

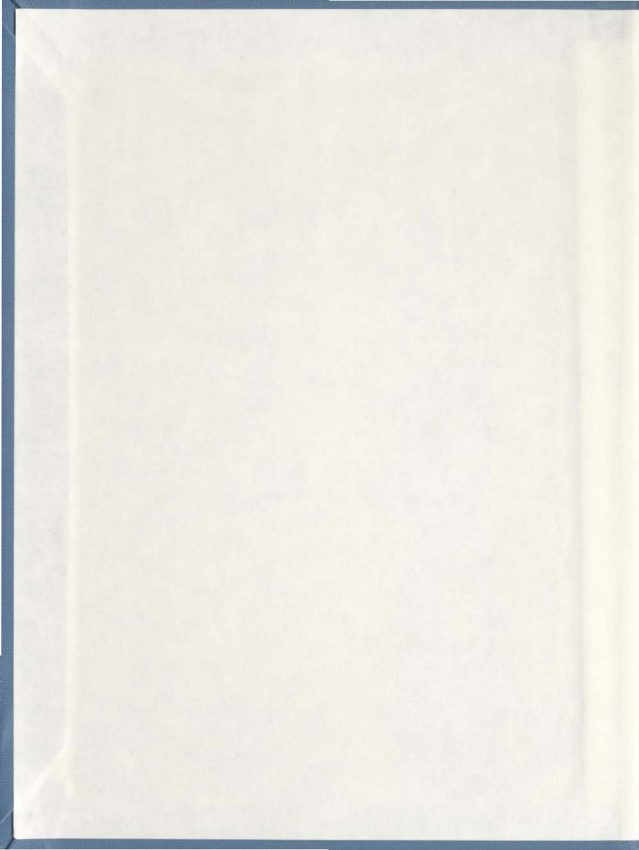
A STUDY TO EXAMINE THE EFFECTIVENESS OF THE
POSTPARTUM PARENT SUPPORT PROGRAM (PPSP) ON A
GROUP OF PRIMIPAROUS MOTHERS AT
FOUR TO SIX WEEKS POSTPARTUM

CENTRE FOR NEWFOUNDLAND STUDIES

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FOUR TO SIX WEEKS POSTPARTUM

BY

©MARY (QUINLAN) BASHA, B.N. R.N.

A thesis submitted to the
School of Graduate Studies, Memorial University,
in partial fulfillment of the requirements for the
Degree of Master of Nursing

August, 1993



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ISBN 0-315-86678-0

ABSTRACT

The purpose of the study was to: (1) examine whether or not the PPSP is working, as intended, to meet the informational needs of new mothers; (2) examine the effectiveness of the information given through the PPSP on the competence and confidence of new mothers; (3) identify the common parenting issues for the group and determine if there is a need for further structured support beyond six weeks.

Eighty primiparous mothers of healthy, full-term babies completed questionnaires at four to six weeks postpartum (40 before the introduction of the PPSP and 40 after the introduction of the PPSP). Using descriptive statistics and the Chi-Square Test, the comparison and treatment groups were compared.

Ratings for printed information and materials were higher for the treatment group (after the introduction of the PPSP) when compared with the comparison group (before the introduction of the PPSP). PPSP materials which were developed for use with this program were rated by the treatment group only. They were rated highly for content, readability and ease of understanding. There was a marked increase in the consistency of information between hospital and community nurses after the introduction of the PPSP. Mothers in the treatment group demonstrated increased confidence in some areas and increased maternal satisfaction with community health nursing visits.

Ratings for helpfulness of information given by the nurses were higher for the treatment group when compared with the comparison group. There were few differences between the groups when compared in relation

to the type of maternal infant feeding chosen (i.e. breast-feeding versus bottle-feeding). Specific program areas were identified as having positive impact, others as making satisfactory progress and three areas were identified as needing to be addressed.

Both groups sought additional community support from family physicians, family/relatives/friends, community health nurses, hospital nurses and support groups. There were common concerns related to the parenting experience and marked interest in attending a parenting support group at the community level.

ACKNOWLEDGEMENTS

To the mothers, and their babies, who participated in this research, a sincere thank you, for without your involvement this study would not have been possible.

To my thesis supervisor, Kathieen Matthews, and committee members, Maureen Laryea and Lynn Vivian-Book, my deepest gratitude for your guidance, support and friendship while conducting this research.

To the administration and staff of the St. John's and District Health Unit, especially the community health nurses who assisted with sample selection, thank you for your support.

To the following people for your clerical and research assistance: Gail Quinlan, Margaret Miller, Debra Ward, Dr. Mark Reimers, Cathy Royle, Paul McCarthy, Janet Budden, Catherine Ryan and the staff of the Vital Statistics Division, Department of Health, Newfoundland and Labrador and the National and Provincial PPSP Implementation Committees.

To my mother, Loretta Quinlan, my husband, Vincent and my children, Paul and Janine, with whom I have shared the personal happiness of my own maternal role, a very special thank you.

Finally, this research is dedicated to the memory of my father, the late James Quinlan. Throughout this research, he was my most avid supporter and I know he shares in spirit, the joy and satisfaction of its completion.

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Chapter I

INTRODUCTION

The experience of becoming a mother may be acknowledged as a very exceptional time during which a woman will undergo considerable physiological and psychological changes as she progresses from conception to delivery and into the "Fourth Trimester".

Becoming a mother implies constant development and change in relationships, both between mother and baby and also in family, work and social relationships. According to Haggerty Davis, Brucker and MacMuller (1988), social norms portray the mother as the infant caretaker. She is assigned the responsibility to nurture her newborn while, at the same time, she is coping with her own physical and emotional postpartum recovery.

New mothers are often overwhelmed by the responsibilities that accompany the new role of "parent" and are often not prepared for the impact of the commitment involved. Becoming a mother causes dramatic changes in roles, relationships and lifestyles. Jamieson (1986) stated that everyone is apt to define parenthood from their own experience based on their specific social and cultural perspective. Therefore, it is important to identify and explore the unique perspective of each parent keeping in mind the various social, spiritual, cultural and educational viewpoints.

New mothers move from being "mothered" to "mothering" (Raphael, 1973). The euphoria associated with the birth of a child may be quickly

replaced by the reality of the physical and emotional demands precipitated by the twenty-four hour care of the newest family member (Sleep, 1986). A new mother is often expected to master the skills of caring for her baby and herself while simultaneously coping with fatigue, physical discomfort and sleep deprivation. She must resolve feelings related to the events associated with childbirth and must also master the maternal tasks that accompany the new role (Wolfe & Crowe, 1984). She needs to review the events surrounding her childbirth experience in order to resolve her feelings related to expectations and reality. She needs to re-define her role with her partner and/or other family members and re-direct social and/or collegial relationships. The early postpartum months can be very stressful as the addition of the newborn necessitates the re-organization of family patterns and lifestyles (Mercer, 1981). Mercer (1985) has defined maternal role attainment as "a process in which the mother achieves competence in the role and integrates the mothering behaviours into her established role set, so that she is comfortable with her identity as a mother" (cited in Walker, 1986).

Studies done by Bull (1981) and Gruis (1977) have identified early postpartum concerns related to diet, exercise, fatigue, emotional tension and finding time for self. By four to six weeks, it is often assumed that most new mothers are both confident and competent in caring for their new babies. However, research has indicated that by six weeks postpartum, many new mothers still expressed similar concerns (Dempson & Maret, 1986; Harrison & Hicks, 1983; Smith, 1989). Therefore, it may be more beneficial to address issues related to the parenting experience in later postpartum.

Donaldson (1981) has identified the following stressors commonly expressed during the "Fourth Trimester": (1) physiological shifts; (2) body image; (3) fatigue; (4) role conflict; (5) infant needs; (6) unanticipated stressors, i.e. pre-term birth. Mercer (1981) has identified specific variables such as maternal age, perception of the birth experience, the maternal/family support systems, and social and cultural influences which may also impact upon maternal role attainment. It is important to establish the degree to which these issues need clarification for new mothers in later postpartum in order to facilitate successful transition into parenthood.

There is also much debate regarding the potential for "crisis" in parenthood. Donaldson (1981) and Hampson (1989) have perceived transition into parenthood as a crisis and have acknowledged the need for access to health care resources to deal with parental issues during the first child-bearing year.

Robischon and Scott (1969) have referred to becoming a mother as being a "situational crisis" in which "role overload" may be experienced. The role of mother is most often depicted as that of nurturer, a role that seems to warrant continued reassurance in the early stages. Also, as society changes, mothers have to contend with changing roles and role conflicts.

Transition into parenthood may also be viewed as the acquisition of a new role that has a profound impact on the new mother and the family unit as a whole. The addition of the new baby generates a variety of feelings which must be dealt with and also requires total re-organization of family, work and social relationships (Andersen, 1984). Today's young

family is smaller, geographically more mobile and often must adjust to parenthood with limited support. In assisting new mothers to increase both their competency and confidence in their new role of parenting, it is essential to re-assure them of the rewarding qualities and values of motherhood.

Throughout the literature, a great deal has been written regarding the concerns and stresses associated with the birth of the newborn. Reference has been made to problems associated with adjustment (LeMasters, 1957), as well as concerns related to physical restoration and the demands of the baby and the new role (Bull, 1981; Gruis, 1977; Dempson & Maret, 1986). Social support has been highlighted as an important means of reducing the stresses associated with motherhood. According to Cronenwett (1985) social support may consist of various types such as emotional, material, informational and comparative. It is considered to be an important health promotion strategy that can facilitate parent-child relationships and the transition into motherhood (Albers, 1961; Cronenwett, 1985; Donaldson, 1991; Kort, 1984).

New mothers need support and consistency of information from both hospital and community health staff to ease the transition into the maternal role (Browse, 1988; Dempson & Maret, 1986). Both social and professional sources have been identified as having great significance in reducing the stress that new mothers may experience during the puerperium (Crnic, 1983). Information and support provided by family, friends and health care professionals can facilitate the development of a good relationship between mother and baby, and also new and/or changing relationships which may emerge as the result of the birth of the new

baby. Such information and support can play a very important part in easing the transition into the maternal role.

In the Province of Newfoundland and Labrador, all new mothers have contact with both hospital and community staff as most births occur in hospital and all mothers are visited at home by community health nurses. As of April 1, 1992, the Newfoundland and Labrador Department of Health implemented the Health and Welfare Canada supported provincial and national Postpartum Parent Support Program (PPSP). Newfoundland is one of several implementation sites being supported by Health and Welfare Canada. Prior to this program, new mothers received postnatal services in the "traditional" way with hospital and community functioning as separate entities, each with their own mandate. The "PPSP" is structured to assess the needs of new mothers and to provide delivery of care based on their individual needs. It can also facilitate improved collaborative efforts to deliver standardized information and support to new mothers. However, it is important to evaluate this program to determine its impact and effectiveness on maternal competence and confidence.

The PPSP is designed for two target groups: families of newborns and the health professionals who care for them. For the purpose of this particular study, the focus has been limited to the mothers and their perspective of some components of the PPSP. The program's objectives are as follows:

- "1. To assist parents and other immediate family members to:
 - (a) develop feelings of competence and confidence about the postpartum period;

- (b) set realistic expectations about coping with a baby;
 - (c) develop the skills and knowledge required for new parenting roles;
 - (d) identify and use support persons and resources during the postpartum period;
 - (e) acknowledge and understand the uniqueness of their new child;
 - (f) integrate the "new" baby and "new" mother into a "new" family.
2. To assist health professionals in the hospital and surrounding community to:
- (a) provide accurate, up-to-date and consistent information about the postpartum period;
 - (b) develop confidence and competence as adult educators working with families in stressful situations;
 - (c) provide assistance to new parents in the development of their parenting skills;
 - (d) build a team that can deliver high quality information in a consistent manner throughout the home-hospital-home continuum." (Health and Welfare Canada, 1989, p.9).

The PPSP is based upon interactive principles of adult learning. Information is centered around a series of topics considered to be important to new mothers. All nurses working with the PPSP received training, including interagency training. The PPSP materials are designed to identify the needs of new mothers on an individual basis in order to deliver information that is pertinent to them. Committees are

in place at the national, provincial, regional and local levels to monitor the program.

Mitchell and Adam (1982) developed a "Program Kit" similar in style to the PPSP, designed to prepare and support parents during the postpartum period. Golas and Parks (1986) acknowledged the need to study the effectiveness of this type of nursing intervention on the knowledge and confidence of primiparous mothers. Pridham and Rutledge (1987) acknowledged the need to examine mothers' perceptions of competence in caring for their new infants. Studies done by Pridham (1987) and others have examined various aspects of being a new parent. Researchers (Brink & Wood, 1989; Dignan & Carr, 1987; Donabedian, 1976; Rossi, 1979) have all acknowledged the necessity and the value of program evaluation.

By four to six weeks, mothers are beginning to feel more comfortable in caring for themselves and their new babies. They have recovered from the birth and are learning the unique behaviours of their newborns. Collaboration between hospital and community, can facilitate effective nursing intervention such as information and support for new mothers as they work toward maternal role attainment. Therefore, this may be an opportune time for new mothers to review their postpartum care. Collaborative efforts between these agencies can bridge the gap between hospital and community (Peck Marecki, 1979; Watters, 1986).

It is also acknowledged that evaluation is a crucial component for program planning in the areas of health education and health promotion (Blum, 1981; Dignan & Carr, 1987; Mayer, 1985). Process evaluation can be carried out to examine nursing tasks and activities.

Impact evaluation can be carried out to determine program effectiveness (Donabedian, 1976). As the health care system becomes more strained, resource allocation must be well targeted and effective. Therefore, it is crucial to evaluate both ongoing and new service delivery programs to ensure effective and efficient delivery of health care (Brink & Wood, 1989; Mayer, 1985). As new mothers and their families make their transition into parenthood, it is important to examine, from their perspective, both their needs and the activities that can be utilized to provide them with the information and support to become competent and confident in their new role.

Finally, it is also important to acknowledge that transition into parenthood extends well beyond the six week postpartum period and perhaps even into the first year of the new baby's life and will be influenced by a variety of personal and environmental variables (Gjerdingen, Froberg and Fontaine, 1990).

Problem Statement

Following a hospital stay of approximately two to four days, most new mothers are discharged into the community where they are expected to continue developing skills in caring for their new babies. They are inundated with varied information, are insecure regarding their coping ability and often have unrealistic expectations related to their new role (Ball, 1986; Mercer, 1981). This is supported in the literature and is also observed in the clinical practice of the community health nurse.

Given the difficulties that new mothers experience while adjusting

to their new role, it is important to determine how well they are prepared to assume the responsibilities of the maternal role. It is also important to determine the effectiveness of nursing intervention in assisting new mothers to become competent and confident in caring for their babies and their families. The provision of information and support can be helpful to new mothers as they make their transition into parenthood (Shaw, 1974). Evaluation of programs that provide care for new mothers and their families is necessary to ensure cost-effective, quality care.

Purpose

The purpose of this particular study was to:

1. examine whether or not the PPSP is working, as intended, to meet the informational needs of new mothers;
2. examine the effectiveness of the information given through the PPSP on the competence and confidence of new mothers;
3. identify the common parenting issues for the group and determine if there is a need for further structured support beyond six weeks.

Research Questions

1. Are new primiparous mothers receiving the PPSP as it is designed?
2. How did these mothers rate the PPSP materials?

3. Are the mothers receiving consistent information from both hospital and community health nurses?
4. Did the mothers who received the PPSP perceive themselves to be more confident than those who received the traditional program?
5. Did the mothers who received the PPSP perceive it to be more helpful in their acquisition of parenting skills than those who received the traditional program?
6. Is there a difference between breast-feeding and bottle-feeding mothers as they adapt to their new role of parent?
7. What are the common elements of the parenting experience of primiparous mothers at four to six weeks?
8. Is there a need, as perceived by the mothers, for ongoing parenting group sessions at the community level in later postpartum, i.e. four to six weeks?

Assumptions

1. Transition into parenthood is an ongoing process which is potentially stressful.
2. Appropriate information and social support during the early months

can increase confidence and maternal satisfaction.

3. Although each new mother is unique, there are common elements of the parenting experience.
4. Both breast-feeding and bottle-feeding mothers need postpartum support.
5. Educational/support programs will assist mothers in the transition to parenthood.
6. Educational programs to assist mothers need ongoing evaluation to determine their effectiveness.

Hypotheses

Mothers who participate in the PPSP will receive more consistent and relevant information than mothers who had not participated in such a program.

Mothers who participate in the PPSP will have higher levels of competence and confidence than mothers who had not participated in such a program.

Definition of Terms

1. PPSP: Postpartum Parent Support Program (objectives listed on Page

5-6).

2. Postpartum: Period after delivery up to and including six weeks after delivery.
3. Mother: First-time mother (primiparous).
4. Baby: Newborn up to and including six weeks.
5. Hospital nurses (A): Those nurses who provide care at the hospital level.
6. Community nurses (B): Those nurses who provide care at the community level.
7. Parenting: The process by which a mother meets the physical, social, emotional, spiritual and cultural needs of her newborn as she adapts to her new role.
8. Competence: The degree to which the new mother found information helpful in meeting her needs as she acquired parenting skills. It has been measured by the helpfulness items on the Postpartum Support Program Assessment Questionnaire (PPSPAQ).
9. Confidence: Comfortable level of parenting skills, as rated by the mother on the PPSPAQ.

10. Information: Knowledge and educational materials pertaining to care of mother and baby during the postpartum period.
11. Support: Any type of physical, social, emotional, spiritual and cultural assistance from both social and professional sources which eases the transition into parenthood.
12. Role: A set of socially accepted behaviours expected of the new mother.
13. Transition: "Rite de passage" from the role of non-parent to parent.
14. Process: Program tasks and/or activities (PPSP).
15. Impact: Effectiveness of the program (PPSP) on this particular group of mothers and its overall desirability for use with the general population.
16. Collaboration: Combined efforts of hospital and community to meet the needs of new mothers.
17. Evaluation: Inquiry into the performance of the PPSP.

Conceptual Framework

A conceptual framework is essential for the integration of concepts in order to give them meaning. As a specific evaluation model was not suggested in the design of the PPSP, the conceptual framework for this study is based upon an evaluation research framework which was put forth by Blum (1981). This design was based on seven levels of evaluation useful in examining program activities. These levels are as follows:

- (1) ACTIVITY: Is the program in operation?
- (2) INPUTS TO AN OPERATION: One would examine the resources to be used and the clients to be served. One would look at facilities, staff, materials and the demographic characteristics of the population to whom the program will be delivered.
- (3) PROCESS OF AN OPERATION: One would examine the techniques of the program. What strategies are used? Are they appropriate? Are staff carrying them out well?
- (4) OUTPUTS OF AN OPERATION: One would examine the quantity and quality of the output. Does the program address issues pertinent to the clients being served? What are their concerns?
- (5) OUTCOME: One would examine inputs, processes and outputs to determine whether or not the desired outcome has been achieved? Has the program resulted in improvements?
- (6) IMPACT: One would examine whether or not the effects of the

program on a particular subgroup of the population would be desirable for the general population.

- (7) EFFICIENCY: One would examine whether or not the program was carried out with minimum expenditure.

(Blum, H. L., 1981, p.278-284)

Collaborative services and a solid network of information and support are necessary for new mothers to develop the competence and confidence needed to make their transition into parenthood. Evaluation of these services and programs such as the PPSP is important to ensure that the needs of new mothers and their families are being met. It is also important to evaluate this process from the new mother's perspective to acknowledge individual needs. For the purpose of this study, the researcher has examined program objectives related to assisting new mothers to: develop feelings of competence and confidence about the postpartum period; develop the skill and knowledge required for new parenting roles; and identify and use support persons and resources during the postpartum period (as listed p.5). Examination of the remaining objectives was not feasible within the framework designed and the time allotted for this study.

The design for this particular program evaluation used "before" (PPSP) and "after" (PPSP) comparisons to assess the impact of the program on the sample chosen from the target population. Boundaries for the evaluation were set by emphasizing focus on program activities involving nursing interventions as viewed from the new mother's perspective. Focus on such key features as consistency of information, the development of competence and confidence, and overall outcomes of the program can

facilitate program continuation and/or expansion.

It is documented throughout the literature that nursing intervention strategies are useful to deliver information and support to new mothers. Some of the strategies recommend programs based upon the principles of adult learning and family-centered maternity care. Strategies should also provide teaching, counselling, support and "hands-on" experience to assist new mothers in the acquisition of the knowledge and skills they need to fulfil the maternal role. Timing, readiness and stage of transition are crucial. Collaborative services between hospital and community are essential to ensure consistency of information, continuity of care and to address issues related to care, support, education and clinical research. Finally, programs should also incorporate health promotion activities to facilitate optimal levels of well-being for new mothers, their families and the community-at-large.

