a summary table for the paired t-test calculations. Scores on the IPRS were not found to be statistically different from the scores on the SPPRS ( $t = .26$ ,  $p = .795$ ). Therefore, the null hypothesis was accepted,  $H_0 = H_1$ .

Hypothesis 3 was: "There is no significant difference in the perception of the ideal role of pregnancy and the perception of self in the role of pregnancy in a group of excessively obese primigravidas in the last trimester of pregnancy." Using a paired t-test, the mean score in the IPRS was compared to the mean score on the SPPRS for the sample group of 23 excessively obese primigravidas. Table 14 presents the paired t-test summary table. Scores on the IPRS were found to be significantly higher than the scores on the SPPRS for this group ( $t = 2.31$ ,  $p = .031$ ). The null hypothesis was rejected,  $H_0 \neq H_1$ . There was a

Table 13

Paired t-test Analysis of IPRS Scores and SPPRS Scores  
in a Group of Moderately Obese Primigravidas

Variable	n	mean	S.D.	df	t	2-tail p
IPTOT	25	3.7179	.328	24	.26	.795
SPTOT		3.7026	.294			

Table 14

Paired t-test Analysis of IPRS Scores and SPPRS Scores  
in a Group of Excessively Obese Primigravidas

Variable	n	mean	S.D.	df	t	2-tail p
IPTOT	23	3.6566	.322	22	2.31	.031
SPTOT		3.4939	.289			

significant difference at the .05 level of significance between the perception of the ideal role of pregnancy as measured by scores on the IPRS and the perception of self in the role of pregnancy as measured by the scores on the SPPRS in the group of excessively obese primigravidas.

Hypothesis 4 was: "There is no significant difference in the discrepancy scores between the ideal role of pregnancy and the perception of self in the role of pregnancy among a group of nonobese primigravidas in the last trimester of pregnancy, a group of moderately obese primigravidas in the last trimester of pregnancy, and a group of excessively obese primigravidas in the last trimester of pregnancy." Using a one-way analysis of variance the role expectation discrepancy scores (TOTDIFF) were found to vary significantly among the three study groups. Table 15 presents the summary table for the analysis of variance. The multiple range Student-Newman-Keuls procedure indicated that the role expectation discrepancy scores for Group 3, the nonobese primigravidas, were significantly different from the role expectation discrepancy scores (TOTDIFF) for Group 5, the excessively obese primigravidas. Therefore, the null hypothesis was rejected,  $H_0 \neq H_1$ . There was a significant difference at the .05 level of significance in the role expectations

Table 15

Analysis of Variance Among Role Expectation Discrepancy  
Scores for Nonobese, Moderately Obese, and Excessively  
Obese Primigravidas

Source	df	SS	MS	F	p
Between Gps	2	.6764	.3383	3.1977	.0453
Within Gps	94	9.9410	.1058		
Total	96	10.6174			

Group	n	mean	S.D.
Nonobese	49	-.0450	.3343
Mod. Obese	25	.0154	.2935
Ex. Obese	23	.1628	.3378
Total	97	.0198	.3326

discrepancy scores between the ideal role of pregnancy and the perception of self in the role of pregnancy among a group of nonobese primigravidas in the last trimester of pregnancy, a group of moderately obese primigravidas in the last trimester of pregnancy, and a group of excessively obese primigravidas in the last trimester of pregnancy.

#### Instrument Development

Reliability and validity measures for the two researcher-developed instruments were investigated. Reliability estimations of internal consistency using Cronbach's alpha for the instruments' scales and subscales, examination of content validity procedures, item-total analysis results, and correlational studies between IPRS scores and SPPRS scores and scores on Cranley's Maternal-Fetal Attachment Scale to determine concurrent criterion validity were analyzed.

#### Reliability

An important aspect of reliability germane to this study was that of internal consistency or the homogeneity of the items in a scale of measurement. In this study internal consistency was estimated using Cronbach's alpha coefficient. The minimum expectation for a satisfactory alpha coefficient was considered to be .680. The



estimations of the internal consistency of the IPRS and the SPPRS are found in Table 16. Estimations of the internal consistency of these scales exceeded the minimum expectation of .68.

Since the IPRS and the SPPRS were multidimensional concepts containing three subscales each, Cronbach's alpha coefficient was also determined for each subscale as suggested by Waltz et al. (1984). The estimations of the alpha coefficients for each subscale is presented in Table 17. Results of the estimations of internal consistency for these subscales met at least minimal expectations for the IPAFF, SPAFF, IPSOC, and SPSOC subscales; the minimal expectation of .68 was not met for the IPBEH or SPBEH subscales. The lower alpha on these subscales could be due to the fact that the items are not measuring the same concept or due to fewer number of items in these subscales since alpha is a function of test length; the more items included on a test, the higher the resulting alpha value will be (Waltz et al., 1984, p. 138).

#### Content Validity

Content relating to the three aspects of the pregnant role--affective aspects of the pregnant role, social aspects of the pregnant role, and behavioral aspects of

Table 16

Estimations of Internal Consistency for IPRS and  
SPPRS (n = 97)

Scale	Number of items	Cronbach's alpha
IPRS	39	0.8185
SPPRS	39	0.7844

Table 17

Estimations of Internal Consistency for Subscales of  
IPRS and SPPRS (n = 97)

Subscale	Number of items	Cronbach's alpha
IPAFF	16	0.7685
SPAFF	16	0.6783
IPSOC	15	0.6944
SPSOC	15	0.6895
IPBEH	8	0.4162
SPBEH	8	0.3607

of the pregnant role--were analyzed using a review of relevant literature, personal experiences and consultation with experts in the field. From this analysis items for the research instruments were generated and pilot tested. The initial instruments were also submitted to a panel of judges as a check on the appropriateness of the content and the placement of items in each subscale. Ambiguity in an item, lack of agreement among the judges regarding categorizing of an item, and poor item analysis results led to the elimination of 22 items from the original questionnaires. The two resulting 39-item, three-subscale questionnaires appeared to adequately represent the content domain of the pregnancy role.

#### Construct Validity

The internal construct validity for the IPRS and the SPPRS was determined by analyzing the correlations between individual test items and the total test scores. The corrected item-total correlations for the IPRS and for the SPPRS are found in Table 18. An item-total correlation of .20 was established as a minimum criterion for inclusion of the item in the scale (Kerlinger, 1973, p. 200). Most of the items in the IPRS met the minimum criterion for inclusion. Items 1, 5, 23, 32, 34, and 36 failed to meet

Table 18

Corrected Item-Total Correlations For IPRS and SPPRS (n = 97)

Item	Pearson r	Item	Pearson r
I1	.1056*	S1	.2311
I2	.3538	S2	.3674
I3	.3165	S3	.0719*
I4	.3743	S4	.2105
I5	.0287*	S5	.0786*
I6	.3754	S6	.1305*
I7	.2781	S7	.1229*
I8	.3233	S8	.2291
I9	.1950	S9	.0297*
I10	.3584	S10	.3317
I11	.2462	S11	.1076*
I12	.4683	S12	.2598
I13	.4658	S13	.5299
I14	.3872	S14	.1426*
I15	.4266	S15	.2630
I16	.2061	S16	.1220*
I17	.2094	S17	.0853*
I18	.4267	S18	.3515
I19	.2182	S19	.2973
I20	.4291	S20	.5200
I21	.2618	S21	.2428
I22	.4039	S22	.3898
I23	.0674*	S23	.1893*
I24	.2493	S24	.3953
I25	.4742	S25	.3436
I26	.4472	S26	.4578
I27	.5611	S27	.3706
I28	.4140	S28	.3722
I29	.3442	S29	.3468
I30	.2023	S30	.0226*
I31	.2783	S31	.4098
I32	.1623*	S32	.1806*
I33	.2251	S33	.0979*
I34	.0119*	S34	.0895*
I35	.2020	S35	.2844
I36	.0707*	S36	.0687*
I37	.3441	S37	.5635
I38	.4381	S38	.3838
I39	.5284	S39	.5258

\*Does not meet .20 criterion.

the minimum criterion for retention in the scale. Fifteen items on the SPPRS (3, 5, 6, 7, 9, 11, 14, 16, 17, 23, 30, 32, 33, 34, and 36) failed to meet the minimum criterion for inclusion.

