Facilitation of Maternal-Infant Education Needs: A Project Involving Hospital Maternal-Infant Nurses

by

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FACILITATION OF MATERNAL-INFANT EDUCATION NEEDS: A PROJECT INVOLVING HOSPITAL MATERNAL-INFANT NURSES

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A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

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DEDICATION

IN LOVING MEMORY OF MY HUSBAND TOM

WHO ALWAYS MOTIVATED AND ENCOURAGED ME

EVEN IN SILENCE

ABSTRACT

The maternal-infant education project was developed based on the need for a revised postpartum education program at The General Hospital of Port Arthur (PAGH) in Thunder Bay, Ontario. From a review of the literature and some existing programs, a decision was made to adapt concepts from two existing postpartum education programs (referred to as parent programs). The first program was the St. Joseph's Hospital program of Hamilton, Ontario and the second the Manitoba Postpartum Education Program of Winnipeg. These programs have been recommended by Health and Welfare Canada for national implementation.

The PAGH resource material was planned and structured to assist maternal-infant nurses develop feelings of competence and confidence in their role as educators and provide parents with accurate, consistent, accessible information. Several months were spent by a project advisory team and a project co-ordinator reviewing, revising, and organizing the PAGH materials into the parent programs' format.

Prior to implementation workshops were held for maternal-infant nurses. The purpose of these workshops was to introduce the nurses to the revised materials and educational package and to teach them concepts of adult education and the educational process.

Following the workshop for nurses, the maternal-infant project materials were implemented at PAGH. The PAGH nurses have expressed positive comments about the project and indicated that the materials would provide consistent, current information for nurses and patients in a format that provides patient's with a means of identifying their specific learning needs. Ongoing evaluation is fostered through utilization of a bedside checklist for mothers. The checklist provides information for analysis to assist in assessing the project effectiveness.

Implications of the project for nursing practice and research are discussed.

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Chapter I

INTRODUCTION

1.1 PURPOSE OF PRACTICUM

For many years health care professionals have been concerned with changes in the family unit. One such change is the care and support available to a family during the early months of parenting. Because of increased mobility of the family unit in today's society, many new parents do not have in-home assistance from their parents in learning infant care skills. Thus, the responsibility of teaching these skills to new parents rests with health care professionals (Brown, 1982). Some of these skills are taught in prenatal classes. Yet according to Rees (1982), the number of women attending prenatal classes is low, with only about 30 percent of those who deliver actually having attended classes. Because of this low attendance these valuable skills are not being taught and other alternatives should be considered in teaching these skills. One alternative for teaching these skills may be a comprehensive teaching program for the postpartum unit of a hospital.

Parents receive information from numerous health care professionals. Quality and consistency of health

information may be endangered when so many educators are involved. A postpartum education program would identify key informed health care professionals during the postpartum period and encourage provision of consistent information to parents. The objectives of the practicum were to develop a maternal-infant education project to:

1. provide parents with consistent updated health information during the postpartum period,
2. provide maternal-infant nurses with inservice information to assist them in their roles as health educators to parents,
3. provide community health nurses with written documentation of information learned by the parents to facilitate continuity of health information, teaching and communication,
4. foster ongoing evaluation of the maternal-infant education project.

The project was developed as a practicum experience in partial fulfillment of the requirements for the Degree, Master of Nursing. The practicum project site was the maternal-infant unit of the General Hospital of Port Arthur in Thunder Bay utilizing input from administrative and maternal-infant nursing staff (refer to Appendix A for hospital consent to participate).

1.2 BACKGROUND AND SIGNIFICANCE

In July 1981, St. Joseph's Hospital in Hamilton, Ontario realizing that the postpartum is often a traumatic experience for the family, undertook to develop a program to assist parents to cope with this experience. They received funding from the Health Promotion Directorate of Health and Welfare Canada to develop a postpartum education program. The program utilized maternity nurses as the original educators in the postpartum period and extended the educational activities out into the community through effective liaison with community health nurses. The program was based on a needs assessment of one hundred mothers in a twenty-bed postpartum unit (Mitchell, 1983).

During implementation of the program, St. Joseph's Hospital collaborated closely with the Hamilton-Wentworth Regional Health Unit. The hospital and the health unit found that by working together to implement the postpartum education program they were not only able to provide consistent information but also build on each other's input.

In 1984, three pilot sites were selected and the program was tested to determine its workability and adaptability in other regions of Canada and to make recommendations for program improvements with a view to facilitate national implementation. The three pilot sites were:

1. Chicoutimi, Quebec: Departement de Sante' Communaupaire de l'hopital de Chicoutimi
2. Winnipeg, Manitoba: Grace General Hospital
   Victoria General Hospital
   St. Boniface General Hospital
   Misericordia General Hospital
   Women's Hospital
   City of Winnipeg Health Unit
   Manitoba Health-Winnipeg Region
3. Sydney, Nova Scotia: St. Rita Hospital

All three sites were selected on the basis of their uniqueness (health services offered), geographic location (national representation), and their administrative enthusiasm towards the program (Mitchell, 1983).

The program, as developed by St. Joseph's Hospital, appeared to be an appropriate model for all three pilot sites. However, in order to implement the program in their respective areas, a number of changes or revisions to format and/or resources were necessary to render the program more acceptable to the participating health services.

For the PAGH project the author received in writing from Carolyn Harrison of Health & Welfare Canada permission to adapt some of the resources to meet the needs of the community of Thunder Bay (refer to Appendix B). Ms. Harrison suggested that the structure of the program remain the same. This structure included the following components:

1. Bedside Checklist - This checklist is utilized by the mothers as an indicator of their concerns/questions.
2. Resource Manual - This manual contains the information required to answer the mothers concerns or questions.
3. Information Sheets - These sheets contain information given to the mother to supplement teaching received.
4. Inter-agency Referral Form - This form is used as a communication tool between hospital and community nurses to convey what the mother has learned.
5. Questionnaires- These questionnaires measure changes in attitudes, knowledge and beliefs of staff nurses. One questionnaire was administered pre-program implementation and the second questionnaire post-program implementation.
6. Workshop for Nurses - The purpose of the workshop is to educate the nurses about the program components and principles of adult education.
7. Coloring Book - This book is to be given to siblings of the new baby to teach them about the new baby.

8. Slide-tape Shows - Four slide tape shows were used to help mothers breastfeed their baby.

Basically the structure of this current project was maintained with some adaptations to meet the needs of the General Hospital of Port Arthur. These adaptations are discussed in detail in Chapter VI.

Chapter II

PROBLEM STATEMENT

Hospitals today are seen as ideal locations for multi-disciplinary co-ordinated health education programs. Hospital patients are a 'captive audience' who can be motivated to learn about proper health behavior. The process of providing health education is not straightforward and can present problems. Reviews of published reports (Rosenberg, 1976) on past patient-education efforts have brought out the following observations of common problems:

1. telling persons what we think they should know, rather than what they are ready or willing to learn;
2. failure to individualize educational efforts in consideration of the person's personal background, attitude and motivation;
3. failure to assess the patient's knowledge before beginning an educational effort;
4. lack of coordination of the efforts of professionals who are engaged in the teaching effort;
5. teaching by individuals who are untrained in educational principles, methodology and evaluation; and

6. provision of education on an incidental or accidental basis, rather than in a carefully evaluated manner (Rosenberg, (1976).

The aforementioned are each of major consequence and have been addressed in the maternal-infant education project. Specifically the aforementioned problems are discussed next under the two general problem statements, 1) lack of consistent health education; and 2) inadequately prepared health educators.

2.1 LACK OF CONSISTENT HEALTH CARE INFORMATION

Professionals who provide health care tend to work in isolation and as a result, may provide inconsistent information to patients particularly in the postpartum or maternal-infant area. Although the mother's stay in the hospital is short (about 3-5 days), one of the hospital's main responsibilities is to initiate practices that may contribute to the health of the infant and the mother. These practices would, ideally, promote parent-infant bonding, support breast-feeding mothers, and include necessary information such as baby care and baby safety procedures (Roberts, 1977). A mother often receives information from many professionals, including three shifts of postpartum nurses, labour and delivery staff, obstetrician, pediatrician, family doctor and social worker. The quality of any education program may be endangered when so many 'teachers' are involved.

Because of the fragmentation created by our current health care delivery system, it is imperative that the patient be involved as much as possible in setting goals and objectives for learning. Since the patient may be transferred from unit to unit and facility to facility, she may be the only person who is aware of learning objectives and progress to date. Despite these moves or changes the patient may be able to structure continuity of care if involved with the setting of learning objectives (Narrow, 1979). This inconsistency of health information and fragmentation of health care information is a major problem today. One large hospital in California believed that although patient education was one of their ongoing professional responsibilities, the educational opportunities they were able to provide were often sporadic and inconsistent and as a result initiated a formalized patient education service (Woodrow, 1979). For similar reasons a 'Maternity-Patient Teaching Program' was established in 1981 at Mount Carmel Medical Center in Columbus, Ohio (Brown, 1982). This program discussed by Brown is similar to the St. Joseph's postpartum education program which has been utilized in this practicum project.

According to Redman (1981b) if the teaching format is decided by the individual practitioner, it becomes an inconsistent and randomized activity. Nurses have always taught patients but their efforts were random, frequently

episodic, intuitive, and without structure or system. Distinguishing characteristics of today's patient teaching efforts should include 1) an organized system, 2) deliberate incorporation into the patient's plan of care, and 3) inclusion of teaching as an integral part of the nursing process (Redman, 1981b).

The postpartum period, or fourth trimester of pregnancy, usually receives less professional attention than the previous three trimesters in terms of systematic patient care, counselling, and patient education. This exists in spite of the fact that the fourth trimester is a period of restoration and transition, both physically and emotionally, on the part of the mother and infant. During this trimester, the mother, infant, and family are involved with many health professionals, both in hospital and community settings, as well as with individuals in their own social and cultural system. Both consumers and providers alike have expressed the need for more consistent and congruent patient care and teaching to meet these maternal, infant, and family needs. A planned comprehensive maternal-infant education program may help this problem of inconsistent health care information.

2.2 INADEQUATELY PREPARED HEALTH EDUCATORS

Another problem arising out of patient education is a lack of preparation by nurses on what and how to teach in order to conduct patient education consistently. Maternal-infant nurses have few opportunities for professional learning; inservice training is infrequent and nurses often learn about "advances" in maternal-infant care from new mothers, putting the professionals in defensive positions (Mitchell, 1983).

Educating the mother about her new role is now recognized as part of the professional role of maternal-infant nurses. Many maternal-infant nurses, however, are not equipped with an understanding of adult education and, as a result, are not able to facilitate the relevant learning of new mothers. Many management people spend a great deal of energy discussing things their staff will do rather than teaching them how to do them. Fifteen hundred nurses throughout the United States working in a variety of nursing jobs reported, in a 1965 survey, that one third of the nurses had no preparation for patient teaching and only one fifth felt ready for the task (Pohl, 1965). Pohl's study is old but none as comprehensive has been done since then (Redman, 1984). Duff and Hollingshead (1968), in their studies of the clinical practice of health professionals, also revealed that many nurses do not know how to provide patient education. Inservice sessions should be presented which

include some basic theory about the teaching-learning process and the readiness to learn. On a busy unit where there are several disease entities and staff turnover, remembering what to teach or what was taught is extremely difficult (Redman, 1981).

The problem, then, is a problem with a lack of confident, knowledgeable maternal-infant nurses enacting their roles as health educators in providing postpartum mothers with consistent, updated, comprehensive health information based on sound principles of adult education. A workshop for nurses introducing them to teaching-learning principles attempts to resolve this problem.

The preceding are general problems pertaining to patient education. These problems are prevalent in all areas of nursing. The focus of this practicum was to develop a program to ensure consistency of health information on a postpartum unit and to provide staff education on the principles of adult education and patient learning. One possible solution to the two problems of inconsistent information and inadequately prepared educators may be a maternal-infant education project. There are only a few studies known to the author pertaining specifically to this area of interest (Brown, 1982; Mitchell, 1983). A review of the literature has included general patient education as a usual teaching guideline for patient education program development; maternal concerns as an indication as to what

content mothers are interested in knowing (in order to identify what should be included in the project resource manual); and nurses' concerns with health education as an indication of what nurses required in an inservice workshop. Each of these issues has been discussed utilizing research and clinically related literature.

Chapter III

LITERATURE REVIEW

3.1 PATIENT EDUCATION

Health education of the patient has been present since the beginning of health care delivery. Programs such as immunization, nutrition, sanitation, and maternal and child health have been considered a routine function of public health for years (Rosenberg, 1976). There are numerous patient education programs cited in the literature pertaining to cardiac education (Deberry, Jeffries & Light, 1975); hypertensive education (Mitchell, 1977; Conti, Brandzdel & Whitehead, 1974); pre and postoperative education (Lindeman, 1972; Lindeman, & Aernam, 1971); and diabetic patients (Schaw, 1973; Salzer, 1975). However, there is a paucity of patient education literature specifically for the maternal-infant area. The majority of existing literature in maternal-infant deals with maternal concerns. As a result of this lack of literature specifically for maternal-infant, the review of the literature on patient education will focus on general health education because it offers the reader a framework from which most educational programs are based.

According to Redman (1984), health education has taken a place of prominence in this decade. There have been greater efforts to maintain and promote health particularly in the form of do-it-yourself health literature, drugs, vitamins, and health foods. It is possible to prevent, to promote, to maintain, or to modify a number of health-related behaviors by means of teaching (Redman, 1984). Marc Lalonde, former Canadian Minister of Health and Welfare, stated that if individuals are taught what to do for themselves they can do more than physicians or hospitals in reducing the number of early deaths (Lalonde, 1976).

Health professionals now acknowledge that the 'what' in patient education is easy, it is the 'how' or the process of teaching that is the critical key to the success or failure of such educational efforts (Chaisson, 1980). These theoretical aspects of patient education are principles of patient education, methodology of patient education, teaching content and materials, and barriers to patient education. The literature on theoretical aspects of patient education is presented in the following four sections as discussed in the literature.