It is also important to examine strategies to determine their effects on the target population, i.e. new mothers. Evaluation is an essential component of the design of service delivery programs. There is growing support for both process and impact evaluation as a means of justification and improvement of both new and ongoing programs. Programs must be evaluated at various levels to monitor efficiency, effectivity and overall impact (Blum, 1981).

Chapter II

LITERATURE REVIEW

The focus of the Literature Review is on the postpartum period from birth up to six weeks, a time commonly referred to as the "Fourth Trimester". During this time new mothers must seek external support, deal with the stresses of everyday living and explore the meaning of being a new parent (Pridham and Chang, 1985). This review has been divided into the following categories:

- (1) Postpartum Concerns
- (2) Maternal Satisfaction and Role Transition
- (3) Support (Social/Professional)
- (4) Strategies for Support
- (5) Evaluation

Postpartum Concerns

Studies dating back to LeMasters (1957) have indicated that first-time mothers encounter problems while adjusting to their first child. Bull (1981) and Gruis (1977) have identified early postpartum concerns such as: (1) physical restoration; (2) the incorporation of the new baby into the family unit; (3) the demands of baby and family; (4) dealing with changes in relationships and lifestyle.

Further research by Dempson and Maret (1988) and Harrison and Hicks (1983) have identified that such concerns are sometimes still prevalent

at six weeks postpartum.

Smith (1989) used a questionnaire developed by Gruis (1977) to examine the major concerns of primiparous mothers at one month postpartum. The concerns identified were: (1) physical restoration; (2) demands of baby and family; (3) feeding; (4) infant behaviour; (5) growth and development; (6) baby care; (7) labour and delivery. This study also stressed the importance of postpartum services at the community level to ensure adequate preparation for new mothers during the early weeks postpartum.

Graef, Fescina-Jones and Thompson (1988) studied the postpartum concerns of breast-feeding mothers from hospital discharge to four weeks postpartum. Ninety-seven percent of the concerns expressed were infant-related in areas such as physical care, feeding and infant behaviour. Eighty-one percent of the sample expressed physical and emotional maternal concerns. Nineteen percent of the mothers expressed family concerns such as lack of psychosocial support and concerns regarding relationships. This study concluded that breast-feeding mothers have numerous concerns and may even be still at the "taking-hold" phase as described by Rubin (1985) at one month postpartum.

Haggerty Davis et al. (1988) carried out a descriptive study to investigate the teaching priorities of mothers during their postpartum hospital stay. Maternal topics cited as being appropriate include such areas as physiological changes, physical care, contraception, rest, nutrition and exercise. Topics related to the baby included bathing, feeding, comforting, sleep patterns and elimination patterns. This particular study identified "postpartum complications" and "infant

illnesses" as areas of priority. The authors acknowledged the difficulty for hospital staff in selecting the focus of patient teaching due to the short hospital stay. They also made reference to the change in mothers' interests and concerns over time. For example, in early postpartum, concerns relate to such topics as bathing and cord care, while at one month postpartum, concerns may shift to deal with lifestyle changes and demands of the new role. A descriptive study done by Ament (1990) also confirmed that mothers' behaviours and attitudes change over time. This study examined whether or not women receiving hospital postpartum care demonstrated behaviour described by Rubin as "taking in" and "taking hold" and whether or not these behaviours changed over time.

Martell and Mitchell (1984) also conducted studies to examine behaviour and attitude changes within the context of Rubin's well known phases of "Puerperal Change" (Taking-in, Taking-hold and Letting-go). According to Rubin (1985) there are three phases through which all new mothers will progress. These phases are: (1) "Taking-In Phase" (first 3 days postpartum) - Mother is passive and needs care; (2) "Taking-Hold Phase" (3 - 10 days) - Mother takes a more active role in caring for her newborn; (3) "Letting-Go Phase" (7 - 14 days) - Mother expands her activities beyond the care of the baby, i.e. socialization (cited in Templeton Gay & Bragg Douglas, 1988). Martell and Mitchell (1984) recommended that "nursing needs to continue critically examining its long-standing concepts" in view of the fact that the key concepts put forth by Rubin (1985) need to be re-examined in the context of today's society (p.149). It is important that maternity nurses not be expected to provide care for new mothers based on observations that were

made decades ago within a different social and economic climate.

Finally, there is reference throughout the literature that new mothers may have postpartum concerns even as late as twelve weeks. Pridham, Chang and Hansen (1987) stated that the more importance that mothers attached to concerns and issues, the more likely they were to take action. This was especially true of issues related to parenting. Postpartum recovery may take several months, or longer, and may be influenced by a variety of personal, family, social and health-related variables (Gjerdingen et al., 1990). Donaldson (1981) recommended continuity of assessment and follow-up for new mothers during the first childbearing year.

Maternal Satisfaction and Role Transition

The role of "mother" implies a certain status. The new mother is seen as a nurturer who must acquire the skills to meet the needs of her child. The new mother needs reassurance that she is a good mother and needs to identify with the rewarding qualities and values that are part of herself and her life. The nurse becomes the teacher, counsellor and mother-surrogate as the new mother strives to understand the developmental process of the new baby (Robischon & Scott, 1969). Nurses can be instrumental in identifying those mothers who are having difficulty with maternal-role transition. A study was done by Flagler (1990) to identify mothers who had such difficulty. The results of this study indicated that poor mothering ability was associated with self-descriptions of negative feelings, and self-descriptions of negative

emotional feelings indicated poor partner relationships, dissatisfaction with and lack of support for the new role.

According to Mercer (1981) new mothers need to review the childbirth experience and evaluate their performance in their new role. This may be done by comparison with others resulting in a variety of feelings ranging from pride to disappointment. Often the experience of becoming a new mother is not, in reality, as one may have fantasized it to be. Mercer (1981), also states that "mothers must grapple with fantasy, accept reality and complete with grief work" (p.341). Then they are ready to adjust to their new roles. New mothers will experience conflicts and role changes as they progress through these stages. They must contend with their own needs and those of their child, as well as society's expectations of what their roles should be.

Mercer (1981) also proposed a theoretical framework for studying factors that impact on the maternal role. This study identified specific variables which impact on maternal role attainment and also interact with each other and/or other variables resulting in variance in the maternal role. Some of these variables are: (1) maternal age; (2) social stress; (3) maternal support system; (4) child-rearing attitudes; (5) infant temperament; (6) social and cultural influences (Mercer, 1981, p.74-86). Further studies by Mercer (1986) identified that the developmental variables of personality integration and flexibility increase significantly with age while self-concept decreases. Time should be spent with new mothers to assess their needs in terms of factors that may affect maternal behaviour.

According to Meleis (1975) "role insufficiency is anticipated and

experienced by clients during role transition with developmental, situational and health-illness implications" (p.264). The transition from non-parent to parent is a situational transition resulting in major shifts in personal and interpersonal relationships due to the addition of the new infant. New mothers may require role supplementation as they attempt to become confident in their roles.

Meleis (1975) defined role supplementation as the provision of information or experience necessary for one to become fully aware of anticipated behaviour patterns and goals involved in a particular role. This concept also emphasized the dynamics of interrelationships. Nurses can provide both preventive and therapeutic role supplementation through nursing intervention. Role supplementation can be operationalized by role modelling, use of a reference group (i.e. significant others), communication and interaction.

Pridham, Lytton, Chang and Rutledge (1991) examined transition variables such as maternal attributes, infant feeding, birthing experience and transition markers (evaluation of parenting and of infant and self-care capability) to determine relationships among them. Infant feeding plan was related to support received rather than to the maternal birth experience. Progress in maternal identity and role attainment was measured by the mother's appraisal of her parenting satisfaction, her mother-infant relationship and her capability for infant and self-care. "The more capable she estimates herself to be, the more likely she is to view herself as able to effectively deal with anticipated situations" (Bandura, 1982, cited in Pridham et al., 1991, p.22).

Rutledge and Pridham (1987) examined mothers' perceptions of

competence with infant care in relation to early postpartum experiences. For breast-feeding mothers such competence was associated with the amount of perceived rest. Those mothers who were tired tended to rate themselves lower for competency. For bottle-feeding mothers competence was associated with in-hospital preparation in infant feeding and care of the newborn. Factors such as hospital experience, infant-care classes and rest were associated with the mothers' sense of competence. It is important for nurses to identify and examine a new mother's anticipated competence in order to enhance it as necessary.

Shaw (1974) reminds us that we are living in a very mobile society where the nuclear family has replaced the extended family. Through role modelling and the provision of additional information and support, new mothers can explore their feelings and adjust to their new role of parent.

Raphael (1988) reminds us that maternal satisfaction and role transition can be accomplished by the provision of the "doula". This person, whose specific role is to care for the new mother, may be a nurse, a family member, relative, neighbour or even the mother's partner. This "significant person" can provide the support and security that new mothers need as they work towards maternal role attainment.

Becoming a mother causes the change from woman to mother and from individual to family unit. New mothers must adjust to dramatic changes in lifestyles and cope with the many variables that may impact upon maternal role attainment (Mercer, 1981). Many new mothers experience a variety of feelings ranging from excitement to shock, panic and finally, normality (Ball, 1986).

The addition of the new family member is quite demanding. Many postpartum problems arise due to feelings of ambivalence related to motherhood. Many new mothers experience feelings of exhaustion, social isolation, and loss of feminine appearance (Andersen, 1984). They may feel very secure within the support system of hospital staff, but sometimes as early as forty-eight hours after delivery, they are expected to begin their transition into parenthood on their own. Therefore, it is important for new mothers to have early access to health care resources in order to deal with such vital issues as: "their lack of preparation for parenting, role change and cultural and social pressures on the parental role" (Donaldson, 1981, p.249).

New mothers question their ability to assume the responsibility of their new role. The birth and the first few days in the hospital are overwhelming. Returning home again begins a whole new experience as a mother seeks the information, social support and the skills that she needs to recognize and address the needs of her new baby. By the second and third month, the mother has recovered from her physical changes of pregnancy. The newborn's temperament has become more stable and the family as a whole is adjusting (Ball, 1986).

Donaldson (1981) and Taggart (1979) have referred to the "Fourth Trimester" as a time of "crisis" as the new mother moves through "Rubin's Phases". She must care for herself and her baby while also dealing with physiological shifts, role changes and the stressors of both personal and family demands. Hampson (1989) has identified nursing interventions such as home visits, telephone calls and group support as ideal to assist with this "crisis" and to facilitate anticipatory guidance and counselling for

new mothers as they adapt to parenthood.

Rhode and Groenyes-Finke (1980) also supported the effectiveness of nursing intervention throughout the puerperium in enhancing family functioning and promoting optimal health. Examples of such interventions are telephone calls, home visits, new parent classes and well baby clinics. Through such interventions, nurses can facilitate validation of mothering skills. Rutledge and Pridham (1987) stated that a "mother's appraisal of her competence in infant care may be an important factor in adapting to parenting" (p.185).

Parenting skills may be developed and practiced by using real infant care problems. Perinatal coaching may be used to teach new mothers the skills of interacting and communicating. Anticipatory care which facilitates the acquisition of parenting skills may contribute to new mothers learning how to more accurately identify and respond to infant needs. This type of approach would be successful in helping new mothers develop expectations that are functional and plans of action that would address specific, realistic goals (Pridham, et al., 1987).

Sander (1977) identified that parental problem solving and decision-making is an important determinant of a parent's effectiveness in adapting to the tasks of infant care (cited in Haggerty Davis et al., 1988). New mothers are required to synchronize care techniques with the infant's capacities and needs for care. However, many new mothers often lack the knowledge and skills required to do this. Through postpartum programs, nurses can facilitate the development of parent-child relationships and can provide intervention when difficulties occur. Parents need to share their feelings and observations regarding the

appearance, behaviour and capabilities of their newborns, thus facilitating the achievement of harmonious interaction (Davidson & Leonard, 1981).

Support: Social/Professional

The importance of support, both social and professional, has been well documented in most of the literature pertaining to maternal and child health and has been highlighted as being of great significance in the successful transition into the maternal role. According to Crnic (1983), social support is important to both parents and parent-child relationships within the context of their environment. Support may be informal, such as that provided by relatives and friends, or it may be formal, such as that provided by health care professionals and organized self-help groups.

Social support is recognized as being instrumental in reducing the stressful effects of motherhood. Today's young family is smaller and more mobile and must adjust to parenthood with limited support. New mothers experience physical and emotional changes and feel left out of the social world. These new mothers need "ongoing support with an attitude of objectivity and acceptance and focusing on desired behaviour for healthy lifestyles" (Kort, 1984, p.24).

It has been well established that new mothers need ongoing support. Cronenwett (1985) put forth a model which examined relationships among mothers' network structure, social support and their psychological responses to parenthood. According to this model, perceived social

support and social network structure are influenced by demographic differences. The make-up of the social network and the individual's perception of social support greatly affect how new mothers will respond to the addition of a child and to the new role of parenthood.

Cronenwett (1985) has identified four important kinds of support needed by new mothers:

- (1) Emotional support - caring and concern;
- (2) Material support - physical help, i.e. chores;
- (3) Informational support - sharing of information to facilitate problem solving;
- (4) Comparison support - sharing ideas and feelings related to the new experience.

Childbirth alters social network structure in varying degrees. Nurses are in a key position to assess the impact of changes associated with the postpartum period. Collaborative efforts between hospital and community can bridge the gap between hospital and home as new mothers prepare for "the normative changes that occur in the content and structure of their social relationships" (Cronenwett, 1985, p.352). New mothers need education, support and anticipatory guidance at both hospital and community levels (McKenzie, 1982).

Harrison and Hicks (1983) examined postpartum concerns of mothers and their sources of help. Husbands were cited as the most frequent source of support in relation to changing roles and responsibilities. Books and pamphlets were noted as an important source of information related to physical concerns. "Nurses were the least frequently used source of help" (Harrison & Hicks, 1983, p.325).

Smith (1989) did a comparative study between primiparous and multiparous mothers to examine resources used by new mothers during the postpartum period. Partners were once again identified as the most frequent source of support for issues related to physical concerns, labour and delivery, demands of baby and family, time for self and emotional support. Hospital nurses were contacted for support on issues related to labour and delivery, breast care and care of stitches. Public health nurses were contacted for support on issues related to baby care, feeding, growth and development. Physicians were used to deal with concerns related to labour and delivery, physical care, feeding and infant behaviour. Health care professionals were utilized more often by primiparous mothers than multiparous mothers.

Social support is especially necessary for breast-feeding mothers. Albers (1981) examined behaviours that were perceived as emotionally supportive by breast-feeding mothers and concluded that ongoing relationships with husbands, relatives and friends were the greatest source of primary support for new mothers. Further studies by Houston (1983) identified the timing and quality of such support to be a crucial factor in achieving success with breast-feeding.

An unpublished study done by Basha and White (1987) identified that 29% of the mothers who participated in this study had discontinued breast-feeding by six weeks. The main reasons cited were fatigue and the baby not being "satisfied". Those who were successful indicated that they had the strong support of their partner and/or mother. This may parallel Raphael's concept of the "doula" or someone to "mother the mother" (Raphael, 1973). It also emphasizes the significance of both

partner and family support in determining success (Albers, 1981; Harrison, 1985; Houston, 1981; Jeffs, 1977).

Crnic and Greenberg (1987) examined social support, stress and satisfaction with parenting. This study concluded that "mothers with high support are more satisfied with their babies, their parental roles and in their lives in general and are more positive in their behavioural interactions than are mothers with stress" (p.31). This research also concluded that the effects of social support on maternal functioning were greatest from discharge into the community until four months postpartum.

Gjerdingen et al. (1990) developed a model to be used in investigating postpartum health. Postpartum health is characterized by dynamic changes and may be affected by many variables, including social support. This research acknowledged that the postpartum period may persist for many months. New mothers need support well beyond the early weeks postpartum to facilitate optimal health for themselves and their families.

Strategies for Support

New mothers need information and support. As adults, they will have unique expectations and learning styles. Rorden (1987) identified several factors that influence learning. These include previous experience, perceived need, nurse-client interaction, social and cultural context, and stress. According to Cohen, Kenner and Hollingsworth (1991), nurses need to use four types of skills to facilitate nursing intervention: cognitive (knowledge), affective (empathy), psychomotor

(nursing procedures) and organizational skills (counselling, managing). To teach adults, nurses must effectively use their skills in addition to adult education principles. Adults prefer to participate in their needs assessment and may choose varied learning formats, i.e. one-to-one interaction versus group sessions. They want practical solutions and "hands-on" practice of new skills and concepts. Programs such as the PPSP incorporates these principles and "allows the nurse to expand her role of teacher to one of information facilitator" (Postpartum Parent Support Program, Implementation Plan for Newfoundland and Labrador, 1992).

Childbearing results in intense changes within families. As a result of the addition of the new baby, the family unit becomes restructured. The health care system has responded to the needs of new mothers and their families by providing family-centered maternity services. By the 1980's, combined care nursing for mothers and their babies emerged as a cost-effective means of delivering quality care. This philosophy recognizes the mother-infant dyad as needing care while they are adjusting to the many stressors of the postpartum period.

A practice resource prepared by the Committee on Practice of NAACOG (1989), the Organization for Obstetric, Gynecologic and Neonatal Nurses, acknowledged dyad care as an ideal response to the personal needs of mothers and their newborns as they adapt to their new family unit. This type of care benefits mother, baby, family and nursing staff. Mothers become more self-confident and enjoy flexible patterns as they meet individual babies' needs. Teaching is enhanced as nurses serve as role models providing information and care in a supportive environment.

Cross-training of staff to provide mother-baby care can promote cost-effectiveness and job satisfaction. Combined care also encourages collaboration both within and among agencies. Watters (1986) suggested a collaborative effort among agencies to evaluate the effectiveness of family-centered maternity care. Through such efforts childbearing families can be provided with a healthy childbearing experience including "comprehensive health promotion, primary prevention and when necessary, safe obstetrical and neonatal intervention" (Watters, 1986, p.17).

Golas and Parks (1986) studied the effectiveness of a teaching intervention on knowledge and confidence for primiparous mothers. This intervention was based on the Brazelton Neonatal Behavioural Assessment Scale (BNBAS). The results of the study indicated that parenting knowledge could be increased by teaching interventions such as using the content of the BNBAS to teach the mothers about their infants' behavioural capabilities. This study concluded that even knowledgeable and well-prepared primiparas "may desire confirmation or re-assurance from a health care provider that what they feel or interpret about their infant's behaviour is indeed correct" (p.214). Variables explored included knowledge, confidence and satisfaction. However, there were no significant differences in maternal confidence. Those mothers who were given additional information as part of the teaching intervention demonstrated higher levels of satisfaction. However, studies done by Walker, Crain and Thompson (1986) examined the influence of contextual variables on maternal behaviour and concluded that, for primiparas, self-confidence was related to higher maternal age, education and socioeconomics.

Mitchell and Adam (1982) developed "The Maternal and Child Health Program Kit" which was designed to prepare and support parents in the postpartum period. The purpose of the kit was "to help families to get to know their babies; develop feelings of competence; set realistic expectations for the postpartum; and to identify and use supports and resources" (Mitchell & Adam, 1982, p.308). This program can be utilized to integrate both parents and health professionals during the postpartum period.

Donaldson (1991) focused her attention on nursing interventions aimed at promoting maternal adaptation during the first eight weeks postpartum. Some examples of strategies tested were: teaching, counselling and supportive therapies, role supplementation and parent-infant interaction strategies. Interventions involving community health nursing home visits and group sessions postpartum were identified as having positive impact on maternal knowledge and utilization of health resources. For first-time mothers, early contact and continuity of care were highlighted as being important for intervention implementation.

This research also acknowledged telephone support as an important nursing intervention. Parent support through telephone consultation with health professionals has also been shown to be an effective source of support as a result of a study done by Elmer and Maloni (1986). Through this study, a telephone support line called "warmline" was implemented and confirmed that many new mothers lacked reliable sources of guidance regarding childbearing. The most common concerns identified were related to feeding patterns of the newborn, fatigue and parenting. Telephone support can be used as a "viable instrument for extending postpartum

contact" to alleviate these concerns (Donaldson, 1991, p.8).

According to Petroski (1981), three important aspects of facilitating education to promote skill development are the timing of instruction, repetition, and readiness to learn. Hiser (1986) stated that parents' readiness to learn child care and parenting skills develops after the birth, as the parents begin to assume the responsibility of parenting roles" (p.195). New mothers would benefit from informal discussion to share knowledge and experiences related to their new role. As traditional family networks have changed, new mothers must seek alternate social support (Hampson, 1989).

Sumner (1977) has acknowledged that one of the most important sources of help and support to a new mother is to be able to meet other mothers with whom she can "compare her baby's behaviour and validate her own mothering skills" (p.28). Williams (1977) carried out research that identified two to four weeks postpartum as an appropriate time for "new parents' classes". The sample used for this particular study felt that parents would benefit most from information related to infant care and parenting at that time. Research conducted by Lloyd (1990) also supported community-based intervention groups during the postpartum period as new mothers are getting to know their babies.