### Criterion Validity

The Maternal-Fetal Attachment Scale developed by Cranley (1981) was used as a criterion measure for the IPRS and the SPPRS. Cranley estimated the reliability coefficient of the M-FAS to be .85 using Cronbach's alpha. The reliability of the M-FAS was also estimated using the current study sample of pregnant women. Using Cronbach's alpha, the reliability coefficient obtained was .8446, essentially the same alpha coefficient that Cranley calculated with her sample. Table 19 contains the correlation of the IPRS, the SPPRS, and their respective subscales with the M-FAS and its five subscales.

Because maternal-fetal attachment was believed to be a part of the role of pregnancy, it was predicted that the scores on the IPRS and the SPPRS would correlate positively with the scores on the M-FAS and its subscales. Pearson correlation coefficients revealed 30 possible correlations between the 11 subscales. All of the correlations were positive and 20 were significant statistically; five

Table 19

Correlation Coefficients Between IPRS and SPPRS Scales, Subscales,  
Differences and Totals With M-FAS And Subscales

Scores	MROLE	MDIFF	MINT	MATT	MGIVE	MTOT
IPAFF	.2502**	.258***	.1764*	.2477**	.1379	.2761**
SPAFF	.4111***	.3804***	.2890**	.4207***	.2885**	.4643***
AFFDIFF	-.1643	-.1189	-.1149	-.1783*	-.1613	-.1934
IPSOC	.2635**	.1431	.1870*	.1454	.2543	.2545
SPSOC	.3178***	.2436**	.2745**	.3253***	.3569***	.3986***
SOCDIFF	-.0711	-.1101	-.0998	-.1900	-.1191	-.1609
IPBEH	.1542	.1019	.1401	.1379	.1830*	.1882*
SPBEH	.0189	.1077	.2298*	.2078*	.0840	.1862*
BEHDIFF	.1015	-.0125	-.0855	-.0688	.0690	-.0125
IPTOT	.2986***	.2295*	.2193*	.2344**	.2442**	.3162***
SPTOT	.3673***	.3391***	.3467***	.4395***	.3483***	.4827***
TOTDIFF	-.0734	-.1152	-.1337	-.2039*	-.1096	-.1748*

\*p < .05

\*\*p < .01

\*\*\*p < .001

correlations were significant at the .05 level, nine were significant at the .01 level, and six were significant at the .001 level. While the remaining 10 correlations were positive, they were not statistically significant. Seven of these 10 correlations involved the Behavioral subscales of the IPRS and the SPPRS, suggesting a closer examination and possible revision of this subscale may be necessary or that this particular subscale measured an aspect of the role of pregnancy which was outside the domain of maternal-fetal attachment.

The total scores for the instruments also showed positive correlations. The M-FAS total score was positively and statistically significantly correlated with all six IPRS/SPPRS subscales as well as the total score for the IPRS ( $p < .001$ ). Likewise, the IPRS and the SPPRS were positively and statistically significantly correlated with all five subscales of the M-FAS.

Difference scores on the various scales and subscales were conceptualized as a discrepancy between the self concept and the ideal. An explanation for the difference could be varying degrees of failure on the subjects' part to assume the role of pregnancy. It was predicted that an inverse relationship existed between the difference scores and the M-FAS scores. Thus, the greater the difference



scores, the smaller the M-FAS scores would be and vice versa. The Pearson Product-Moment correlation coefficients indicated that 13 out of a possible 15 correlations between the 11 subscales were, indeed, negative. Two of these correlations, between AFFDIFF and MATT and between SOCDIFF and MATT were statistically significant ( $p < .05$ ).

The total scores for the instruments also showed negative correlations with difference scores. MTOT was negatively correlated with AFFDIFF ( $p < .05$ ), SOCDIFF ( $p$  not significant), and BEHDIFF ( $p$  not significant). Role expectation discrepancy (TOTDIFF) was negatively correlated with all five M-FAS subscales and statistically significantly correlated with the MATT subscale ( $p < .05$ ). Finally, role expectation discrepancy (TOTDIFF) was negatively and statistically significantly correlated with the total M-FAS score ( $p < .05$ ).

#### Summary

Analysis of the data was presented in detail. The demographic data of study subjects was reported through the use of descriptive statistics. Paired t-tests and an analysis of variance was employed to test the four research

hypotheses. Finally, questions concerning the reliability and validity of the IPRS and SPPRS were addressed.

## CHAPTER V

### SUMMARY OF THE STUDY

The purpose of this study was to define and measure a phenomenon, role expectation discrepancy. This objective necessitated (1) the development of two instruments for measuring the phenomenon and (2) actual use of the instruments to compare levels of role expectation discrepancy in three sample groups in order to test theory. Four hypotheses were generated to examine relationships between the ideal role of pregnancy and the perception of self in the role of pregnant person among nonobese, moderately obese, and excessively obese primigravida. Explication of this phenomenon supported Roy's general contention that, "when nursing knows what phenomenon it is studying and what it aims to accomplish, then it is in a position to classify, relate, predict, and proscribe regarding that phenomenon" (1976, p. xi). This study was viewed as an initial step toward developing proscriptions for intervening in cases of role expectation discrepancy.

#### Summary

Initial work involved careful concept analysis and

definition of the critical attributes of role expectation discrepancy: role transition, correspondence, masking, discrepancy, and negative affective response. This was followed by development and pilot testing of three research tools: the Demographic Data Sheet, the Ideal Pregnant Role Scale (IPRS), and the Self Perception in Pregnant Role Scale (SPPRS). Modifications were made in the three tools following the pilot testing.

The next step in theory development involved the current study designed to test for predicted differences in role expectation discrepancy when role cue masking by obesity occurred in pregnancy. Four hypotheses were planned for testing to accomplish this goal.

The sample population consisted of 97 persons who met the following criteria: ability to speak and write English, between the ages of 18 and 34 years, primigravida and between 30 and 34 weeks' gestation. A nonrandom sampling technique was used to select subjects who agreed to participate and who met the study criteria from among the general clinic population of a large metropolitan women's clinic. Following completion of the research tools each subject was placed in one of three study groups based on nonpregnant body weight. The nonobese group consisted of 49 subjects and was composed of individuals having a

nonpregnant body weight not greater than 120% of the standard weight-for-height-for-age taken from 1983 charts established by the Metropolitan Life Insurance Company. The moderately obese group consisted of 25 subjects and was composed of individuals 120% to 139% of the standard weight-for-height-for age. The excessively obese group was composed of 23 subjects and consisted of individuals 140% or greater of the standard weight-for-height-for-age.

Data collection occurred over a 6-month period. Women attending three prenatal clinics at the women's clinic were given verbal and written explanations of the study by the researcher. Individuals who agreed to participate were taken to a quiet office in the clinic area to complete the tools in private. Completed questionnaires were left in the office area and picked up several minutes later by the researcher after the subjects had left. Clinic staff did not know if an individual had participated or not. A participation rate of 91.5% was realized.

All the research instruments were coded, individually scored, analyzed, and reported as group data. Descriptive statistics were used to examine the demographic variables. Inferential statistics were used to test the research hypotheses and examine the research tools in relation to their reliability and validity.

### Discussion of Findings

An analysis of the demographic data for this study indicated that the majority of the subjects (73.7%) were between the ages of 18 and 21 with a mean age for the entire sample of 20.5 years. Nearly all of the women were single (58.8%) or married (30.9%). Most were white (67%) and had graduated from high school (76.3%). Occupations listed for both the subjects (72.2%) and the subjects' partners (85.9%) were categorized as skilled manual, semiskilled, unskilled, or unemployed. Based on Hollingshead's Two-Factor Index of Social Position, 80.4% of the women were categorized as lower middle class or lower class. Seventy-eight (80.4%) were experiencing their first pregnancy; for all, it was the first full-term pregnancy. Most of the women (67%) were 33 to 34 weeks pregnant. In terms of size, the mean height for subjects was 54.3 inches; mean current weight was 173.1 pounds (with a median of 161 pounds and a mode of 139 pounds) and a mean prepregnant weight of 153.8 pounds (with a median of 145 pounds and a mode of 125 pounds). A variety of resources were identified as important to subjects in learning the role of pregnancy. The four most often identified resources were "my mother" (40.2%), "my friends" (43.3%), "my relatives" (45.4%), and "my doctor" (40.2%).

By a wide margin the Most Important Resource in learning about pregnancy was "my mother" (34%). Finally, 70.1% of the subjects felt their beliefs about pregnancy were pretty much like other people.

