Nursing practice model for maternal role sufficiency

In 1975 Meleis set forth a conceptual framework for nursing practice centered on the concepts of role insufficiency and role supplementation. Later, Millor introduced a parental role sufficiency model for nursing research in child abuse and neglect. Based on the works of Meleis and Millor, a nursing practice model is proposed that focuses on maternal role sufficiency. It includes assessment of prenatal characteristics, measurement of developmental and health–illness outcomes, and preventive role supplementation intervention.

Kathleen Flynn Gaffney, RN, PhD
Associate Professor
School of Nursing
George Mason University
Fairfax, Virginia

NURSING PRACTICE models serve as an organizing framework for clinical practice and research. The purpose of this article is to present a model for maternal–child nursing practice and research that addresses the need for primary prevention of special developmental and health problems of families with infants and children. Specifically, the model represents an expansion of earlier models developed by Meleis[1] and Millor.[2]

BACKGROUND

In 1975 Meleis[1] set forth a theoretical basis for nursing practice based on the concept of role insufficiency. She explained that role insufficiency was a phenomenon individuals experienced during role transition and

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was accompanied by developmental and health–illness implications. She defined role insufficiency as "any difficulty in the cognizance and/or performance of a role or the sentiments and goals associated with the role behavior as perceived by self or by significant others."[1(p266)] These significant others included health care providers, such as the community health nurse who made a nursing diagnosis and planned care for an expectant mother.

Central to the Meleis model were specific nursing actions designed to prevent or ameliorate role insufficiency, referred to as role supplementation. The latter were described as a deliberate process that included conveying information or providing experiences for the role incumbent to become aware of anticipated role behaviors and goals, as well as the interrelationships between the new role and the roles of others.

Later, Millor[2] developed a nursing model for the complex phenomenon of parental role sufficiency. Specifically, Millor designed an organizing framework for nursing research in child abuse and neglect, the extreme manifestation of parental role insufficiency. Her model encompassed the transactional relationships among individual, family, and community characteristics and parent role behaviors, as perceived by self and significant others. Millor's approach was an eclectic one that drew from symbolic interaction, stress, and temperament theories.[3–6] The core of her model was stress-appraised transactions between parent and child that, tempered by multifactorial individual and ecological components, led to a range of parental role behaviors, from normative nurturing (parental role sufficiency) to neglect and abuse (parental role insufficiency).

RATIONALE FOR THE EXPANDED MODEL

Fig 1 depicts Millor's original nursing model for parental role sufficiency with the proposed expansion. The expanded model includes assessment of prenatal characteristics and measurement of developmental and health–illness outcomes, as well as direction for role supplementation intervention as described in the Meleis model.[1]

The primary reason for the proposed expansion of these models to the prenatal period is to provide nursing and related practice disciplines with a model for more fully examining the developmental and health–illness implications of role sufficiency throughout the period of transition to motherhood. To initiate examination of role sufficiency when the stress-appraised transactions between mother and child have already begun is to have missed the unique contribution of prenatal factors that occur early in the process of role transition. Examples of factors derived from the original model that may be assessed prenatally include the pregnant woman's perception of the mothering she received as a child with respect to nurturing and discipline (Parent's Own Childrearing History), her perception of current difficult life circumstances and her personal resources to cope with them (Parent Self-Characteristics), and her expectations of the maternal role and infant competencies (Parent Role Expectations).

In expanding the examination of role sufficiency, consideration is also given specifically to the impact of prenatal maternal role sufficiency on later role behavior. The term prenatal maternal role sufficiency is proposed to encompass the spectrum of prenatal behaviors that range from warm, affilia-