A collaborative study between the Newfoundland and Labrador Department of Health and St. Clare's Mercy Hospital, St. John's, Nfld., was carried out by Dempson and Maret (1986). This study demonstrated that maternal and child health services offered by the agencies were often inadequate and inconsistent with the needs and concerns of childbearing families during the postpartum period. As a result of this

study, the Community Health Liaison Project (CHLN) was implemented in 1988 in the St. John's region. The goal of the project was to facilitate discharge planning and to strengthen hospital and community liaison, resulting in co-ordinated and quality care between the two agencies. A community health nurse was assigned to the maternity unit to carry risk assessment, to facilitate an efficient referral system and to inform new mothers of community resources. Evaluation of this project has been positive with recommendation for expansion of the collaborative roles of both agencies. Some recommendations included the provision of increased nursing hours and adequate relief, the need to broaden the role to include antenatal referrals, to develop interagency committees to further promote liaison and to continue research evaluation of nursing activities.

The general trend today appears to be a major shift from "disease" orientation to "health" paradigms. Models such as "A New Perspective on the Health of Canadians" (Lalonde, 1974) and "Achieving Health for All" (Epp, 1986) are other examples of changing trends in approaches to health promotion and disease prevention. As health care resources become more and more strained by a troubled economy, collaborative services between hospital and community care will be an important means of facilitating quality health care, especially for groups such as childbearing families.

Knobel (1983) has acknowledged health promotion and disease prevention as a means of improving health while conserving resources. Nurses are in a key position to deliver services and health promotion strategies to clients at both hospital and community levels. According to WHO (1984), "Health Promotion consists of activities that increase the

levels of health and well-being and actualize or maximize the health potential of individuals, families, groups, communities and society (cited in Murray & Zentner, 1988, p.589).

Laffrey, Loveland-Cherry and Winkler (1986) have put forth a model depicting health behaviour from two major paradigms: pathogenic and health. The pathogenic paradigm perceives health as being freedom of disease, while the health paradigm emphasizes autonomous, health-focused behaviour resulting in increased health and well-being. Health behaviour based on the health paradigm can "reflect a holistic view of the human being in constant and harmonious interaction with the environment" (Laffrey et al., 1986, p.97).

Peck Marecki (1979) acknowledged the importance and the necessity to bridge the gap between hospital and home. New mothers need assessment, intervention, anticipatory guidance and parenting support. This process begins at the hospital level and needs to be continued into the community. Programs such as the Postpartum Parent Support Program (PPSP) utilize both a family-centered approach and a learner-centered approach to educate and support new mothers. Interagency collaboration between hospital and community facilitates continuity of care during the postpartum period (Health and Welfare Canada, 1989).

Evaluation

Blum (1981) defined evaluation as a "feedback process whereby planned information is used to guide and direct organization (or individual) decisions" (p. 270). Evaluation involves such activities as

monitoring, determining the level of service needed, making resource allocation decisions, determining the impact of similar activities that have been carried out in other areas, improving the quality of current efforts and generating new knowledge about health and health planning.

Blum (1981) has cited seven general levels of evaluation. Evaluation carried out at each level can answer questions relevant to that level. These levels include activity, inputs to an operation, process of an operation, outputs of an operation, outcome, impact and efficiency. This design has been adopted and discussed as the conceptual framework for this study.

Rossi and Freeman (1979) defined evaluation research as the "systematic application of social research procedures in assessing the conceptualization and design, implementation and utility of social intervention programs" (p.20). This type of research can facilitate improvement in program planning, effectiveness and efficiency. Impact assessment can be used to demonstrate program effectiveness. Program benefits in relation to costs can be used to demonstrate efficiency. Impact assessment is important in the testing of new and proposed programs and also in the revision of existing programs. Impact evaluation can be useful to determine whether or not an intervention produces an "effect" or "outcome".

Evaluation is the "process of inquiry into the performance of a program" (Dignan & Carr, 1987, p.128). Dignan and Carr (1987) asked certain basic questions that are pertinent to evaluation. These questions were related to program objectives, format, activities, cost, the use of the program in other settings and whether or not there is

support for program efforts to effect change in the target population. Answers to these questions would be helpful in assessing just what has occurred due to the actual implementation of the program which is being evaluated. Process and impact issues can be used to monitor the effectiveness and the efficiency of programs. One must determine whether or not the changes or impact are in actual fact, due to factors related to the program. Evaluative designs should facilitate the observation of such changes.

Brink and Wood (1989) acknowledged the necessity of program evaluation to test the effectiveness of nursing intervention programs. Evaluation is of special interest to policy-makers who are responsible for funding and resource allocation. Evaluative designs can be used to measure the effects of a program. Implicit in such designs are the basic assumptions that:

- (1) Program objectives are measurable;
- (2) Tools are available to measure variables;
- (3) Objectives can be prioritized;
- (4) Control subjects are available to facilitate statistical testing to determine whether or not the program has made a difference.

Formative evaluation "provides feedback during the progress of the program and is used to improve or modify its operation" (Brink & Wood, 1989, p.231). Summative evaluation "is done after the program is over and attempts to assess how effective the program was in meeting its objectives" (Brink & Wood, 1989, p.231). Both types are appropriate for program evaluation.

Polit and Hungler (1983) identified several phases essential for evaluation research including the determination of program objectives, measurement of these objectives, collection of data and interpretation of the data in relation to the stated objectives. Experimental, quasi-experimental and non-experimental approaches can be used as evaluative designs to measure how well program objectives are being met. Needs assessments can be carried out, hypotheses formulated, data collected and analyzed to formulate conclusions and interpretations. This process can be used to determine how well a program is functioning.

Donabedian (1976) suggested that criteria for evaluation could be based on standards related to structure, process and impact. Standards related to "structure" refers to such items as physical facilities, educational materials and personnel. "Process" standards refer to nursing tasks and program activities. "Impact" standards refer to the immediate effects upon program participants. Evaluation research can "measure the effects of a program against the goals it set out to accomplish as a means of contributing to subsequent decision-making about the program and improving future programming (Weiss, 1972, cited in Herman, Lyons Morris & Taylor Fitz-Gibbon, 1987, p.4).

Mayer (1985) listed several questions as being essential to the design of an evaluation. These questions were related to achievement of objectives, implementation, effectiveness and efficiency. Procedures used to measure program effectiveness include choice of design, use of a control group where possible, and control for such factors as characteristics of the population that are fixed and dynamic, environmental events, the "Hawthorne Effect" and self-selection.

Finally, to measure program performance, evaluation must be incorporated into program design and delivery. It is important to determine the effects of programs and service delivery on the competence and confidence of new mothers as they are adapting to the maternal role. A structured network of information and support can increase maternal satisfaction and facilitate successful transition into parenthood.

Summary

The literature that is currently available pertaining to maternal and child health is quite extensive. There is a great deal of research dealing with the physiological aspects of pregnancy, labour, delivery and postpartum. The psychosocial aspects of childbearing and childrearing are also becoming increasingly noted throughout the literature.

There is great deal of emphasis on the physical status of new mothers and their need to develop confidence and competency in the areas of infant care and infant feeding. Throughout the literature, concerns such as physical restoration, changes in lifestyle and relationships and demands of the new role, are well documented. It is also of note that an increased number of concerns remain unresolved by six weeks. Concerns change over time, with each mother making her transition to parenthood at her own individual pace.

The impact of pregnancy and parenthood is well documented. The intense feelings and adjustment that accompanies parenthood are well identified. It is apparent that during early postpartum, new mothers are

concerned primarily with issues related to bonding, care of the infant and maintenance of rest and nourishment. They need reassurance. By four to six weeks, most new mothers are beginning to settle in and are ready to address other issues related to parenting. They need validation of their parenting skills and information and support to improve these skills. Early access to health care, increased knowledge and both social and professional support have all been acknowledged as being essential to assist new mothers to cope with their new role of parent in the context of today's society. This is important to increase maternal satisfaction and facilitate role transition.

There is identification that parenting needs are continuously changing and need to be viewed from individual perspectives based on social, spiritual and cultural origins. There have been changes in the structure of the family unit over time and changes in societal demands on the parenting role. Families have progressed from the traditional extended family to nuclear and single-parent families. Hospital stays are short, therefore increasing the need for consistency and continuity of care between hospital and community.

As health care resources dwindle, it is important to assess and prioritize needs. It is important to test the effectiveness of interventions that have been put in place to meet identified needs and establish their value and benefits for the clients who are participants. Evaluation research is needed to document the status of programs and provide direction for future health planning. Finally, it is necessary to demonstrate program accountability and effectiveness to policy makers and politicians. "Evaluation is an endeavour which is partly social,

partly political and only partly technical" (Herman et al., 1987, p.11).

In conclusion, throughout the literature there are many traditional theories and perspectives of the postpartum experience such as those put forth by LeMasters (1957) and Rubin (1985). These are now being re-examined to facilitate the delivery of quality care to childbearing families within the context of today's social and economic climate. Therefore, further research is most important, as it is becoming more apparent that transition into parenthood may require support and information well beyond the early days and weeks postpartum.

Chapter III

METHODOLOGY

Research Design

A quasi-experimental approach using a nonequivalent pretest and post test design was used to examine the effects of the Postpartum Parent Support Program (PPSP) on the competence and confidence of primiparous mothers in the first six weeks postpartum (Wilson, 1989).

This type of design uses a comparison group (those who received postpartum information and support in the traditional way) and a treatment group (those who received the PPSP). Comparative analysis of the two groups was used to demonstrate which method was most effective. Randomization to the comparison and treatment groups was not possible within the target population as the PPSP was introduced universally by the maternity unit on a specific date. For this reason, the chosen design was quasi-experimental.

Support for the feasibility of the chosen design can be found in such sources as: Burns and Grove (1987); Campbell and Stanley (1963); Polit and Hungler (1983). An experimental design is the ideal design to evaluate program effectiveness. Polit and Hungler (1983) stated that a true experiment is characterized by manipulation, control and randomization. If one of these properties is missing, a quasi-experimental approach is then recommended. "Quasi-experiments involve a manipulative component, but lack a comparison group or randomization"

(Polit & Hungler, 1983, p.165). Burns and Grove (1987) stated that "quasi-experimental designs were developed to provide alternate means for examining causality in situations not conducive to experimental controls" (p.256). Campbell and Stanley (1963) stated that such a design "is not inherently a strong one. Nevertheless, it may frequently be all that is feasible and is often well worth doing" (p.53).

Sample

The sample consisted of 80 primiparous mothers who delivered their babies in an urban, tertiary care maternity unit in Newfoundland and Labrador. These mothers were interviewed by the researcher at four to six weeks postpartum.

The sample size ($n=80$) allowed for 20 subjects for each of the following cells of the design:

- (1) Comparison group;
- (2) Treatment group;
- (3) Dependent variable-competence;
- (4) Dependent variable-confidence.

Most sources recommend a minimum of five subjects per cell. Polit and Hungler (1983) recommends at least 10 subjects per cell and states that it is preferable to increase the size to 20. "The absolute size of the sample is more important in determining the accuracy of sample estimates than in the relative sample size to population size" (Polit & Hungler, 1983, p.427).

The sample was a convenience sample and was selected from the

accessible population on the basis of the following criteria:

Mothers were:

- (1) primiparous
- (2) able to speak English
- (3) discharged from hospital with a healthy baby by five to six days postpartum
- (4) living within a 30 kilometer radius of the city in which they had delivered.

Mothers who met the established criteria were selected over a 10 week period prior to the implementation of the "PPSP" which began April 1, 1992. These mothers were approached initially by the community health nurses at the time of their routine postnatal visit. For the pretest, a total of 47 referrals were received. Four mothers were interviewed but were excluded as they had delivered at a hospital where obstetrical services were being discontinued. Three mothers were excluded because, by the time contact was made, the babies were more than six weeks old. The final number of mothers for the pretest was 40.

Five months following the implementation of the "PPSP", a subsequent sample, similar for demographic variables, was also selected in a similar way to the comparison group over a 10 week period. The five month time period between interviews was chosen in order to allow ample time for the program to become operational due to the restructuring of obstetrical services which was taking place in the hospital where the study was being carried out. Only one mother who was approached withdrew her consent for participation. A total of 40 mothers were recruited. These mothers received postpartum information from both hospital and

community health nurses within the guidelines set for the PPSP.

In order to establish the degree of similarity between the comparison and treatment groups, demographic variables were examined to determine how well the groups matched. The variables used for comparison were:

- (1) age
- (2) partner status
- (3) career
- (4) income
- (5) education
- (6) type of infant feeding
- (7) type of delivery
- (8) length of maternity leave
- (9) citizenship status
- (10) attendance at prenatal classes

(Refer to Table 1, p.57).

The Setting

The initial setting for both groups was a 50 bed obstetrical unit in an urban, tertiary care hospital. Following a hospital stay of a few days, the new mothers were discharged home into the community. It is important to note that, at the time of this study, this hospital was in the process of merging obstetrical services with a nearby hospital. This restructuring took place only several weeks before the implementation of the PPSP. This issue will be discussed later in the section on

limitations of the study.

The comparison group received instruction in the traditional way, i.e. within the hospital setting, mothers were offered classes in infant feeding, care and safety as well as some individualized instruction. All mothers in this group received follow-up postnatal visits from the community health nurses.

The treatment group received the PPSP which uses a more individualized instructional approach based upon assessed need. Through the use of the pamphlet "Help Us to Help You" (Appendix "A"), new mothers were given the opportunity to participate in identifying their needs and in planning their care. This process was begun by the hospital nurses. A "Record of Parent Learning" (Appendix "B") was sent to community health nurses so that they had a detailed account of identified learning needs and the progress being made in the various areas related to postpartum care. Information sheets related to specific topics (Appendix "C") and a "Staff Reference Manual" with recommended responses to concerns and questions were used by both hospital and community nurses. All mothers received follow-up postnatal visits by community health nurses. Both hospital and community nurses received training in the use of the PPSP.

Setting for Data Collection

The data collection took place at the homes of the new mothers at four to six weeks postpartum. Interviews were pre-arranged to take place at a time that was most convenient for the mothers.

Data Collection and Analysis

Procedure

District community health nurses approached new mothers during their initial postpartum visit and obtained permission for the researcher to contact these mothers (in the Province of Newfoundland and Labrador, all new mothers receive follow-up by community health nurses). An explanation of the study (Appendix "D") and an "Informed Consent" (Appendix "E") were left with each mother. The names of the mothers who agreed to be interviewed were then forwarded by the community health nurses to the researcher.

Those mothers who met the criteria and had agreed to participate in the study were contacted by the researcher at four to six weeks postpartum. Initial contact was made by telephone and all interviews were pre-arranged.

At the time of the interview, each subject was given a brief verbal description of the study. The "Letter of Explanation" was reviewed and the written consent was completed. The researcher then administered a questionnaire which was designed for the study (Appendices "F", "G", "H") by reading the questions to the subjects and then documenting their responses. All interviews were completed by home visits. The length of each interview was approximately one hour.

Instrument

The PPSP Assessment Questionnaire (PPSPAQ) was designed by the researcher for use in this study. Some questions were taken and/or adapted from a tool which was developed and used for "Postpartum Parent Support Evaluation" by the "Edmonton Area Postpartum Parent Support Program Pilot Project Evaluation Committee" (EAPPSPE) (September, 1991). Provincial nursing representatives involved in the implementation of the "PPSP" were given permission at the national level to share and use these tools in the evaluation of this program. However, the Edmonton Tool has not been validated and was not totally suitable for this study. It was felt by the researcher that additional data related to confidence, and other specific areas of information as listed in the PPSP Staff Reference Manual, as well as ratings specific to the PPSP materials, were necessary to answer the research questions as put forth in this study.

Demographic and postpartum data were collected, including information related to the maternal birth experience and infant feeding plans. The questionnaire was then divided into three sections. Section A was designed to examine maternal ratings for the helpfulness of information given to the new mothers by both hospital and community health nurses, maternal satisfaction with the information given and confidence in maternal and newborn care. This was done by using a 7-point Likert-type scale. Open ended questions were used to elicit gaps in the information given at both hospital and community levels. Section B was designed to examine maternal ratings for consistency of information given by hospital and community health nurses, the mothers' perception

of the quality of community health nursing visits, identification of concerns and the mothers' perception of the parenting experience. Section C was designed to examine maternal ratings of the PPSP materials including the needs assessment questionnaire, "Help Us To Help You" and information sheets related to specific topics. These materials were developed and distributed through Health and Welfare Canada for use with the PPSP and were administered to the treatment group only. They were rated for such things as content, understanding and readability. Mothers were also asked whether or not they had an interest in attending a parenting group at the community level.

The areas chosen for rating by the mothers were taken from the major categories as listed in the "Staff Reference Manual" developed for use with the PPSP, i.e. "My Body, The Breasts"; "My Baby, Feeding My Baby"; "Adjustments to Parenthood, Family Planning"; "My Baby at Home, Home Environment". Open-ended questions were included to elicit qualitative data related to parenting. The areas chosen for examination and analysis reflect the informational objectives for parents as stated for the PPSP. Emphasis has been given to the objectives related to competence, confidence, information and support as these were the objectives open to measurement.

The instrument was designed to measure ordinal data, "ordinal" being defined as a "set of ordered categories" (Norman & Streiner, 1986, p.16). The Likert-type scale assigns numbers to the "degree of" specific variables, i.e. helpfulness, satisfaction, confidence. Process variables were used to identify and evaluate nursing activities that are being carried out to meet the objectives of the program. Impact variables were

used to determine the effectiveness of program areas as indicated by the mother's rating of perceived satisfaction and helpfulness (Donabedian, 1976).

Reliability and Validity

The Edmonton Tool had not been validated at the time of the study. Replication of the tool has been carried out in at least two Canadian Provinces. Evaluation related to these studies is currently ongoing.

In an attempt to establish validity for this questionnaire, a comprehensive literature search was conducted in the areas that were chosen as the focus of the study. The tool was also examined by two nursing experts in the field of maternal and child health and also by an expert in the area of medical research and statistics. It was not possible to address fully reliability prior to the study as this was a new instrument and the PPSP was introduced province wide on a specific date. However, the instrument was pre-tested for readability, timing, comprehension, content and format by using four mothers who met the criteria for participation in the study. There were no revisions following the pretest and these subjects were included in the study.

Data Analysis

Sections A and B of the PPSPAQ were used to evaluate program effectiveness by examining such variables as the degree of helpfulness

of information, consistency of information, maternal satisfaction and maternal confidence. This was done by using a Likert-type Rating Scale of 1-7. Using the Chi-Square Test, the comparison and treatment groups were compared to determine if there were any differences. These sections also included qualitative data related to the parenting role. Procedures such as ranking and categorization were used to sort the qualitative data into common themes.

Examination of frequencies and the Chi-Square Test were carried out to determine the mothers' perception of such things as the quality of community health nursing visits. Examination of frequencies for Section C was carried out to determine ratings of materials used for the PPSP. Frequencies were also examined to determine sources of support and information which were sought postpartum at the community level.

The comparison and treatment groups were further divided into sub-groups of breast-feeding and bottle-feeding mothers. Analysis of the data was carried out to identify differences in relation to the type of infant feeding chosen by the new mothers.

The key areas analyzed were:

1. The Sample: This also included analysis of data related to the maternal birth experience and infant feeding plans.
2. Information and Materials (Other than the PPSP): This included pamphlets, video, group sessions and one-to-one conversation with the nurse. Qualitative data were sorted into themes and summarized.

3. Consistency of Information between Hospital and Community Nurses:
In consultation with a statistician, categories were collapsed into two measures of consistency, "almost always consistent" and "almost always inconsistent". The responses of "almost always inconsistent" were combined with "somewhat inconsistent". A problem area was identified as one being rated "inconsistent" by 10% or more of the sample. Frequencies were calculated and examined to identify these problem areas.
4. PPSP Materials: Materials developed for use with the PPSP (i.e. "Help Us To Help You" Questionnaire), were rated by the treatment group only for content, readability and understanding.
5. Maternal Satisfaction with the Quality of Community Health Nursing Visits:
Categories were collapsed into the value labels, "agreement" and "disagreement". The Chi-Square Test was applied to determine differences between the comparison and treatment groups.
6. Helpfulness of PPSP Information for Developing Maternal Competence:
The areas chosen for comparison were based upon those listed in the "Staff Reference Manual" for the PPSP. The categories were collapsed into three value labels: "not helpful", "somewhat helpful" and "most helpful". The Chi-Square test was applied to determine whether or not there was any improvement in the ratings following the PPSP. The data were also analyzed to compare the

mothers' overall satisfaction with information and also to identify gaps in information.