Demographic variables were also examined using correlational studies between 22 of these variables and research instrument scores. Statistically significant correlations were found regarding these scores and the variables related to body mass, namely height, current weight, and prepregnant weight. In general, the greater the mass, the lower (less positive) the specific subscale and total scale scores were and vice versa. Additionally, the greater the mass, the higher the specific difference scores were. Analyses of variance and multiple range tests between instrument scores and four demographic variables were also calculated. Statistically significant differences were found between the married subjects and the single group regarding mean scores on the SPSOC, SOCDIFF, SPTOT, and TOTDIFF with married subjects scoring significantly higher than single subjects.

Inferential statistics were used to examine the four research hypotheses. Paired t-tests comparing the mean scores on the IPRS with mean scores on the SPPRS for nonobese subjects and moderately obese subjects revealed

no significant difference between the two sets of scores. Therefore, Hypothesis 1 and Hypothesis 2 were accepted.

A paired t-test was also used to compare the mean scores on the IPRS with the mean scores on the SPPRS for the group of 23 excessively obese primigravidas. Scores on the IPRS were found to be significantly higher than the scores on the SPPRS for this group ( $t = 2.31$ ,  $p = .031$ ), and the null hypothesis was rejected.

Using a one-way analysis of variance the role expectation discrepancy scores (TOTDIFF) were found to vary significantly among the three study groups when Hypothesis 4 was analyzed. The multiple range, ad hoc comparison test, the Student-Newman-Keuls procedure, indicated that the role expectation discrepancy scores (TOTDIFF) for Group 3, the nonobese primigravidas, were significantly different from the role expectation discrepancy scores (TOTDIFF) for Group 5, the excessively obese primigravidas. Therefore, the null hypothesis was rejected.

#### Instrument Development

Reliability and validity measures were examined for the IPRS and SPPRS. Reliability estimations to determine the internal consistency or homogeneity of the items in each scale was accomplished using Cronbach's alpha



coefficient; the minimum expectation for a satisfactory alpha coefficient was considered to be .680. This criterion was met for the two scales as well as the IPAFF, SPAFF, IPSOC, and SPSOC subscales. The minimum .68 coefficient was not met for the IPBEH ( $\alpha = 0.4162$ ) or the SPBEH ( $\alpha = 0.3607$ ). A lower alpha on these two subscales could have resulted because these subscales had a fewer number of items or because, in fact, the items were not measuring the same concept that the other scale items were.

Content validity was addressed through literature review and consultation with experts in the field. On this basis the IPRS and the SPPRS appeared to adequately represent the content domain of the pregnancy role.

Internal construct validity was examined for the IPRS and the SPPRS by analyzing the correlations between individual test items and the total test scores. An item-total correlation of .20 was established as a minimum criterion for inclusion of the item in the scale. Six items on the IPRS and 15 items on the SPPRS failed to meet the minimum criterion for inclusion. Because the concept of pregnancy role is a multidimensional one, it may be more appropriate to examine the internal consistency of each of the subscales rather than the total scale at once. More appropriate item-total correlations may result from this examination.

Criterion validity for the IPRS and the SPPRS was demonstrated through a comparison of these instruments with Cranley's Maternal-Fetal Attachment Scale. Strong, positive correlations ( $p < .05$  or less) were discovered between 20 of the 30 subscale correlations. Seven of the remaining nonsignificant correlations involved the Behavioral subscale suggesting a closer examination of these subscales is necessary. It is possible that these particular subscales measured an aspect of the role of pregnancy which was outside the domain of maternal-fetal attachment. Total scores for the IPRS and SPPRS were positively correlated ( $p < .001$ ) with the total score for the M-FAS. Difference scores on the IPRS and the SPPRS demonstrated predictable inverse relationships with M-FAS scores although these correlations were not as numerous or as statistically significant as the correlations between scores on the scales and subscales. Role expectation discrepancy (TOTDIFF) was negatively and statistically significantly correlated with the total M-FAS score.

### Conclusions and Implications

The purpose of this study was to verify the existence of a previously undescribed concept, role expectation discrepancy, in a population of obese and nonobese pregnant

women. Masking of the pregnant role by obesity had not been examined prior to this time. In reviewing the literature, the researcher found that other investigators had often developed studies to determine the effectiveness of a particular nursing intervention without first confirming the presence of a problem requiring remediation. This study aimed to substantiate and clarify the problem area first.

Based on the assumptions that individuals integrate various life roles into the self concept through reciprocal interactions with others, the researcher speculated that masking of cues signaling the pregnant woman role would result in less integration of the new role. A model was developed depicting the relationships in this theory of role expectation discrepancy (see Appendices D and E). Using this model, the researcher hypothesized that the more obese the pregnant woman was, the more the pregnant woman role would be masked to others. This masking would interfere with role integration. Consequently, the more obese the pregnant woman, the greater the discrepancy would be between society's expectations of the pregnant role and the woman's perception of herself in the pregnant role.

In order to test the proposed relationship between role masking and role expectation discrepancy, two research instruments were developed and pilot tested. In the final study, a statistically significant higher role expectation discrepancy score was found in the excessively obese subjects, that is, those subjects with the greatest cue masking. While the conclusions based on this study apply solely to the population from which the subjects were taken, these findings did support the proposed relationship in the theoretical model.

The next steps in the delineation of the phenomenon of role expectation discrepancy would be to determine if these identified differences in discrepancy scores resulted in problems in adaptation to the pregnant role for these women. Measures of state-trait anxiety or self-esteem might be used to determine if discrepancies were particular to the pregnancy-masking phenomenon or a result of the individuals' inherent personality patterns and outlooks on life. Later, nursing interventions would be devised and tested to determine if nursing actions could impact on role expectation discrepancy and improve the quality of the pregnancy experience for these obese women. This extension of role theory and maternal role attainment

theory represents an important area for further nursing research.

#### Recommendations for Future Study

As a result of this, the researcher concluded that the following areas warranted further study:

1. The present study needs to be replicated with a larger group of subjects covering a wider range of variables. For example, inclusion of individuals from the higher socioeconomic groups would be considered essential.

2. While the IPRS and SPPRS were shown to have moderate reliability and validity, further testing and refinement particularly regarding the Behavioral subscales is recommended. These instruments have a variety of practical applications in the area of maternal-child health. One example would be the early detection and treatment of difficulties in assuming the pregnancy role which could in turn lead to an improved prenatal course for the child-bearing family.

3. Error in measurement due to response set was not dealt with in this study. Efforts to minimize this effect should be dealt with in future testing by such techniques as varying the wording from positive to negative or increasing the appeal of the items to hold the subjects'

interest. The problem of the social desirability response set is particularly problematic when dealing with the judgemental area of pregnancy and motherhood. This was clearly illustrated in this study by the fact that all 97 subjects agreed or strongly agreed with the statement "I feel I have a great responsibility to take care of the baby growing inside me" (S15).

4. The phenomenon role expectation discrepancy requires further study. Does it exist in other types of populations and situations? How do people respond to the discrepancy between ideal role perceptions and perceptions of self in the role? Is there a critical degree of discrepancy which results in difficulties in adaptation? Can nursing interventions be utilized to minimize role expectation discrepancy and facilitate role transition?

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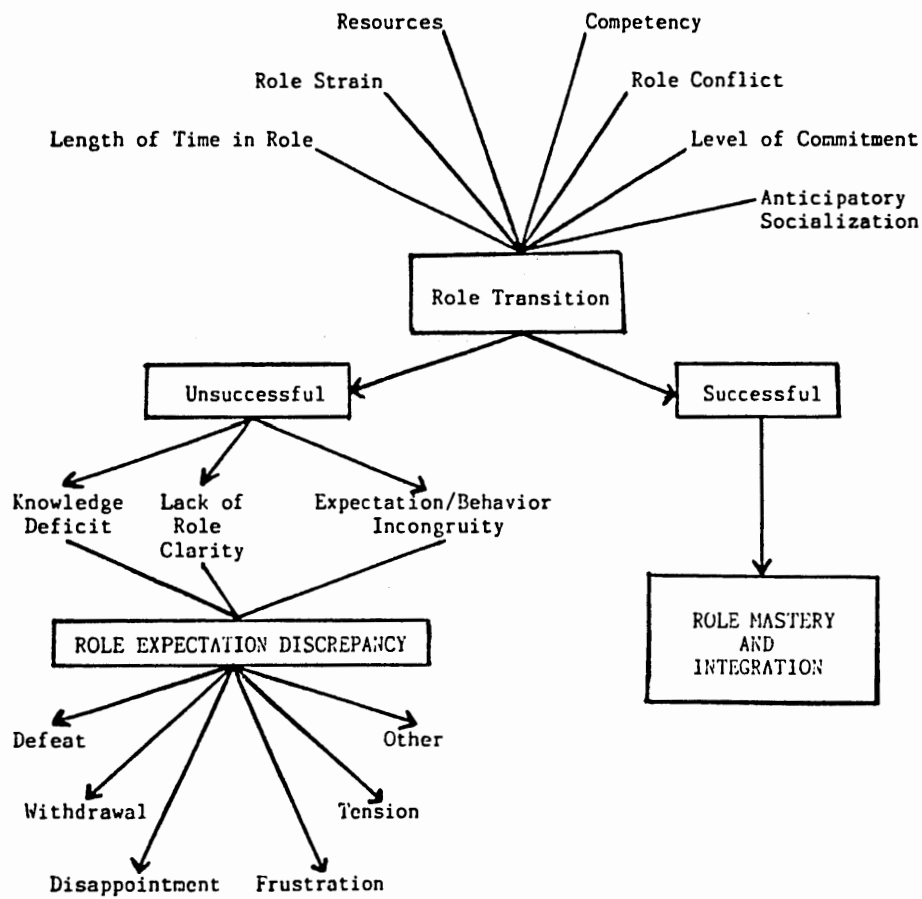
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## APPENDICES