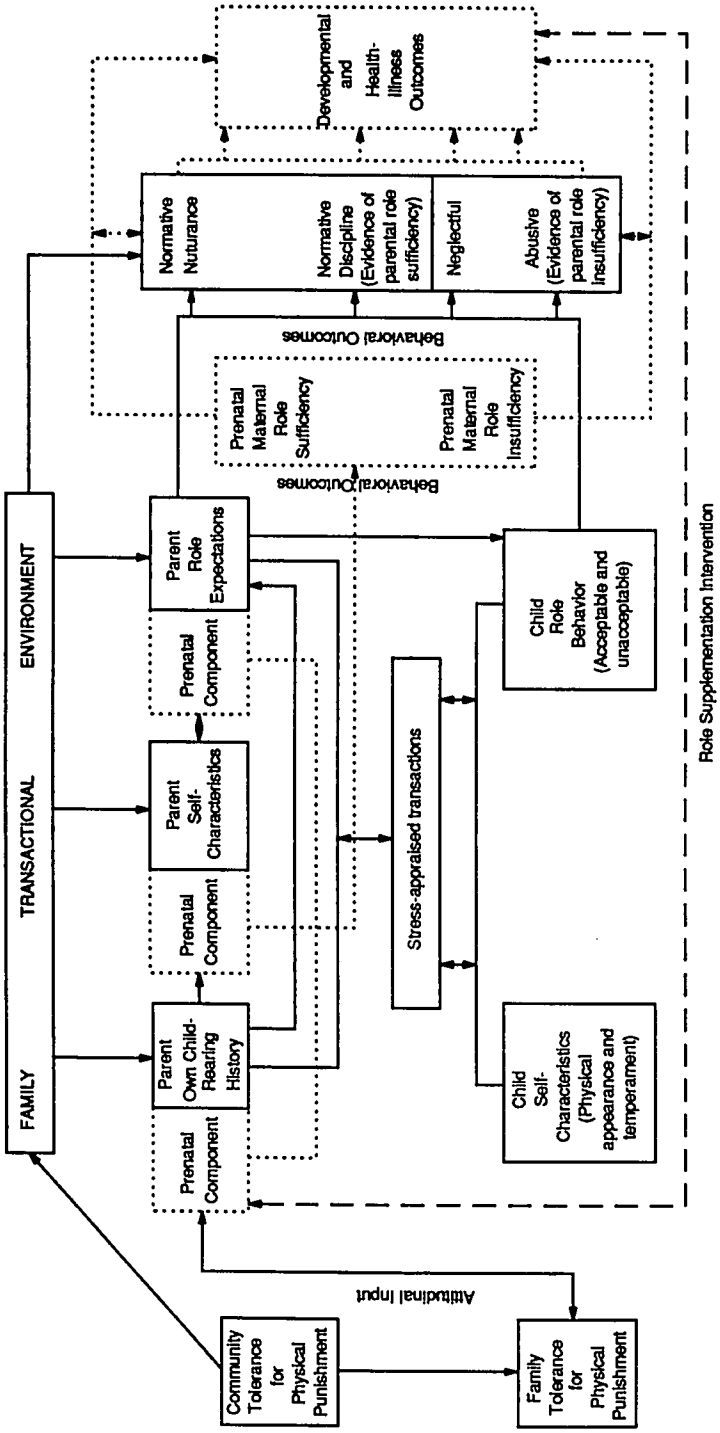

Fig 1. Proposed expansion of the nursing model for parental role sufficiency. Reprinted with permission from Millor, GK. A theoretical framework for nursing research in child abuse and neglect. *Nurs Res.* 1981;30(2):78–83. © 1981, American Journal of Nursing Company.

tive nurturing to risk behaviors that may be deleterious to infant health.

ASSESSMENT COMPONENT OF THE EXPANDED MODEL

Parent's Own Childrearing History is one component of the original Millor model that may be expanded for prenatal assessment. Gaffney[7] compared prenatal plans for child discipline with pregnant women's own perceptions of having been disciplined as a child by their mothers and found a significant association. Further study is needed to determine the extent to which these prenatal plans predict later practices of childhood discipline.

However, the child abuse and neglect literature supports the notion that a woman's experience of having been maltreated as a child may put her at risk for continuing an intergenerational cycle of abuse and neglect. Based on their longitudinal, prospective study of the antecedents of child maltreatment, Egeland, Jacobvitz, and Papatola[8] concluded that the experience of being maltreated as a child may be a circumstance that leads mothers to lose control with their own children and neglect their physical or emotional needs. Their observation was that women who had been maltreated as children had suffered significant psychologic trauma that impaired their capability for close interpersonal relationships. Sroufe and Fleeson[9] emphasized that women who were victimized as children often thought of themselves as victims and acted out the observed role of victimizer when caring for their own children.

However, studies[10,11] of maltreating parents also indicated that healthy parenting outcomes are possible despite earlier maltreatment, particularly when women have gained knowledge about relationships, relearned self–other concepts, and developed secure, emotional relationships that allowed them to deal with earlier traumas of childhood.

These findings support the notion that intervention to break the intergenerational cycle of abuse can be effective. It also argues favorably for early assessment and preventive intervention that supports the development of nurturing relationships *before* the mother is faced with stress-appraised transactions generated by an infant who may at times appear to be overly dependent and noncompliant.

A second concept from the nursing model for parental role sufficiency that may be assessed during pregnancy is Self-Characteristics. Specifically, a woman's perception of her chronic and current stressors, coupled with her perception of her own coping skills and supportive resources, may be considered within this concept.