7. Maternal Confidence With Newborn and Self-Care: The Chi-Square Test was applied to determine whether or not the groups differed in the area of maternal confidence with newborn and self-care. Ratings were also compared for the sub-groups of breast-feeding and bottle-feeding mothers.
8. Parenting Experiences: Qualitative responses were examined to identify common parenting concerns.
9. Community Follow-Up and Support: Frequencies were calculated and examined to determine from whom support was sought at the community level. Qualitative data were analyzed to determine the reasons why support was sought. These environmental influences may have affected program impact.
10. Interest in Parenting Group: Frequencies were examined to determine interest in attending a postpartum parenting group at the community level. The idea of a support group is not specifically recommended by the PPSP.

Ethical Considerations

The proposal was reviewed and ethical approval was obtained by the researcher from the Human Investigation Committee, Health Sciences Center, St. John's, Newfoundland. Permission to conduct the research was also obtained from the Regional Director of Nursing and the Medical Officer of Health, St. John's and District Health Unit, St. John's, Newfoundland.

Prior to being interviewed, each subject was asked to sign an "Informed Consent" (Appendix "E"). They were also assured of confidentiality. Only the researcher was aware of the names of the participants and each questionnaire was coded to ensure confidentiality.

The questionnaires were kept in the possession of the researcher and were destroyed when the study was completed. The subjects were also informed that demographic data from postnatal records kept by the district community health nurse would be reviewed by the researcher. They were reminded that they may be contacted again regarding verification or clarification of their interviews.

Subjects were informed that they would be free to withdraw from the study at any time and that they reserved the right to refuse to answer any question or describe any aspect of a situation or experience that may cause them discomfort or embarrassment. They were also assured that such decisions would not affect the health care services being delivered by community health nurses and/or other agencies.

Chapter IV

RESULTS AND DISCUSSION

The Results

The results will be presented under the following headings:

- 1) The Sample: including maternal birth experience and infant feeding plans.
- 2) The Program, including such variables as:
 - (a) Maternal ratings of information and materials (other than the PPSP materials) given by hospital and community nurses;
 - (b) Maternal rating of PPSP materials;
 - (c) Consistency of information given to the mothers by hospital and community nurses;
 - (d) Maternal satisfaction and the mothers' perception of the quality of community health nursing visits;
- 3) The Mothers, including such variables as:
 - (a) Competence as measured by the helpfulness of the information given to mothers by hospital and community nurses, including overall satisfaction with the information;

- (b) Maternal confidence with newborn and self-care.
- 4) Also presented will be:
- (a) Parenting experiences, including the analysis of the responses data related to parenting concerns and information needed;
 - (b) Community follow-up and sources of support for the mothers;
 - (c) The need for ongoing professional nursing support, including interest in attending a parenting group at the community level.

The Sample

The sample consisted of 80 primiparous mothers who met the criteria for admission to the study. There was no more than a 5% difference in all areas with the exception of educational levels, attendance at prenatal classes and type of infant feeding chosen (Refer to Table 1, p.57). These differences will be addressed further in the Discussion section.

The median age for both groups was 26-30 years. Most of the mothers for both groups had partner support and a moderate income. There were a small number of single mothers in both groups (six and four). The majority of the mothers had a vaginal delivery. More mothers in the treatment group had post-secondary education. For the treatment group, there was a marked increase in both attendance at prenatal classes and

also in breast-feeding.

The demographic variables for the sample are presented in the following Table (1).

Table 1

Demographics of Comparison and Treatment Groups

| DEMOGRAPHIC | COMPARISON GROUP n = 40 | TREATMENT GROUP n = 40 |
|---|----------------------------|---------------------------|
| 1. Ethnicity | Caucasian | Caucasian |
| 2. Age Range | 26 - 30 years | 26 - 30 years |
| 3. Partner Support | 34 (85%) | 36 (90%) |
| 4. Post-Secondary Education | 27 (67.5%) | 30 (75%) |
| 5. Income > \$41,000 | 19 (47.5%) | 21 (52.5%) |
| 6. Maternal Career | 29 (72.5%) | 28 (70%) |
| 7. Maternity Leave (Median) | 6 months | 6 months |
| 8. Type of Delivery (Vaginal) | 34 (85%) | 32 (80%) |
| 9. Type of Delivery (C/S) | 6 (15%) | 8 (20%) |
| 10. Attended Prenatal Classes | 25 (62.5%) | 39 (97.5%) |
| 11. Infant Feeding: (A) Breast (B) Bottle | 14 (35%) 26 (65%) | 23 (57.5%) 17 (42.5%) |

Maternal Birth Experience

Twenty-five (62.5%) of the comparison group and 30 (75%) of the treatment group indicated that the birth experience was what they had expected. Four (10%) of the comparison group stated that their expectations were based on reading materials, while 23 (57.5%) of the treatment group attributed their expectations to information gathered from talking to others. Ten (25%) of the treatment group stated their expectations were based on reading materials, while 26 (65%) attributed their expectations to other sources. Thirty-six (90%) of the comparison group and 38 (95%) of the treatment group indicated that they had read materials related to childbirth and parenting.

Those mothers who indicated that the birth experience was different than their expectations listed various reasons such as: (1) unplanned Caesarian Section; (2) lengthy and painful labour and/or delivery; (3) use of forceps; (4) lack of experience as to what was a "normal" birth. Seventeen (42.5%) of the comparison group and 10 (25%) of the treatment group indicated that the birth experience was more pleasant than they had anticipated.

Maternal Infant Feeding From Birth to Six Weeks Postpartum

Data related to the maternal infant feeding methods chosen were documented at birth, one week postpartum and again at 4 - 6 weeks postpartum. Of the comparison group, 15 (37.5%) were breast-feeding, 6 (15%) were breast-feeding with formula supplement and 19 (47.5%) were

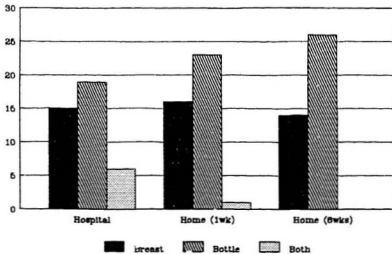
bottle-feeding during the first three or four days postpartum. Of the treatment group, 27 (67.5%) were breast-feeding, 3 (7.5%) were breast-feeding with formula supplement and 10 (25%) were bottle-feeding during the first three to four days postpartum. The increase in breast-feeding which was of note in the treatment group was reflected in the total maternal population in the region at the time of the study. It is possible that this may be partly explained by the merging of obstetrical services for the region or perhaps by increased initiatives in breast-feeding that were ongoing in the region at this time. It is also possible that more breast-feeders from the comparison group population were somehow lost.

At one week postpartum, 16 (40%) of the comparison group were breast-feeding, 1 (2.5%) was breast-feeding with formula supplement and 23 (57.5%) were bottle feeding. Twenty-five (62.5%) of the treatment group were breast-feeding, 4 (10%) were breast-feeding with formula supplement and 11 (27.5%) were bottle-feeding. Of the comparison group (n=14), 2 (14.3%) planned to breast-feed for 6 - 8 months. Of the treatment group (n=23), 8 (34.8%) planned to breast-feed for six to eight months.

By four to six weeks postpartum, the breast-feeding rate for the comparison group was 14 (35%) and for the treatment group was 23 (57.5%).

Eight (30.8%) (n=26) of the comparison group who were bottle-feeding continued to use iron-fortified formula. All others changed to a plain formula. Of those who changed to a plain formula, 1 (5.6%) (n=18) used an evaporated milk. Eight (47%) (n=17) of the treatment group continued to use iron-fortified formula. Of those who changed to a plain formula, 1 (11.1%) (n=9) used an evaporated milk.

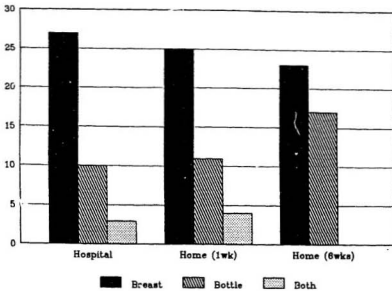
Figure 1 illustrates the changes in feeding methods between hospital discharge and six weeks postpartum for the comparison group and Figure 2 illustrates the same for the treatment group.



n = 40

Histogram for Infant Feeding Method, Hospital, Home (1 week), Home (6 weeks), Postpartum for Comparison Group

FIGURE 1



Histogram for Infant Feeding Method, Hospital,
Home (1 week), Home (6 weeks), Postpartum for Treatment Group

FIGURE 2

PPSP Assessment

The Program

Before evaluating program effectiveness, it is important to examine the process. The process is the means by which program activities are monitored and evaluated to identify problems and take the necessary action to solve these problems. Process includes the specific program activities, including nurse-client interaction and the client's reaction

to both methods and professional interaction (Dignan & Carr, 1988). This section will present results related to program areas as listed below. The data were analyzed to determine whether or not there were significant differences between the comparison and treatment groups in the following areas:

- (a) Maternal ratings of information and materials (other than the PPSP materials) given by hospital and community nurses.
- (b) Maternal ratings of PPSP materials.
- (c) Consistency of information given by hospital and community nurses.
- (d) Maternal satisfaction with and perception of the quality of community health nursing visits.

Information and Materials Given by Hospital and Community Nurses

Thirty-four (85%) of the comparison group and 36 (90%) of the treatment group rated printed materials as helpful and/or adequate. This would include pamphlets such as those included in the package from community health nurses, i.e. "You and Your New Baby". Only one mother from the comparison group rated the materials as "not helpful". Five mothers stated that they did not receive any printed materials while they were in the hospital. Five mothers from the treatment group stated

that there were too many pamphlets and that information should be condensed into a book.

Twenty-eight (70%) of the treatment group availed of video instruction as compared with 24 (60%) of the comparison group. Video instruction was related to such topics as infant bathing, formula and breast-feeding, infant safety and smoking.

The helpfulness of one-to-one conversation with the nurses was rated highly by 16 (40%) of the treatment group as compared with 12 (30%) of the comparison group.

Eighteen (45%) of the treatment group participated in group sessions as compared with 36 (90%) of the comparison group. Six (33%) (n=18) of the treatment group who attended group sessions rated them highly in the terms of helpfulness. Thirty-four (94.4%) (n=36) of the comparison group rated them highly in terms of helpfulness.

Maternal Rating of PPSP Materials

Specific materials have been developed and distributed by the Federal Government for use with the PPSP. Mothers in the treatment group were asked to rate these materials. These included a needs assessment questionnaire (Help Us To Help You) and information sheet related to specific topics of postpartum care, i.e. bathing, cord care, jaundice. Appendix C contains a list of these sheets.

Mothers were asked if and when they had received the needs assessment questionnaire (Help Us To Help You) and whether or not a nurse had reviewed the questionnaire with them. They were also asked to rate

the materials for content, readability, and understanding.

Eight (21%) of the group (n=38) received the questionnaire on the day of delivery; 16 (42.1%) on day one postpartum; 10 (26.3%) on day two postpartum; 3 (7.9%) on day three postpartum; and 1 (2.6%) on day four postpartum. Thirty-seven (97.4%) rated the questionnaire highly in terms of understanding. Twenty-eight of the 33 (84.8%) mothers who received the information sheets rated them highly for readability. Thirty-two of the 33 (96.9%) rated the materials highly for content. All mothers stated they were able to read and understanding the questionnaire.

The majority of the mothers, 34 (89.5%) had received the needs assessment questionnaire, "Help Us To Help You" by day two postpartum. Only a small number, 4 (10.5%) received the questionnaire on day three postpartum or later.

Twenty-four (63.2%) of the 38 mothers who received the questionnaire indicated that a nurse had reviewed it with them. Of these 24, 14 (58.3%) of the mothers had the review by the third day postpartum. Twenty-one (87.5%) indicated that the hospital nurse had answered all the questions that they had checked. Eight (33.3%) indicated that their questions were answered by the community health nurse at home. Three (12.5%) indicated that they had questions that were not addressed by the questionnaire. Twenty-eight (73.7%) of those who received the questionnaire rated it highly in terms of identifying their needs. Fourteen (36.8%) received the questionnaire, but reviewed it without nursing support. Two (5%) of the group did not receive the questionnaire at all.

Not all of the mothers received all of the information sheets. The

topics that were received by 60% or more of the group were as follows: 1) "Postnatal Exercises" (73.7%); 2) "Cord Care" (65.8%); 3) "Making Home Safe for Children" (63.2%); 4) "Bathing" (60.5%). Appendix C lists the topics available through these information sheets.

Consistency of Information Given by the Hospital and Community Nurses

Mothers were asked to rate the consistency of information among community health nurses. Both comparison and treatment groups rated the information in all areas (15) of maternal and infant care as being consistent.

However, information between hospital and community health nurses was less consistent prior to the introduction of the PPSP. When mothers were asked to rate the consistency of information between hospital and community nurses, the mothers in the comparison group (before PPSP), rated all areas (15), with the exception of "supplementary feeding", as being inconsistent. For the treatment group (after PPSP) only six (40%) of the 15 areas were identified as being inconsistent (Table 2).

Maternal Satisfaction With The Quality Of Community Health Nursing Visits

The mothers' responses to the statements for this section of the PPSPAQ, Section B, Question No. 12, were collapsed into the categories of agreement and disagreement. The range of categories for this question

Table 2

Identifying Problem Areas of Inconsistency Between Hospital and Community Nurses

| AREAS IDENTIFIED RATING > 4 > 10% | COMPARISON GROUP (n=40) | TREATMENT GROUP (n=40) |
|--------------------------------------|----------------------------|---------------------------|
| Cord Care | 9 | 5 |
| Sleep Behaviour | 10 | 5 |
| Crying | 11 | 6 |
| Breast Care | 14 | 6 |
| Emotional Concerns | 11 | 6 |
| Home Environment (Adjustment) | 19 | 6 |

were "strongly agree, agree, disagree and strongly disagree". The Chi-Square Test was applied to determine the differences between the comparison and treatment groups. Two statements related to self-care and needs assessment were identified as being statistically significant at $p=.05$ level for agreement.

Although not statistically significant, the statement that "the nurse helped me to understand my baby's cries", was disagreed with by both the comparison and treatment groups. Table 3 lists statements related to the satisfaction with community health nursing visits.

Summary

Mothers in both the comparison and the treatment groups were asked to rate information and materials given to the mothers by hospital and

Table 3

Statements Related to Satisfaction With Community Health Nursing Visits

| STATEMENT | COMPARISON GROUP | TREATMENT GROUP | P = <.05 |
|---|------------------|-----------------|----------|
| The nurse(s) took time out to find out what I needed to know before they gave me any help or direction. | 35 (Agreed) | 40 (Agreed) | .02092 * |
| The nurse(s) taught me how to take care of myself. | 27 (Agreed) | 40 (Agreed) | .00193 * |
| The nurse(s) helped me to understand my baby's cries. | 28 (Disagreed) | 33 (Disagreed) | .17029 |

community nurses. The modes of delivery of information included printed materials, video instruction and one-to-one conversation with the nurses. Printed materials and one-to-one conversation with nurses were more highly rated by the treatment group when compared with the comparison group. There was decreased use of video instruction and group sessions by the treatment group when compared with the comparison group.

The treatment group was asked to rate materials that had been developed and distributed for use within the PPSP. Mothers were asked to rate these materials for content, readability, and understanding. they were also asked to indicate when they had received the materials and whether or not a nurse reviewed the materials with them. The PPSP materials were highly rated for content, readability, and understanding. However, 14 (36.8%) (n=38) of the treatment group reviewed the

questionnaire "Help Us to Help You" without nursing support and 2 (5%) of the group did not receive this questionnaire at all.

Consistency of information between hospital and community nurses was also rated. There was a marked improvement in the consistency of information between hospital and community nurses for the treatment group as compared with the comparison group. There was also increased satisfaction with community health nursing visits among the treatment group as compared with the comparison group.

The Mothers

It is important to determine whether or not an intervention is achieving in its intended effects (Blum, 1981). It can be used to demonstrate program effectiveness for new, proposed and ongoing programs. Impact assessment is necessary to determine whether or not program activities are resulting in the desired changes in the client (Blum, 1981).

The data were analyzed to determine whether or not there were significant differences between the comparison and treatment groups. The groups were also sub-divided into breast-feeding and bottle-feeding mothers to determine differences in relation to type of infant feeding chosen. The areas were:

- (a) Competence as measured by the degree of helpfulness of the information given to the mothers by hospital and community nurses to help them acquire skills in baby and self-care,

including their overall satisfaction with the information;

- (b) Maternal confidence in newborn and self-care.

The data were also analyzed to determine:

- (a) Parenting experiences, including common parenting concerns identified and information needed;
- (b) Sources of community support and the reasons why support was sought;
- (c) Interest in attending a postpartum support group at the community level.

Helpfulness of PPSP Information for Developing Maternal Competence

Mothers were asked to rate the degree of helpfulness of information given by the nurses at both hospital and community levels in the various areas of postpartum care. The areas chosen for comparison were based on those listed in the "Staff Reference Manual", which has been developed for use with the PPSP. The ratings were collapsed into three categories: not helpful, somewhat helpful and most helpful. The Chi-Square Test was applied in order to compare the degree of helpfulness for both comparison and treatment groups.

Helpfulness of Information Given by Hospital Nurses

Table 4-1 illustrates that the mothers in the treatment group found

Table 4-1

Areas Rated Highly for Helpfulness by Mothers (Hospital)

| CATEGORY OF INFORMATION | FREQUENCY / % | | D.F. | SIGNIFICANCE P = < .05 |
|---|---------------|-----------|------|---------------------------|
| | COMPARISON | TREATMENT | | |
| My Body, The Breasts | 16(40%) | 22(55%) | 2 | .02324 * |
| My Body, Stitches | 21(52.5%) | 31(77.5%) | 2 | .01040 * |
| My Body, Bowels | 18(45%) | 30(75%) | 2 | .02154 * |
| My Body, Diet | 14(35%) | 21(52.5%) | 2 | .04076 * |
| My Body, Hemorrhoids | 9(22.5%) | 17(42.5%) | 3 | .00374 * |
| My Body, Rest | 23(57.5%) | 23(57.5%) | 2 | .09845 |
| My Body, Vaginal Discharge | 13(32.5%) | 28(70%) | 2 | .0000 * |
| The Baby, Baby Care | 29(72.5%) | 38(95%) | 2 | .01844 * |
| The Baby, Feeding | 24(60%) | 24(60%) | 2 | .17700 |
| The Baby, Sleeping Patterns | 11(27.5%) | 16(40%) | 2 | .00951 * |
| Adjustment to Parenthood, Fatigue | 9(22.5%) | 25(62.5%) | 2 | .00009 * |
| Baby at Home, Safety | 8(20%) | 23(57.5%) | 2 | .00267 * |
| Information from hospital nurses related to special circumstances (i.e. jaundice, orthopedic, problem, etc) | 6(15%) | 17(42.5%) | 3 | .01094 * |
| Overall satisfaction with information from hospital nurses | 19(47.5%) | 23(57.5%) | 2 | .01602 * |

the information given by nurses for 12 of the 31 areas (38.7%), significantly more helpful than mothers in the comparison group. One area was rated more highly by the treatment group, but was not statistically significant. However, 14 areas (45.1%) were rated low for helpfulness, but these areas were found to be adequately dealt with at

the community level. Nevertheless, for almost all areas, the treatment group had rated the information more helpful than the comparison group. The one exception was the area, "Adjustment to Parenthood, Relationship with Infant", which was less highly rated by the treatment group.

Although not statistically significant, four of the single mothers (n=4) from the treatment group rated the following areas more helpful than did the single mothers from the comparison group: (1) Family acceptance (parents and relatives); (2) Changes in Lifestyle; (3) Concern regarding lack of father in the home.

Helpfulness of Information Given by Community Nurses

Table 4-2 illustrates that the mothers in the treatment group found the information given by nurses for 16 of the 31 areas (51.6%), significantly more helpful than mothers in the comparison group. Twelve other areas (38.7%) were rated more highly by the treatment group, but were not statistically significant. Three areas (9.6%) were rated low for helpfulness and need improvement (Table 4-3 lists these areas). Again, for almost all areas, the treatment group had rated the information more helpful than the comparison group. The one exception was the area, "Baby at Home, Immunization", which was rated the same by both groups.