## APPENDIX A

### Schematic Representation of the Antecedents and Consequences of Role Expectation Discrepancy

Schematic Representation of the Antecedents and Consequences of  
Role Expectation Discrepancy



## APPENDIX B

### Comparison of Defining Attributes of Role Expectation Discrepancy with Related Constructs

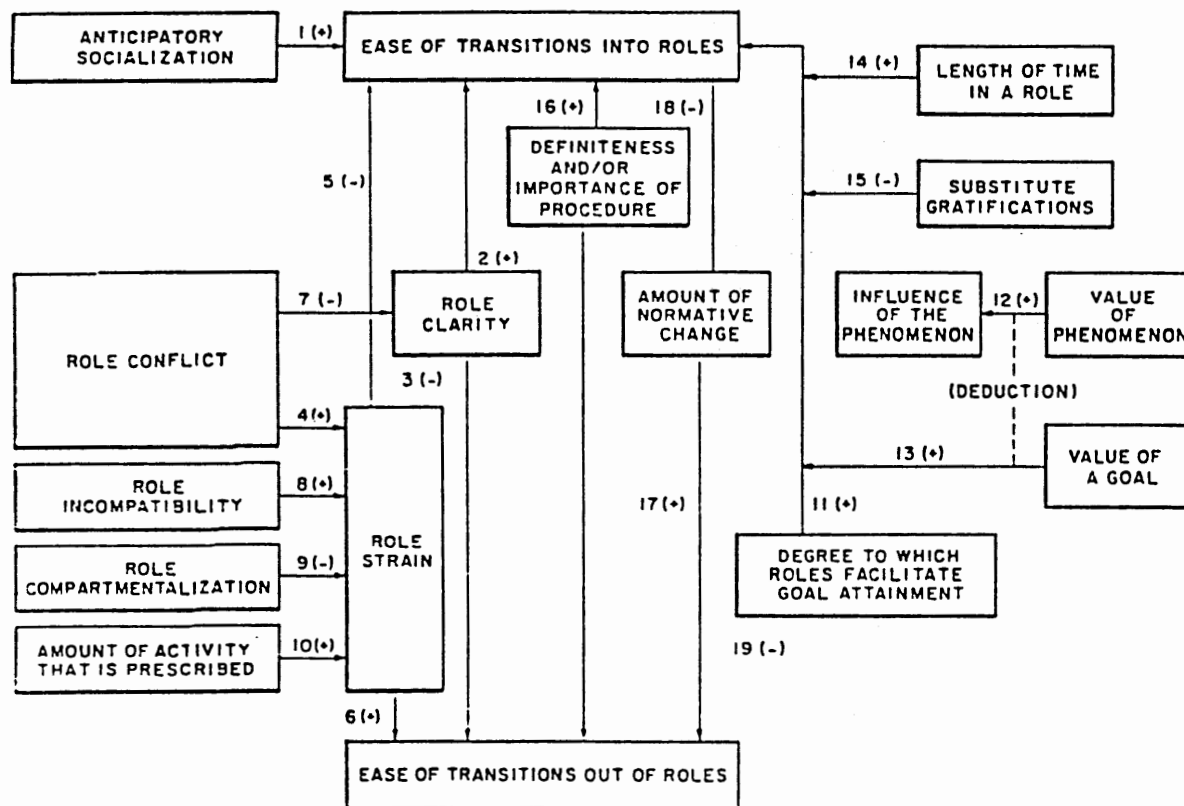
Comparison of Defining Attributes of Role Expectation Discrepancy With Related Constructs

Case	Role Transition	Known Prescription	Correspondence	Reciprocal Cue Lack	Tension	Failure
<u>Model Case</u>	X	X	X	X	X	
<u>Borderline Case</u>						
Role Uncertainty	Limited	X	X	X	X	
<u>Related Cases</u>						
Role Ambiguity	X	O	O	X	X	
Role Distance	X	Rejected	X	X	X	
Role Conflict	O	X	O	X	X	
Role Failure	X	X	X	X	X	X
<u>Contrary Case</u>						
Role Mastery	X	X	X	O	O	O

## APPENDIX C

### Propositions in a Theory of the Ease of Making Role Transitions

Propositions in a Theory of the Ease of Making Role Transitions



from: Burr, W. R. (1972). Role transition: a reformulation of theory. Journal of Marriage and the Family, 34, 407-416, see p. 415.



4017 NW 62nd Terrace  
Oklahoma City, Oklahoma 73112  
July 27, 1987

Ms. Stacy Ginsbach, Permissions  
National Council on Family Relations  
1910 West County Road  
B Suite 147  
Roseville, Minnesota 55113

Dear Ginsbach:

I am currently a doctoral candidate at Texas Woman's University in Denton, Texas. I would like permission to reproduce a model, "Propositions in a Theory of the Ease of Making Role Transitions" by Dr. Wesley R. Burr in my dissertation. The model is found on page 415 of the Journal of Marriage and the Family, Vol. 34, 1972, in an article entitled "Role Transition: A Reformulation of Theory". A full bibliographic citation will be included with the diagram. Thank you for your consideration of this matter.

Sincerely

*Francene Weatherby*

Francene Weatherby  
Doctoral Candidate  
Texas Woman's University

~~This permission is for one time only. Please submit written requests for additional usage.~~  
~~Under no circumstances can this material be used for sale or profit.~~  
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~~bibliographic citation and the following notice:~~  
~~Date \_\_\_\_\_~~

PERMISSION GRANTED

DATE 8-6-87 s 517

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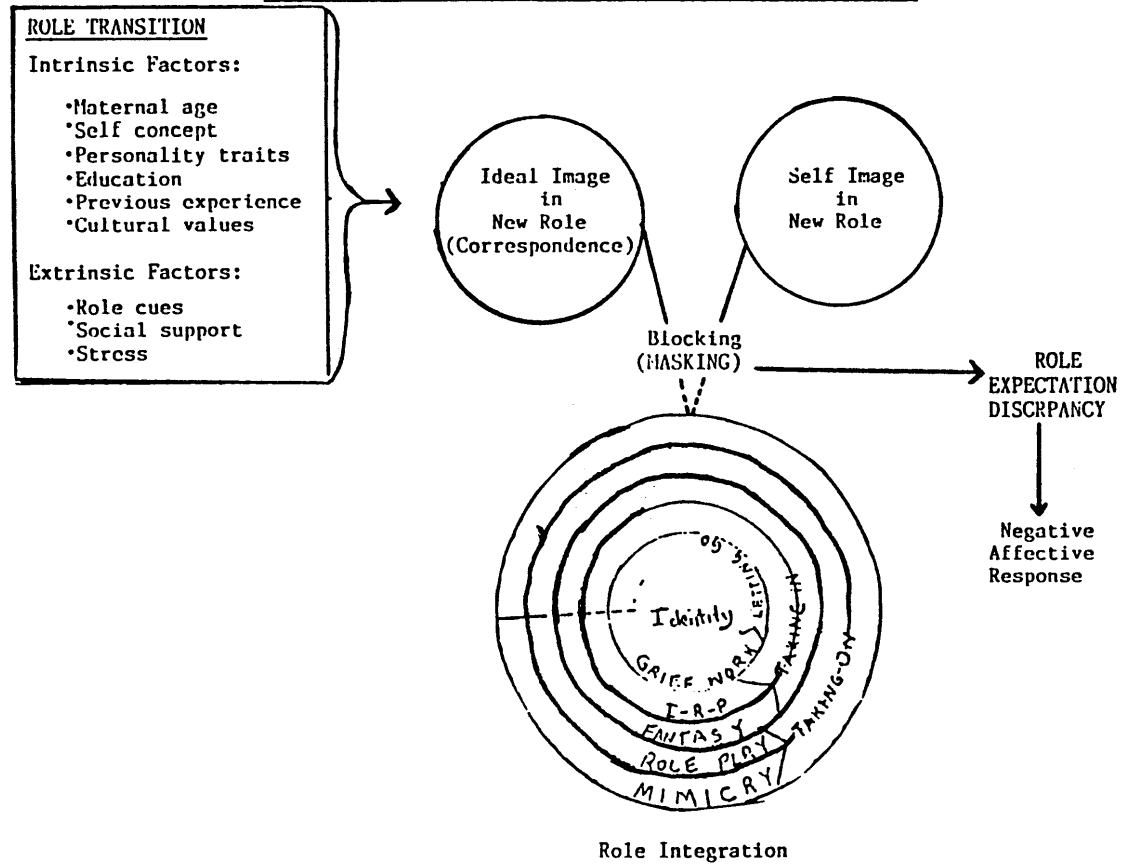
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## APPENDIX D