3.1.1 Principles of Patient Education

Education is an essential component of health care. The process of teaching-learning often begins when an individual identifies a need to know or to gain an ability to do

something. Health teaching requires that providers be able to make judgements about what patients need to know, what they are capable of learning, how they can best be taught, and what they have previously learned. Basic principles or guidelines should be followed for effective patient education. These are: assessment, planning or goal setting, implementation, and evaluation. These principles are not new to nursing. They are the basic principles included in the nursing process which is a problem solving model used in nursing practice.

Nurses should demonstrate evidence of adequate skill in the process of teaching by: obtaining and using assessment of client readiness (motivation and already existing skills and knowledge); articulation of clear goals that reflect client readiness and desired outcomes; facility with a range of instructional methodologies and ability to match them to the kind of learning to be accomplished; and obtaining and interpreting evaluative data with ability to make correction in the teaching process, suggested by the data. As Chaisson (1980) previously stated, it is the process of teaching that is the critical key to the success or failure of educational efforts. The nurse-teacher is not a teacher in the traditional sense but rather a facilitator or helper. This is particularly true for the adult learner or patient and the health educator should be familiar with and utilize principles of adult learning. These principles are discussed in chapter IV.

3.1.2 Methodology of Patient Education

Various methods of patient education are discussed in the literature. These methods, however, fall into two main categories-formal or informal. Informal teaching has been defined as unplanned teaching which is spontaneously directed toward the health learner. Formal teaching or education has been defined as a planned systematic approach to the needs of the health learner (Milazzo, 1980). Formal teaching represents the most common type of patient education, but one that is often not pursued (Schweer & Dayani, 1973). Lecturing is one method of formal presentation frequently used in patient education (Dixon & Rickard, 1975; Johnson, 1974; Rosenberg, 1976). The lecture format of instruction can be used for teaching one learner or a number of learners. Lectures can be adapted considerably for persons who seem unable to understand a lecture or who react to a lecture as a symbol of school. Lectures are often used with large groups. This is an economical way to teach a number of individuals at one time.

Group learning has been used extensively in health education for prenatal care, postpartum and infant care, child care, management of diabetes, as well as other types of care (Redman, 1984). Group learning lecture format is used frequently by community health educators in school settings to present various health information such as dental hygiene, nutrition and sex education. Audiovisual

presentations are frequently used in formal education (Ballantyne, 1974; Lindeman, 1973). Audiovisual aids are used as supplements to teaching and should not be used as replacements for human interaction.

Demonstration and practice involves an acting out for learners. It includes showing an intellectual skill or an attitude as well as showing how to do a motor skill. This method is often used in diabetic education (Salzer, 1975).

Research (Milazzo, 1980; Gregor, 1981; Hecht, 1974) has shown that formal teaching results in a greater increase in knowledge than informal teaching. According to Pohl (1968), however, informal teaching constitutes the bulk of the teaching that occurs in patient settings. Traditionally, both informal and formal patient teaching programs have lacked coordination. Health educators educating in an organized, systematic manner will provide the consumer with consistent organized health education (Milazzo, 1980). The professional nurse comprises the largest percentage of direct care givers and coordinates the patients care. Therefore the nurse is the most logical patient educator (Braak & Cate, 1980). For this reason s/he should be aware of the theoretical aspects of patient education.

Nursing personnel prefer formal (structured) teaching because it is more consistent, less difficult, less frustrating, more rewarding, and it seems to take less time.

They feel more secure doing formal teaching because they know they are teaching the proper content and are no longer relying on intuition and past experiences (Winslow, 1976).

3.1.3 Teaching Content

For the most part, decisions about content to teach are made by inferring what a patient needs to know from an established body of thought. Most research deals with the process of teaching and either avoids consideration of content or standardizes it (Redman, 1984). Teaching content articles tend to be disease specific. For instance Manwaring (1977) lists the necessary content for teaching patients about pacemakers, and both Long (1976) and Mitchell (1977) outline the important content for hypertensive patients. Educational medical textbooks offer a wide variety of information dealing with specific content such as medical-surgical content (Brunner & Suddarth, 1980); pediatric content (Scipien, Barnard, Chard & Hume, 1986); and maternal-infant content (Ziegel & Cranley, 1978).

Content is usually derived from objectives set by the educator/nurse. Content and teaching actions are determined from the behavior to be learned. It is best if the content can be presented in a casual manner, with at least some of the sequence being determined by the learner's questions. This allows the session to be directed by the learner's readiness, not the teacher's, and should help provide satisfaction in learning (Redman, 1984).

Content to be included in the postpartum area has been determined by several studies (Adams, 1963; Gruis, 1977; Sumner & Fritsch, 1977; Bull & Lawrence, 1984). In these studies maternal concerns were researched and content to be included based on this research. There seems to be evidence to suggest that teaching is facilitated when the patient feels the information is important; conversely, teaching is impaired when the patient regards the information as unimportant or when s/he rejects it (Dodge, 1969). Despite the appropriateness of content there can be barriers to learning. Some of these barriers to learning are presented next.

3.1.4 Barriers to Patient Education

Every professional who tries to implement patient education will encounter many barriers to its actualization. Some major barriers to health education discussed in the literature are:

1) Medical interference- historically medicine has utilized the disease model or medical model which focuses on identification and cure of pathologic conditions, with the patient as a passive recipient of treatment. The educational model focuses on changing the patient's behavior and requires the patient to be active in order to learn. Physicians who consider that teaching is their responsibility may place limits on how much the patient

should know, thereby restricting teaching by the nurse (Winslow, 1976; Woodrow, 1979).

2) Lack of information sharing - some educators believe that sharing knowledge with the patient decreases their own power. However, withholding information or educational-supportive therapy can be as devastating to the client as withholding other treatment, such as medications. The Canadian Consumer Rights in Health Care (1974) stresses the right of the patient to be informed; the right to be respected as an individual with the major responsibility for one's own care; the right to participate in decision making affecting his or her own health; and the right to equal access to health care.

3) Inadequately prepared educators - health educators are not familiar with the principles of teaching patients (how to teach) and lack knowledge of what to teach (Winslow, 1976; Redman, 1984; Schaw, 1973). Nurse educators have been inadequately prepared to teach.

4) Lack of available educational materials - materials are often not available for staff to use in patient education and there is no system to keep materials current (Woodrow, 1979).

5) Lack of time - lack of educator time, heavy workload and inadequate staffing are often cited by staff (Winslow, 1976).

6) Inadequate communication - poor communication between members of the health team resulting in educators duplicating teaching because they are not aware of what has already been taught (Winslow, 1976, Woodrow, 1979; Henderson, 1971: Somers, 1976; Redman, 1984). This can be remedied through accurate documentation which is an important step in establishing an educational program.

7) Unidentified learning needs - by the staff or the patient. Information is not requested for various reasons. For example,the patient may be too sick to become actively involved in a teaching program or she does not know what to ask (Winslow, 1976; Woodrow, 1979).

8) Lack of nursing service support - low priority is often assigned to patient education administratively and colleagueally. Teaching and subsequent documentation can be time-consuming and the nurse needs not only to be encouraged but also supported by nursing administration for deliberately setting a time priority for patient education (Winslow, 1976; Woodrow, 1979; Nordberg & King, 1976; Powell & Winslow, 1973; Somers, 1976).

In summary, the literature on patient education strongly suggests that the learner's identification of her needs is an important factor in the process of patient education in order to facilitate patient learning. Barriers exist in patient education but if the educators consider these

barriers when planning programs, adaptations can be made. Given that all health-care team members use the same problem list and document their teaching, continuity of care and logical progression of a teaching plan will be accomplished.

The process of teaching as described above is a critical key to the success or failure of educational efforts and is also dependent on the educators themselves. The concept of the 'nurse as educator' is not only central to this study, but is of the utmost relevance to the success of implementation of the findings of this practicum. Therefore, in the following section, the rather extensive field of literature pertaining to the relationships between nurses and the education of patients is considered rather carefully. The purpose of such consideration is to show that the methodology advocated in the practicum is not only consistent with established findings about patient education but actually combines the studies of patient education and adult education.

3.2 NURSES AND PATIENT EDUCATION

Nurses for various reasons may be unable to function appropriately as health educators mainly because they have been inadequately prepared for this role. Several studies carried out in the past 25 years have identified the difficulty of nurses in the teaching role. Nurses in the primary care setting have 24 hour access to patients

enabling them to carry out teaching as identified. As mentioned earlier by Braak & Cate (1980) the nurse is the most logical patient educator. But nurses, for various reasons to be discussed, may be unable to fulfill adequately their role as health educators.

Bennis et al. (1961) in a survey of clinic patients found that even with a broad definition of teaching, a negligible amount of teaching was done by nurses in their contacts with clinic patients.

Pohl (1965), in a large mail questionnaire survey of 1818 American nurses' views on teaching, found that they considered teaching necessary, and supported the idea that they should teach but admitted that they felt unprepared for this role and very rarely undertook it. Pohl recommended that Schools of Nursing focus on communication and teacher preparation to enable nurses to assume the role of teacher.

Skeet (1970) showed that 59 percent of patients sampled received no advice on discharge from hospital other than of a very general nature. Forty-five percent claimed they needed advice and reassurance about the effects of drugs and treatment and how much activity should be undertaken. Skeet concluded that nurses do not readily undertake the role of educating patients in their care.

Palm (1971), surveyed a convenience sample of 151 nurses in a large mid-west general hospital. Palm's survey

revealed that 59 percent of the nurses assigned top priority to patient teaching in non-emergency situations. Palm's study used examples of clinical situations followed by a choice of nursing activities.

Roberts (1977) noted that nurses put 'preparation for patients discharge from hospital' last on a list of ten functions. Further work by Hockey (1978) reported a United Kingdom survey in which nurses gave 'information giving and preparation for surgery' an important place, if they had more time.

In 1976 a Health Education Curriculum Development project at Johns Hopkins University surveyed 266 nursing accredited baccalaureate programs in the United States to determine the extent to which health education content had been incorporated into baccalaureate nursing curricula. Findings revealed that minimal attention was devoted to health education content and process in baccalaureate nursing curricula. Analysis suggested that many programs did not adequately prepare their graduates to assume health education responsibilities (Ackerman, Partridge & Kalmer, 1981). This supports Redman's 1978 statement that she does not know of a school of nursing that has fully developed an undergraduate, graduate or continuing educational program to prepare nurses for patient education.

Murdaugh (1980) investigated 40 patients in an Intensive Care Unit to determine whether patients would learn more about the disease process and therapeutic regime if nurses were taught the principles of teaching and learning. The pretest results indicated that nurses did not have an adequate knowledge of teaching-learning principles to effectively teach patients, assess learning readiness or how to evaluate whether or not learning had taken place. Post-test results indicated that effective knowledge of the aforementioned areas had been gained by the nurses after receiving a six session workshop covering the teaching learning process. Murdaugh concluded that although nurses without knowledge of teaching-learning principles may be teaching patients, this teaching becomes more effective when the nurses are taught these principles.

According to Ackerman et al. (1981) nursing has placed greater emphasis on the content of health education activities than on process, analytic frameworks or evaluation. Ackerman in a national study of 266 National League Nursing programs found that minimal attention was devoted to health education content and process. This study supports the earlier 1976 John Hopkins survey results.

Syred (1981) stated that communication with patients is very limited, and that nurses approach patients only when they have a clinical skill to perform. According to Syred, nurses are in a unique position to carry out all levels of

health education as they are the most constant point of contact with patients providing a 24 hour service and thereby being in a position to initiate and reinforce patient education (Syred, 1981). However, Macleod Clark (1983), concluded that nurses on average spend only 10 percent of their time communicating with patients. The author concludes that it is not surprising that more teaching does not occur because of pressure to give physical care and other activities taking preference.

Primary nursing is one of the most utilized methods of nursing and is one approach to nursing that may facilitate improved teaching. Mayer (1982) defined the role of the primary nurse as one of complete, individualized patient care with 24 hour accountability maintained through written and verbal communication by the nurse ensuring consistent, co-ordinated care. Malkin and Lauteri (1980) emphasize that the focus of primary nursing is on decentralized decision making with the professional nurse responsible for comprehensive patient care including patient education. Through this method of decentralized nursing, a maximum number of patients will be reached for care and education.

It has been further suggested by Redman (1984) that patient education is better accomplished by primary nursing than by other nursing care systems, such as team nursing and functional nursing. In primary nursing, the nurse has an opportunity to develop a trusting relationship with

patients, understand and take advantage of their moments of natural readiness to learn, know which teaching methods are most effective with them, and better evaluate presence or absence of behavioral change.

There has been some concern that nursing schools do not adequately prepare their graduates to teach (Redman, 1978). This was supported by Pigg (1982). Pigg mailed a 17 item survey questionnaire to 249 institutions in the United States offering specialized preparation in health education to determine the status of professional preparation in patient education. Of the 228 returned questionnaires (91.6 percent), 82.9 percent did not offer a major, minor or specific course in patient education at either the undergraduate or graduate level. The remaining 17.1 percent offered several combinations of specific courses and/or degree options in patient education with most of the options existing at the graduate level. The majority of institutions reported offering their first patient education course only as recently as 1977, with the earliest course offered in 1972. This study along with the 1976 John Hopkins study and the 1981 Ackerman study reported earlier support a need for inservice education for nurses.

Gleit & Graham (1984) undertook a study to examine what type of textbooks are assigned to nursing students to determine the extent to which students are exposed to process and content of teaching. A questionnaire was mailed

to a random sample of National League of Nursing accredited Baccalaureate Schools of Nursing. The researchers found that fewer than one half of the nursing programs identified readings that included the role and functions of nurses as health educators and the content areas tended to deal with 'what' to teach, but not with aspects of the process of teaching or 'how' to teach.

Nurses now have excellent resources available to assist them to teach. Zander (1978) provides a practical manual for patient teaching and includes teaching plans and guidelines for a variety of disorders. Redmans' 1984 edition of 'The Process of Patient Education' covers a guide to the process and methodology for patient teaching. Redman appears to be the only author who has applied educational theory to patient teaching (Parker, Alkhateib, & Farkash Rosen, 1983).