Although examination of the data indicated that most of the areas that were rated "not helpful" at the hospital level were dealt with at the community level, three outstanding areas were identified as being inadequately addressed at both hospital and community levels. These

Table 4-2

Areas Rated Highly for Helpfulness by Mothers (Community)

| CATEGORY OF INFORMATION | FREQUENCY / % COMPARISON | TREATMENT | D.F. | SIGNIFICANCE P = < .05 |
|---|-----------------------------|-----------|------|---------------------------|
| My Body, The Breasts | 22(55%) | 34(85%) | 2 | .00755 * |
| My Body, The Bowels | 20(50%) | 26(65%) | 3 | .22498 |
| My Body, Diet | 31(77.5%) | 36(90%) | 2 | .31561 |
| My Body, Exercise | 17(42.5%) | 24(60%) | 2 | .12474 |
| My Body, Hemorrhoids | 7(17.5%) | 18(45%) | 3 | .00054 * |
| My Body, Rest | 32(80%) | 35(87.5%) | 2 | .11234 |
| My Body, Stitches | 20(50%) | 31(77.5%) | 2 | .01775 * |
| My Body, Vaginal Discharge | 21(52.5%) | 28(70%) | 3 | .01309 * |
| The Baby, Baby Care | 25(62.5%) | 36(90%) | 2 | .01396 * |
| The Baby, Feeding | 28(70%) | 34(85%) | 2 | .12365 |
| The Baby, Rashes | 8(20%) | 19(47.5%) | 2 | .03142 * |
| The Baby, Constipation | 12(30%) | 13(32.5%) | 2 | .00016 * |
| The Baby, Colic | 6(15%) | 15(37.5%) | 2 | .03274 * |
| The Baby, Sleeping Pattern | 16(40%) | 27(67.5%) | 2 | .03324 * |
| Adjustment to Parenthood, Sexual Relationship | 13(32.5%) | 31(77.5%) | 2 | .00039 * |
| Adjustment to Parenthood, Family Planning | 23(57.5%) | 33(82.5%) | 2 | .04959 * |
| Adjustment to Parenthood, Fatigue | 23(57.5%) | 35(87.5%) | 2 | .00726 * |
| Adjustment to Parenthood, Relationship with Partner | 12(30%) | 18(45%) | 2 | .20693 |
| Adjustment to Parenthood, Relationship with Infant | 20(50%) | 21(52.5%) | 2 | .88959 |
| Adjustment to Parenthood, Emotional Concerns (Blues) | 17(42.5%) | 22(55%) | 2 | .46086 |
| Baby at Home, Home Environment (Adjustment) | 20(50%) | 33(82.5%) | 2 | .00801 * |
| Baby at Home, Infant Behaviour (Development and Characteristics) | 12(30%) | 17(42.5%) | 2 | .00360 * |
| Baby at Home, Immunization | 39(97.5%) | 39(97.5%) | 1 | 1.00000 |
| Baby at Home, Safety | 20(50%) | 33(82.5%) | 2 | .00701 * |
| Information from community nurses related to special circumstances (i.e. jaundice, orthopedic problem, etc.) | 10(25%) | 21(52.5%) | 3 | .01991 * |

Table 4-3

Areas Rated "Not Helpful" (Needs Improvement) (Community)

| VARIABLE | FREQUENCY / % | | D.F. | SIGNIFICANCE $P = < .05$ |
|--|---------------|-----------|------|-----------------------------|
| | COMPARISON | TREATMENT | | |
| Adjustment to Parenthood, Relationship with Others | 23(57.5%) | 20(50%) | 3 | .35382 n.s. |
| Adjustment to Parenthood, Work Issues (Return to Work, Child Care) | 25(62.5%) | 17(42.5%) | 3 | .21018 n.s. |
| Baby at Home, Minor Illness | 21(52.5%) | 18(45%) | 2 | .32981 n.s. |

areas are as follows:

- (1) Adjustment to Parenthood, Relationship with Others
- (2) Adjustment to Parenthood, Work Issues (Return to Work and Child Care)
- (3) Baby at Home, Minor Illness

Differences Between the Groups Based on Infant Feeding Method

The comparison and treatment groups were also examined to determine differences in relation to the type of maternal infant feeding chosen. For the comparison group, there were few statistically significant differences in the ratings of helpfulness of information between breast-feeding and bottle-feeding mothers. As might be expected, one area, "My Body", The Breasts" (Hospital), was rated "most helpful" by more mothers

in the breast-feeding group than the bottle-feeding group. The major area of concern for the bottle-feeding group was breast engorgement. For the treatment group, there were differences noted in two other areas: (1) My Body, Haemorrhoids (hospital); and (2) The Baby, Rashes (community). More mothers in the breast-feeding group rated these areas as "most helpful", when compared with the bottle-feeding group.

Comparison of Breast-Feeding Mothers Pre and Post Treatment

Analysis of the data for the breast-feeding mothers for the comparison group (before PPSP) when compared with that from the treatment group (after PPSP), indicated that the mothers in the treatment group rated the information (related to all topics) given by hospital and community nurses as significantly more helpful ($p=.05$) for 11 of the 17 categories listed (64.7%). Five other areas (29.4%) showed positive, although not statistically significant, improvement, in the degree of helpfulness for mothers in the treatment group when compared with the comparison group. Tables 5-1 and 5-2 illustrate these areas.

Comparison of Bottle-Feeding Mothers Pre and Post Treatment

Mothers in the treatment group (after PPSP) rated the information (related to all topics) given by hospital and community nurses as significantly more helpful ($p=.05$) for 8 of the 11 categories listed (72.7%). Three other areas (27.3%) showed positive, although not

Table 5-1

Areas of Significant Difference in Ratings Between Breast-Feeding (Comparison Group) and Breast-Feeding (Treatment Group) For Information Given by Hospital Nurses

| CATEGORY OF INFORMATION | FREQUENCY / % | | D.F. | SIGNIFICANCE $P = < .05$ |
|--|--|---------------------------------------|------|-----------------------------|
| | (n=14) COMPARISON (Most helpful) | (n=23) TREATMENT (Most helpful) | | |
| My Body, Bowels | 5(35.7%) | 19(82.6%) | 2 | .01296 * |
| My Body, Diet | 8(57.1%) | 13(56.5%) | 2 | .03344 * |
| My Body, Vaginal Discharge | 2(14.3%) | 17(73.9%) | 2 | .00015 * |
| My Body, Hemorrhoids | 1(7.1%) | 11(47.8%) | 3 | .01979 * |
| The Baby, Sleeping Patterns | 4(28.6%) | 10(43.5%) | 2 | .52837 |
| Adjustment to Parenthood, Fatigue | 3(21.5%) | 15(65.2%) | 2 | .01044 * |
| Adjustment to Parenthood, Relationship with Infant | 2(14.3%) | 9(39.1%) | 2 | .14732 |
| Baby at Home, Safety | 1(7.1%) | 12(52.2%) | 2 | .01559 * |

statistically significant, improvement. Single mothers (n=4) in the treatment group rated information related to "Changes in Lifestyle (Community)" and "overall satisfaction with information from community health nurses" more helpful than the single mothers (n=6) in the comparison group. There were four areas where the degree of helpfulness had decreased from the comparison group to the treatment group (Tables 6-1 and 6-2 illustrate these areas).

Table 5-2

Areas of Significant Difference in Ratings Between Breast-Feeding (Comparison Group) and Breast-Feeding (Treatment Group) For Information Given by Community Nurses

| CATEGORY OF INFORMATION | FREQUENCY / % | | D.F. | SIGNIFICANCE $P = < .05$ |
|---|--|---------------------------------------|------|-----------------------------|
| | (n=14) COMPARISON (Most helpful) | (n=23) TREATMENT (Most helpful) | | |
| My Body, Bowels | 6 (42.9%) | 16 (69.6%) | 3 | .05496 |
| My Body, Exercise | 3 (21.4%) | 13 (56.5%) | 2 | .08901 |
| My Body, Hemorrhoids | 0 (0%) | 10 (43.5%) | 3 | .00233 * |
| My Body, Vaginal Discharge | 5 (35.7%) | 17 (73.9%) | 2 | .01135 * |
| The Baby, Constipation | 1 (7.1%) | 6 (26.1%) | 2 | .01122 * |
| Adjustment to Parenthood, Relationship with Infant | 5 (35%) | 13 (56.5%) | 2 | .35339 |
| Adjustment to Parenthood, Relationship with Partner | 3 (21.4%) | 9 (39.1%) | 2 | .66082 |
| Adjustment to Parenthood, Sexual Relationship | 3 (21.4%) | 18 (78.3%) | 2 | .00512 * |
| Baby at Home, Infant Behaviour | 3 (21.4%) | 10 (43.5%) | 2 | .00136 * |

Table 6-1

Areas of Significant Difference in Ratings Between Bottle-Feeding (Comparison Group) and Bottle-Feeding (Treatment Group) For Information Given by Hospital Nurses

| CATEGORY OF INFORMATION | FREQUENCY / % | | D.F. | SIGNIFICANCE P = < .05 |
|---|--|---------------------------------------|------|---------------------------|
| | (n=26) COMPARISON (Most helpful) | (n=17) TREATMENT (Most helpful) | | |
| My Body, The Breasts | 4 (15.4%) | 6 (35.3%) | 2 | .01639 * |
| My Body, Diet | 11 (42.3%) | 8 (47.1%) | 2 | .51835 |
| The Baby, Constipation | 3 (11.5%) | 1 (5.9%) | 2 | .03215 * |
| The Baby, Sleeping Patterns | 1 (3.8%) | 6 (35.3%) | 2 | .00852 * |
| Adjustment to Parenthood, Fatigue | 6 (23.1%) | 10 (58.8%) | 2 | .01516 * |
| Baby at Home, Safety | 7 (26.9%) | 11 (64.7%) | 2 | .03543 * |
| Information from Hospital Nurses related to special circumstances | 3 (11.5%) | 7 (41.2%) | 3 | .02779 * |

Table 6-2

Areas of Significant Difference in Ratings Between Bottle-Feeding (Comparison Group) and Bottle-Feeding (Treatment Group) For Information Given by Community Nurses

| CATEGORY OF INFORMATION | FREQUENCY / % | | D.F. | SIGNIFICANCE P = < .05 |
|---------------------------------|--|---------------------------------------|------|---------------------------|
| | (n=26) COMPARISON (Most helpful) | (n=17) TREATMENT (Most helpful) | | |
| My Body, Hemorrhoids | 7 (26.9%) | 8 (47.1%) | 3 | .03163 * |
| The Baby, Colic | 6 (23.1%) | 7 (41.2%) | 2 | .34057 |
| The Body, Constipation | 3 (11.5%) | 9 (52.9%) | 2 | .00270 * |
| Baby at Home (Infant Behaviour) | 9 (34.6%) | 7 (41.2%) | 2 | .69362 |

Maternal Confidence with Newborn and Self-Care

Overall, mothers in the treatment group rated themselves as more confident with newborn and self-care activities in 10 out of 14 categories. Two areas, "infant safety" ($p=.02535$) and "decisions regarding child care" ($p=.01537$), were statistically significant. Ratings remained constant for "Infant Feeding", "Infant Crying" and "Preventive Health" in that there were no significant differences between the comparison and treatment groups.

When the groups were compared in relation to the type of maternal infant feeding chosen, confidence levels showed improvement in the areas of "infant feeding" and "decisions regarding child care" for the breast-feeding mothers. Ratings increased from "moderately confident" to "very confident". For the bottle-feeding mothers, confidence levels in relation to "Lifestyle Changes" were rated as "very confident" by the comparison group and "moderately confident" by the treatment group.

The areas rated for confidence are listed in the PPSPAQ, Section B, Question No. 12.

Parenting Experiences

Mothers were asked to identify any concerns that they had about both themselves and their babies at four to six weeks postpartum. Concerns related to infant care common to both groups (comparison and treatment) were: rashes, feeding patterns, solids, breast-feeding, sleep patterns, crying, constipation. Common areas related to self-care were:

time management, postpartum bleeding and vaginal discharge.

Both groups were asked what they found most satisfying and most difficult as new parents. Areas of satisfaction were, in order of importance: (1) Spending time with the baby, watching the baby and observing growth and development; (2) the closeness and satisfaction associated with breast-feeding; (3) taking care of baby's needs; (4) completion of what is now a "family" unit, with the baby adding a new perspective; (5) emotional attachment to baby. It is interesting to note that all these areas were listed by both comparison and treatment groups. Areas of difficulty identified by the mothers in both groups included: lack of sleep, time management problems, baby's crying, and lack of time for self.

Mothers were also asked what could make things better for them as they were adjusting to their new role of parent. Areas common to both groups were: (1) To meet with other new mothers and/or families to share common experiences and concerns; (2) to have more information on parenting (i.e. through classes or printed materials); (3) to get out together as a family and socialize; (4) to have more household help to lessen the demands on the new mother's time; (5) to have more professional help (i.e. more visits from community health nurses), as well as clinics or some other forum where both breast-feeding and bottle-feeding mothers could meet to discuss parenting concerns.

Finally, mothers were asked for any general comments related to their postpartum experience. The following is a summary of some of the concerns that were expressed by mothers in both the comparison and treatment groups: (1) Nurses at the hospital level appear to be "too

busy" to spend lengthy sessions with new mothers - staffing levels need to be reviewed; (2) There is a need for more flexibility in hospital routines, more "hands-on" instruction in the area of "baby care" and "feeding", more informal discussion between nurses and mothers and more privacy to facilitate family-centered maternity care. Finally, there is a need for more preparation for the emotional impact of parenthood and more ongoing parental support at the community level.

Community Support

All mothers received routine visit(s) from community health nurses. The range of visits was two to five for the comparison group and one to seven for the treatment group. The median number of visits for both groups was three.

From the analysis of the data, 24 (60%) of the comparison group and 31 (77.5%) of the treatment group contacted a nurse for support on at least one occasion. The range of contacts was one to six. However, almost all mothers in both groups, 39 (97.5%) of the comparison group and 36 (90%) of the treatment group had called or visited the family physician. The range of contacts was one to five.

When the data related to the mother's choice of source of support in the community was reviewed, the comparison group identified "mother" as the key person, while the treatment group identified "husband" as their key person. In order of priority, other key people were family, friends, family physicians, nurses and other groups. As stated above, the family physician was similar for both groups. Fifteen (37.5%) of the

comparison group and 19 (47.5%) of the treatment group contacted a community health nurse. Of these 3 (7.5%) of the comparison group and 9 (22.5%) of the treatment group made visits to the well baby clinic. Nine mothers (22.5%) of the comparison group and 12 (30%) of the treatment group contacted a hospital nurse.

Table 7 illustrates the support sought at the community level as well as the areas of common concern. The recurring themes throughout for both groups were:

Infant Related

- (1) Rashes
- (2) Feeding patterns
- (3) Breast-feeding issues
- (4) Crying
- (5) Constipation
- (6) Cord care
- (7) Gas

Maternal Related

- (8) Care of Episiotomy

Areas Where Maternal Information Needs Had Not Been Met

Although ratings of helpfulness for many areas improved when the treatment group was compared with the comparison group, mothers in both groups identified areas, at both the hospital and community levels, where

Table 7

Support Sought and Reasons for Seeking Support

| PERSON CALLED | RANGE OF CONTACTS COMPARISON TREATMENT | | REASONS COMMON TO BOTH GROUPS |
|--|---|------------------------------------|--|
| Family Doctor | 39 (97.5%) (1 - 5) Mode = 2 | 36 (90%) (1 - 4) Mode = 1 | Routine Check (Mom and Baby) <u>Infant</u> Discharge - eyes Feeding issues Jaundice Cord care Stool - Characteristics Gas/colic <u>Maternal</u> Episiotomy Blood pressure check Urinary tract infection |
| Family, Relatives, Friends and others i.e. LaLeche | 34 (85%) (1 - 12) Mode = 9 | 33 (82.5%) (1 - 13) Mode = 4 | <u>Infant</u> Rashes Feeding patterns Solids Breast-Feeding Sleep patterns Crying Constipation Baby care Gas/colic |
| Community Health Nurses, including well baby clinics | 12 (30%) | 10 (25%) | <u>Infant</u> Rashes Cord care Breast-feeding <u>Maternal</u> Episiotomy |
| Hospital Nurses | 9 (22.5%) | 12 (30%) | <u>Infant</u> Gas/colic Crying Constipation Feeding |

additional information related to maternal and infant care was needed.

At the hospital level, at least 50% of the mothers indicated that they would like to have had additional information in the following areas:

Maternal

1. Physical restoration and self-care - i.e. care of episiotomy, vaginal discharge, exercise, care of breasts and birth control methods.

Infant

1. Gastrointestinal Problems - i.e. gas, use of colic drops, constipation, diarrhea, bowel habits, burping, stool (characteristics).
2. Baby Care - i.e. rashes, cord care, eye discharge.
3. Feeding - i.e. (a) Formula: scheduling, types available, plain vs. iron-fortified; (b) Breast-feeding: more individualized information, breast care (cracked nipples, engorgement), supplementing, expressing, general issues and information on formulas.

A small number of mothers in both groups (one to five) stated that they would like to have more information in the following areas: breast-feeding, adjustment to parenthood, sleep patterns, crying, infant behaviour, minor illness and sources of community support.

At the community level, only four mothers in both groups identified areas where they needed additional information. These areas were: maternal-adjustment to parenthood, physical restoration and self-care; infant-feeding,

gastrointestinal problems and minor illness.

Interest in Attending Parenting Group

Fourteen (35%) of the mothers in the comparison group and 11 (27.5%) of the treatment group stated that more one-to-one conversation with nurses was needed at the hospital level. Twelve (30%) of the comparison group and 16 (40%) of the treatment group stated that hospital nurses gave information only when asked.

Mothers were also asked whether or not they would be interested in attending a parenting group as a means of information and support during the postpartum period. Thirty-six (90%) of the comparison group and 33 (82.5%) of the treatment group indicated interest in such a group. Although mothers in the PPSP group expressed slightly less interest in attending a postpartum parenting group when compared with the mothers in the comparison group, a large majority of both groups were interested.

Twenty-four (67%) (n=36) of the comparison group and 28 (84.8%) (n=33) of the treatment group suggested four to six weeks postpartum as being the ideal time for such a group. Eighteen (50%) of the comparison group and 21 (63.6%) of the treatment group expressed a desire to attend as a "family" with "family" being defined as "whatever you want it to be".

Summary

The results suggest that the PPSP is having a positive impact at

both hospital and community levels. In accordance with the levels of evaluation as outlined in Blum (1981), the program appears to be functioning well.

The degree of helpfulness of information given by nurses was more highly rated by the mothers in the treatment group (after the introduction of the PPSP) than the comparison group (before the introduction of the PPSP). There was improvement in some areas related to maternal satisfaction, competence (as defined by degree of helpfulness) and confidence with newborn and self-care. New mothers identified family members as the key people to give them support. However, the majority of mothers for both groups had sought professional support more frequently from the family physician than nurses. Nonetheless, professional nursing support was also sought by both groups, with an increase in the number of nursing contacts made by the treatment group as compared with the comparison group.

Both groups identified areas where additional information would have been helpful. There were few differences between the breast-feeding and bottle-feeding mothers of the comparison and treatment groups. Both comparison and treatment groups identified common concerns and themes in relation to their parenting experience. A large majority of both groups were interested in attending a postpartum parenting group. Three specific areas were identified as needing to be addressed.

Discussion of Findings

The discussion of findings will be presented within the context of the levels of evaluation put forth by Blum (1981). The various levels will be discussed in an order to be consistent with the text as already presented. The findings indicate that the program (PPSP) appears to be functioning well in terms of this particular evaluation research framework.

Activity

The program was implemented as planned on April 1, 1992. Nurses involved with the program have been trained and the necessary materials have been distributed throughout the implementation site. Pamphlets and manuals are readily available for use by hospital and community staff.

Inputs to the Operation

The program appears appropriate for the demographic characteristics of the population to whom it is being delivered (Blum, 1981). Resources also appear to be adequate. Mothers indicated that they could understand the materials and were receptive to their use.

The Sample

The sample appeared to be from a more educated and a higher income sector of the population. This may have been because those who are higher educated tend to be more often motivated to participate in

research. However, it is important to note there were mothers interviewed whose literacy level was equivalent to that of grade eight education, as well as some with incomplete high school status and some with only a minimum income. It has been documented throughout the literature that demographic variables impact upon the maternal role (Mercer, 1981; Walker et al., 1986). However, there was insufficient variation in the sample for analysis of demographic variables in relation to outcomes.

The caesarian section rate for the study was lower than the provincial rate, i.e. (Comparison Group: Provincial Rate (1992) = 21.3% and for the Study = 15%) (Vital Statistics Division, Department of Health). It is important to note that these rates are based upon a broader population base and also include multiparous mothers and are not broken down according to parity.

Of the total available population, at least 30% of the mothers who delivered in the St. John's Region (Vital Statistics Division, Department of Health) were approached by the community health nurses to participate in the study. Many of the mothers lived outside the region designated for inclusion in the study. Each sample contained almost every mother identified by the community health nurses as eligible. The number of referrals was adequate to meet the proposed sample size.