### Diagram of the Etiology of Role Expectation Discrepancy

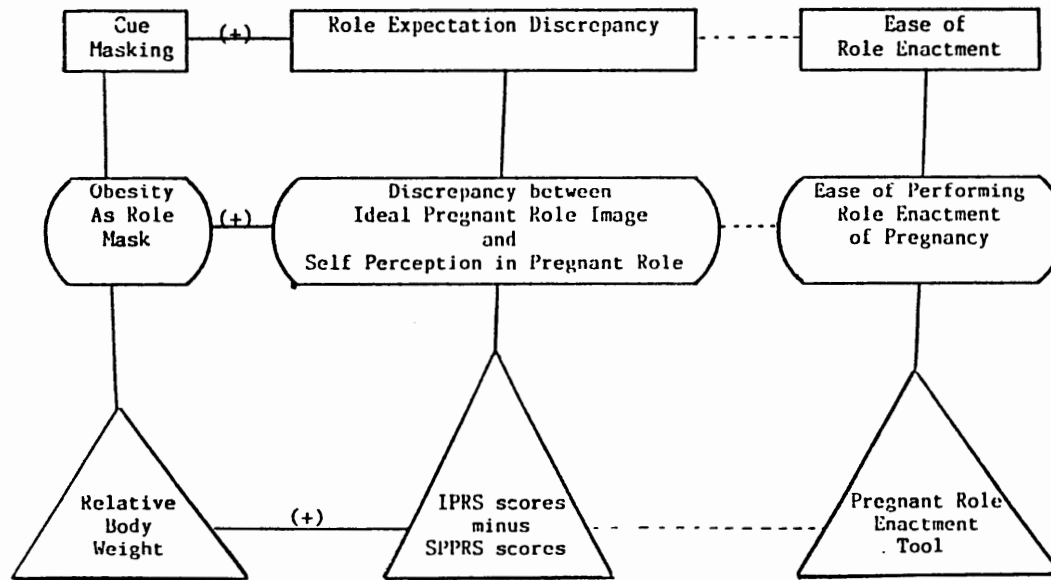
Diagram of the Etiology of Role Expectation Discrepancy



## APPENDIX E

### Model of Relationships in a Theory of Role Expectation Discrepancy

Model of Relationships in a Theory of Role Expectation Discrepancy



———— Proposed relationship with anticipated valance

----- Proposed relationship, valance unknown

## APPENDIX F

Proposal Approval: Research Committee

TEXAS WOMAN'S UNIVERSITY  
COLLEGE OF NURSING

PROSPECTUS FOR DISSERTATION

This prospectus proposed by: Francene Stepanich Weatherby  
\_\_\_\_\_ and entitled:

Role Expectation Discrepancy: A Comparison of Nonobese,  
Moderately Obese and Excessively Obese Primigravidas

Has been read and approved by the members of (his/hers) Research  
Committee.

This research is (check one):

X Is exempt from Human Subjects Review Committee review  
because this study utilizes a questionnaire data collection  
method and poses no risks to the participants. It qualifies as  
Category I research according to federal guidelines and policies  
of the TWU Human Subjects Review Committee.  
\_\_\_\_\_  
Requires Human Subjects Review Committee review  
because \_\_\_\_\_

Research Committee:

Chairperson	<u>Virginia A. Smith</u>
Member	<u>Helen A. Bush</u>
Member	<u>Leggy J. Davis</u>
Member	<u>Margaret T. Gaud</u>
Member	<u>Walter Marshall</u>
	<u>Anna Hutchinson</u>

APPENDIX G

Approval for Study:

Texas Woman's University Graduate School





Texas Woman's University

P.O. Box 22479, Denton, Texas 76204 (817) 696-3400, Metro 434 1755, Tex. An 341 3400

THE GRADUATE SCHOOL

March 12, 1987

Ms. Francene Weatherby  
4017 NW 62nd Terrace  
Oklahoma City, OK 73112

Dear Ms. Weatherby:

Thank you for providing the material necessary for the final approval of your prospectus in the Graduate Office. I am pleased to approve the prospectus, and I look forward to seeing the results of your study.

If I can be of further assistance, please let me know.

Sincerely,

*Leslie M. Thompson*

Leslie M. Thompson  
Provost

cc: Dr. Anne Gudmundsen ✓



Texas Woman's University

P.O. Box 22479, Denton, Texas 76204 (817) 383-2302, Metro 434-1757, Tex-An 834-2133

THE GRADUATE SCHOOL

September 11, 1986

Ms. Francene M. Weatherby  
4017 NW 62nd Terrace  
Oklahoma City, OK 73112

Dear Ms. Weatherby:

Your departmental chairman has notified this office that you have successfully completed your doctoral qualifying examination. Consequently, we are now able to certify your Admission to Candidacy for the doctorate as of the date of this letter. You now have five years from this date to complete your work for receipt of the degree.

Congratulations upon this attainment, and best wishes to you for the successful completion of your research and dissertation.

Sincerely yours,

A handwritten signature in cursive script, reading 'Leslie M. Thompson'. The signature is written in dark ink and includes a checkmark at the end.

Leslie M. Thompson  
Provost

d1

cc Dr. Anne Gudmundsen

APPENDIX H

Approval for Study:

Nursing Research Forum

State of Oklahoma Teaching Hospitals



Oklahoma Teaching Hospitals 940 Northeast 13th P.O. Box 26307 Oklahoma City, OK 73126

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October 23, 1986

Francene Weatherby, R.N.C., M.S.N., M.A.  
4017 NW 62nd Terrace  
Oklahoma City, Oklahoma 73112

Dear Francene:

The Oklahoma Teaching Hospitals Nursing Proposal Review Committee has approved your study for implementation. You may initiate your research activities within the requested areas in accordance with the information contained in the form entitled "Permission to Implement Research Proposal", previously forwarded to you.

The State of Oklahoma Teaching Hospitals Nursing Research Forum encourages and promotes practice-based research for the purpose of generating new knowledge and validating existing knowledge essential to professional nursing practice.

As Chairperson of the Nursing Research Forum, I welcome your participating with us in this endeavor and look forward to learning of your findings. If I can be of assistance during your research affiliation with us, please contact me at 271-5151.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marilyn L. Cox".

Marilyn L. Cox, R.N., M.S.  
Chairperson  
State of Oklahoma Teaching Hospitals  
Nursing Research Forum

MC/ljw

CC: Maria Glenn



A component of the Department of Human Services and affiliated  
with the University of Oklahoma Health Sciences Center

---

APPENDIX I

Approval for Study:

University of Oklahoma Health Sciences Center

Institutional Review Board



*The*  
**University of Oklahoma**  
 Oklahoma City Campus-Health Sciences Center

**INSTITUTIONAL REVIEW BOARD**

**M E M O R A N D U M**

**TO:** Francene Weatherby  
 Principal Investigator

**FROM:** Fletcher B. Taylor, Jr. M.D. *FBT/dk*  
 Chairman, Institutional Review Board

**DATE:** September 23, 1986

**RE:** EXEMPTION 3

Research involving survey or interview procedures except when:

- a. subjects can be identified;
- b. subjects might be placed at risk of criminal or civil liability or damage to financial standing or employability; and
- c. research deals with sensitive aspects of subject's behavior.