Patient education may be changing to meet patient's increased desire for health education. In order for the caregivers, specifically nurses, to carry out their patient education activities they must feel comfortable with the information and skills needed for patient education. Patient education should be part of staff education during orientation and during continuing education programs. The literature strongly suggests that nurses have not been adequately prepared as educators in knowledge of content and, moreso, in the process of education. Teaching is often

done on an informal and largely voluntary basis by motivated nurses. Periodic inservice sessions or workshops would help to prepare nurse educators for this role.

It is necessary that maternal-infant nurses be aware of potential maternal concerns to identify appropriate health education content for the postpartum client. This would assist the nurse to effectively plan the information necessary to educate the client. Several studies have been done and are presented next as identification of maternal concerns.

3.3 MATERNAL CONCERNS

Concerns are areas of special interest or worry to mothers usually indicated by questions pertaining to particular areas of care (Adams, 1963). Some of the literature on maternal concerns is contradictory. According to Roberts (1977), it has been shown that there is a wide variation from one subculture to another and from one individual to another as to what the mother has felt she needs to know and that mothers tend to remember and use only that information which they feel is important. Various studies are presented below in reference to maternal concerns.

Robertson (1961) carried out two mail questionnaire surveys of mothers of young infants ranging in age from

5-10 weeks. The results indicated that primiparas identified significantly more concerns than multiparas and that the concerns were about gastrointestinal dysfunction, skin disorders and sleep disturbances in the infants.

Adams (1963) interviewed forty primiparas at three time periods throughout the first month of infant care. Three interview guides were developed and administered to each of the mothers to determine their concerns regarding their own infant care-taking activities. Interview one occured on the second day after delivery; interview two one week after discharge; and interview three one month after. The concerns at two days were: feeding (ranked primary), bathing (including care of navel and/or circumcision), and crying. Concerns at one week were: feeding, bathing, crying, care of navel and/or circumcision, and other (hiccups, rashes, sleeping). Concerns at one month were: feeding (addition of solids), bathing, crying. Adams found that prenatal class attenders had less concern with bathing, crying, and care of navel and/or circumcision but prenatal classes made little or no difference with regard to feeding and 'other' concerns. Adams concluded that the prenatal phase was not the time mothers were interested in learning about care of their infant, but were more concerned with care of self. Concerns started at two days, and by one month mothers seemed to have become accustomed to their infant's behavior and had settled on satisfactory modes of

interaction. It would appear that this study has implications for timing and effectiveness of home visits by health educators and that concerns should be addressed when mothers are looking for support and information usually in the first month.

Effectiveness of home visits to primiparas was the problem studied by Brown (1967). Brown studied two groups of mothers: one group had public health nursing visits, and the second group had no visits by a public health nurse. The concerns of the mothers in the study were assessed at two time intervals: once during the mothers' stay in hospital, and again after they had been at home with their infant for 4 weeks. The mothers were administered a questionnaire to assess the level of intensity of their concerns about infant care in areas such as bathing, crying, feeding, elimination, routine care, sleeping and so on. The mothers were asked to rank order their concerns after 4 weeks and to identify the three most helpful persons to them in the first 4 weeks and the number of physician contacts made in this time period. The results indicated that generally mothers identified more concerns in hospital than at 4 weeks in all areas but crying. The bathing concern decreased by 4 weeks. Feeding was identified more as a concern in hospital than at 4 weeks. Mothers who had public health nursing visits, expressed fewer concerns than mothers without visits. There was no change in concern with

elimination. Concern about routine care reduced at 4 weeks. Interestingly, the sleeping concern was more of a concern with mothers that had public health nursing visits. Overall, public health nursing visits made no appreciable difference in the intensity of the mothers' concerns about the elimination, routine care or the sleeping of their infants. Brown found that crying was more of a major concern than feeding which is contradictory to Adam's (1963) study.

Fillmore & Taylor's (1976) study findings of infant care concerns were also contradictory to Adams! Fillmore & Taylor interviewed 52 primiparas composed of 26 prenatal attenders and 26 nonattenders 3-5 days after delivery. The researchers utilized an adapted interview schedule based on Browns' (1967) interview schedule which had been adapted from Adams' schedule (1963). Fillmore & Taylor found that prenatal course attenders had higher mean concern scores than non attenders for every area of concern. This is contrary to Adam's findings that class attenders had less concern with bathing, crying and care of navel and/or circumcision. Breastfeeding mothers had lower average concern scores than bottle feeding mothers contrary to Adams (1963) who found the method of feeding did not seem related to the number of questions expressed. The authors discovered that the mothers' greatest concern was feeding, then crying, followed by elimination and then routine care

supporting Adams findings that feeding and bathing concerns were most important with crying secondary. Brown (1967) found crying ranked first and feeding second.

In 1977 Gruis sent questionnaires, based on identified concerns in the literature, to primiparas and multiparas at 4 weeks to determine areas of concern and rankings as well as resources mothers used to meet these concerns. In this study, the most frequently expressed concern of the mothers was the return of their figures to normal. The concerns the mothers cited related primarily to the two tasks of physical restoration and incorporation of a new family member. They also frequently reported concern about fatigue, emotional tension, feelings of isolation and being tied down, and finding time for personal needs and interests. The majority of mothers sought help from their husbands and none of the mothers utilized the nurse as a source of help. Gruis also found that prenatal classes did not reduce the number of concerns mothers expressed.

Sumner & Fritsch (1977), in a study of telephone calls made by mothers to a health care facility, found that three and half times more primiparas telephoned than multiparas. The highest percentage of questions were about feeding (prime concern), gastrointestinal (colic, constipation, spitting up, diarrhea), skin (face rash, cord care, diaper rash), other (stuffy nose, birth marks, blocked tear ducts), postpartum (anxious mother, breast problems, sex relations,

medications), and sleeping/crying (fussy infant, length of sleep, what to do for crying), and so on. Questions were most frequent in the first two weeks postpartum then dropped off sharply at six weeks except for the concern of sleep which increased at four weeks and then decreased. In the first three weeks there were more calls from parents of male infants than for female. By three weeks postpartum the calls had averaged out.

According to Becker (1980) postpartum teaching in hospital needs improvement to incorporate more comprehensive and consistent teaching. Becker based her comments on a study by Saunders & Tissington (1970) that looked at nurse-patient interaction on a postpartum unit and discovered mothers tended to obtain more information from other mothers than they did from the nursing staff. Information from the nurses was usually time and task oriented and was often repeated by other nurses without anyone ascertaining the mothers' real need for information or her concerns. This was supported in Gruis' (1977) study in which none of the mothers had identified the nurse as a potential source of support, counseling and advice. Becker recommended that what is needed during the postpartum period is better patient teaching and that one way to facilitate teaching would be teaching guides kept at the bedside or on charts to avoid redundant teaching and gaps in information.

Kirke (1980), interviewed 210 postpartum mothers on the third to fourth postpartum day to determine maternal concerns. Kirke found that 65 percent of the staff did not tell the mothers anything about breast-feeding at any stage and 75 percent said this about bottle-feeding. A large percentage mentioned some failure of communication, confirming the findings of other studies (Cartwright, 1964; Houghton, 1968). As indicated in previous studies (Adams, 1963; Sumner & Fritsch, 1977; Fillmore & Taylor, 1976) infant feeding is an important if somewhat neglected aspect of the care of mother and baby and one which often gives rise to complaints from mothers about poor staff-patient communication and insufficient support from hospital staff.

Stanwick, Moffat, Robitaille, Edmond, and Dok (1982) studied two groups of mothers to determine whether or not a public health nurse visit enhanced a mothers confidence in caring for her infant or increased maternal knowledge and skill. The researchers found that some maternal concerns were identified by both groups. All mothers were interviewed by telephone four weeks after delivery utilizing a questionnaire assessing the mothers confidence, knowledge, and skills in such areas as bathing, and attendance of mothers at parenting classes. One group of mothers received a public health nursing visit within 21 days and the other group did not receive a visit. Fewer of the visited mothers had problems. Most of the expressed problems involved the

infants' gastrointestinal tract. Major concerns were colic, constipation, and infant feeding. Crying and sleeping problems figured less prominently, being cited only slightly more frequently than rashes, respiratory difficulties, and concerns of the navel. Both groups primarily consulted a physician for help with their problems. The public health nurse was not frequently cited as a source of help by the visited group. The identified concerns of mothers in this study did not differ, either in type or frequency from those reported by Sumner & Fritsch (1977). One might speculate that the public health nurse visit did not make as great a difference as anticipated because of the timing of the visit-within 21 days of birth. Successful visiting programs have had the visit(s) scheduled when mothers experience most problems, that is before the end of the second week after delivery (Freeman, 1961; Donaldson, 1977; O'Connell, 1976).

Harrison & Hicks (1983) studied maternal concerns using a randomly selected sample of mothers. A mailed questionnaire developed by Gruis (1977) was used to identify the concerns expressed by primiparas and multiparas, in the six weeks following delivery and identification of resources mothers used to meet these concerns. The questionnaires were completed 23-60 days after delivery. The concerns in order of priority were: return of figure to normal, regulating demands of housework and children, diet, family planning and fatigue. Women with two or more children expressed fewer

concerns than women with their first child. First time mothers identified significantly more minor concerns than other mothers. There were no significant differences in the number of major concerns both groups identified. Mothers who attended classes prior to the birth of this child identified significantly more concerns in the postpartum period than women who did not attend classes and they had as many major concerns. The most frequently used source of help was the husband. These findings support Gruis' 1977 research.

Bull & Lawrence (1984) investigated the level of knowledge of self-care and infant care at hospital discharge; information found useful by mothers during first weeks at home; and other information that would have been helpful to postpartum mothers. The mothers were administered a questionnaire while in hospital and administered a second questionnaire 11 days postpartum. Bull & Lawrence concluded that the mothers found the information received in hospital useful particularly information that was used at home in the categories of elimination, food and fluids, and activity/rest. Mothers expressed the need for more information on cord healing and cord care and other aspects of physical care of the newborn. The authors concluded that coordination of teaching provided by the nurses in the hospital and in the community can facilitate a more satisfying parenting experience for the mother.

3.4 SUMMARY OF THE LITERATURE

In summary, the literature on maternal concerns appears to present differing research results ranking maternal concerns. Basically the overall major concerns in the first 6 weeks postpartum were feeding, bathing and crying. Differences in ranking of concerns could be attributed to inconsistent time intervals of the studies. The majority of the authors agreed that concerns were greatest in the first six weeks postpartum and should be dealt with at that time lending support to the importance of scheduling postpartum education when mothers are experiencing these concerns. Several studies, however, have indicated that nurses were not the primary resource persons possibly because nurses feel inadequately prepared or that they neglect the aspect of patient education with postpartum mothers (Adams, 1963; Sumner & Fritsch, 1977; Fillmore & Taylor, 1976). Co-ordination of teaching efforts in hospital and community were seen to facilitate more satisfying parental experiences and should be encouraged based on identification of learner needs by mothers. Interestingly prenatal classes did not decrease postpartum parental concerns (Brown, 1967; Fillmore & Taylor, 1976). This is an area requiring further study, perhaps concentrating on the effectiveness of prenatal classes specifically related to the process of education and not just content.

The literature review indicates quite strongly there is a problem with a lack of adequately prepared educators specifically in knowing 'how' to teach and recommends a workshop for nurses on the the process of education as a means to overcome this problem.

Chapter IV

CONCEPTUAL FRAMEWORK OF THE PRACTICUM

The practicum project used principles of adult education as its conceptual framework. These principles are useful in explaining the practicum emphasis on learner responsibility for participating in the use of professional services and information seeking. The nursing process is integrated into Principles of Adult Education. These concepts were utilized for their applicability and their familiarity to nurses.

Nurses have long recognized the right of clients of all ages to be both informed and active participants in care. One of the main principles of adult education is to give the client primary responsibility for personal health, with the nurse functioning in a consultative capacity. One of the fundamental objectives of adult education is the development of the patients themselves to the end that they, through their own initiative, may effectively identify and solve the various problems or concerns that they face.

Facilitating the learning experience for adults necessitates an understanding of adulthood in conjunction with the learning process. A leading learning theorist, Malcolm Knowles, uses the term andragogy to indicate the "art and science of helping adults learn" (Knowles, 1980, p.

43). Andragogy is based on four assumptions that illustrate some of the features of adulthood:

1. As a person matures her self-concept moves from one of a dependent personality toward one of a self-directing human being;
2. An adult accumulates a growing reservoir of experience, a rich resource for learning;
3. The readiness of an adult to learn is closely related to the developmental tasks of her social role; and
4. Adults are more problem-centered than subject-centered in learning (Knowles, 1980).

Adult educators should be constantly aware of the fact that their purpose is to effect change in what people understand, know, do and feel. According to Popiel (1973) it is important that educators understand that:

1. Adults learn best when they have a desire to learn, are motivated to learn, identify they have a need to learn and their learning package or materials is arranged in such a manner that the attraction to learning overcomes the resistance.
2. Adults learn best when they have clear goals and have been active in setting goals in response to their felt need.

3. Adults learn best when they put forth an effort to learn and actively participate in the learning process.
4. Adults learn best when they receive satisfaction from what they learn and the learning is meaningful to them (Popiel, 1973).

Adulthood is characterized by periods of stability and periods of change. Events or tasks that stimulate change offer the greatest potential for adult growth and development. Changes in a person's life usually lead the adult to seek out a learning situation to assist her to adapt. Interestingly, a recent study of over 1500 adults aged 25 years and older found that among the learners in the sample, 83 percent named some transition or event such as getting fired or promoted, or becoming a parent as the cause of their learning (Aslanian & Brickell, 1980). This period of heightened readiness has been referred to as a 'teachable moment' (Knox, 1977). This may indicate that new mothers are ready and willing to learn.

As complex human beings the adult patient/learner brings to the learning situation a combined set of emotional, physical, mental, and social characteristics that makes her unique. To learn the patient must be emotionally comfortable with the learning situation and learns best in a positive emotional climate where a positive self-image is maintained. Some patients may have physical limitations

such as reduced vision and/or hearing, and other health problems. These limitations along with ensuring a comfortable physical learning environment should be taken into account when planning patient education. Psychologically patients need to be receptive to learning and prefer learning to be problem centered rather than abstract. Socially each patient will be from different backgrounds, occupations, types of upbringing, ethnic heritages, etc. Each will have a different mix of experiences and previously formed perceptions of the learning environment and topic. This learner knowledge and experience is a valuable resource which may be utilized to facilitate learning. Ultimately it is the individuals responsibility to learn. Health educators can help or hinder the patients' attempts to learn. This depends on his/her assessment of the learner, educator preparation, and presentation and evaluation of the program material according to basic principles of adult learning (Draves, 1984).