The length of hospital stay was similar for both groups with the majority of both groups having a hospital stay of three days. Both groups expressed similar expectations related to the maternal birth experience. As both groups attributed their expectations to talking to others, it is evident from the results of this study, that environmental influences,

i.e. from social and/or professional contacts, are important in shaping maternal expectations related to the birth experience. The importance of both social and professional support is evident throughout the literature (Cronenwett, 1985; Kort, 1984; Pridham, 1991).

Two areas of discrepancy between the comparison and treatment groups were choice of infant feeding and attendance at prenatal classes.

There was a marked increase in breast-feeding in the treatment group. This reflected what was happening in the maternal population of the urban area where the study was being conducted. The rate of breast-feeding at birth had increased to approximately 50% (verified by data collected by Community Health Liaison Nurse (CHLN) at the hospital level). This may also be related to the merger of the two obstetrical units serving this population. Prior to the merger, the hospital where the study was conducted generally had a lower breast-feeding rate than its counterpart in the area, as indicated by statistics collected by the CHLN at both hospitals. The increase in breast-feeding might also be related to increased breast-feeding promotion. It has been well documented that support is an important factor for successful breast-feeding (Harris, 1985; Houston, 1981; Jeffs, 1977). Evaluation of a Breast-feeding Support Group implemented by community health nurses in Mount Pearl, Newfoundland, indicated that at eight weeks 90% of the mothers who availed of the informational and social support at the clinic had maintained breast-feeding (Banoub-Baddour, S.; Blakeley, J.; Day, M.; Oakley, M.; Pumphrey, M., 1993).

Also of note is the fact that a larger number of mothers in the treatment group (34% versus 27%) planned to breast feed for a longer

period of time (6 - 8 months versus 5 - 6 months). Examination of Figures 1 and 2 (Histograms for Feeding Methods in Hospital, one week postpartum and six weeks postpartum) indicate that a slightly higher number of mothers in the treatment group maintained breast-feeding when compared with the comparison group. The treatment group also demonstrated increased continued use of iron-fortified formula.

The increased attendance at Prenatal classes by the treatment group may be attributed to one of two factors: (1) weather - the comparison group was accessed during the winter months when attendance may sometimes be hampered due to inclement weather and (2) merger of the two major obstetrical units for the area as the treatment group was accessed following this merger. The merger may have slanted the population as it takes time to re-direct and re-establish services. It is also important to note that the treatment group was slightly higher in terms of education and income and therefore may have been more motivated to attend classes.

The initial setting for both groups began in the same hospital setting. However, as already stated, this hospital was in the process of a major re-organization of obstetrical services at the same time that the PPSP was implemented. Despite such internal disruption and change, positive impact of the PPSP has been evident.

In conclusion, the comparison and treatment groups were as compatible as possible for the purpose of this particular study.

Information and Materials (Other Than the PPSP)

It has been well documented that factors such as timing and readiness are important to increase the effectiveness of nursing interventions (Hiser, 1986; Petrowski, 1981; Rhode & Groenyes-Finke, 1980). In timing interventions for new mothers it would be helpful to consider Rubin's phases of "Puerperal Change" as discussed by Martell and Mitchell (1984). Mothers are given materials within three days of birth. The timing, which may not be ideal, is necessary due to the short hospital stay. Therefore, prioritization, from the mothers' perspective is very important (Haggerty Davis et al., 1988). The early introduction of information and materials indicates that community follow-up is crucial.

Overall, printed materials were rated as being helpful. They were more highly rated by the mothers in the treatment group. Examination of frequencies indicated there was more exposure (increase of 10%) to video instruction among the treatment group, with substantial increase in ratings for all topics. The mothers in the treatment group were also more favourable in their comments related to one-to-one conversation with the nurses. There was a marked decrease in participation in group sessions following the implementation of the PPSP. These differences are in keeping with the design of the PPSP, the objectives of which have been developed to assess and meet the needs of new mothers as unique individuals who have varying needs and who progress through their transition into parenthood at varying rates.

Maternal Rating of PPSP

Two (5%) of the mothers in the treatment group did not receive the questionnaire "Help Us To Help You". Only 24 (63%) of those who received the questionnaire had review and discussion with a nurse. The intent of the program is that all mothers would receive this questionnaire and, ideally, all should have some discussion of its contents. Distribution of these materials need to be addressed to improve these findings. Areas of concern identified by the mothers were addressed by both hospital and community nurses. This reflects the crucial importance of the completion and use of the "Record of Parent Learning" (Appendix B). This document is the link to ensure that concerns that have not been addressed at the hospital level will be taken care of at the community level. It is completed at the hospital level and identifies learning needs of new mothers. This information is then transferred to the community health nurse with the routine postnatal referral.

It is evident that not all of the mothers are receiving the "Information Sheets" (Appendix "C"). These materials have been highly rated by the mothers for readability, understanding, helpfulness and effectiveness for identifying and meeting needs. The range of frequencies for having received specific "Information Sheets" was three (3) to twenty-eight (28). Although the intent of the program is that the mothers would be selective in their choice of these "Information Sheets", some mothers indicated that they had not been exposed to them.

Process of the Operation

Strategies being used with the PPSP appear appropriate and are resulting in improvements in areas such as consistency of information between hospital and community nurses and maternal satisfaction with community health nursing visits.

Consistency of Information

Consistency of information is very important to new mothers as they are uncertain and are questioning their ability to assume their new role (Ball, 1986; Pridham & Rutledge, 1987). There was a marked increase in consistency of information between hospital and community nurses for the treatment group when compared with the comparison group. For the comparison group, all areas were rated as inconsistent. For the treatment group, six areas only were identified as being inconsistent and these were only slightly inconsistent at a range of 12% to 15% (acceptable level = 10%). Both groups were fully satisfied with the consistency of information among the community health nurses as a group. This improvement in the consistency of information between hospital and community nurses may be attributed to the use of standardized materials and information by both hospital and community health nurses, as well as by joint inservice education and discussion between hospital and community staff.

Maternal Satisfaction With Quality of Community Health Nursing Visits

Collaboration between hospital and community is also an important link to ensure continuity of care at home and to maintain quality community health nurse visits (Dempson & Maret, 1986; Peck Marecki, 1979; Watters, 1986;). Donaldson (1991) has highlighted early contact and continuity of care as an important intervention for first-time mothers.

Mothers from both groups indicated favourable ratings for community health nurses, with ratings having been higher for the treatment group when compared with the comparison group, including some areas that were statistically significant. One area, that of "helping to understanding baby's cries" needs to be addressed more at the community level. In general, new mothers were quite satisfied with community health nurses visits. However, increased maternal satisfaction after the PPSP might very well be attributed to the program itself. Nevertheless, the community health nursing visit/contact is an important source of information and support to these mothers as they adapt to their new role (Mercer, 1981; Robischion & Scott, 1969).

In order to expand the support and contact with community health nurses, strategies such as visits to well baby clinics and telephone support can be incorporated into post-natal follow-up. Support is found in the literature for maintaining contact through the use of the telephone (Donaldson, 1991; Elmer & Maloni, 1986).

Outcome

The program is resulting in improvements in such variables as maternal competence (measured by degrees of helpfulness) and confidence.

Helpfulness of Information Given by Nurses

This study demonstrated that collaboration and consistency of information are very important strategies in facilitating the delivery of quality care to new mothers and their families (Blum, 1974; Brink & Wood, 1989; Mateo & Kitchhoff, 1991; Watters, 1988). It has also demonstrated that effective nursing intervention can be instrumental in providing information and support to new mothers (Donabedian, 1976; Elmer & Maloni, 1986; Golas & Parks, 1986; Mitchell & Adam, 1982).

New mothers have ongoing concerns and need information and support as they make the transition into parenthood (Donaldson, 1981; Graef et al., 1988; Harrison & Hicks, 1983; Pridham et al., 1987). The use of nursing interventions as strategies for support with new mothers is well documented throughout the literature (Donaldson, 1991; Golas & Parks, 1986; Mitchell & Adam, 1982). The nurse as a teacher, role-model and mother-surrogate can ease transition into the maternal role (Meleis, 1975; Mercer, 1981; Pridham, et al., 1981; Raphael, 1988; Robischon & Scott, 1969).

The responses of the mothers in relation to helpfulness of information have identified program areas that appear to be having positive impact, as well as those that are making satisfactory progress.

More importantly, the results of this study have identified three outstanding areas that need further attention at both hospital and community levels. The data has also distinguished between impact at both the hospital and community levels as separate agencies and has demonstrated that, through collaborative services, all aspects of need and client care can be met. For example, some areas that were rated "low" for helpfulness at the hospital level, were taken care of at the community level. There was also evidence that such standardized nursing intervention increased maternal confidence levels in some areas.

Differences Between the Groups

As stated earlier in the discussion of the sample, there was an increase in the number of mothers who breast-fed in the treatment group when compared with the comparison group. Overall, there were few differences between the groups in relation to the type of maternal infant feeding chosen. When the comparison and treatment groups were split by infant feeding method, there were no areas of difference that were statistically significant within the groups themselves. When the breast-feeding mothers and the bottle-feeding mothers for both the comparison and treatment groups were compared within their subgroups, there were only minor differences in how the groups rated the helpfulness of information. This could also indicate that perhaps support is one of the more important factors to help new mothers adjust to their new role. Cronenwett (1985) has identified four important kinds of support needed by all new mothers, regardless of infant feeding method chosen (i.e.

emotional, informational, material and comparison). Support is also an important factor in the decision-making process related to infant feeding plans (Pridham et al., 1981).

Analysis of the data related to the "breast-feeders" for both groups indicated improvement in all areas following the implementation of the PPSP. It is important to keep in mind that breast-feeding mothers who receive adequate rest and support, perceive themselves to be more competent (Rutledge & Pridham, 1987). Analysis of the data related to the "bottle-feeders" for both groups indicated that there were three areas where ratings were lower for the treatment group when compared with the comparison group. These areas were "My Body, the Breasts"; "My Body, Diet"; and "The Baby, Constipation". One must question whether or not this has occurred because "breast-feeding mothers" got more information from the nurses in these particular areas.

Maternal Confidence With Newborn and Self-Care

A study done by Golas and Parks (1986) to examine the effectiveness of a teaching intervention on the knowledge and confidence of primiparous mothers concluded that there were no significant differences in maternal confidence. Studies done by Walker et al. (1986) concluded that self-confidence was related to age, education and socioeconomics. The sample used to evaluate the PPSP was homogeneous and there were no sufficient differences to merit analysis of the demographic data. However, the results of this particular study indicated increased maternal confidence with newborn and self-care in some areas after the introduction of the

PPSP. Further research may be useful to examine these results in relation to demographics.

Outputs of the Operation

The program appears to be addressing issues pertinent to new mothers. Parenting concerns and common themes related to parenting experiences were identified. However, the mothers also identified gaps in information at both hospital and community levels related to such areas as physical restoration, feeding and adjustment to parenthood.

Parenting Experiences

Postpartum concerns and priorities for new mothers have been well documented throughout the literature dating back to LeMasters (1957) and later again re-affirmed by such researchers as Gruis (1977); Harrison and Hicks (1983) and Smith (1989). New mothers are concerned about such things as physical restoration, demands of the new baby and changes in relationships (Donaldson, 1981; Gruis, 1977; Smith, 1989). This particular group of mothers expressed similar concerns, i.e. physical restoration, infant care and adjustment to parenthood.

Their comments reflect the ongoing need for information and support at the community level, especially in the area of the emotional impact of parenthood (Pridham & Rutledge, 1987; Pridham & Rutledge, 1988; Raphael, 1988; Shaw, 1974). Mothers from both the comparison and treatment groups expressed common concerns regarding maternal and infant

care areas. They also identified similar sources of support and strategies as being helpful to improve their postpartum experience.

Community Support

The value of social and professional support has been reiterated both throughout the literature and this study. It is important for the development of parent-child relationships (Crnic, 1983) and should be maintained at both hospital and community levels (McKenzie, 1982). Examination of the reasons why new mothers sought support have identified common themes similar to those that have already been well documented throughout the literature (Bull, 1981; Donaldson, 1981; Gruis, 1977; Smith, 1989). Major concerns have been related to physical restoration, incorporation of the baby into the family unit, demands of the baby and changes in relationships and lifestyle (LeMasters, 1957). Many of the mothers in this study who sought support, cited reasons related to self-care and infant care.

Both the comparison and treatment groups had access to social and professional support and all mothers had received home visits from a community health nurse. There was a marked increase in the visits made to a community health clinic by the treatment group and a slight decrease in phone calls to the community health nurse when compared to the comparison group. There was a slight increase in phone calls to hospital nurses by the treatment group and a slight decrease in contacts made to family doctors. These results may reflect increased utilization of professional nurses as a source of community support as opposed to the

past pattern of nurses being used infrequently as a source of support (Donaldson, 1991; Harrison & Hicks, 1983).

Both groups identified a family member as the key support person (comparison = mother; treatment = husband). Family/relatives, friends, health care professionals and groups followed in rank. However, analysis of the data presented indicated that the family doctor was contacted more often for advice and support, then family/relatives/friends, community health nurse, hospital nurse. This indicated a difference in the mothers perception of sources of support in comparison with the actual sources that were sought. However, the results reflect the importance of and the need for support, social and professional, in assisting new mothers to acquire satisfaction and maternal role transition (Cronenwett, 1985; Kort, 1984; Sumner, 1977).

Despite environmental influences, it is still most important to bridge the gap between hospital and home and to provide consistent and collaborative services to new mothers and their families (Dempson & Maret, 1986; Peck Marecki, 1979; Raphael, 1988).

From the point of view of this particular study, the sources of community support represent environmental extraneous variables. These sources of support could have provided information and support to new mothers in varying degrees, in addition to that which was provided by the PPSP. It was not possible to determine exactly the extent to which these environmental influences may have affected program impact. However, it is important to note that both groups had similar sources of support. Therefore, it is possible that the PPSP may have made the difference.

Areas Where Maternal Information Had Not Been Provided

Despite improved ratings in most areas by the treatment group, both groups identified areas where additional information was needed. The majority of these areas are related to infant care and reflect the concerns that have been well documented in studies done by Bull, 1981; Gruis, 1977; Smith, 1989. These results also indicated the new mother's primary focus, especially in the early days postpartum, is the new baby. This is in keeping with Rubin's phases of "Taking-In" and "Taking Hold". Fewer concerns at the community level are in keeping with the assumption that by four to six weeks postpartum, new mothers are "settling in" and are perhaps, now ready for further information related to parenting in general (Haggerty Davis, 1988). As concerns and attitudes of new mothers change over time, it would be worthwhile to compare the mothers' responses at various times during the postpartum period (Ament, 1990).

Interest in a Parenting Support Group

Community based support groups can assist new mothers to validate their mothering skills and get to know their babies (Lloyd, 1990; Sumner, 1977; Williams, 1977). A larger number of the treatment group (21) (64% versus 50%) chose attendance as a "family", therefore, acknowledging the new perspective created by the addition of the baby. This may reflect the need of the new mother to have support and is in keeping with the concept of the "doula" or someone to "mother the mother" (Ball, 1986; Raphael, 1988).

A slightly lower percentage of the treatment group (33% versus 36%) indicated interest in attending a parenting group at the community level. The time period of four to six weeks postpartum was cited as the preferred choice for such a group. This identified later postpartum as a more opportune time to deliver information relevant to the parenting experience and confirmed the findings of Gjerdengen, Froberg and Fontaine (1990).

Efficiency

This study did not examine the cost-effectiveness of the PPSP. However, the program has been implemented within the structure of the existing facilities and services that are already in place at both hospital and community levels. It is also worthy of note, that increased utilization of the nursing role in the delivery of maternity care to new mothers, would eventually result in a more cost-effective approach than the present number of doctor visits by the mothers that were demonstrated in this study.

Impact

The PPSP is demonstrating positive effects for this particular subgroup of the population who have had exposure to it. The following summary of discussion indicates the overall desirability of the PPSP and the overall validity of this particular research study. From the results of this study, the mothers who were exposed to the PPSP rated information

given by nurses as being more helpful. They also demonstrated increased confidence when compared to those mothers who had not received the program.

Summary of Discussion

The comparison and treatment groups were reasonably compatible for the purpose of this study. The difference in the choice of infant feeding between the groups reflected what was happening in the maternal population for the region at that time. Despite problems with the sample, the process had improved and therefore it seems likely that impact measures have also improved.

Overall, examination of the PPSP and its effects on the competence and confidence of new mothers was positive. There were improvements in the maternal ratings of information and materials given by nurses, the consistency of information between hospital and community nurses, the maternal ratings of the PPSP materials and also in the mother's perception of the quality of community health nursing visits.

There were improvements in the degree of helpfulness of information given by the nurses when the treatment group was compared with the comparison group. Specific program areas were identified as having positive impact, others as making satisfactory progress and three areas were identified as needing to be addressed at both hospital and community levels. There was evidence of increased maternal confidence after PPSP. The study found that the PPSP was meeting most of the information needs of the group and identified areas where additional information was

needed.

There were few differences between the groups in relation to the type of infant feeding chosen. Comparison of the "breast-feeding mothers" for both groups demonstrated positive effects of the PPSP. Those mothers who received the PPSP indicated higher ratings in relation to helpfulness, confidence and satisfaction.

All mothers received social and professional support at the community level. These sources of support represent extraneous, environmental influences over and above the effects of PPSP itself. Although the PPSP appears to be better meeting the needs of new mothers, they still sought more support, many of them through visits to their family doctors. They are also quite interested in parenting groups. A more cost-effective approach would be to market the role of the nurse and re-direct postpartum care at the community level away from the medical model and more towards a primary health care model.

Finally, there were common themes related to parenting experiences for both groups. New mothers have a need for continued information and support during their postpartum experience as their concerns and attitudes change (Ament, 1990). Social and professional support can be helpful to assist new mothers and their families as they make their transition into parenthood (Crnic, 1983; Houston, 1983). Timing of services and support are important. Many mothers are discharged home while still at Rubin's "Taking-In" phase. Therefore, intervention strategies might be more successful at the community level.

The new mother (and her baby) form a central dyad. Information and support is delivered through the PPSP, including hospital and community

nurses and also through other environmental influences, i.e. the family doctor, family, relatives, friends, and groups. Through social and professional support and collaborative efforts, new mothers make the transition into their new role of parenthood.

The results of this study reflect the concepts presented in the conceptual framework for this study. In accordance with Blum's Framework (1981), the PPSP appears to be functioning well in terms of the levels of activity, input, process, output, outcome and impact. Further evaluation is necessary to better establish efficiency. However, program efficiency appears adequate from the results of this study. The PPSP appears to address issues pertinent to new mothers. However, there are some areas that can be improved such as those that have been identified with low ratings, i.e. Adjustment to Parenthood, Relationship with Others; Adjustment to Parenthood, Work Issues and Baby at Home, Minor Illness. Improvement in such variables as maternal competence and confidence can also facilitate further improvement in the general health and well-being of new mothers. It is important to note that this study has examined only a section of the program's objectives as outlined (p.5) and that further research needs to be carried out on the remaining objectives. However, this evaluation is helpful to examine the program effectiveness of the PPSP, to monitor its progress and to identify areas that need improvement (Herman et al., 1987).

Chapter V

LIMITATIONS AND CONCLUSIONS

Conclusions

The purpose of this study was to examine the effectiveness of the PPSP on a group of primiparous mothers at four to six weeks postpartum. It has also identified common parenting issues and assessed the need for ongoing parenting support. The conceptual framework for the study was based upon an evaluation research framework. Because randomization was not possible as the program was being introduced unit-wide on a specific date, pre-program data was obtained by interviewing a sample of new mothers prior to the implementation of the PPSP. These mothers were compared with a group who received services after the PPSP.

Mothers in the treatment group demonstrated increased confidence in some areas of parenting and increased maternal satisfaction with community health nursing visits. Additional community support was also sought from family physicians, family/relatives/friends, community and hospital nurses. There were few differences in the comparison and treatment groups in relation to the type of infant feeding chosen by the mothers. There were common concerns related to the parenting experience for both groups.

Finally, a large number of the mothers in both groups, 36 (90%) of the comparison group and 33 (82.5%) of the treatment group indicated interest in attending a parent group at the community level.

Results indicated that the PPSP had a positive impact on competence and confidence levels of this group of primiparous mothers at four to six weeks postpartum as reflected in the higher ratings for the treatment group (after PPSP) when compared with the comparison group (before PPSP).

Process issues, including maternal ratings of information and materials given by nurses, consistency of information between hospital and community nurses and maternal rating of PPSP materials and program activities, were highly rated by the mothers who participated in the PPSP. The study has identified some areas where improvement is still needed in consistency of information. It has also identified the need to ensure that all mothers have the opportunity to avail of program materials and activities. Hospital and community staff for each local area will need to review and ensure both the availability and the accessibility of supplies. However, nurses also need to ensure optimal use of materials, and increased discussion of these materials with new mothers. Adequate preparation and the provision of postpartum services for new mothers is essential.