**FOR:** IRB Protocol Entitled: Role Expectation Discrepancy: A Comparison of Obese, Moderately Obese and Excessively Obese Primigravidas.

The above-captioned study falls into the category of EXEMPT according to government guidelines for Institutional Review Boards (I.R.B.) and Board review is not necessary. Therefore, you may proceed with your research.

If any changes to the study should occur which significantly alter its contents, before the first year is finished, please contact the IRB office at 271-2090.

FBT:dlk

APPENDIX J  
Demographic Data Sheet

Demographic Data Sheet

For the rest of the questionnaire, please indicate the answer to each item by circling the best response or by filling in the information asked for.

A. What is your age? \_\_\_\_\_

B. Marital Status

1. single
2. married
3. widowed
4. divorced
5. separated
6. co-habiting
7. other (specify) \_\_\_\_\_

C. Ethnic Background

1. Caucasian
2. Black
3. Hispanic
4. Oriental
5. Mid Eastern
6. American Indian
7. African Nations
8. Other (specify) \_\_\_\_\_

D. Highest Educational Level Held

1. Less than seven years of school
2. 8 - 9 years
3. 10 - 12 years (high school not completed.)
4. High School graduate
5. Some college
6. Associate degree
7. Bachelor's degree
8. Graduate degree

E. What is your main occupation? \_\_\_\_\_

F. What is your partner's main occupation? \_\_\_\_\_



- G. How many pregnancies have you had? \_\_\_\_\_
- H. How many full term pregnancies? \_\_\_\_\_
- I. How many weeks pregnant are you now? \_\_\_\_\_
- J. What is your height? \_\_\_\_\_
- K. What is your current weight? \_\_\_\_\_
- L. How much did you weigh before this pregnancy? \_\_\_\_\_
- M. Where did you learn about the role of pregnancy? Put a number 1 beside the MOST IMPORTANT RESOURCE. Put a check in front of all other resources that were important to you.

- \_\_\_\_\_ 1. Television
- \_\_\_\_\_ 2. Popular books
- \_\_\_\_\_ 3. Textbooks
- \_\_\_\_\_ 4. Movies
- \_\_\_\_\_ 5. Newspapers and magazines
- \_\_\_\_\_ 6. Class(s) in high school
- \_\_\_\_\_ 7. Class(s) in college
- \_\_\_\_\_ 8. My mother
- \_\_\_\_\_ 9. My friends
- \_\_\_\_\_ 10. My relatives (Specify) \_\_\_\_\_
- \_\_\_\_\_ 11. My doctor
- \_\_\_\_\_ 12. Nurses
- \_\_\_\_\_ 13. Other health care workers (Specify) \_\_\_\_\_
- \_\_\_\_\_ 14. Other (Specify) \_\_\_\_\_

- N. How much do you think your beliefs about the role of pregnancy match (are like) the beliefs about the role of pregnancy that most people have? (Circle One Answer.)

- 1. My beliefs are very much like others about pregnancy.
- 2. My beliefs are pretty much like others about pregnancy.
- 3. I can't decide.
- 4. My beliefs are not very much like others.
- 5. My beliefs are very different from others about pregnancy.

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT IN HELPING ME WITH THIS PROJECT.

APPENDIX K  
Ideal Pregnant Role Scale

Ideal Pregnant Role Scale

Below is a list of statements about the role of pregnancy. I am interested in what you think most people believe about the role of pregnancy. Please put a check mark in the column that you believe describes what most people believe about the role of pregnancy. There are no right or wrong answers.

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
1. Enlarged breasts are an important sign of pregnancy to others.					
2. Most women look forward to motherhood.					
3. The expectant mother's own mother becomes very important to her during the pregnancy.					
4. In the last part of pregnancy, women tend to "waddle" when they walk.					
5. A missed menstrual period is a sure sign of pregnancy.					
6. Women seem to talk more with their mothers when they are pregnant.					
7. Most pregnant women get brown blotches on their face during pregnancy called the "mask of pregnancy".					
8. Pregnant women feel they should try extra hard to take care of themselves during pregnancy.					
9. An enlarging abdomen is the most important sign to others that a woman is pregnant.					
10. Pregnant women often find that other people seem to like to pat or touch their growing stomach.					
11. Pregnant women are often concerned that their baby will be abnormal.					
12. Pregnant women are often concerned about how they will act in labor and delivery.					
13. Most fathers'-of-the-baby are interested in talking about the pregnancy with the expectant mother.					
14. Pregnant women are often concerned about how the pregnancy changes their appearance.					
15. Expectant mothers feel they have a great responsibility to take care of the baby growing inside them.					

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
16. The pregnant woman's main concern is over changes in her body during pregnancy.					
17. People generally don't treat pregnant women any differently than they do women in general.					
18. Fears of pain during labor are common during pregnancy.					
19. Wearing maternity clothes is often the first message to others that a woman is pregnant.					
20. Husbands help out more at home when their wives are pregnant.					
21. Being pregnant proves you are really a woman.					
22. Expectant mothers like to have their partners feel the baby move.					
23. A pregnant woman should not be pampered by others just because she is pregnant.					
24. Being pregnant makes a woman feel special/privileged.					
25. A pregnant woman will often find herself standing or sitting with her hands resting on her growing stomach.					
26. A woman feels a sense of achievement (accomplishment) when she finds out she is pregnant.					
27. The fear of losing control during labor and delivery is common among pregnant women.					
28. The expectant woman often views the fetus as a special gift given to her to protect and care for.					
29. Fathers-of-the-baby often find their mates more attractive when they are pregnant.					
30. Most people consider pregnant women unattractive.					
31. Every pregnant woman can hardly wait for her baby to be born.					
32. It is common for the woman's partner not to want to feel the baby move inside the mother.					
33. If it weren't for the enlarged abdomen, no one would know a woman was pregnant.					
34. Most pregnant women look forward to the birth of their baby with feelings of dread.					
35. An expectant mother can count on her own mother for support during pregnancy.					
36. Fathers-of-the-baby often say their partners were prettier before the pregnancy.					

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
37. The pregnant woman often looks on her coming baby as a special gift that she will give to her partner.					
38. Most fathers-of-the-baby are "turned on" by their partners pregnant bodies.					
39. Most expectant fathers are curious about how their partner feels during pregnancy and ask them many questions about her thoughts and feelings.					

APPENDIX L

Self Perception in Pregnant Role Scale

Self Perception in Pregnant Role Scale

The list of statements below applies to your beliefs about pregnancy. I am interested in how you feel about each of these statements as they apply to you now. Please put a check mark in the column that you believe best describes your feelings about your pregnancy. There are no right or wrong answers.

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
1. Enlarged breasts are an important sign of pregnancy to others.					
2. I look forward to motherhood.					
3. My own mother became very important to me during my pregnancy.					
4. In the last part of pregnancy, women tend to "waddle" when they walk.					
5. A missed menstrual period is a sure sign of pregnancy.					
6. I seem to talk more with my mother when I am pregnant.					
7. I get brown blotches on my face during pregnancy called the "mask of pregnancy".					
8. I feel I should try extra hard to take care of myself during pregnancy.					
9. An enlarging abdomen is the most important sign to others that I am pregnant.					
10. I often find that other people seem to like to pat or touch my growing stomach.					
11. I am often concerned that my baby will be abnormal.					
12. I am often concerned about how I will act in labor and delivery.					
13. My partner is interested in talking about the pregnancy with me.					
14. I am often concerned about how the pregnancy changes my appearance.					
15. I feel I have a great responsibility to take care of the baby growing inside me.					

	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
16. My main concern is over changes in my body during pregnancy.					
17. People generally don't treat pregnant women any differently than they do women in general.					
18. Fears of pain during labor are common during pregnancy.					
19. Wearing maternity clothes is often the first message to others that I am pregnant.					
20. The father of my baby helps out more at home now that I am pregnant.					
21. Being pregnant proves I am really a woman.					
22. I like to have my partner feel the baby move.					
23. I should not be pampered by others just because I am pregnant.					
24. Being pregnant makes me feel special/privileged.					
25. I often find myself standing or sitting with my hands resting on my growing stomach.					
26. I felt a sense of achievement (accomplishment) when I found out I was pregnant.					
27. The fear of losing control during labor and delivery is common among pregnant women.					
28. I often view the fetus as a special gift given to me to protect and care for.					
29. My partner finds me more attractive now that I am pregnant.					
30. Most people consider me unattractive now that I am pregnant.					
31. I can hardly wait for my baby to be born.					
32. It is common for my partner not to want to feel the baby move inside me.					
33. If it weren't for the enlarged abdomen, no one would know I was pregnant.					
34. I look forward to the birth of my baby with feelings of dread.					
35. I can count on my own mother for support during pregnancy.					
36. My partner says I was prettier before this pregnancy.					