The nursing process is utilized throughout the educational process and the two processes become one in the scheme of activities. This process is broken up into four components. The first component of the teaching/learning process is Assessment. In assessment the nurse educator identifies the patient's learning needs, willingness to learn, readiness to learn, and ability to learn utilizing

various sources of data from the client, nursing history, and medical records. The patient's intellectual ability, motor skills and feelings/values are also assessed at this time.

The second component of the teaching/learning process is Goal Setting or Planning. In goal setting, clear goals are set and stated in behavioral or measurable terms such as the learner will be able to: write, recite, identify, differentiate, apply, list, interpret and demonstrate what is to be learned. The learner and educator may set goals together but usually these are determined by the nurse. It is best if the content is presented in an informal manner with the sequence being determined by the learner. Significant others should be included in this process as deemed necessary. Time, place and date for teaching should be negotiated as well as plans discussed for inclusion of teaching aids such as audio-visual materials, and pamphlets.

The third component of the teaching/learning process is Implementation or Intervention. Implementation may occur over a period of days and may involve other health care professionals such as a nutritionist, a public health nurse, and a physiotherapist. This is the teaching itself and consideration should be given to: creating an appropriate teaching climate; summarization of learning, previous and current; keeping teaching simple and relevant; planning teaching around the patient's concerns; involving as many

patient senses as possible and significant others; relating teaching to assessment; teaching in a positive way reinforcing the positives and not the negatives; allowing time for practice if applicable, for example, diapering and baby bath; and observing the patient throughout teaching session for tiredness, disinterest, and confusion.

The fourth and final component of the teaching/learning process is Evaluation. Evaluation is a constant, ongoing process and not a separate entity from the total educational process. Evaluation should answer the question "How well did the teaching achieve the goals"? Changes in learner attitudes, knowledge, and behaviors are also evaluated. A built in means of evaluation in the teaching/learning process is documentation of this process. Documentation of what was learned further validates what teaching was done and is used as a communication tool among staff in the hospital and among hospital staff and community health staff. Evaluation is similar to assessment in that if the evaluative results are not favorable then the client needs to be reassessed and another plan developed, implemented and evaluated. The process of teaching/learning lends itself to the teaching/learning process as there are no constants and there is always need for reassessment of learner needs, either physical, emotional or mental.

This project relates to the conceptual framework in many ways (see figure 1 on page 49). An important component of

the project is the bedside checklist. This component acknowledges Knowles (1980) assumptions of adult learning by allowing the learner to be self-directed in checking off her learning needs; acknowledges her reservoir of experience and previous learning indicated by what has or has not been checked; is a quick assessment of the mother's readiness to learn which is indicated when she initiates use of the checklist; and allows the mother to cover specific problems/concerns/ questions rather than total subject matter. The checklist encourages the adult learner (mother) to actively participate in the process by utilization of the checklist. The bedside checklist is utilized by the nurse as primary data that is necessary for identification of the mother's needs, and willingness to learn as indicated by what is checked off and when it is checked off. In summary, the checklist facilitates the process of assessment and planning.

The project resource manual provides the nurse and the mother with an attractive, up to date consistent information package. The manual is utilized to assist in meeting the learning goals. Other materials, such as booklets distributed by various product companies like Johnson & Johnson for infant formula may be utilized, but the resource manual is the major reference.

The record of the maternal-infant learning component of the project provides documentation of what was learned by

the mothers. This component is critical to the evaluation element of the nursing process. It assists the nurse in reassessing teaching effectiveness and provides information necessary to evaluate and to reassess the situation. The bedside checklist also assists with the evaluative process by providing specific feedback from mothers with regards to the project itself and information on utilization of the materials.

In summary, patient education is viewed as part of a process with purposeful steps. The nurse educator learns that merely imparting information does not guarantee that learning will take place, that there is a need to utilize the process of education. The process used in the project encourages ongoing assessment and evaluation thereby providing feedback for redefining goals resulting in an alternate plan for intervention and evaluation. The plan resulting from assessment and evaluation is the framework for the educational process. The educational process along with principles of adult education provide the framework for the practicum project.

Process of Patient Education		Tools Utilized to Facilitate Process
ASSESSMENT OF PATIENT		
Process:	Data Collected, categorized and sorted; needs and problems defined i.e. patient's readiness to learn, barriers to learning	Project Tools: bedside checklist Other: nursing history : client : medical records
Product:	Educational diagnosis	
Principle:	Adults learn best when they have a desire to learn & they have a need to learn	
GOAL SETTING		
Process:	Learning goals identified by the client & nurse & a plan developed	Project Tools: bedside checklist Other: client : significant others : legal guidelines (if applicable)
Product:	Statement of learning goals	
Principle:	Adults learn best with clear goals that they have been active in setting	
IMPLEMENTATION/INTERVENTION		
Process:	Implementation of learning activities to meet goals	Project Tools: Resource Manual Other: Audiovisual materials (bath demo, postpartum)
Product:	Learning activities	
Principle:	Adults learn best when resources are attractively presented to overcome any resistance to learning	
EVALUATION		
Process:	Continuous process by learner and teacher to determine if the learning goals have been met and consideration given to change teaching if required	Project Tools: Bedside checklist : Record of Maternal-infant Learning Other: oral feedback : patient progress record
Product:	Learning Accomplished	
Principle:	Adults learn best when they receive satisfaction from what they learn	

Figure 1: Process of Patient Education & Principles of Adult Education

Chapter V

CONCEPTUAL DEFINITIONS

Definitions are provided in this chapter to introduce the reader to terminology used throughout the practicum project. These definitions are based on interpretations of relevant concepts found in the literature.

Adult Learner

Mature individual over age 16 responsible for her/ his own learning. Knowles (1978) suggests that a person becomes an adult learner when s/he achieves self-direction or ceases to be a dependent personality.

Assessment

Process of collecting data systematically to identify accurately the needs and problems of patients and their families (Rankin & Duffy, 1983).

Consistent

Conforming regularly to the same patterns and principles.

Documentation

The process of recording on a patient's nursing record the objective facts pertinent to the process of patient education (Rankin & Duffy, 1983).

Educational Diagnosis

Definition of learning deficits or needs which includes identification of factors that inhibit or enhance specific health behaviors (Rankin & Duffy, 1983).

Evaluation

The process of determining the value of a specific activity or program; evaluation is a component of the process of patient education (Rankin & Duffy, 1983).

Goal

An aim or end toward which intervention is directed (Rankin & Duffy, 1983).

Goal Setting

Negotiation of learning goals between the nurse and the client (Rankin & Duffy, 1983).

Implementation

The act of fulfilling or accomplishing; as applied to patient education, implementation is the actual doing of the patient education, or the undertaking of patient-education programs (Rankin & Duffy, 1983).

Maternal-Infant Health Educators

Health professionals specifically nurses involved in patient education for the postpartum patient.

Multipara

A woman who has delivered more than one baby (Miller & Keane, 1978).

Needs Assessment

The process of assessing or determining the needs of persons, groups, organizations, or communities for the purpose of providing programs such as patient education (Rankin & Duffy, 1983).

Nursing Process

Problem-solving model used in nursing practice; includes assessment, nursing diagnosis, goal setting or planning, intervention, evaluation, and modification of patient care (Rankin & Duffy, 1983).

Patient Education

The process of influencing behavior producing changes in knowledge, attitudes, and skill required to maintain or improve health (Rankin & Duffy, 1983).

Patient Teaching

A component of the patient-education process; the activities by which the teacher helps the patient learn (Redman, 1984).

Postpartum

Refers to the six week period of physical restoration after giving birth (Miller & Keane, 1978).

Primipara

Refers to a woman who has given birth to her first infant (Miller & Keane, 1978).

Teaching-learning Theory

Assumptions about the process in which knowledge, attitudes, and skills are imparted to and integrated by the learner (Rankin & Duffy, 1983).

Chapter VI

METHODOLOGY

6.1 PHASE I - PROJECT PLANNING

In planning for this project the original St. Joseph's Hospital program and the pilot program in Winnipeg were analyzed and adapted and are referred to in this project as parent programs. The components of the parent programs and their functions are presented briefly to assist the reader to obtain an understanding of the basis on which the project was planned.

6.1.1 Project Setting

The maternal-infant education project was implemented at the General Hospital of Port Arthur (PAGH) which is located in the city of Thunder Bay, Ontario. Thunder Bay has a metropolitan population of 125,000 based on the 1984 census. The major industries are pulp and paper mills, fishing, and grain processing and shipping with a multitude of secondary industries. The city area encompasses 156 square miles including waterlots.

The PAGH is one of three acute care hospitals within the community and one of two providing maternal-infant care

services. The PAGH is a 209 bed capacity hospital practicing primary nursing. The maternal-infant area consists of 27 maternity beds, three labor rooms and three delivery rooms. There are 31 bassinets and seven Intensive Care Nursery (modified level III) bassinets. The maternity and delivery room staff and nursery staff total approximately 54 part-time and full-time nurses with 25 percent of these nurses having a degree in nursing and 50 percent of the total staff having completed a Neonatal Intensive Care Course. General staff meetings are held one to two times/year. Consultation between nursery and maternity primary care nurses occurs daily with these staff discussing patients twice weekly with a public health nurse. There are three head nurses, one for the maternity floor, one for the delivery and labor room area and one for the nursery area. The head nurses meet informally daily and formally once weekly. There is also a perinatal committee comprised of obstetricians, pediatricians, maternal-infant head nurses and the assistant director of nursing. This committee meets once monthly.

6.1.2 Assumptions and Limitations

The maternal-infant education project was planned with an awareness of several assumptions and limitations considered self-evident or tentatively established by earlier research. These assumptions and limitations were taken into consideration when planning. They are:

Assumptions

1. The project corresponds with PAGH philosophy.
2. The birth of a baby may be a learning stimulus for parents.
3. Interventions conducted by hospital staff can effect behaviors which promote health (i.e. close maternal-infant attachments, maintenance of breastfeeding, proper infant nutrition).
4. Staff nurses, physicians and community educators may recognize the value of the project and materials and utilize the resource manual.
5. Health educators will teach the patient what the patient wants to know or has identified as her needs.
6. The project will promote ongoing inter-agency liaison thereby increasing efficiency and effectiveness of maternal-infant visiting.
7. Parents are ready and capable of learning in the hospital postpartum period.
8. Postpartum mothers are adult learners.
9. Health educators will be receptive to learning principles of adult education.
10. The health educators are receptive to being part of a maternal-infant education project.
11. The maternal-infant education project may encourage use of consistent information among health educators in hospital and community.

12. The community health nurse educators may learn principles of adult education and utilize maternal-infant education information to encourage continuity of information.

Limitations

1. Time was limited for the initiation of the maternal-infant education project and inservice workshop for staff.
2. Preparation of inservice workshop materials and maternal-infant resource packages for implementation was very time and manpower consuming.

6.1.3 Review/Revision of Postpartum Education Information Parent Programs

The materials utilized by the parent programs were developed utilizing advisory committees consisting of senior nursing administrative and nursing education representatives from the hospitals and health units involved respectively. The parent programs also utilized a project team which was the primary support group during the implementation process. This team basically consisted of a representative from all disciplines such as social work, physiotherapy, medicine, and nursing. The project team was chaired by a representative from the advisory committee ensuring continuity between the two committees. Both programs

stressed the need for a sense of program 'ownership' and encouraged adaptation of materials to meet specific community or agency needs.

PAGH Material Revisions

The materials that were utilized by the maternal-infant nurses at PAGH were updated and reviewed to ensure comprehensiveness of information. Input of ideas and information from the maternal-infant nurses and administrative personnel was encouraged throughout the review and revision of materials and development of the maternal-infant education project. Implementation becomes much easier when the "grass roots" feel that they have participated in the process of development. This was facilitated by identification of individuals for an advisory team and a project co-ordinator.

The project advisory team consisted of an interdisciplinary group of health professionals working directly in the maternal-infant unit. The team included the three head nurses from each maternal-infant area, an administrative representative (the assistant director of nursing), a maternal-infant staff nurse, and occasionally a maternal-infant nurse and a liaison community health nurse. This team was the primary support group during the implementation of the project. Their functions were to: review the project and its resources to ensure that they

were consistent with the PAGH philosophy; authorize policy changes necessary to implement the project; and inform key individuals of program and policy changes. The project advisory team met weekly for five months with the project co-ordinator. The materials were also reviewed by other appropriate professionals including Health Unit nutritionist, and immunization and sexuality nurses; PAGH social worker, respiratory technologist; and pediatricians, obstetricians, and general practitioners affiliated with PAGH as well as selected mothers.

The project co-ordinator was responsible for organizing, planning, implementing and evaluating the project; communicating and interpreting the project to the staff; conducting inservice training workshops for staff to assist them to develop their skills as adult educators and to introduce them to the revised project materials. The co-ordinator was a member of the project advisory team. Much of the success of the project depended on the project co-ordinator. The author was the project co-ordinator for the maternal-infant education project.

Due to limited resource personnel at PAGH and the local public health unit's hesitancy at total commitment to this project, at the present time, the project advisory team was the sole team involved replacing the original project team and advisory committee in the parent program.

6.1.4 Development of Bedside Checklist

Parent Programs Checklist

The parent programs utilized a list of commonly asked questions (103 questions for the St. Joseph's program and 172 questions for the Manitoba program) which was given to mothers on their first postpartum day. The mothers were asked to indicate by checking which questions they wished discussed. The nurse then initialled beside the question when the information had been taught.