The results indicated that the postpartum support given by the nurses was rated more highly by the treatment group when compared with the comparison group. Maternal confidence and maternal satisfaction were also more highly rated by those mothers who had participated in the PPSP. The program appears to be having a greater impact at the community level where a greater number of categories were identified as being improved since the implementation of the PPSP. These were statistically significant. Some areas that were rated "not helpful" at the hospital level were identified as having been adequately addressed at the

community level. This finding emphasizes the importance of collaboration between hospital and community in the provision of ongoing postpartum care. However, three areas of information have been identified as needing to be further addressed at either or both hospital and community levels. These areas were:

- (1) Adjustment to Parenthood, Relationship with others
- (2) Adjustment to Parenthood, Work Issues (Return to Work and Child Care)
- (3) Baby at Home, Minor Illness

It is interesting to note that most of the mothers who had sought professional support chose their family doctor rather than a nurse, even though many of the issues reported by the new mothers at the community level could have been resolved by nursing intervention. There were few differences between the comparison group (before PFSP) and the treatment group (after PPSP) in relation to the type of maternal infant feeding chosen. There were common concerns expressed by both groups and similarities identified in parenting experiences. Although the overall ratings for program materials and activities were positive, both groups identified similar areas in which they would like to have had additional information. This finding emphasizes the importance of evaluation in ensuring that needs are being assessed and met.

Finally, the higher ratings by the mothers in the treatment group suggested that, through collaborative services, consistent information and support can increase the competence and confidence levels of primiparous mothers as they adjust to their new role of parent.

Limitations of the Study

Each study has its own limitations and this study is no exception. Therefore, the findings of this study cannot be generalized.

Due to the fact that the PPSP was introduced unit wide and province wide on a specific date, time did not allow for sample selection from a greater section of the general population who had not been exposed to the program. Therefore, randomization was not possible. This also hindered more vigorous testing of the instrument to ensure reliability. A new instrument was developed as an appropriate instrument that had been tested for reliability and validity was not available. Reliability and validity of this instrument had not been established. Also, subjects may learn from the administration of the tool and therefore rate themselves more highly on measures of such items as competence and confidence.

Although all eligible subjects should have been approached, the group was self-selected and therefore was, in some ways, more representative of the more educated, middle to upper socioeconomic group of the population. This reflects the fact that this group is more likely to participate in research studies. The sample was selected from a specific region which makes it difficult to generalize the findings to a larger population. It is also important to note that subjects were initially approached by a district community health nurse. Although nurses were instructed to ask all mothers who met the admission criteria, it is conceivable that they may have been selective. They may have unconsciously approached mothers that they thought would not object to being asked. Participants and nurses may also have been affected by the

fact that evaluation was ongoing. Finally, participants were asked questions and completed the questionnaire in the presence of the researcher. Although data was coded and confidentiality was ensured, there may have been the tendency to over-rate oneself and/or others.

Another limitation in this study was the restructuring of maternity services in the urban area where the study was conducted. Just a few weeks prior to the implementation of the PPSP, there had been a merger of the two major obstetrical units for the area, which may have affected the overall efficiency of the program.

Environmental influences were also a limitation. Mothers from both groups received information and support from sources other than the PPSP, i.e. family doctor, family/relatives/friends, groups. These influences are uncontrollable, but yet it must be acknowledged that they may have an impact of varying degrees on the mothers' perception of the helpfulness of and satisfaction with the program.

There was also some difficulty in defining and measuring the concept of "competence" as referred to in the program objectives. Therefore, the researcher attempted to broaden the definition of this concept within the context of the program and facilitate measurement through the use of items related to the degree of helpfulness in meeting the needs of the new mothers. Such difficulties could be alleviated by incorporating evaluation into the planning phase of new programs.

Finally, maturation must also be acknowledged as a limitation. Maturation refers to the changes in the competence and confidence levels of the subjects that may have occurred over the four to six weeks postpartum due to time and information and support from sources other

than the PPSP. It is important to note that, as the subjects were interviewed at four to six weeks postpartum, time may have been a factor in their recall of information given and/or needed at the hospital level. It may be more appropriate to address information delivered at the hospital level at an earlier stage postpartum, i.e. week one.

Implications of the Study

Nursing Practice

This study has implications for nursing practice in the area of postpartum care for new mothers. It has emphasized the value of social and professional support and anticipatory guidance for these mothers as they make their transition into parenthood.

It has identified specific areas related to the process of the PPSP that are having positive impact as well as some areas that need improvement. For example, six areas have been identified as still needing to be improved from the point of view of consistency of information between hospital and community nurses. Hospital nurses need to ensure that all mothers receive the materials related to PPSP such as the questionnaire "Help us to Help you" and that review and discussion of identified needs takes place at an appropriate time postpartum. Both hospital and community nurses need to liaise more to ensure the distribution of information sheets related to specific topics as well as any other information pertinent to the PPSP.

The study has identified three specific program areas that need to

be improved. It has also identified that some areas are more appropriately dealt with at the community level, especially since hospital stays are relatively short. This reinforces the value of such tools as the "Record of Parent Learning" (Appendix "B") which is an important link between hospital and community information and also the liaison with community health staff to ensure continuity of care between hospital and home. It has also identified a marked interest in a postpartum parenting support group at the community level for later postpartum at four to six weeks. Such a group could also promote nurses as the choice of professional support postpartum. Common concerns and themes in relation to parenting experiences have been identified, as well as specific areas where nurses can provide additional information.

There is a need for standardized and consistent use of materials and information by both hospital and community nurses in order to achieve effective collaborative services. This can facilitate program planning and delivery of care based upon maternal need and perception.

This study is of clinical significance in that it has identified areas where nursing interventions are adequate as well as areas where additional or more appropriate interventions are required for the postpartum care of new mothers. It can add to the body of knowledge useful for nursing practice and can emphasize the effects of nursing practice on the health of the individual, the family and the community. It has also identified areas for further research which could improve the quality of care delivered to new mothers and their families. The value of evaluation research as a means of documenting a program's implementation is crucial, either during its development or upon

conclusion.

Nursing Education

This study has implications for nursing education in that it has identified the importance of consistent information and collaborative services among agencies that are delivering care to new mothers and their families. Nurses must be knowledgeable in the concepts and process related to postpartum care if they are to assist new mothers and their families as they make their transition into parenthood.

Continuing education for nurses involved with the PPSP is important so that they can identify problems and update the program as necessary. They must be familiar with and consistently use interventions specific to the PPSP if they are going to effectively implement such programs. They must liaise with colleagues from other agencies to promote sharing of ideas, information and experiences. They must be skilled in the use of the principles of adult learning.

Finally, this study has identified the PPSP as a nursing intervention that can standardize care in the area of maternal and child health. Through this program, nursing students can learn and experience an interactive and individualized approach to client education. Therefore, such a program would be an ideal model for use in nursing education programs.

Nursing Research

This study has implications for nursing research in that it needs to be replicated with other groups, i.e. single, low income mothers, hospitals, and/or geographic regions. It should also be repeated within the same hospital and geographic region at a later date to monitor program progress. This would also provide an opportunity to retest the instrument which was developed for use in this study and to assess its value for use the other nursing research studies.

In addition to the variables which were examined in this study, there were other topics pertinent to nursing research that have emerged from the data. Some examples are infant feeding issues (i.e. choice of feeding, scheduling, use of iron-fortified formulas), maternal perception of key sources of support and reasons why mothers are using family doctors rather than the community health nurse.

A very important aspect of this type of research study is the fact that it is based upon "maternal perception". Further research into this perception, as well as comparative analyses with a similar research study based upon "nursing perception", would be beneficial to both nursing practice and nursing education.

This research exemplifies the importance of collaborative research among both nurses and agencies. It has reinforced that ALL nurses can play a key role in nursing research pertaining to maternal and child health. Finally, it has demonstrated a measurable impact of nursing intervention in relation to postpartum care.

This study has demonstrated that new mothers who participated in

the PPSP had demonstrated indicators of higher levels of competence and confidence than those mothers who did not. Through the use of PPSP, nurses can play a key role in the transition of new mothers into their new role of parenthood by providing them with a solid and consistent network of information and support.

This research can be used to verify the effectiveness of a current nursing intervention and to direct the development of future nursing interventions to provide the information and support needed by new mothers. It is important to be aware of the needs of new mothers as they make the transition into parenthood and to view both the parenting experience and the nursing interventions from the mothers' perspective.

It is most important that nurses participate in the evaluation of programs (such as the PPSP) which have been implemented to provide service delivery to their clients. Evaluation Research can be helpful in "explaining effects, identifying causes of effects and generating generalizations about program effectiveness" (Herman et al., p.10). To facilitate the delivery of cost-effective quality care to new mothers and their families, it is necessary to evaluate strategies that have been developed to assist in the transition to parenthood. This will ensure that such strategies are designed to assess and meet the needs of these families and the community at large and also to set priorities for resource allocation.

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APPENDIX "A"



Canada



Help us to help you



Postpartum Parent Support Program

This pamphlet includes questions most often asked by new parents. As you read through them, check the ones to which you would like answers. You may find that you want information on all the questions, or only a few; check any that you feel is important to you. And if you have other questions, add them to the questionnaire. During your time in hospital, the nurses will be glad to answer any questions you have. Please take this pamphlet home with you so that any other questions can be answered by your public health nurse or your physician.

A. My Body – The Breasts

Of Special Interest to Breast-feeding Mothers

1. Why are my breasts tender or engorged?
2. Do I need to wear a bra?
3. What special care should I give my nipples and breasts?
4. What should I do if my breasts feel full and uncomfortable?
5. My nipples are flat. What should I do?
6. My nipples are sore. What should I do?
7. What should I do if I get a breast infection?
8. After my milk comes in, what should I do if I feel a lump in my breast?

Of Special Interest to Bottle-feeding Mothers

9. I do not want to breast-feed. How do I get my breasts to stop producing milk?

A. My Body – The Perineal Area

10. How do I keep my perineal area clean when I return home?
11. How should I care for my stitches when I return home?
12. How long will vaginal bleeding continue?
13. How can I keep hemorrhoids under control?
14. What can I do to avoid painful bowel movements?

15. How soon can I resume sexual intercourse?
16. When should I have my postpartum examination? Why is it important?
17. What are pelvic floor exercises (Kegel)? How do I perform them?

A. My Body – Diet and Exercise

18. What is a good diet?
19. I want to lose weight. When can I start dieting?
20. When should I begin exercising? What exercises should I do for my abdominal area?

Of Special Interest to Breast-feeding Mothers

21. May I begin a weight-reducing diet while I am still breast-feeding?
22. I am a vegetarian. Should I take vitamin or mineral supplements while I am breast-feeding?
23. Will my eating habits affect my breast milk?
24. Do I have to drink milk to make milk?
25. Should I supplement my diet with vitamins and minerals?
26. Are there any foods that I should avoid?
27. Will drugs, alcohol or cigarettes affect my breast milk?

A. My Body – Caesarean Birth

28. Is there any special information about Caesarean birth available?

Before Surgery

29. What can I expect to happen before the operation (surgery)?
30. How long will I be in the delivery or operating room? When will I be taken back to my room?
31. How long will it take me to recover from surgery? How can I help myself to recover quickly?
32. Will I be given medication for abdominal pain? What can I do myself to lessen discomfort?

33. After the Caesarean birth, how soon will I be able to see my baby and have the baby in my room (rooming-in)?
34. I would like to breast-feed my baby. When will I be able to do so?

After Surgery

35. How can I be more comfortable during breast-feeding?
36. Will medication affect my baby if I am breast-feeding?
37. When should I begin exercising?
38. I am having difficulty relating to my baby. What can I do to about this?
39. How long will vaginal bleeding last?
40. How soon can I resume daily activities such as housework, shopping and driving?
41. How can I cope with emotional changes?

A. My Body – General

Menstruation and Pregnancy

42. When will I begin menstruating again?
43. Will my menstrual periods be normal and regular?
44. When can I use tampons again?
45. Why do I have cramps or afterpains?
46. Will my breasts return to their normal size and shape?
47. How soon could I get pregnant again?
48. How long should I wait before becoming pregnant again?
49. When can I go back to work?

B. My Baby – Feeding

Of Special Interest to Breast-feeding Mothers

1. How is my breast milk produced?
2. What is the let-down reflex? How will I know when it happens?

3. Will my breasts leak milk unexpectedly?
 4. How do I hold my baby to breast-feed?
 5. How often and how much should I feed my baby?
 6. Why do I feel my uterus contract when I'm breast-feeding?
 7. Why and how do I burp my baby?
 8. How do I express my breast milk?
 9. What can I do to make sure that my baby is getting enough milk? How will I know if my baby is getting enough milk?
 10. I've heard that some women feel sexually stimulated while breast-feeding and that some even have orgasms. Is this true?
 11. How long should I continue to breast-feed?
 12. How do I wean my baby?
 13. I would like to breast-feed, but I'm planning on returning to work. Can I do both?
 14. Should I breast-feed in front of other people?
- #### **Of Special Interest to Bottle-feeding Mothers**
15. Are there any special techniques that I should know about bottle-feeding?
 16. Is it all right to put a baby down with a bottle?
 17. How should I hold my baby while feeding him/her?
 18. What kind of bottles and nipples should I buy?
 19. How often and how much should I feed my baby?
 20. How do I prepare formula?
 21. What type of formula should I use?
 22. How long should I continue to formula feed my baby?
 23. Why and how do I burp my baby?

General

24. When should I start my baby on solid foods?
25. Should I make baby foods or buy commercial products?
26. What guidelines should I follow to make baby foods? Can I freeze baby foods?
27. How should I introduce solid foods?
28. What foods are best when my baby is teething?
29. When can I begin to use cow's milk rather than breast milk or formula?
30. Does my baby need vitamin/mineral supplements? When should I start them?

B. My Baby – Baby Care

31. Why does my baby have jaundice? Is it serious?
32. What is the best way to bathe my baby to prevent cradle cap?
33. There is a discharge from my baby's eyes, and they are swollen. What should I do?
34. How do I clean my baby's ears?
35. How do I care for my baby's cord?
36. I'm undecided about circumcision. I would like more information.
37. How often will my baby have a bowel movement?
38. My baby's stools seem to be changing colour. What are they supposed to look like?
39. How and when should I take my baby's temperature?
40. How will I know when my baby is sick?
41. What should I do if my baby has a rash?
42. When my baby cries should I pick him/her up right away or should I wait?
43. What should I do if my baby develops colic?
44. Is it all right to use a pacifier/soother?

45. What do I need to know about putting my baby to bed?
46. How should I dress my baby?
47. What clothing is safest and most comfortable for a baby?
48. When should I start to use a car seat for my baby?
49. How do I make my home safe for my baby?
50. I'm concerned about the shape of my baby's head.
51. Why does my baby sneeze? Why does my baby have hiccups? Why is my baby's breathing so noisy?
52. Should I be concerned about why my baby "startles," and about my baby's sucking "reflex?"



53. Should I be concerned about my baby boy's swollen scrotum or swollen breasts; my baby girl's swollen labia or swollen breasts?
54. Why did my baby lose weight a few days after birth?
55. When should my baby have a checkup? When should my baby begin his/her needles (immunizations)?
56. How can I prevent my baby from scratching his/her face?
57. Should I allow other people to pick up my baby?
58. What if I have questions about my baby after leaving the hospital?

B. My Baby – Metabolic Screening

59. What is metabolic screening?
60. Why is my baby having a heel prick test?

B. My Baby – My Premature Baby/ My Sick Baby

61. Why does my baby need to be in an Isolette (incubator)? When can my baby leave the Isolette?
62. How long must my baby stay in the hospital?
63. When can I breast-feed my baby?
64. Why is my baby being fed through a tube?
65. When will the I.V. (intravenous) be removed from my baby?
66. When can I hold my baby?
67. How can I show my baby that I love him/her?
68. How often may I visit my baby?
69. Who is allowed to visit my baby?
70. When will my premature baby catch up?
71. May I bring clothes or toys to the hospital for my baby?
72. How can I prepare for my premature baby's homecoming?

C. My Twins, Triplets or Quadruplets

1. I feel both joy and panic knowing I have more than one baby to look after. How will I cope?
2. My babies are premature. Will they develop normally?
3. Will I be taking my babies home together?
4. Can I and should I breast-feed my twins?
5. Are there additional financial resources available to us because we have had twins?

D. Adjustments to Parenthood

Relationship with Spouse

1. Will our baby change my relationship with my husband?
2. I've heard that some husbands are jealous when they see their wives breast-feeding. If my husband reacts this way, how can we deal with it?
3. What can I do if my husband is jealous of the time that I spend with our baby?
4. What can I do if I am jealous of the time my husband spends with our baby?

Relationship with Infant

5. What does parent-infant bonding mean? What should I do to develop bonding?
6. When does bonding occur? Can it be too late to bond?
7. I would like to go out with my husband, but I feel guilty about leaving my baby. What should I do?
8. I do not feel like a mother. Is there something wrong with me?
9. If I become frustrated with my baby, how do I deal with this feeling?

Other Relationships

10. What can I do about an over-involved mother or mother-in-law?
11. My friends and family have offered to help. How can I use their help?

Sexual Relationship

During my pregnancy our sexual relationship changed –

12. What other kinds of physical contact can my husband and I have right after the birth of our baby?
13. Should I expect our interests or responses to change again?
14. How often should I expect to have sexual intercourse and orgasm?

Family Planning

15. Is it possible to become pregnant before my periods start again?
 16. How can I choose the best method of contraception for me?
 17. What methods of contraception are available and safe?
 18. I am breast-feeding. Is it all right to take birth control pills?
 19. Why should I quit smoking if I take the pill?
- Depression/Fatigue**
20. I hear that postpartum depression or baby blues are common. How do I know if I have them? What can I do to feel better?

Work Issues

21. What arrangements should I make so that I can go back to work?

E. Adjustments to Single Parenthood

1. How do I get my family to accept my baby and me?
2. Will my baby change my relationships with my friends?
3. Will my partner be jealous of the time I spend with my baby?
4. Will the lack of a father in the home affect my baby?
5. I would like to have more information on giving my child up for adoption. Who can help me with this?

Postpartum Parent Support Program

6. Who can help me with other questions that I may have? (about school, employment, financial assistance, parenting support, etc.)

F. My Baby at Home

Environment

1. I have ___ child(ren) at home. How can I best introduce the new baby to him/her/them?
2. Since children usually experience some jealousy, what signs do I look for and how will I handle jealous behaviour?
3. I've heard that children sometimes act like babies when they get a new brother or sister. If this happens what can I do?
4. I've heard that some children try to hurt a new baby. How can I deal with this type of behaviour?
5. How do I teach my child(ren) about sex and sexuality?
6. I sometimes wonder whether I'll have enough love and energy to go around. How do I deal with this?
7. I have a preschooler at home. Will I find feeding my baby difficult?
8. How will my baby be affected if I or other people smoke around him/her?

Developmental Characteristics

9. Is my newborn baby's vision the same as mine? Can he/she see me right away?
10. My baby's eyes sometimes cross. Is this normal?
11. My baby was born with blue eyes. When will they change colour?
12. How well can my newborn baby hear? Do I have to make certain that our home is quiet for the baby?
13. I'm sure my baby smiles, but I was told this is only a sign that he/she has gas. Is this true?
14. When will I be able to understand what my baby wants? What sounds will he/she make?

15. How can I help my baby learn to talk, and how soon?
16. Why must I support my baby's head? My baby seems to be able to lift it himself/herself.
17. At what age will my baby sit? How can I help?
18. What stages will my baby go through before walking?
19. Should I get developmental aids for my baby?
20. Why doesn't my newborn baby have tears, when he/she cries?
21. When should I think about starting to toilet-train my baby?

Immunization

22. Why does my baby have to have needles, or injections, when he/she isn't sick?
23. What kinds of illnesses do needles prevent?

24. How often must my child be immunized?

Safety

25. How can I make my home safe for my baby?
26. How can I keep my baby and children safe in the car?
27. Why do I have to keep my baby in a car seat?
28. Where can I buy or rent a car seat?

Originally developed by the Maternal and Child Health Project, St. Joseph's Hospital, Hamilton, Ontario, and further adapted by the Manitoba Post Partum Education Program Committee, Winnipeg, Manitoba, in co-operation with Health and Welfare Canada.