The Children's Defense Fund[12] links dramatic rises in the incidence of child abuse and neglect with such stressors as poverty, homelessness, substance abuse, and domestic violence. Beckwith[13] cautions that most parents who experience high degrees of stressful circumstances do not abuse or neglect their children. In fact, a comparison of parents experiencing high stress found that those who did abuse or neglect their children were more likely to have also had a his-

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tory of violence in their own childhood or current violent episodes with their partner and few satisfying social supports.

The utility of prenatal assessments of perceptions women have of their own stressors and supportive resources has not been fully explored. However, Booth et al[14] conducted a study of maternal competence that included prenatal assessment of both difficult life circumstances and perceived social support among women at social high risk. They found that women with low social skills who received individually planned, therapeutic home visits from nurses demonstrated improved competence in relation to both adult social skills and maternal–infant interactive skills. The researchers concluded that a connection may exist between these two outcomes. Specifically, they suggested that mothers who improved their own ability to communicate with adults were better able to reach out for the effective support needed to deal with difficult life circumstances and, in turn, became more emotionally available to respond to infant needs.

A third concept from the Millor model that may be extended for prenatal assessment when considering prevention of child maltreatment is Parent Role Expectations. According to Millor (personal communication, June 1992), this concept refers to the mother's expectations of herself in the maternal role and her expectations of her own infant's competencies.

By means of prenatal assessment of these factors, clinicians and researchers may be afforded a view of the distortions that contribute to a stressed relationship and heightened vulnerability to maternal role insufficiency. Snyder et al,[15] for example, examined prenatal maternal expectations of infant capabilities with respect to early maternal–infant interaction. They found that inappropriate expectations by mothers during pregnancy were associated with lower scores on a measure of maternal provision of infant stimulation at 4, 8, and 12 months of age. The latter may be considered a measure of maternal role sufficiency. The Snyder et al findings were confirmed in a later study by Gaffney,[7] using a larger sample at data collection points during pregnancy and 4 months infant age.[2]

Since the original Millor model identifies nurturing behaviors as evidence of parental role sufficiency and abusive and neglectful behaviors as evidence of parental role insufficiency, the concept of prenatal maternal role sufficiency is proposed to address entities, such as prenatal maternal attachment, that may be early indicators of later maternal role insufficiency.

Mercer and Ferketich[16] found that prenatal maternal attachment was a predictor of early maternal–infant attachment. Although studies are not available that link prenatal attachment levels with later parenting outcomes, it is increasingly clear that disorders of attachment lie at the root of abusive and neglectful parenting behaviors.[10,17,18] Consequently, early identification of normal and dysfunctional patterns of early attachment are warranted.

INTERVENTION COMPONENT OF THE EXPANDED MODEL

Beginning with the first prenatal assessment, role supplementation intervention may be initiated to prevent or ameliorate the

incidence of maternal role insufficiency. As described by Meleis,[1] role supplementation intervention consists of two components. The first, role clarification, is defined as the mastery of knowledge to perform the role. In order to efficiently target specific role clarification needs of new mothers, clinicians and researchers may use available indices including the Knowledge of Infant Development Inventory (MacPhee D. 1982. Unpublished data.) and the Developmental Expectations Scale.[15]

The second component of role supplementation intervention, role taking, addresses the "empathetic abilities of self."[19(p372)] In the case of maternal role insufficiency, this component incorporates the woman's capacity to understand her role in relation to her infant's feelings and needs. The Maternal–Fetal Attachment Scale[20] addresses this phenomenon during pregnancy. The Nursing Child Assessment Feeding and Teaching Scales[21] with their Sensitivity to Cues subscales tap the role taking component.

In addition to the two components of role supplementation, three specific strategies for intervention have been described: role modeling, role rehearsal, and reference group interactions. All three were used in a study of couples expecting their first baby.[22] Role modeling consisted of teaching participants how to learn appropriate role behaviors from family, friends, and professionals who knew and utilized the behaviors and values of the expected role.

Role rehearsal was facilitated with the use of case studies. Couples were asked to think about and explain how they might handle a specific situation related to infant care. This intervention strategy helped the couples anticipate behaviors and sentiments associated with the parental role.

Reference group interactions were generated through weekly meetings with the couples and two nurse group leaders. The group forum allowed members to test ideas, receive reinforcements, and understand the normal range of feelings, fears, and experiences of others in a similar point of role transition.

Study findings supported the notion that role supplementation intervention had a positive effect on maternal role sufficiency.[2] Specifically, the mothers who received role supplementation intervention were less likely to show an attitude of ignoring infant cues and more likely to demonstrate an attitude of responding to infant needs than were mothers in two similar groups who did not receive the intervention.