PAGH Checklist

The PAGH checklist consists of 195 questions categorized according to specific information headings i.e. Diet and Exercise, Baby Care (refer to Appendix C for a sample page). The checklist is given to the mothers during their first postpartum day. The mothers place a checkmark and date beside the appropriate question that they would like specific information on. Such a system of checkmarks, beside items of concern, provided by the mother allows for individualization of patient teaching. The patient educator cannot make patients learn something that they do not recognize the need to learn. Thus the bedside checklist is a means of assessing learning needs that the patient has identified. The checklist is referred to regularly by the primary nurse and the checked item is initialed and dated by the nurse when the mother has been taught the requested

health information. The date assists in evaluating the time period that the mothers are requesting specific information (this indicates when maternal concerns are arising) and when their learning needs are being met. The checklist is an 8 1/2 by 11 inch format stapled along the left side in booklet format. The last page requests specific information of the mother. One side is completed by the mother in hospital and the other side is completed by the mother at home (Refer to Appendix D for the PAGH bedside checklist statistical pages). Information was requested for statistical purposes regarding baby including: date of birth, sex, weight, breast or formula fed, rooming in; regarding mother: age, marital status, language, education, employment status, primiparous or multiparous, attendance at prenatal classes, discharge date, date of first public health nurse visit and whether this visit was routine or referral. These bedside checklists are taken home with the mother and collected at some point after six weeks postpartum for evaluation of the project. The checklists are collected from doctor's offices by hospital courier. If they are not left with the doctors the public health nurses may request these booklets from the mothers at their first routine visit following the mothers first six weeks postpartum. Mothers are also invited to bring the booklets into PAGH. Mothers are advised of this process on the instruction sheet attached to the front of the checklist.

Changes in Checklist

There are some differences in the parent programs' checklist and the PAGH checklist. These are: 1) the inclusion of a date column for patient and nurse. This is to provide data pertaining to the time period that concerns are arising and response of staff to these concerns; 2) addition of 91 questions. This information was suggested and added by the project advisory team and co-ordinator who determined the information would be valuable to patients and staff; 3) the title of 'Bedside Checklist' and not 'Patient Questionnaire' as 'questionnaire' may indicate that the patients are being evaluated; 4) statistical information page to provide information to assist in planning for project revisions. For example, if the mean educational level of mothers is grade eight and if the materials are evaluated at a grade nine reading level, revisions of materials may be necessary; and 5) collection of booklets at six weeks or thereafter to obtain data for analysis to assist with project revisions.

6.1.5 Resource Manual

Parent Programs Resource Manual

St. Joseph's Hospital program utilized 5 inch by 8 inch cards for their resource materials. Winnipeg incorporated the resource material into a Nurse's Reference Manual using the Cerlox binding mechanism. Winnipeg added key topic areas to their materials and hired a professional editor for the materials following the development of the content. The materials for both programs were only intended as a resource for hospital nurses and public health nurses. Information deemed important for distribution to patients were called 'information sheets' and covered the following topics: jaundice, freezing breast milk, circumcision, bathing, cord care, information especially for grandparents, rooming in, postnatal exercises, information for the single parent; cesarean section/birth; formula preparation; and making your home safe for children. The resource manual was arranged categorically utilizing topics such as My Body - Breasts, My Body - Perineal Area or My Baby - Feeding, My Baby - Baby Care. Each question was numbered with each section starting a new series of numbers.

PAGH Project Resource Manual

PAGH maternal-infant original materials previously consisted of two booklets that contained extensive information in paragraph form with some pictorial

presentations. These materials were on 8 1/2 inch white paper stapled in one corner. The first booklet was titled 'Care of Mother' and the second booklet was titled 'Care of Baby'. These indexed booklets, along with a bibliography of local library materials, were contained in a a blue hospital folder and given to the mother during her hospital stay. The mothers' nurse would at some time before discharge sit down with the mother and go through the materials cover to cover ensuring the materials had been discussed. These materials, developed over a two year period, were in use since September, 1983.

The revised PAGH maternal-infant health information resource manual is arranged categorically to correspond with the bedside checklist (refer to Appendix E for a sample page). This provides for a systematic conveyance of required health information. Color coding of the health information categories (i.e. Care of Mother information are on blue paper and Care of Baby items are on pink paper) and photographs enhances this material. The questions are on 8 1/2 by 11 inch page format and these pages are stapled along the left margin in booklet format. The questions are numbered consecutively from 1-195 for easy reference and the pages are numbered. The manual contains a Table of Contents highlighting each main category of information. An index is included utilizing page numbers, not question numbers, for reference (refer to Appendix F for resource manual table of contents).

The detailed teaching resource manual was designed to have two distinct benefits:

1. staff nurses are more relaxed and effective in teaching interactions since content is accurate and readily available, and
2. the same facts are consistently given to all patients eliminating incongruous information being taught. According to Fralic (1976), this has been found to be a positive factor in physician acceptance since they know what the patients have been told.

The resource manuals are utilized by the maternal-infant nurses to respond to the mothers' identified questions that have been checked off in the bedside checklist. Upon discharge the mothers receive the resource manuals to take home with them. These manuals are not given previous to discharge as this may prevent the mother from identifying her learning needs and effective use of the teaching/learning process by the nurses.

Materials are selected to augment and update the knowledge of the nurse/educator and to present consistent content to the patient/learner. All materials selected are accurate, consistent and interesting.

Changes in Resource Manual

Differences noted between the parent programs resource manual and PAGH resource manual are: 1) the PAGH manual is distributed to patients whereas the parent programs manuals are for staff use only. Originally the PAGH resources had been distributed and the project advisory team of PAGH felt strongly about continuing this practice; 2) the PAGH manual is more extensive than the original parent programs manual; 3) the format was changed such as continuous numbering of questions and pages, color coding of sections and the addition of an index and pictorials. The resource materials were shared informally with various professionals in the hospital and community prior to implementation to assess and evaluate the content for accuracy and appropriateness and so forth. Rationale for this strategy is that if most personnel has something invested in the final product they may feel a stronger commitment to its implementation. The maternal-infant nurses were given the opportunity to evaluate and respond to the materials as well. Their inclusion was particularly important as they, along with the mothers, are the main users of the materials.

6.1.6 Information Sheets

As mentioned previously in the Resource Manual section, the parent programs distributed information sheets to mothers. This specific sheet component is not a part of the

PAGH project as the information was integrated into the total PAGH resource manual which is distributed to mothers as a total package when they are discharged from hospital.

6.1.7 Record of Maternal-Infant Learning

Parent Programs

The parent programs utilized a 'Record of Patient Learning' form which in Winnipeg was printed on no carbon required paper to facilitate communication between the hospital and the public health department . The format of this record was arranged in topics according to corresponding question categories in the questionnaire for parents. There is a column for nurses to initial and date when information is taught and a similar column when information is assessed as learned. A key to assessment of learning was provided encompassing five categories. There is a section to be checked if the form was mailed or information phoned to the public health nurse as well as a data gathering section for such information as the mother's attendance at prenatal classes, type of delivery and so on. Space was left for two other sections. One space for 'Special Factors' and one for 'Additional Comments'.

PAGH Record of Maternal-Infant Learning

The PAGH form along with guidelines for completion was developed in a checklist format in triplicate (white copy

for mothers chart, pink copy for baby's chart and yellow copy for community health nursing) on no carbon required paper (refer to Appendix G). The record of maternal-infant learning is utilized to document postpartum patient teaching and learning to facilitate communication between the hospital nursing staff and the community health nurse. The nurse indicates teaching completed with date and initials in the teaching column. Under the learning column the nurse dates and initials learning assessed using a key. The key indicates whether materials were learned, need reinforcement or problems noted with learning. If learning problems are noted, these are discussed in the patient progress notes. Space is provided for additional comments. The use of this form is supported by Syred (1981) who states it is naive to assume that intensive patient education in hospital will enable the patient to assimilate information in a limited time period. Syred recommends a need for liaison and co-operation between hospital and community staff so that the patient receives a constant and consistent educational message. Whitehouse (1979) also comments that in order to have an effective educational program there must be continuity in the method and in the information that is being taught.

Changes in Record of Maternal-Infant Learning

Changes made to the Record of Patient Learning for PAGH were: 1) utilization of triplicate no carbon paper copies

rather than the duplicate copy. Three copies facilitated PAGH procedure for patient discharge and transfer of information; 2) reduction in key categories for assessment of learning from five categories to three categories for simplification; 3) deletion of section for checking off public health receipt of information as it was felt this was self-evident; 4) deletion of data gathering section as this information was available and conveyed elsewhere; and 5) deletion of the special factors section as the additional comments section would also be utilized for special factors.

6.1.8 Colouring Book

This component of the parent programs has not been fully developed for PAGH. The purpose of the coloring book is to facilitate sibling adjustment to the new baby. It is an excellent concept and will be pursued at a later date.

6.1.9 Slide Tape Shows

The slide tape show component of materials on breastfeeding is also an excellent concept but not planned for integration at this point. Several audiovisual resources are being previewed and will be utilized in the project at a later date. The maternal-infant nurses utilize two video cassettes at present. One is for the postpartum mother and the other covers the baby bath.

6.1.10 Questionnaires

Parent Programs Questionnaires

Two questionnaires were utilized for nurses. The first questionnaire was comprised of 18 statements and these statements were responded to by circling one of five categories: strongly agree, agree, uncertain, disagree, and disagree strongly. The statements pertained to knowledge, attitude and behavior about the maternal-infant content area. The questionnaire was administered to the nurses of the hospital or agency that participated in the program prior to the workshop presentation for the same nurses. Six months following the workshop presentation and program implementation the second questionnaire was administered. It consisted of the same 18 statements on the first questionnaire plus an additional 22 statements. Purpose of the questionnaires was to evaluate staff change in knowledge, attitudes and behavior following program implementation as well as to obtain feedback regarding the workshop and program.

PAGH Project Questionnaires

In planning the PAGH questionnaires, the parent programs questionnaires were utilized with some changes. The response categories were reduced from five to three and consisted of agree, uncertain, and disagree (for simplicity of analysis). For the first questionnaire the original 18

statements were included and the questionnaire was labeled Questionnaire I (refer to Appendix H). The 19 additional statements were taken from the parent programs materials and questions as well as questions developed specifically for PAGH. An added component to Questionnaire I was an open-ended statement encouraging nurses to respond to suggested changes in the maternal-infant materials. The PAGH nurses were also asked to check off the area they worked in: nursery; postpartum; or labour and delivery. The nurses in the postpartum and labour and delivery area checked both areas and, therefore, were categorized as postpartum thereby leaving the two categories, postpartum and nursery.

The second questionnaire referred to in the PAGH project as Questionnaire II, is a new Questionnaire designed for use in the workshop for immediate post-workshop feedback (refer to Appendix I). Questionnaire II contains eight statements that are responded to with the same three categories utilized in Questionnaire I plus space provided for 'additional comments'. The purpose of this questionnaire was to evaluate attitudes and changes in attitude as well as evaluation of the workshop presentation and instructor.

The third questionnaire, referred to as Questionnaire III, is similar to the second questionnaire of the parent programs and has the same purpose (refer to Appendix J). The statements are the same 37 statements from Questionnaire I plus 22 additional statements comprised of statements from

Questionnaire II and newly developed statements. There is also space provided for 'additional comments'. The suggested time for administration of this questionnaire is six months following project implementation.

Changes in Questionnaires

Many of these changes have already been discussed. The main change in the Questionnaires is the addition of Questionnaire II for immediate post-workshop completion. Other evident differences are the additional statements in the two main questionnaires and the deletion of two response categories.

6.1.11 Readability Tests

The parent programs materials were intended for staff reference only except for the 'Patient Information Sheets'. These sheets as discussed above contained information to be given to the patient to support the nurses teaching of topics that required a considerable amount of specific information.

In planning for distribution of all PAGH resource materials the project co-ordinator deemed it was necessary to determine the readability level of these resources to ascertain their suitability for the client. Two readability tests were utilized for this process.

The first test utilized was Fry's Readability Graph (Fry, 1977). In the Fry technique the average number of syllables and the number of sentences in three one hundred word samples are calculated. These figures are then used as coordinates and their intersection on Fry's Readability Graph indicates the approximate grade level of the passage.

The second test utilized was the Flesch Reading Ease Formula (Flesch, 1949). In the Flesch technique the syllables in a passage that has approximately 100 words are counted. Then the words per sentence are calculated by counting the number of total words per passage and dividing by the number of sentences in the passage. These two figures are then located on the Flesch Scale with words per sentence on the left scale and syllables per hundred words on the right scale. The points on the two scales are connected and their point of intersection indicates the Reading Ease Score of the passage.

Twelve, 100 word passages were selected as samples for testing. Seven of the twelve samples were samples of material taken from the parent programs 'Patient Information Sheets' that were integrated into PAGH resources. Rationale for these particular materials being selected was to determine the level of readability of the information that was distributed to patients by the parent programs. The samples were tested individually then the individual test results were averaged to obtain one averaged Fry Readability

Level and averaged Flesch Score Level. The specific samples utilized consisted of an extensive amount of raw data and were not considered appropriate to include in this report.

6.2 PHASE II - PRE-IMPLEMENTATION

The pre-implementation phase included administration of the pre-workshop questionnaire I to the maternal-infant nurses and a workshop for maternal-infant nurses with completion of an immediate post-workshop questionnaire.

6.2.1 Administration of Questionnaire I

Questionnaire I was administered to the maternal-infant nurses at PAGH approximately two weeks prior to the workshop for the nurses. The feedback questionnaire contained 37 statements and one open ended question. The questionnaire was distributed by the respective head nurses to 54 maternal-infant nurses. The maternal-infant nurses were requested to complete and return the questionnaire to the PAGH nursing office within 48 hours and advised not to identify themselves on the questionnaire. The purpose of this questionnaire was to assess the maternal-infant nurses knowledge, attitudes and behavior about maternal-infant information as well as to provide information to assist the project co-ordinator in planning the workshop. Questionnaire I was pre-tested on four nurses prior to utilization. Three of these nurses were maternal-infant

nurses and one administrative nurse. Due to potential for sample contamination the questionnaire was not administered to any other representative respondents, that is, the maternal-infant nurses.