	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
37. I often look on my coming baby as a special gift that I will give to my partner.					
38. My partner is "turned on" by my pregnant body.					
39. My partner is curious about how I feel during pregnancy and asks me many questions about my thoughts and feelings.					

## APPENDIX M

### Panel Evaluation: Instruction and Tools

Panel Evaluation: Instruction and Tools

GENERAL OVERVIEW

The purpose of this study is to examine the concept of the role of pregnant person. Role enactment is a complex social activity involving many facets. The major three dimensions I am exploring are:

- 1) behavioral aspects of the pregnant role.
- 2) affective aspects of the pregnant role.
- 3) social aspects of the pregnant role.

Behavioral aspects of the pregnant role is defined as the motoric cues consisting of acts and appearances which are overtly displayed by the role occupant and serve to help others identify the person as occupying a particular position. Behavioral aspects include (1) gross skeletal movements, (2) verbal acts, (3) physique, (4) clothing, (5) posture, (6) gait, (7) adornments, and (8) visible emblems and "badges of office".

Affective aspects of the pregnant role is defined as the expected emotional overtones which would occur as the role of pregnancy is enacted. Affective aspects include (1) feelings of women in regard to pregnancy, (2) attitudes regarding pregnancy and (3) general feeling tones present during pregnancy.

Social aspects of the pregnancy role is defined as the expected relationships with others as the role of pregnancy is enacted. Social aspects include (1) general kind and quality of relationships with others, (2) expectations of behavior of others toward pregnant women and (3) amount of contact with others during pregnancy.

Using the definitions listed above, rate each item by circling the letter you feel best describes the item:

- N = Not relevant to the role of pregnancy
- B = Behavioral aspect of pregnancy role
- A = Affective aspect of pregnancy role
- S = Social aspect of pregnancy role

## PREGNANCY ROLE INSTRUMENT

N = Not relevant to the role of pregnancy  
 B = Behavioral aspect of pregnancy role  
 A = Affective aspect of pregnancy role  
 S = Social aspect of pregnancy role

- |   |         |
|---|---------|
| 1. Enlarged breasts are an important sign of pregnancy to others.   | N B A S |
| 2. Most women look forward to motherhood.   | N B A S |
| 3. The expectant mother's own mother becomes very important to her during the pregnancy.                  | N B A S |
| 4. Pregnant women need extra love and attention from others.  | N B A S |
| 5. Most pregnant women are awed by the miracle of creation occurring within them.                         | N B A S |
| 6. In the last part of pregnancy, women tend to "waddle" when they walk.                                  | N B A S |
| 7. During pregnancy, a woman feels a special closeness with the father of her baby.                       | N B A S |
| 8. Pregnant women should not make major decisions during pregnancy.                                       | N B A S |
| 9. Pregnancy does not change at all the daily routine the woman had prior to pregnancy.                   | N B A S |
| 10. A missed menstrual period is a sure sign of pregnancy.  | N B A S |
| 11. Women seem to talk more with their mothers when they are pregnant.                                    | N B A S |
| 12. Most pregnant women worry that their abdomen is getting too big.                                      | N B A S |
| 13. Most pregnant women get brown blotches on their face during pregnancy called the "mask of pregnancy." | N B A S |
| 14. Pregnant women feel they should try extra hard to take care of themselves during pregnancy.           | N B A S |
| 15. An expectant mother often shows pictures of her fetus' ultrasound to her friends.                     | N B A S |
| 16. Feeling the baby move makes a pregnancy seem real.  | N B A S |
| 17. An enlarging abdomen is the most important sign to others that a woman is pregnant.                   | N B A S |
| 18. A pregnant woman often feels isolated from others because of her condition.                           | N B A S |
| 19. Pregnant women often find that other people seem to like to pat or touch their growing stomach.       | N B A S |
| 20. Pregnant women are often concerned that their baby will be abnormal.                                  | N B A S |

N = Not relevant to the role of pregnancy  
 B = Behavioral aspect of pregnancy role  
 A = Affective aspect of pregnancy role  
 S = Social aspect of pregnancy role

- |   |         |
|---|---------|
| 21. Pregnant women are often concerned about how they will act in labor and delivery.                           | N B A S |
| 22. Most husbands are interested in talking about the pregnancy with their wives.                               | N B A S |
| 23. Pregnant women are often concerned about how the pregnancy changes their appearance.                        | N B A S |
| 24. Expectant mothers feel they have a great responsibility to take care of the baby growing inside them.       | N B A S |
| 25. The pregnant woman's main concern is over changes in her body during pregnancy.                             | N B A S |
| 26. People generally don't treat pregnant women any differently than they do women in general.                  | N B A S |
| 27. There is no reason for a woman to quit her job because she is pregnant.                                     | N B A S |
| 28. Nausea and vomiting (morning sickness) are an expected part of early pregnancy.                             | N B A S |
| 29. Fears of pain during labor are common during pregnancy.   | N B A S |
| 30. Wearing maternity clothes is often the first message to others that a woman is pregnant.                    | N B A S |
| 31. Husbands help out more at home when their wives are pregnant.   | N B A S |
| 32. Being pregnant proves you are really a woman.   | N B A S |
| 33. Pregnant women often find themselves talking out loud to their unborn babies.                               | N B A S |
| 34. Pregnant women often say that their appearance makes them feel uncomfortable out in public.                 | N B A S |
| 35. Most pregnant women feel their abdomen is too small.  | N B A S |
| 36. Expectant mothers like to have their partners feel the baby move.   | N B A S |
| 37. Hearing the heartbeat is more important than feeling the baby move in terms of confirming the pregnancy.    | N B A S |
| 38. Most pregnant women prepare themselves in every way possible for the birth of their baby.                   | N B A S |
| 39. A pregnant woman should not be pampered by others just because she is pregnant.                             | N B A S |
| 40. Being pregnant makes a woman feel special/privileged.   | N B A S |
| 41. A pregnant woman will often find herself standing or sitting with her hands resting on her growing stomach. | N B A S |

N = Not relevant to the role of pregnancy  
 B = Behavioral aspect of pregnancy role  
 A = Affective aspect of pregnancy role  
 S = Social aspect of pregnancy role

- |  |         |
|--|---------|
| 42. There is a special madonna-like quality about a pregnant woman.  | N B A S |
| 43. A pregnant woman can't seem to get enough to eat.  | N B A S |
| 44. Hearing the baby's heartbeat makes the baby seem real.   | N B A S |
| 45. A woman feels a sense of achievement (accomplishment) when she finds out she is pregnant.  | N B A S |
| 46. The fear of losing control during labor and delivery is common among pregnant women.   | N B A S |
| 47. The expectant woman often views the fetus as a special gift given to her to protect and care for.  | N B A S |
| 48. A person can always tell if a woman is pregnant just by looking at her face.   | N B A S |
| 49. Pregnant women are very delicate and should be treated with special care.  | N B A S |
| 50. Husbands often find their wives more attractive when they are pregnant.  | N B A S |
| 51. Most people consider pregnant women unattractive.  | N B A S |
| 52. Every pregnant woman can hardly wait for her baby to be born.  | N B A S |
| 53. Pregnant women often discuss their pregnancy with their mothers.   | N B A S |
| 54. It is common for the woman's partner not to want to feel the baby move inside the mother.  | N B A S |
| 55. If it weren't for the enlarged abdomen, no one would know a woman was pregnant.  | N B A S |
| 56. Most pregnant women look forward to the birth of their baby with feelings of dread.  | N B A S |
| 57. An expectant mother can count on her own mother for support during pregnancy.  | N B A S |
| 58. Husbands often say their wives were prettier before the pregnancy.   | N B A S |
| 59. The pregnant woman often looks on her coming baby as a special gift that she will give to her partner.   | N B A S |
| 60. Many husbands are "turned on" by their wives' pregnant bodies.   | N B A S |
| 61. Most expectant fathers are curious about how their partner feels during pregnancy and ask them many questions about her thoughts and feelings. | N B A S |

APPENDIX N  
Cover Letters

Dear Mother-To-Be,

I am currently a doctoral student at Texas Woman's University. As a part of my studies I am working on a research instrument to measure role attainment of pregnancy. I'm looking at the kinds of things which might be involved in making the transition from nonpregnant woman to pregnant woman. How does the individual go about acquiring this role? What things interfere with or enhance acquiring the role? What part do others play in this role change?