Published by authority of the Minister of National Health and Welfare, 1983
Health Promotion Directorate
Health Services and Promotion Branch

Également disponible en français sous le titre -Programme d'aide postnatal aux parents-

Canadian Government Publishing Centre, Supply and Services Canada Ottawa, Canada K1A 0S9

© Minister of Supply and Services Canada 1983
Catalogue No. P19-153/2-1983E
ISBN 0-660-13156-0 (ISBN 0-660-13156-0 (pb)
Reprinted 1991

Canada

Postpartum Parent Support Program

APPENDIX "B"

APPENDIX "C"

LIST OF PPSP INFORMATION SHEETS

1. Bathing
2. Caesarian Birth
3. Circumcision
4. Cord Care
5. Especially for Grandparents
6. Formula Preparation
7. Jaundice
8. Keeping Children Safe in Car
9. Making Home Safe for Children
10. Postnatal Exercises
11. In Newfoundland and Labrador, "Breast-Feeding Handbook", Department of Health, is used with breast-feeding mothers

APPENDIX "D"

EXPLANATION TO THE MOTHER

TO: NAME: _____
ADDRESS: _____

FROM: Mary Basha, B.N. R.N.
Graduate Student, M.N

I am a community health nurse presently enrolled as a graduate student at Memorial University where I am completing the Degree of Master of Nursing.

I am doing a study to evaluate the effects of a "Postpartum Parent Support Program" (PPSP) which is being implemented in Newfoundland and Labrador as of April 1, 1992. Therefore, I am interested in visiting new mothers at four to six weeks postpartum to discuss information and support during the postpartum period.

I would like you to participate by permitting me to visit you at home at which time I will complete with you, questions related to your postpartum experience. The interview will last approximately 1 - 1 1/2 hours.

All information will be kept confidential. Each interview will be given a code number so that I will be the only person to have your name. Any information used for analysis will be done so anonymously. Upon completion of the study, all questionnaires will be destroyed.

Your decision to participate in this study is strictly voluntary and will in no way affect any nursing services presently provided to you by the Department of Health or any other agency. You will be free to withdraw from the study at any time. Please feel free to refuse to answer questions or discuss any issues that make you feel uncomfortable. You will not be subject to any specific risks or benefits by your

participation in this study.

Please read the attached consent form which I will have you sign at the time of my visit.

If necessary, I may contact you on at least one occasion by telephone if it is necessary to clarify any information.

If you require any further information, please contact me at 895-6624 (after 6:30 p.m.).

Mary Basha, B.N. R.N.

APPENDIX "E"

FACULTY OF MEDICINE
MEMORIAL UNIVERSITY OF NEWFOUNDLAND
ST. JOHN'S, NEWFOUNDLAND
A1B 3X6

CONSENT TO PARTICIPATE IN BIO-MEDICAL RESEARCH

TITLE: A Study to examine the effects of the postpartum parent support program (PPSP) on a group of primiparous mothers at four to six weeks postpartum

INVESTIGATOR: Basha, Mary B.N. R.N. Public Health Nurse
Graduate Student, MUN School of Nursing

You have been asked to participate in a research study. Participation in this study is entirely voluntary. You may decide not to participate or may withdraw from the study at any time without affecting your normal care.

Confidentiality of information concerning participants will be maintained by the investigator. The investigator will be available during the study at all times should you have any problems or questions about the study.

Information Section:

The purpose of the study is to determine whether or not a new Postpartum Parent Support Program is meeting the needs of new mothers. A group of mothers will be interviewed prior to the program and a second group will be interviewed after the program has begun.

If you agree to participate in the study, you will be interviewed once in your own home by the investigator and will be asked to respond to the questions on three questionnaires. The interview will take approximately one hour. You are free to refuse to answer any of the questions which may make you feel uncomfortable. There are neither health risks nor benefits to you as a result of participating in this study.

All information will be coded and used anonymously. Upon completion of this study, these interviews will be destroyed.

If you have any questions about the study, I can be contacted at 895-6624 after 6:00 p.m.

I, _____, the undersigned, agree to my participation in the research study described above.

Any questions have been answered and I understand what is involved in the study. I realize that participation is voluntary and that there is no guarantee that I will benefit from my involvement. I acknowledge that a copy of this form has been offered to me.

(Signature of Participant) (Date)

(Signature of Witness, Optional)

.....
To be signed by investigator:

To the best of my ability, I have fully explained to the subject the nature of this research study. I have invited questions and provided answers. I believe that the subject fully understands the implications and voluntary nature of the study.

(Signature of Investigator) (Date)

(Phone Number)

.....
Code Number Assigned: _____

APPENDIX "F"

DEMOGRAPHIC DATA SHEET

Some questions from the Demographic Data Sheet have been taken and/or adapted from the "Postpartum Parent Support Evaluation", September, 1991, prepared by the Edmonton Area Postpartum Parent Support Program Pilot Project Evaluation Committee (EAPPSPE). These questions will be indicated by the use of an asterisk (*).

All responses are strictly confidential.

DEMOGRAPHIC AND POSTPARTUM DATA SHEET

Code No. _____

Please check () the appropriate response.

1. What is your age:

- _____ (a) 16 and under
_____ (b) 17 - 19
_____ (c) 20 - 25
_____ (d) 26 - 30
_____ (e) 31 - 35
_____ (f) 36 - 39
_____ (g) 40 +

2. What is the present age of your baby:

- _____ (a) 4 weeks
_____ (b) 5 weeks
_____ (c) 6 weeks
_____ (d) Other

3. What is the sex of your baby:

- _____ (a) Male
_____ (b) Female

4. Are you living with:

- _____ (a) Husband
_____ (b) Partner
_____ (c) Relative
_____ (d) Other _____

5. Are you employed (including maternity leave) outside the home:

- _____ (a) Yes
_____ (b) No

6. If you answered yes to Number 5, how long is your maternity leave:

_____ (a) 6 weeks
_____ (b) 12 weeks
_____ (c) 6 months
_____ (d) 1 year
_____ (e) Other

7. What is your level of education:

_____ (a) Below Grade 8
_____ (b) Grade 8
_____ (c) Some High School
_____ (d) High School completed attended Post-Secondary
_____ (e) Attended Post-Secondary Education

8. What is the annual income of your household:

_____ (a) Under \$10,000 per year
_____ (b) \$11,000 - \$20,000 per year
_____ (c) \$21,000 - \$30,000 per year
_____ (d) \$31,000 - \$40,000 per year
_____ (e) \$41,000 - \$50,000 per year
_____ (f) Over \$51,000

9. What is your citizenship status:

_____ (a) Canadian citizen
_____ (b) Immigrant awaiting permanent status
_____ (c) Other (i.e. American)

10. Did you attend prenatal classes:

_____ (a) Yes
_____ (b) No

11. Indicate type of delivery: _____

- 12.* (a) How many days were you in the hospital post-delivery?

(b) How did you feel about the length of time you spent in the hospital?

- (i) _____ It was just right
(ii) _____ It was too long
(iii) _____ It was too short

13.* Sometimes women say that giving birth to their baby was not what they expected. Was this true for you?

- _____ Yes
_____ No

If yes, do you think this was because of:

- (a) your cultural background _____ Yes _____ No
(b) what you had read _____ Yes _____ No
(c) talking with other members _____ Yes _____ No
(d) other _____

Please tell us what was different: _____

14.* Have you taken any programs or courses about child care or parenting?

- _____ Yes
_____ No

15.* Did you read any books about infant/child care before having your baby?

- _____ Yes
_____ No

16.* During the first three or four days after the birth, how did you feed your baby?

- _____ Breast only
_____ Bottle only
_____ Breast and bottle

17.* When you went home from the hospital, how did you feed your baby?

- ☐ Breast only
- ☐ Bottle only
- ☐ Breast and bottle

18.* How are you feeding your baby now?

- ☐ Breast only
- ☐ Bottle only - if bottle only, please go to question 9.
- ☐ Breast and bottle

19.* If you are breastfeeding now, how long do you plan to breastfeed?

- ☐ Until your baby is 3 - 4 months
- ☐ Until your baby is 5 - 6 months
- ☐ Until your baby is 6 - 8 months
- ☐ Until your baby is more than 8 months

20.* Since this baby was born, has a Public Health Nurse come to visit you at home?

- ☐ Yes
- ☐ No

21.* Have you taken this baby to one of the Public Health Units (Public Health Clinics) before today's visit?

- ☐ Yes. If yes, please indicate the number of times and the reasons for your visit(s).
- ☐ No

22.* Have you phoned a Public Health Nurse at the Health Unit since coming home?

- ☐ Yes. If yes, please indicate the number of times and the reasons you phoned:
- ☐ No

- 23.* Have you contacted the nurses in the hospital since coming home?
____ Yes. If yes, please indicate the number of times ____ and
the reason why: _____
____ No
- 24.* Have you contacted your physician since coming home?
____ Yes. If yes, please indicate the number of times ____ and
the reasons why: _____
____ No
- 25.* Did you call anyone else for information and/or support since being home? (i.e. relative, friend, group)
____ Yes. If yes, please indicate the number of times ____ and
the reasons why: _____
____ No
26. What do you find most satisfying as a new parent?

27. What do you find most difficult as a new parent?

28. Who do you see as the key people to give you support?

29. What do you think could make things better for you at this time as you learn about your new role of parent?

30. Are there any other comments you would like to make?

APPENDIX "G"

POSTPARTUM PARENT SUPPORT PROGRAM
ASSESSMENT QUESTIONNAIRE (PPSPAQ)

This section is designed to examine maternal ratings of postpartum information given to the mothers by the nurses. Areas being rated included helpfulness of information, satisfaction with information, gaps in information and confidence in maternal and newborn care.

Ask mothers to rate items on a scale of 1 - 7:

1 = not helpful at all

4 = somewhat helpful

7 = very helpful

Circle the response.

PPSP ASSESSMENT QUESTIONNAIRE A

1. How helpful was the information given by the nurses in relation to your body:

Not Somewhat Very
Helpful Helpful Helpful

(i) Breasts

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(ii) Stitches

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(iii) Bowel Movements

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(iv) Diet

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(v) Exercise

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(vi) Rest

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(vii) Vaginal Discharge

(A) In the hospital 1 2 3 4 5 6 7
(B) In the community 1 2 3 4 5 6 7

(viii) Hemorrhoids

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

COMMENTS: _____

2. How helpful was the information given by the nurses in relation to your baby:(i) Feeding

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(ii) Baby Care (bathing, dressing)

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(iii) Rashes

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(iv) Constipation

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(v) Colic

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(vi) Sleeping Patterns

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

COMMENTS: _____

3. How helpful was the information given by the nurses in relation to your adjustment to parenthood:

(i) Relationship with your partner (if applicable)

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(ii) Relationship with others (friends/relatives)

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(iii) Relationship with your infant

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(iv) Sexual relationship

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(v) Family Planning (Birth Control)

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(vi) Emotional Concerns ("Blues")

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(vii) Fatigue

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

(viii) Work Issues (Return to work, child care)

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

COMMENTS: _____

4. How helpful was the information given by the nurses in relation to your baby at home:

- (i) Home Environment (adjustment)
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7
- (ii) Infant Behaviour (development/characteristics)
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7
- (iii) Immunization
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7
- (iv) Safety
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7
- (v) Illness
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7

COMMENTS: _____

5. This question is for single mothers only. If it does not apply to you, proceed to next question. How helpful was the information given in relation to adjustment to single parenthood:

- (i) Family acceptance (parents and relatives)
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7
- (ii) Changes in your lifestyle
 (A) In the hospital 1 2 3 4 5 6 7
 (B) In the community 1 2 3 4 5 6 7

(iii) Concern regarding lack of father in the home

(A) In the hospital 1 2 3 4 5 6 7

(B) In the community 1 2 3 4 5 6 7

COMMENTS: _____

6. This question is for mothers who experienced special circumstances (baby had jaundice, circumcision or some other type of problem). If this does not apply, proceed to next section. What was the problem? _____

(i) Information given related to the problem itself
Hospital 1 2 3 4 5 6 7

(ii) Information given in the community as follow-up
1 2 3 4 5 6 7

7. Please rate your overall satisfaction with the information given by the hospital nurses:
- | | | |
|-----------|-----------|-----------|
| Not | Somewhat | Very |
| Satisfied | Satisfied | Satisfied |
- 1 2 3 4 5 6 7

COMMENTS: _____

8. Please rate your overall satisfaction with the information given by community health nurses:
- 1 2 3 4 5 6 7

COMMENTS: _____

9. What other information would you like to have received in the hospital?

10. What other information would you like to have received in the community?
-
-

11. Do you have any comments on the different ways in which information was given to you:

- (A) Printed (pamphlets) _____
 (B) Video/Films _____
 (C) One to one conversation _____
 (D) Group teaching _____

12. Please rate how confident you feel in relation to the following areas:

- 1 = No confidence
 4 = Moderate level of confidence
 7 = High level of confidence

- | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| A. | Infant feeding | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| B. | Infant crying | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| C. | Infant care (bathing, rashes, clothing, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| D. | Safety | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| E. | Minor Illnesses (colds, diarrhea, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| F. | Preventive Health (check-ups, immunization) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| G. | Feelings towards motherhood | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| H. | Changes in relationship | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I. | Changes in lifestyle | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| J. | Decisions re Child care (babysitter) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| K. | Decisions re career | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| L. | Sexual relationships | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| M. | Personal health concerns (rest, nutrition, exercise, time for self) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| N. | Social concerns | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

PPSP ASSESSMENT QUESTIONNAIRE B

This section is designed to examine maternal ratings of consistency of information given by the hospital and community health nurses, mothers' perception of the quality of community health nursing visits, identification of concerns and mothers' perception of the parenting experience.

* = Questions from EAPPSEP.

- 1.* New mothers are seen by both hospital and Public Health Nurses in the first few weeks following the birth of their baby. It is important that these nurses give consistent (the same kind of) information and advice so that mothers are not confused. Please rate the consistency of information given to you by the two groups of nurses by circling the appropriate number on the following scale:

1 = Almost always consistent

2 = Somewhat consistent

3 = Somewhat inconsistent

4 = Almost always inconsistent

| | NO INFORMATION PROVIDED | CONSISTENCY BETWEEN HOSPITAL NURSES AND COMMUNITY HEALTH NURSES | | | | CONSISTENCY BETWEEN COMMUNITY HEALTH NURSES | | | |
|--|-------------------------------|---|---|---|---|---|---|---|---|
| Breastfeeding | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Bottlefeeding | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Supplementary feeding | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Cord care | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Circumcision care | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Care of baby's skin | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Baby's sleep behaviour | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Baby's crying behaviour | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Diet/nutrition information for yourself | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Breast care | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Care of your stitches | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Sources of help in the community | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Emotional Concerns | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Fatigue | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Home Environment (Adjustment) | 9 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| OTHER COMMENTS: | | | | | | | | | |

- 2.* Please think about when you were first at home with your new baby and give me the answer that best shows how much you agree or disagree with the following statements in relation to your visit from the community health nurse. If item(s) do not apply to you, I can record it not applicable (N/A).

| | <u>Strongly</u> <u>Agree</u> | <u>Agree</u> | <u>Disagree</u> | <u>Strongly</u> <u>Disagree</u> | <u>Not</u> <u>Applicable</u> |
|--|---------------------------------|--------------|-----------------|------------------------------------|---------------------------------|
| I was satisfied with the nursing visit(s) I received | _____ | _____ | _____ | _____ | _____ |
| I had a great deal of confidence in the nurse(s) who came to see me | _____ | _____ | _____ | _____ | _____ |
| I felt comfortable asking the nurse(s) questions | _____ | _____ | _____ | _____ | _____ |
| The nurse(s) were sensitive to my needs about taking care of my baby | _____ | _____ | _____ | _____ | _____ |
| If I had questions, I was able to contact a nurse easily | _____ | _____ | _____ | _____ | _____ |
| The nurse(s) were available to me at a convenient time | _____ | _____ | _____ | _____ | _____ |
| It was always easy to understand what the nurse(s) were talking about | _____ | _____ | _____ | _____ | _____ |
| The nurse(s) took the time to find out what I needed to know before they gave me any help or direction | _____ | _____ | _____ | _____ | _____ |
| The nurse reassured me that I was doing well | _____ | _____ | _____ | _____ | _____ |
| The nurse answered my questions about feeding my baby | _____ | _____ | _____ | _____ | _____ |

| | Strongly Agree | Agree | Disagree | Strongly Disagree | Not Applicable |
|--|-------------------|-------|----------|----------------------|-------------------|
| The nurse made me feel confident about caring for my baby | _____ | _____ | _____ | _____ | _____ |
| The nurse believed that I am a good mother | _____ | _____ | _____ | _____ | _____ |
| The nurse recognized when I felt lonely and supported me | _____ | _____ | _____ | _____ | _____ |
| The nurse showed concern about my physical condition | _____ | _____ | _____ | _____ | _____ |
| Telling you about sources of help (i.e. parent support groups, breastfeeding groups, etc.) | _____ | _____ | _____ | _____ | _____ |
| The nurse helped me to understand my baby's cries | _____ | _____ | _____ | _____ | _____ |
| The nurse taught me how to take care of myself | _____ | _____ | _____ | _____ | _____ |
| The nurse showed me how to hold my baby | _____ | _____ | _____ | _____ | _____ |

3. What questions or concerns about your baby do you have at this time?

4. What questions or concerns do you have about yourself at this time?

PPSP ASSESSMENT QUESTIONNAIRE C

This section is designed to examine maternal ratings of PPSP materials: (1) "Help Us To Help You" needs assessment questionnaire; and (2) Information Sheets related to specific topics. Ratings include understanding, readability and the degree to which they met mothers informational needs on a scale of 1 - 7:

1 = low rating

4 = moderate rating

7 = high rating

1. Did you receive the questionnaire "Help us to Help You?"
(a) _____ Yes
(b) _____ No
2. When did you receive the questionnaire?
(a) _____ Day of delivery
(b) _____ Day 1 postpartum
(c) _____ Day 2 postpartum
(d) _____ Day 3 postpartum
(e) _____ Day 4 postpartum
(f) _____ Other
3. Did you read it on your own?
(a) _____ Yes
(b) _____ No
If no, why not? _____

4. Did you understand the questionnaire?
(a) _____ Yes
(b) _____ No
Please rate your understanding of the information given
in the questionnaire:
1 2 3 4 5 6 7
5. Did a nurse review and discuss the questionnaire with
you?
(a) _____ Yes
(b) _____ No
If yes, when? (a) _____ day of delivery
(b) _____ day 1 of postpartum
(c) _____ day 2 of postpartum
(d) _____ day 3 of postpartum
(e) _____ day 4 of postpartum
(f) _____ Other

6. Did the nurse answer the questions that you had checked?
- (a) Hospital nurses:
- (i) _____ all of them
- (ii) _____ some of them
- (iii) _____ none of them
- (b) Community Health nurse:
- (i) _____ all of them
- (ii) _____ some of them
- (iii) _____ none of them
7. Did you have any other questions or concerns that were not on the list?
- (a) _____ Yes
- (b) _____ No
- If yes, please explain: _____
- _____
8. How well do you think the questionnaire helped you to identify your needs? Please rate:
- 1 2 3 4 5 6 7
9. Did you receive any of the following information sheets?
- (a) _____ Circumcision
- (b) _____ Formula preparation
- (c) _____ Jaundice
- (d) _____ Making Home Safe for Children
- (e) _____ Postnatal Exercises
- (f) _____ Caesarian Birth
- (g) _____ Bathing
- (h) _____ Cord Care
- (i) _____ Especially for Grandparents
- (j) _____ Keeping Children Safe in Car
10. Did you find these sheets easy to read?
- (a) _____ Yes

(b) _____ No

Please rate:

1 2 3 4 5 6 7

11. Did you find them easy to understand?

(a) _____ Yes

(b) _____ No

Please rate:

1 2 3 4 5 6 7

12. Did you find the information sheets gave you the information you needed in the areas listed in question 9?

(a) _____ Yes

(b) _____ No

Please rate how helpful the sheets were:

1 2 3 4 5 6 7

Comments: _____

APPENDIX "H"

INTEREST IN A PARENTING SUPPORT GROUP

In this section I would like to find out if you are interested in attending a parenting group organized at the community level by nurses. The group would meet once a week for four weeks under the direction of a nurse and could continue as a self-help support group if you wished.

1. If classes for new parents were offered in the community, would you like to attend?
☐ (a) Yes
☐ (b) No
☐ (c) Undecided
2. At what time postpartum (after delivery) would you like such a group to begin?
☐ (a) 4 weeks after delivery
☐ (b) 6 weeks after delivery
☐ (c) 8 weeks after delivery
☐ (d) 10 weeks after delivery
☐ (e) 12 weeks after delivery
☐ (f) Other _____
3. What would be a convenient time for you to attend?
☐ (a) morning (specify time) _____
☐ (b) afternoon (specify time) _____
☐ (c) evening (specify time) _____
☐ (d) Other _____
4. Would you prefer to attend the group?
☐ (a) alone
☐ (b) with your baby
☐ (c) with your partner
☐ (d) with a friend or relative
☐ (e) as a family (family = whatever you want it to be)
☐ (f) Other _____