6.2.2 Workshop for Maternal-Infant Nurses

Implementation for change requires adequate planning. Included in this was education of the maternal-infant nurses. These nurses were educated by an inservice session for full and part-time staff. The objectives of the workshop were to introduce the maternal-infant nurses to the revised maternal-infant educational packages and to teach the maternal-infant nurses concepts of adult education and the educational process. The inservice workshop agenda utilized in the sessions is found in Appendix K.

This process of providing the maternal-infant nurses with concepts of adult education and the educational process as well as an introduction to the project resources took two hours. The time frame and inservice were planned in collaboration with the project advisory team and utilized data obtained from Questionnaire I. The workshops were held on the evening of Monday June 23, the afternoon of Tuesday June 24, and the morning of June 25. Thirty-two nurses out of the total maternal-infant staff of fifty-four attended. Sixteen attended from the postpartum area and sixteen from the nursery area. The nurses were paid for two hours if

they attended during scheduled off time. The last workshop on June 25th was videotaped. The videotape will be used for orientation of new staff and for staff who did not attend the workshop. At the end of the workshop the nurses completed Questionnaire II which was used to evaluate the workshop presentation and also assessed the nurses' changes in attitude towards implementation of a new maternal-infant educational information.

The parent programs considered the workshop a vital element of their programs. The inservice/workshop contained an introduction to the content and implementation process and a review of adult education principles. Their recommended time for this process was two and a half to three hours on adult education and one to one and a half on the program and its implementation, but their inservice was changed to a total session of three hours. Participation in the inservices was open to all hospital maternal-infant and public health nurses.

In summary, the three changes made in the parent programs workshop and the PAGH project workshop were the time allotted for presentation of information, use of the immediate workshop Questionnaire II by PAGH, and the lack of public health nurse involvement in the PAGH project.

6.3 PHASE III - IMPLEMENTATION

Implementation of the PAGH project is an ongoing process. The project is still in its infancy, at the time of writing this report, and has only been in operation a few days. The project for the maternal-infant unit of PAGH will be in effect six months prior to final review.

The materials were distributed to the maternal-infant unit at the PAGH during the first week of August. The record of maternal-infant learning and resource materials were distributed to the maternal-infant nurses prior to implementation. This allowed the nurses time to read the materials and familiarize themselves with the information and utilize the bedside checklist, resource manual and specifically the record of maternal-infant learning. These resources were also distributed to the local health unit for their reference. The head nurses involved with use of the materials at PAGH met with the project co-ordinator prior to distribution of materials to determine the appropriate sequence of events necessary for the implementation. The need for the resources to be printed off in such large quantities (500) was a significant factor in delaying implementation. Problems will be dealt with as they arise and attempts made to resolve them constructively. Documentation of the progress has been encouraged to keep everyone informed.

6.4 PHASE IV - EVALUATION OF THE POSTPARTUM EDUCATION PROJECT

Extensive project evaluation was an important aspect of the maternal-infant education project and required extensive planning and consideration by all involved in the project. Organizational resistance to change is often less if consideration is given to involvement of all echelons within the hierarchy in the planning and if the power structure has given support (Braden & Herban, 1976). Administration at PAGH fully supported the project and involvement from various levels from within the hospital was obtained.

Professional health educators concern themselves with a larger structure whose main components are planning, methodology, and evaluation. Planning gives health education its overall program/project direction. Methodology was based on a body of knowledge and skills, and was the means by which the project was carried out. Evaluation was a constant, ongoing process and not a separate entity from the total process. Evaluation is discussed in the next three subsections under the headings process evaluation, summative evaluation, and ongoing evaluation.

6.4.1 Process Evaluation

Process evaluation is the gathering of data necessary in the decision making process that occurs during the planning, development and implementation of a project (Bell & Bell, 1979). The data gathered are used in planning the next phase. The data are assessed and judgements made in regards to whether the plan should continue or be changed depending on the feedback obtained. Evaluation of the project components is presented next.

6.4.1.1 Review and Revision of Postpartum Information

Included in the review of the project are the project components 'Record of Maternal-Infant Learning', 'Resource Manual' and 'Bedside Checklist'.

The evaluative process occured over a five month period entailing weekly meetings of the project co-ordinator and the project advisory team. Extensive review and revision of the materials were necessary for PAGH to have a sense of 'ownership' and to ensure that the materials were appropriate and acceptable to the professionals and mothers who would use them. Important for this sense of 'ownership' was the inclusion of the Evaluation forms for professional and non-professional(mother) completion (refer to Appendices L and M for these forms).

The materials and evaluation forms were distributed to approximately 35 professionals including four public health nurses, approximately 15 physicians, a nutritionist, an inservice education instructor and maternal-infant nurses. Seven mothers received the evaluation form for mothers. The seven mothers consisted of a variety of mothers including a single mother, a nurse, a housewife, an older mother, first time mothers and second time mothers as well as women who had vaginal birth's and cesarean birth's. Ten evaluations were returned by the professionals. The evaluations were distributed while the physicians were participating in a province wide strike with regards to extra billing. The reduced number of evaluation returns may possibly be attributed to the political climate and the strike during this time period. Four evaluations were returned by the mothers.

Results of the evaluation returns by the professionals indicated that: the resource is lengthy but an excellent home reference; the resource looks far too detailed for the average mother; the size of the package may intimidate some people; the package is comprehensive and the color coding is nice. These comments are not unexpected as the resource is a significant number of pages and this may lead some professionals to think of it as intimidating but when the resource materials are given out after the mother has identified and had answers to some of her concerns prior to

discharge, she is not feeling as overwhelmed. The professionals utilized the evaluation form and a small minority (20 percent) thought that the materials did not utilize language common to the target group, that the materials were not clear with simple organization, and that the materials did not utilize point form instead of lengthy paragraphs. The majority (90-100 percent) responded favorably to the other categories.

The mothers did not make any specific comments to the evaluation but all four responded that the information was easy to understand, and that the information was useful. They indicated that there were no words or answers that they did not understand. Perhaps there may have been comments if there had been a category for this on their evaluation similar to the format used for the professionals. Three of the mothers who returned the evaluations also completed the statistical information section. All three mothers were primiparas, and had attended prenatal classes. Two of the three had completed high school with the third having completed five years of University. All three were in the 21 to 25 age bracket and had selected to breastfeed, and had worked during the pregnancy and planned to return to work. All three were married and were English speaking. One piece of information that was not indicated by the mothers on these sheets was whether they had a vaginal delivery or a cesarean birth. A category for this information was added to the form.

There were minor typographical errors in the resources and some information needed to be updated such as the emergency telephone number and the hospital telephone number which had changed in the few weeks that the materials were being previewed. This quick change further emphasized the need for any educational materials to be updated frequently. The use of the stapled booklets allows for changes of this sort. It has been recommended that supplies of the booklets be adequate to meet the needs projected for one to two months, and no longer, to permit changes to be made to materials without having to use outdated materials or destroy them which would be an expensive waste. The other change that was made to the materials prior to implementation was the inclusion of a question on crib safety. This question had been discussed for inclusion but was overlooked in the compilation of the booklets.

6.4.1.2 Questionnaires

Questionnaire I

The purpose of Questionnaire I was to obtain baseline data pertaining to nurses' knowledge, attitudes and behaviors as an indication of content necessary to include in the 'Workshop for Nurses'. Questionnaire I was completed by 95 percent of the eligible maternal-infant nurses. Analysis of the questionnaire is in rounded percentages. Responses of the maternal-infant nurses were analyzed for

the nursery nurses and the postpartum nurses respectively in percentages for each of the three categories plus total percentages for all the maternal-infant nurses.

Basically there were some overt differences in response between the two categories of nurses. Initially, in item number three, 28 percent of the nursery nurses and 48 percent of the postpartum nurses responded that public health nurses provide important postpartum teaching. Public health nurses deal most often with postpartum nurses than nursery nurses, therefore the public health nurses role may be recognized more by the postpartum nurses than the nursery nurses. Overall only 38 percent of the maternal-infant nurses felt that public health nurses provide important postpartum teaching.

None of the nursery nurses and 17 percent of the postpartum nurses responded to item eight that rectal temperatures should be taken daily during a baby's stay in hospital. This may indicate inconsistency in knowledge, or lack of knowledge, among the nurses. This inconsistency of information sharing and knowledge is supported in item six where 49 percent of the maternal-infant nurses responded that mothers are given <u>different</u> information in response to the same question by nurses on the unit. Differences in response to the items referring to knowledge were also noted for items fourteen, fifteen, seventeen, twenty-two, and twenty-seven. This supports the problem statement that

there is inconsistency of information being given to patients and that there is a need for inservice and the use of consistent materials to assist with this problem.

Response of the nurses to item thirteen 'Teaching is an important part of my job' was agreed to by 100 percent of the nurses. Fifty percent of the nurses felt adequately prepared to teach their patients (item 31) and 69 percent of the nurses indicated they understand principles of adult education (item 32). Interestingly 71 percent of these same nurses considered that they use principles of adult education (item 33). Only 30 percent of the nurses indicated they usually have enough time to adequately teach their patients (item 34) indicating this is an identified barrier to teaching for these nurses. According to Questionnaire I, 48 percent of the nurses indicated that they 'always correctly complete the record of patient learning' (item 37), but only 22 percent also indicated that these records are always correctly completed on their unit (item 35)!

The maternal-infant nurses comments in response to the open ended question "If you think changes are needed, what changes would you suggest" were favourable. Suggestions were made to: have a booklet with more colorful illustrations; combine the 'Care of Mother' booklet and 'Care of Baby' booklet into one booklet; use a checklist for patients indicating their learning needs; and give

information to patients that the patient requests. One comment suggested that the most effective teaching takes place by the nurse at the bedside.

In summary, Questionnaire I provided the information necessary for workshop planning as well as an indication of the maternal-infant nurses' knowledge, attitudes and behavior towards maternal-infant information. Generally some differences between the two groups were indicated but overall their responses indicated that there was a need for material revisions including a way to ensure information is consistently given and meets the needs of the client as identified by the client.

Questionnaire II

This questionnaire will be discussed under the 'Workshop for Nurses' section.

Questionnaire III

Questionnaire III cannot be evaluated at this time as this questionnaire will not be administered until six months post project implementation. At that time Questionnaire I and III will be analyzed to determine changes in attitude, knowledge and behavior of the maternal-infant nurses. This information will provide data to determine the need for ongoing inservice sessions for staff and determine project effectiveness.

In summary, if the questionnaires were used again changes to certain items in the Questionnaires would be made. Items would be changed to delete negative responses. For example, item four from questionnaire I would read 'Postpartum mothers (day 1, day 2) are able to learn'. The 'not' would be deleted. There were only a few statements falling into this category but their rewording would eliminate confusion and possible inaccurate responses.

6.4.1.3 Workshop for Nurses

The workshops for nurses required extensive planning to provide comprehensive information. Overall the workshop was a success. Questionnaire II was administered immediately following the Workshop for Nurses and was completed by all workshop participants. Sixteen nurses from the nursery and 16 nurses from the postpartum area comprising 32 maternal-infant nurses participated. Overall 88 percent of the nurses felt they had learned new material (item 1). Ninety-four percent felt that the maternal-infant education packages would be helpful to parents (item 2). Sixty-eight percent of the respondents felt that they could successfully implement a new maternal-infant education program on their unit (item 3) and 63 percent felt adequately prepared to teach this information to their patients (item 4). Eighty-one percent felt their involvement in the workshop was beneficial (item 5). In response to preparation of the instructor there was one hundred percent agreement that the instructor was well prepared (item 6) and 97 percent felt that the materials and information were clearly presented (item 7). Ninety-four percent felt that the project information would provide them with a useful teaching guideline (item 8).

The overall general response to the workshop was positive. Some comments indicated that: the program was a more practical means to teaching patients; the workshop was

very informative; the instructor was excellent; and that the workshop should be longer.

In evaluation of Questionnaire II, one change is recommended. An additional statement would be added. This statement for response by the nurses would state "I understand principles of adult education". Responses to this statement would provide the workshop presenter with immediate feedback pertaining to changes in nurses' knowledge/comprehension of the principles of adult education.

The workshop leader sensed some staff resistance to change during the workshop presentation. To decrease this resistance the maternal-infant nurses were invited and encouraged to evaluate the project materials utilizing the project evaluation form prior to implementation of the materials. Because anonymity was assured there is no way of ascertaining whether the nurses took advantage of the opportunity to evaluate and respond to the project materials. They reacted positively in the workshop to the option to respond.

In summary, the workshop fulfilled its objective of providing maternal-infant nurses with information to assist them in their roles as health educators to parents. Recommendations for future sessions would be: to increase the length of time for the workshop session; and to include

on Questionnaire II the evaluative statement 'I understand principles of adult education', and to determine the participants comprehension of the principles of adult education presented. Increased time for workshop presentation is recommended because the workshop agenda was completed, but time was limited for discussion. The evaluative statement for the nurses on Questionnaire II would be a self-assessment by the individual nurses on their understanding of the principles of adult education. Questionnaire III would provide an indication as the changes in the nurses knowledge pertaining to the principles of adult education after they had worked with the principles of adult education for six months.

6.4.1.4 Readability Tests

The readability tests were an evaluation tool used for the project materials. As indicated earlier, twelve, one hundred word samples of the materials were selected for evaluation of readability. The averaged Fry Readability Level for the twelve samples was a grade nine level. The averaged Flesch Scores for the twelve samples resulted in a reading ease score of 62 which according to Flesch is equivalent to grade eight to nine. Flesch compares this material to material found in 'Reader's Digest' magazine or 'Time' magazine (Flesch, 1949, p. 177-8). The averaged

grade level indicated basically that the reader with a grade eight to nine reading level would be able to comprehend most of the materials.

A question that may arise would be 'What is the reading level of the target group'? There are methods available to determine the reading level of individuals but these methods require considerable subject and evaluator time, are tedious and can be difficult to use and the evaluator should have experience with the techniques. Based on these reasons, these tests were not carried out with any mothers at this time. Educational levels, ascertained from the statistical information sheets from the back of the bedside checklist, will be used as general indicators of an averaged grade level of the mothers utilizing the maternal-infant project materials. According to Redman (1984), the assumption that persons read at the level of their completed formal education is not necessarily correct; however, Redman further states that the educational level may be the best available indicator of reading level.