I would like to ask your help in developing this tool. Attached you will find two questionnaires and a demographic sheet. The three documents should take about 20 to 25 minutes of your time to complete. Do NOT put your name on any of the sheets. After completing the questionnaires, please put them in the enclosed stamped, addressed envelop and return them to me. The code number is for the purpose of sending follow-up reminders and WILL NOT be used to identify you. Your response will be completely anonymous. Completion and return of the questionnaire will serve as your consent to participate. If you would like a copy of the results of the study complete the last page of the packet.

Please complete the questionnaire and return it to me as soon as possible. Thank you in advance for participating in this nursing research project.

Sincerely,



Francene Weatherby, R.N., M.S.N.  
Doctoral Student  
Texas Woman's University



Dear Student,

I am currently working on a project to develop a research instrument for measuring pregnant person role attainment. I'm looking at what kinds of things are involved in making the transition from nonpregnant person to pregnant person. How does the individual go about acquiring this role? What things might interfere with acquiring the role? What part do others play in this role change?

I would like to ask your help in developing this tool. Attached you will find two documents, a demographic sheet and a copy of the questionnaire. Both documents should take about 15 to 20 minutes of your time to complete. **DO NOT** put your name on any of the sheets. After completing the questionnaire, please place it in my mailbox in the first floor administrative office suite area. Your response will be completely anonymous. Completion and return of the questionnaire will serve as your consent to participate.

Please complete the questionnaire and return it to me as soon as possible. Thank you in advance for participating in this nursing research project.

Sincerely,

A handwritten signature in cursive script that reads "Francene Weatherby".

Francene Weatherby, R.N.C., N.A., M.S.

APPENDIX O  
Research Study: Cover Letter

Dear Mother-to-Be,

I am currently a doctoral student at Texas Woman's University. As part of my studies, I am conducting a study entitled, "Pregnant Women's Views of Pregnancy". The purpose of this study is to learn more about the role of pregnancy. What kinds of activities are involved in this role? What part do others play in this role? How can health care providers help women adjust to this new role?

You are eligible to participate if you are (1) between 18 and 34 years old, (2) are having your first baby and (3) are 30 to 34 weeks pregnant.

Your participation is voluntary and involves (1) completion of three questionnaires and (2) completion of an information sheet. About 20 to 30 minutes of your time is required to complete these materials. Your responses on these questionnaires will be completely anonymous; your name will not be on any of the material. No one at the clinic will know if or how you answered the questions. All data analyses will be grouped data, and individuals will not be identifiable. A summary of the results will be sent to the clinic when the project is completed, and a research article will report the findings if you are interested in learning the results.

This study offers no immediate benefit to you except the knowledge that you have helped increase understanding of the role of pregnancy. There should be no risks involved in your participation. If you have any questions about this study, please do not hesitate to ask me.

Return of the completed questionnaire will serve as evidence of your informed consent to participate. Thank you for your consideration of this nursing research effort.

Sincerely yours,

A handwritten signature in cursive script that reads "Francene Weatherby".

Francene Weatherby, R.N., M.S.N.  
Doctoral Candidate  
Texas Woman's University

APPENDIX P

Maternal-Fetal Attachment Scale

### *Maternal-Fetal Attachment Scale*

Please respond to the following items about yourself & the baby you are expecting. There are no right or wrong answers. Your first impression is usually the best reflection of your feelings.

*Make sure you mark only one answer per sentence.*

<small>I think or do the following:</small>		<small>definitely yes</small>	<small>yes</small>	<small>uncertain</small>	<small>no</small>	<small>definitely no</small>
1.	I talk to my unborn baby .....	—	—	—	—	—
2.	I feel all the trouble of being pregnant is worth it .....	—	—	—	—	—
3.	I enjoy watching my tummy jiggle as the baby kicks inside .....	—	—	—	—	—
4.	I picture myself feeding the baby .....	—	—	—	—	—
5.	I'm really looking forward to seeing what the baby looks like .....	—	—	—	—	—
6.	I wonder if the baby feels cramped in there .....	—	—	—	—	—
7.	I refer to my baby by a nickname .....	—	—	—	—	—
8.	I imagine myself taking care of the baby .....	—	—	—	—	—
9.	I can almost guess what my baby's personality will be from the way s/he moves around .....	—	—	—	—	—
10.	I have decided on a name for a girl baby .....	—	—	—	—	—
11.	I do things to try to stay healthy that I would not do if I were not pregnant .....	—	—	—	—	—
12.	I wonder if the baby can hear inside of me .....	—	—	—	—	—
13.	I have decided on a name for a baby boy .....	—	—	—	—	—
14.	I wonder if the baby thinks and feels inside of me .....	—	—	—	—	—
15.	I eat meat and vegetables to be sure my baby gets a good diet .....	—	—	—	—	—
16.	It seems my baby kicks and moves to tell me it's eating time .....	—	—	—	—	—
17.	I poke the baby to get him/her to poke back .....	—	—	—	—	—
18.	I can hardly wait to hold the baby .....	—	—	—	—	—
19.	I try to picture what the baby will look like .....	—	—	—	—	—
20.	I stroke my tummy to quiet the baby when there is too much kicking .....	—	—	—	—	—
21.	I can tell that the baby has hiccoughs .....	—	—	—	—	—
22.	I feel my body is ugly .....	—	—	—	—	—
23.	I give up doing certain things because I want to help my baby .....	—	—	—	—	—
24.	I grasp my baby's foot through my tummy to move it around .....	—	—	—	—	—

APPENDIX Q

Items on Revised Maternal-Fetal  
Attachment Scale by Subscale

Items on Revised Maternal-Fetal  
Attachment Scale by Subscale

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Subscale ROLETAKING

I picture myself feeding the baby.  
I imagine myself taking care of the baby.  
I can hardly wait to hold the baby.  
I try to picture what the baby will look like.

Subscale DIFFERENTIATION OF SELF FROM FETUS

I enjoy watching my tummy jiggle as the baby kicks inside.  
I'm really looking forward to seeing what the baby looks like.  
I have decided on a name for a girl baby.  
I have decided on a name for a boy baby.

Subscale INTERACTION WITH FETUS

I talk to my unborn baby.  
I refer to my baby by a nickname.  
I poke my baby to get him/her to poke back.  
I stroke my tummy to quiet the baby when there is too much kicking.  
I grasp my baby's foot through my tummy to move it around.

Subscale ATTRIBUTING CHARACTERISTICS TO THE FETUS

I wonder if the baby feels cramped in there.  
I can almost guess what my baby's personality will be from the way s/he moves around.  
I wonder if the baby can hear inside of me.  
I wonder if the baby thinks and feels things inside of me.  
It seems my baby kicks and moves to tell me it's eating time.  
I can tell that my baby has the hiccoughs.

Subscale GIVING OF SELF

I feel all the trouble of being pregnant is worth it.  
I do things to try to stay healthy that I would not do if I were not pregnant.  
I eat meat and vegetables to be sure my baby gets a good diet.  
I feel my body is ugly.  
I give up doing certain things because I want to help my baby.

APPENDIX R

Author's Consent to Use

Maternal-Fetal Attachment Scale





Center for Health Sciences  
University of Wisconsin-Madison  
**School of Nursing**

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600 Highland Avenue  
Madison, Wisconsin 53792

November 15, 1985

Francene Weatherby  
4017 NW. 62nd Terrace  
Oklahoma City, OK 73112

Dear Ms. Weatherby:

Thank you for your interest in the Maternal-Fetal Attachment Scale. I am enclosing a copy of the scale and the breakdown by subscale. The scale and subscales are scored by adding the item scores and dividing by the number of items. Items are scored on a scale of 1 to 5, with 5 being the most positive statement. Note that for item 22 the scoring is reversed with "Definitely yes" being a 1 and "Definitely no" being a 5.

I would appreciate receiving a copy of any research report or paper which utilizes this tool. Best wishes in your work.

Sincerely,

Mecca S. Cranley, R.N., Ph.D.  
Associate Professor  
Perinatal Nursing

MSC/bam

Enclosures