More recent intervention studies provide some additional support for the use of role supplementation strategies to promote maternal role sufficiency. For instance, Unger and Wandersman[23] tested the effects of a resource mothers program for socially disadvantaged pregnant teenagers. The resource mothers were role models in that they were experienced mothers and paraprofessionals similar in race and socioeconomic status to the teenagers. The resource mothers visited the expectant mothers regularly during pregnancy and infancy and provided them with needed information about the anticipated maternal role. The researchers found that the visited mothers demonstrated greater knowledge of infant development, more satisfaction with the mothering role, and greater responsiveness to infant needs than did a control group. By using the expanded model as an organizing framework

to conduct and evaluate nursing practice, a potential conclusion from these findings is that the role modeling strategy was effective in supporting maternal role sufficiency.

Olds[17] also conducted an intervention study of a prenatal home visit program for pregnant teenagers. His intervention involved the role rehearsal strategy. That is, nurses helped pregnant teenagers anticipate and recognize differences in infant temperament, especially crying behavior. The pregnant teenagers were helped to understand the meaning of crying from the child's point of view and not misinterpret it as an indication of the mother's failure in caregiving or a deliberate attempt by the baby to disrupt the mother's life. The teenagers in the home visit intervention program that experienced this role rehearsal strategy demonstrated fewer incidences of child abuse and neglect than did a similar control group. Olds concluded that subjects in the treatment group were able to interpret infant behavior more correctly and respond more appropriately, "thus forming the basis for secure attachments which may protect the child from abuse and neglect."[17(p752)]

Although studies that demonstrate the effectiveness of the reference group interaction strategy in preventing or ameliorating maternal role sufficiency are limited, nursing has long used the group process as an intervention strategy.[24,25] Future nursing studies of the effectiveness of reference group interactions may consider injecting the focus group interview technique into this intervention strategy. The purpose of the focus group interview is to gather "information which, when performed in a permissive nonthreatening group environment, allows the investigation of a multitude of perceptions on a defined area of interest."[26(p1282)] The purpose of the reference group is to provide members with a nonthreatening situation for testing their ideas and for receiving positive reinforcements from others who are experiencing similar role transitions. By wedding the intervention strategy with the qualitative research technique, nursing is afforded the opportunity to meet the needs of clients in an immediate practice setting and to simultaneously generate data that leads to the ongoing evaluation and refinement of practice in a wider range of practice settings.

SCOPE OF THE EXPANDED MODEL

The proposed nursing practice model for maternal role sufficiency has potential application for clinical problems in addition to child abuse and neglect. Specifically, researchers may find it a useful framework for organizing studies of many health and developmental outcomes of infancy that have maternal precedents in the prenatal period. As an example, researchers who have studied causes and correlates of the incidence of low birthweight collectively present prenatal variables that fall within the umbrella of the expanded model. That is, just as the self-characteristics of prenatal perception of adverse life circumstances and prenatal perception of social support have been associated with later child maltreatment, these prenatal variables have been associated with the incidence of low birthweight. Bullock and McFarlane[27] examined the impact of one specific difficult life circumstance, battering during pregnancy, on later incidence of low birthweight (LBW) and found a significantly greater incidence of LBW among women who had been battered

compared to a control group. This finding concurs with the report of the Public Health Service Expert Panel on the Content of Prenatal Care[28] that indicated that living in abusive or other high stress situations and experiencing inadequate personal support systems places a pregnant woman at risk for poor birth outcomes.

LBW researchers may find it useful to investigate prenatal behaviors such as abstention from smoking and alcohol, regular prenatal checkups, and healthy eating patterns within the expanded model concept of prenatal maternal role sufficiency. Each behavior fits within the definition of prenatal maternal role sufficiency and has been found to be a significant factor in reducing the incidence of low birthweight babies.[29-33]

Further, the role modeling intervention strategy has been shown to have promising results in encouraging these behaviors and preventing or reducing the incidence of LBW. Konafel[34] reported that, through the use of a resource mothers program with socially disadvantaged pregnant teenagers, the incidence of LBW dropped to 6%, compared to the prevailing rate of 9.6% in Virginia where the program was conducted.

By using the expanded model as an organizing framework, researchers are afforded an opportunity to examine multiple clinical outcomes with the same data set, thus yielding greater contributions to the current body of nursing knowledge. The intertwining nature of predictor variables and outcomes will yield information about interrelatedness that is unavailable with separate studies.

The proposed nursing practice model is directed specifically toward the prevention of health and developmental problems, such as child abuse and neglect, that may have underpinnings evident during pregnancy. Since the model includes a strong theoretical base, early prenatal assessment of maternal role sufficiency, simultaneous initiation of preventive role supplementation intervention, and an overall framework for ongoing empirical evaluation of health and developmental outcomes, it is considered to be a comprehensive model for maternal–child nursing practice.

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