6.4.2 Summative Evaluation

Evaluation was an integral and essential component of the project from its inception because of the need to work with limited resources, to clearly identify problems; plan for efficient services that included effective utilization of personnel; co-ordinate activities to avoid unnecessary

duplication of services; and to use language that could be understood by those utilizing the maternal-infant information.

Summary to this point indicates the response to the project of the maternal-infant nurses and the mothers is positive. The four project objectives were met. These were providing parents with consistent updated health information during the postpartum period; providing maternal-infant nurses with inservice information; providing community health nurses with written documentation of information learned by the parents and providing for ongoing evaluation of the project. There are certain minor organizational problems at this point such as inappropriate color coding of resource manual sections, and inappropriate compilation of materials (for example sequencing of pages, stapling), but these problems are trivial and can be easily overcome.

6.4.3 Ongoing Evaluation

One of the project objectives was to 'foster ongoing evaluation of the maternal-infant education project'. This objective is fulfilled by the bedside checklist with the statistical questionnaire and six evaluative statements. This component of the project allows for continual project evaluation by utilization of the data obtained from these bedside checklists. This information is valuable in determining the target group and their utilization of the

materials. Also determined will be the days during the postpartum period when concerns are arising and the types of concerns that cluster at particular postpartum days. The evaluation stage of this project is still in progress.

Chapter VII

DISCUSSION

This chapter is arranged in five sections for organizational clarity. They are: general discussion of project; project recommendations; implications of project for research; project summary and project conclusions.

7.1 GENERAL DISCUSSION OF THE PROJECT

The maternal-infant education project, with its many components, is a comprehensive project in that its organization allows for important information and insights to be exchanged between mother and attending nurse. The times of information requests from the mother are crucial in that the mother has both the opportunity and the encouragement to inform her nurse about what it is she wants to know. The nurse, on the other hand, learns when during the fourth trimester the mother wants to know something and is encouraged to provide that information when it is requested according to sound andragogical principles learned previously in a special workshop provided. In particular, participation in the project provides both the client and the educator with continued and controlled opportunities to request and provide relevant information about maternal-

infant concerns, a means of documenting information learned and fosters ongoing evaluation of the educational process and project. The information obtained from the questionnaire administered to the nurses coincided with the literature reports which stated that there is a lack of consistent health care information among nurses and that health educators feel inadequately prepared to teach. The project focused upon two particular issues, namely that mothers identify information they want to know and that nurses provide the information to the mothers according to andragogical principles.

According to the literature, nurses should be familiar with and utilize principles of adult education to fulfill adequately their role as health educators. The workshop for maternal-infant nurses provided insight into a means of teaching new mothers by using established andragogical principles. Principles and methodology of patient education, appropriate maternal-infant educational content and specific barriers to patient education along with the andragogical principles of adult education were presented during the workshop to assist the maternal-infant nurses to prepare for their roles as educators. It was encouraging to find that the maternal-infant nurses seemed genuinely receptive to both the content and the methodology presented. The nurses expressed concern, however, about the lack of time available to teach and their own knowledge of how to

teach. These expressions supported both the findings of Questionnaire I and the literature that nurses feel they neither know how to teach nor have the time to do so while on ward duty.

The maternal-infant nurses expressed particular concern with certain problem situations that arise with mothers such as a mother who asks no questions or a mother who asks numerous questions or is especially demanding. Such problem situations and others suggested were discussed during the workshop and suggestions were provided to the nurses on how to deal with such problems. The nurses expressed concern about conflict situations with other nurses, in providing patient education. Examples of identified inter-nurse conflicts include: the nurse who is "too busy" to teach, the nurse who teaches what s/he thinks "should be taught" or the nurse who believes the best way to teach is by showing a movie or handing out a brochure. Suggestions on different options on how to deal with such situations were provided by the project coordinator in the workshop. Situations such as these are to be expected when there is a new educational program being introduced. From experience in this project the author provided the following suggestions: 1) that nurses team up with another nurse who is comfortable with teaching to observe other teaching techniques, 2) that the nurse practice using a written plan of care to assist in planning use of time, 3) the nurse review and use

principles of adult education to become familiar with and comfortable with these principles and 4) that the nurse recognize his/her role as a facilitator of learning and delegate some of the responsibility of learning to the patient in the use of the bedside checklist and utilization of other resources.

The literature on maternal concerns indicates that concerns vary from mother to mother and that mothers identify different sources of assistance according to their preferences. The main implications of such studies on the maternal-infant education for this project seem to be: 1) that provision should be made for mothers to identify their own individual concerns and 2) that mothers should receive assistance from appropriate sources such as maternal-infant nurses and public health nurses, at the teachable moment when the assistance is genuinely requested. The literature indicates that nurses are not identified as primary sources of assistance and, somewhat surprisingly, husbands are able to claim this role. Perhaps this project, supported by the components especially designed to enhance the available skills and abilities of the attending nurses may increase the nurses' credibility in providing consistent health education and the nurse may be utilized as a primary source of assistance. The majority of studies reported in the literature indicate that maternal concerns in the first four weeks have been prioritized differently by mothers depending

on the time the study was completed. The project has attempted to cover all the mother's concerns reported in the literature as well as other concerns identified by the project advisory group and the mothers and professionals who evaluated the project materials. One step which does not appear to be mentioned in the literature and which was used in this project is the inclusion of the date column in the bedside checklist for completion by mothers. This column was used to indicate not only which concerns are prevalent among mothers in Thunder Bay but when these concerns arise. Hopefully, this information will prove beneficial in future revisions of the materials.

Included in the statistical information section of the bedside checklist is an indication of when the first postpartum public health nurse visit was made. This is in response to indications that visits should be made prior to 21 days postpartum (Donaldson, 1977; O'Connell, 1976). The availability of the date of the public health nurse's visit may provide important insights concerning the timing of the visits and the date that concerns were noted by the mothers. Resultant insights could, in turn, be utilized by the health unit in making staffing arrangements. But staffing arrangements by health units are not the only issues involved with maternal-infant cases. It is well known that public health nurses have many responsibilities in the community, such as maternal-infant home visiting, planning

for and implementing school health educational programs, health monitoring and counselling of students and senior citizens. Many variables are involved when a public health nurse plans his/her visit to new mothers. Examples of variables to be considered include: prior commitments at a school (eg. for immunization), a home or school visit for an unexpected case of a communicable disease, or an important meeting pertaining to health unit matters. In fact, the nurse may be on vacation or sick leave. In such a case it is unlikely, due to budget restraints, that s/he has been replaced. Taking these factors into consideration it is possible that, for one reason or another, public health nurses may not be visiting the mothers within the first 21 days postpartum when the majority of maternal-infant concerns arise! It is important to know that the health unit policy in Thunder Bay is to visit all first-time mothers once in the first two weeks postpartum, once again in the next two months, make a telephone visit at nine months and visit around 18 months postpartum. For the second child the public health nurse visits once in the first two months postpartum and once again at 18 months. For three children or more the public health nurse visits only when referred by a health care professional or the mother and/or her family and friends. This visiting schedule is much more frequent than those of other health units. However, if visits are not being made early enough in the postpartum period the effectiveness of these visits may be decreased.

In addition to providing potentially helpful information concerning home visits at home, the bedside checklist seems to provide particular benefits to both mother and nurse during the hospital stay. The bedside checklist component of the project prompts the mothers to ask questions which are used as indicators to the nurse educator that the patient is ready and willing to learn. The indication by the mother of a particular concern helps to overcome barrier number seven as indicated by both Winslow (1976) and Woodrow (1979), namely that learning needs are not indicated by the learner.

Bull and Lawrence (1984) stressed the importance of the coordination of teaching. By coordination of teaching they mean that the teaching that is initiated in the hospital be continued at home. This situation is addressed in the project by the 'Record of Maternal-Infant Learning'. Coordination of teaching is another barrier to learning mentioned in the literature. The Record of Maternal-Infant Learning was found in this project to assist in coordinating teaching. One particular benefit of the Record of Maternal-Infant Learning found in this project was its use as a communication tool between maternal-infant nurses and public health nurses. Observed benefits to communication between mothers and both maternal-infant and public health nurses included material that was covered and material left to be covered by a nurse. This information prevented the nurses

from duplicating teaching and thereby provided them with time to spend on other teaching or on other tasks with the mother.

Facilitation of learning for adults is intended as a focus throughout the maternal-infant project. The use of the bedside checklist assists the nurse in the conduct of the educational process expected of her. The patient is able to initiate the learning process by checking on the bedside checklist the questions she wants answered. By doing so she indicates her willingness and readiness to learn. The checked off item is but one indication of the information the mother wants to know or her learning need. Other indications may be solicited through conversation and questioning. The checking off process assists the nurse in identifying the teaching opportunity. It remains for the nurse educator to assess the patient's ability to learn taking into consideration her physical, mental and emotional state. The patient is considered an adult learner and is encouraged to participate actively in the educational process by utilizing the bedside checklist. The nurse can then assist the mother to learn by using real and substitute experiences to produce learning. The nurse, depending on the learning assessment, will utilize appropriate resources. Learning resources selected by the nurse will depend on the nurse's perception of the mother's skill in reading, in following directions from written sources, and in

interpreting diagrams, or performing parenting skills such as bathing the baby and taking the baby's temperature. Assessment of whether learning has occured is critical and can be accomplished satisfactorily by observation of the mothers behavior and by oral questioning of the mother by the nurse to determine whether or not learning has occured and to the level (criterion) set either overtly or covertly by the nurse for that particular mother.

Difficulties might arise in the use of the bedside checklist. Nurses may not use the checklist as a teaching guideline as s/he may be uncomfortable with the patient identifying her own specific learning needs. The nurse, if not accustomed to practicing the principles of adult education, may want to control the teaching process by planning the content herself. The nurse may want to control the content so that s/he will never have to teach about things that make him/her uncomfortable (for example, sexuality). The nurse may need a particular structure for teaching, for example only after meals or when other duties have been completed and may find it difficult to modify an approach to different patients. Conversely, s/he may not like the change in the teaching process because s/he prefers the way, 'it has always been done', which the nurse considers the 'best' way. Such situations could be handled by having the principles of adult education effectively reviewed with the nurse and by encouraging the nurse to

consider different strategies to become more patient-centered. Activities, such as planning learning activities with the patient, if conscientiously and genuinely adopted by the nurse would be almost certain, according to the literature and practicum results to facilitate patient learning. But what of possible problems encountered in the use of the bedside checklist?

Two particular problems may arise with the mother's use of the bedside checklist. One problem is that the mother may not ask any questions or seek information. There may be various reasons for not asking questions. The mother may be shy, young or quiet. The mother may not be able to read well or possibly, not at all. The mother may feel that she lacks a knowledge base sufficiently extensive to ask 'appropriate' questions about child care. Alternatively, the mother might simply not be curious enough to think of or to ask related questions. Finally, the mother might have had some type of negative experience with health professionals or she might think she already has sufficient knowledge. The latter type of mother will hopefully, be encouraged to try new or different practices and to ask questions. Ideally, such practice and her stated needs should be supported. An opposite situation could occur where a mother checks off every question. Such a mother may want to be well prepared or she may feel overly anxious, worried or insecure. This situation could be handled by

dealing with what the mother is anxious about at the time. According to the project plan, this type of mother will be assessed for retention of material learned during the period of education. If there appears to be difficulty with learning a 'support person' may need to be involved in the teaching process. Such a 'support person' could be a public health nurse or other community health professional. Part of the task involved in the supportive role would include evaluating the mothers ability and readiness to learn as well as identifying barriers to learning taking into consideration home environmental factors possibly having impact on the learning situation. Follow-up support such as a visit from a public health nurse may need to be arranged early in the post discharge period. The typical kind of support to be expected from a public health nurse would include coordination of support services for the mother and acting as a resource person for the mother.

A final type of potential problem which will be considered here is that which is encountered with the project materials. One such problem or concern lies with the distribution and utilization of the resource manual by the nurses. To illustrate a potential distribution problem consider the following problem of teaching around the patient's concerns. Teaching should be kept simple and relevant and teaching should be related to the assessed needs of the patient. Distributing the resource manual to

the patient initially in the postpartum may actually prevent a thorough assessment of the patient's readiness to learn because reading the manual too early may discourage the patient from actively identifying her learning needs. The needs may be suspected concerns and as a result, may hinder or prevent co-operative planning designed to meet the needs of the patient. The needs may be suspected by the nurse to be present but may remain unspecified by the mother. Data may be needed to determine how nurses are using the project resource manual. Are the resources being distributed to the mothers early postpartum or just prior to discharge as recommended? Are the nurses just going down the list of questions and answering all the questions without using the bedside checklists as indicators of what the mother's want to know? Consideration of these questions is essential if the project concepts of adult education and the educational process are to be maintained. Attending to these questions results in the practicum emphasis on the learner being responsible for participating in the use of professional services and information seeking.

In summary, this section has provided general discussion of the project. The main points emphasized were: 1) the advantages of using the bedside checklist by nurses and mothers; 2) potential problem situations with mothers and nurses with the educational process and their solutions; 3) a means by which concerns of mothers are identified in

Thunder Bay and the postpartum days during which these concerns arise; 4) identification from the bedside checklist of the date(s) when the public health nurse visit(s) within the 21 days postpartum; 5) the importance of supplying the maternal-infant and public health nurses with consistent maternal-infant information to enable them to be an appropriate resource for the mother; 6) the focus on andragogical principles of learning and 7) the potential problems with distribution and utilization of the resource materials by the maternal-infant nurses.

Following a consideration of the project's main issues, recommendations stemming from the project which might be considered by a project coordinator replicating or extending this project are presented in the next section.

7.2 PROJECT RECOMMENDATIONS

The following recommendations are made, with the realization that further data are needed to substantiate them, and with the intent that they may give useful leads for further investigation.

The recommendations fall logically, into three fairly distinct subsections. The first subsection contains 10 recommendations and all are related to the evaluation of this project. The second subsection of 11 statements is intended to be of assistance to those who initiate projects

similar to the one described here. There may be some overlap in categories because certain activities are required in more than one phase.

7.2.1 Recommendations For Ongoing Evaluation of the Project

As with any project, evaluation is ongoing and it is important that certain factors be considered in continuing with the process of evaluation. The following recommendations will assist the project coordinator and advisory team to continue with their efforts of evaluating the PAGH project.

1. That the structure of the project be maintained for the first six months post-implementation to provide for effective evaluation as planned.
2. That the project advisory team be maintained to deal with ongoing project concerns and plan for the six month evaluation.
3. That the number of live births be documented to provide a comparison number with the number of bedside checklists returned. If returns are low, consideration may need to be given to the mode of collection of the bedside checklists.
4. That throughout the period of the project, ongoing inservice education of maternal-infant nurses be provided on the principles of adult education to

motivate and further educate them in the understanding, the internalization and the utilization of these principles.

5. That the record of maternal-infant learning be audited periodically, for example, monthly, to determine effective utilization of this form by staff. Documentation is a professional responsibility and monitoring is essential to assess effectiveness. Accurate utilization by nurses may need to be rewarded more substantially or more frequently if effective patient education is to be accomplished.
6. That the form currently used by staff to record learning and the new form found in Appendix G be evaluated to determine if duplication of recording is occuring. Staff expressed concern with the generation of a "new piece of paper" when the new resources were implemented. For example, the bedside checklist is dated and initialed by the nurse as is the record of maternal-infant learning. This is the recommended procedure in the project. Staff may resist recording in two areas. Frequent checks of the records used to record learning may indicate if there is any resistance and provide data for evaluation for this procedure.
7. That a form be developed for public health nurses, to enable them to provide the project coordinator with

evaluations of the usefulness, readability and completeness of the project resources and the project process.

8. That voluntary inservice sessions be provided for public health nurses for two purposes, to introduce them to both the project and to the principles of adult education.
9. That the health unit should be provided with the project resources as a reference to assist them in becoming familiar with the information that the maternal-infant nurses are using to teach the mothers so that the public health nurses are prepared to provide similar information to maintain consistency.
10. That estimates of costs for distribution of the project resources to all mothers be calculated for consideration by the PAGH advisory group in evaluating cost effectiveness of continuing to distribute the project resource manual.

7.2.2 Recommendations For Initiating Similiar Projects

1. That communications with the parent programs be maintained to inform them of project outcomes as well as to learn of new developments or recommendations of the parent programs that may have impact on future planning. Contact personnel of the parent programs will be advised of the outcomes of the PAGH project.

2. That adequate time (usually 6-8 months) be set aside for needs assessment and initial planning for an organized, coordinated project such as this project (refer to appendix N for Project Progress Chart).
3. That project responsibility for initial planning be designated to a project coordinator with the understanding that this person will need to devote almost full-time attention to the project. The person designated to this role will need administrative support in the form of granting secretarial assistance, photocopying, office space and accepting the coordinator's need and ability to function in an independent role. There is a need for the project coordinator to set aside a significant block of time (6-8 months) to meet the project objectives. That is, a total of from 12-16 months for the entire project should be available.
4. That the project coordinator and project advisory team members be the same persons throughout the process to encourage continuity of efforts and understanding of project objectives.
5. That the time frame (progress chart) be adhered to as closely as possible. Although certain difficulties may be encountered in the initiation of a project of this calibre, one should also expect to confront difficulties in terminating certain phases of an ongoing project. The former type may be experienced

by the project coordinator, particularly if this person is external to the agency.

6. That estimates of costs of planning, implementing and conducting the project, including the continued distribution of the project resource manual to all mothers, be presented to the agency concerned for the consideration of cost effectiveness.
7. That the public health unit be encouraged to participate actively as an equal partner with the hospital agency to enhance communication and increase chances of continuity of care and consistency of information.
8. That the program be promoted through prenatal classes and by physicians.
9. That strong consideration be given to having the resource materials edited, copied and bound professionally.
10. That the planning process include careful consideration of other agency projects and responsibilities being planned or occuring during the same phase. Recognition of the reality of competition for funds, staff time, vacation periods, and illness are necessary to consider in the planning phase.
11. That significant others such as partners or parents be included in infant care teaching sessions and that classes or teaching sessions be provided at times to accommodate the attendance of significant others.

7.2.3 General Project Recommendations

1. That other approaches to learning such as the use of small groups of mothers for informal teaching be implemented and evaluated for their effectiveness. Mothers can learn from each other as well as from nurses.
2. That the maternal-infant unit be adequately staffed to facilitate the introduction of the new maternal-infant project resources which, initially, require increased staff time.
3. That additional graphic illustrations be used in the resources. Examples may include diagrams of birth control methods and recommended equipment such as cribs and cradles.
4. That resource materials be provided to the educational institutions for use as references for nursing students.

Following a consideration of the main issues and recommendations of the project certain implications for research are indicated and are presented in the next section.

7.3 IMPLICATIONS OF THE PROJECT FOR RESEARCH

Implications of the project for research are:

1. It is reasonable to expect that public public health nurses will be questioned by mothers who take home the resource materials and bedside checklist. Investigations are required to answer the question of whether or not public health nursing visits have changed in quality and/or quantity following the implementation of the project.
2. The reading levels of the mothers need to be determined more precisely, possibly by more extensive testing of the mothers and by administering established, normed reading measures. If the reading ability is found to be more limited than is assumed, the printed material available as resources may lack the appeal of other forms of communication. If lower than anticipated reading levels are detected alternative methods of teaching such as the use of audiovisual resources may need to be developed and implemented.
3. That the project be conducted with a sample of maternal-infant hospital nurses and public health nurses from one hospital and one health unit to serve as a control group and a similar number of nurses at another hospital and health unit to be the target group (a practice already being considered by some

maternal-infant nursing programs). A similar control could be used for public health nurses. This would provide for comparative analysis of a group and its process and may indicate whether indicated changes in the nurses' attitudes, knowledge and behavior were incidental or the result of the project effects.

4. That closer analysis of the responses to the questionnaire's statements may provide data for further investigation. Comparison of responses among groups of the maternal-infant nurses and the public health nurses may provide useful information for the agencies involved. Descriptive data from the nurses responding to these questionnaires would provide useful information such as age, basic nursing preparation, degrees held beyond basic preparation, working toward a degree, years experience as a maternal-infant nurse, and/or experience as a public health nurse. Attitudes and behaviors to postpartum education of maternal-infant nurses and public health nurses may be indicated on these questionnaires.

7.4 PROJECT SUMMARY

The PAGH maternal-infant education project was developed based on the need for a revised postpartum education program found in parent institutions in Winnipeg and Hamilton. Project objectives were established as follows: 1) to

assist maternal-infant nurses develop feelings of competence as health educators to new parents; 2) to provide parents with accurate, consistent, accessible information; 3) to provide community health nurses with written documentation of information learned by the parents and 4) to foster ongoing evaluation of the maternal-infant education project. These objectives were met by the use of a bedside checklist and resource manual developed specifically for PAGH. The extent of success attained was determined, in part, through the use of a record of maternal-infant learning. The maternal-infant nurses were provided via workshop with information on both content and andragogical learning principles to assist them in their roles as educators. Ongoing evaluation of learning is fostered through the use of the bedside checklist, record of maternal-infant learning and a questionnaire administered six months post-implementation.

7.5 PROJECT CONCLUSIONS

The need for individualized maternal-infant education is indicated in the literature on adult learning principles. Because the concerns/needs between mothers in the postpartum are so different due to a variety of factors such as the number of children the mother has or whether the mother has a significant other(partner) for support, the mothers' level of interest and her knowledge and experience concerning

maternal-infant information should both be assessed carefully in order to identify the learning objectives which may be reached through patient centered andragogical learning processes. Such educational processes require of the nurse; time, skill, and judgement. Educational demands like these on nurses require that nursing administration should support and encourage patient centered education not only by ensuring adequate staffing but by financial and personnel support as well.

Written information, inservice education and supportive collaboration are components essential to making positive changes in maternal-infant education services. No one set of records, resources or support services will, on their own, facilitate progress in education services. Coordination and utilization of these components will be required for lasting change to occur. Continued efforts are also needed to improve communication between the postpartum nurses and nursery nurses and the public health nurses. A copy of the project report is planned to be distributed to key members in the hospital and the health unit in order to inform them of the outcomes of the project evaluation to date and to use as a guideline in planning for continuing evaluation and implementation of the project and its' components.

Resistance to change was experienced at all levels of the maternal-infant nursing staff, but overall the nurses

indicated verbally their interest and support of the project. An increased recognition occured for the value of the project. The project advisory team members had full schedules yet made time to meet on a regular basis. The project coordinator was grateful for their support and interest.

Some difficulty was encountered in finding a common meeting time for project members due to varying vacation periods, work schedules and so forth. This caused minor project delays and may have caused some feelings of anxiety and feeling "left out", and fears of not accomplishing a goal. Differences in philosophies and priorities existed, but commonalities in approach were found to facilitate the project process.

In conclusion, the seven month project at PAGH has provided significant learning experiences for the project coordinator. A project such as this is open, dynamic and exciting hard work. The most important principle was to involve those who will be affected by the project. Project involvement has served to generate further the belief that collaboration between hospital units (nursery and postpartum) and between hospital and the health unit hold potential for the advancement of improved maternal-infant care practices.

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THE GENERAL HOSPITAL OF PORT ARTHUR
460 NORTH COURT STREET, THUNDER BAY, ONTARIO P7A 4X6

November 22, 1985

Ms. Heather Jessup-McGrath
923 Beaverbrook Street
Winnipeg, Manitoba
R3N 1P2

Dear Heather:

This is to confirm our agreement to conduct your proposed practicum experience on 5 West of The General Hospital of Port Arthur in Thunder Bay, Ontario.

Individuals selected for the Steering Committee include:

-- June Brown, Head Nurse, Ante/Post-Partum
-- Judith Burns, Head Nurse, Labour/Delivery
-- Joan Biggs, Head Nurse, Nursery
-- Elsie DiBlasio, Assistant Director of Nursing
-- Representative, Thunder Bay Public Health Unit

We can provide access to secretarial assistance, photocopying services, a word processor and office space.

Heather, we are extremely pleased that you have selected our Hospital for your project as it will assist us in developing and improving our existing patient education program to better meet the individual needs of our patients.

We look forward to working with you.

Sincerely,

E. DiBlasio

Mrs. E. DiBlasio
Assistant Director of Nursing

ED/el

Health and Welfare Canada
Santé et Bien-être social Canada

Health Services and Promotion Branch
Direction générale des services et de la promotion de la santé

Your file Votre référence

22 November 1985

Our file Notre référence

Ms. Heather Jessup-McGrath
923 Beaverbrook Street
WINNIPEG, Manitoba
R3N 1P2

Dear Heather:

Please excuse the delay in answering your letter. I have been extremely busy with the Post-Partum Program's revisions.

I gather from your letter that you have a copy of the Post-Partum Program's materials. I have no difficulty with you adapting some of the resources to meet the needs of the community. What I do require, however, is that the structure of the program remain intact.

I would be most anxious to be kept informed of the program's progress in Thunder Bay.

Good Luck!

Yours sincerely,

C. Brand
for

Carolyn Harrison
Program Officer
Family and Child Health Unit

BEDSIDE CHECKLIST SAMPLE PAGE

Parent(s) Column			Nurse's Column	
Date	Check		Initial	Date
		Of Special Interest to Bottlefeeding Mothers		
_____	☐	71. Are there special techniques that I should know about bottlefeeding?	_____	_____
_____	☐	72. How do I prepare formula?	_____	_____
_____	☐	73. What type of formula should I use?	_____	_____
_____	☐	74. How long should I continue to formula-feed my baby?	_____	_____
_____	☐	75. How often and how much should I feed my baby?	_____	_____
_____	☐	76. What kinds of bottles and nipples should I use?	_____	_____
_____	☐	77. How should I hold my baby while feeding him/her?	_____	_____
_____	☐	78. Is it all right to put my baby down with a bottle?	_____	_____
		MY BABY - FEEDING - GENERAL		
_____	☐	79. Why, when and how do I burp my baby?	_____	_____
_____	☐	80. Should I be concerned about my baby spitting-up/vomiting?	_____	_____
_____	☐	81. Is it possible to overfeed my baby?	_____	_____
_____	☐	82. When can I introduce cow's milk rather than breastmilk or formula?	_____	_____
_____	☐	83. When do I start my baby on solid foods?	_____	_____
_____	☐	84. May I use a microwave to heat formula/solids?	_____	_____
_____	☐	85. In what order should I introduce solid foods?	_____	_____
_____	☐	86. Should I make baby foods or should I buy commercial products?	_____	_____
_____	☐	87. What guidelines should I follow to make baby foods?	_____	_____
_____	☐	88. Can I freeze baby foods?	_____	_____
_____	☐	89. What foods are best when my baby is teething?	_____	_____

Appendix D

BEDSIDE CHECKLIST INFORMATION SHEETS

TO BE COMPLETED BY MOTHER IN HOSPITAL

Information Re: BABY:

Date of Birth: _____ Weight: _____

Sex: Male ☐ Female ☐ Rooming In: yes ☐ No ☐

Information Re: MOTHER:

Age: Under 15 ☐ 15-20 ☐ 21-25 ☐

26-30 ☐ 31-40 ☐ over 40 ☐

Marital Status:

Single ☐ Married ☐ Widowed ☐ Separated ☐ Divorced ☐ Common Law ☐

Language: Eng. ☐ French ☐ Other ☐ --Specify _____

Education Completed:

Elementary ☐ grade ____ College ☐ No. of years ____

High school ☐ grade ____ University ☐ No. of years ____

Working During Pregnancy: No ☐ Yes ☐

Returning to Work: No ☐ Yes ☐

No. of Children at Home: _____ (Children you have delivered)

Attended Prenatal Classes: No ☐ Yes ☐

This Pregnancy: No ☐ Yes ☐ If yes - where _____

how many 1-2 ☐ 3-4 ☐ 5-6 ☐

Breastfeeding: No ☐ Yes ☐

Previous Experience Breastfeeding: ☐

Cesarean Birth: ☐ Vaginal Delivery ☐

Discharge Date from Hospital: _____

Your responses to the following questions will assist us in determining how satisfied you are with the teaching you have received since having your baby.

For each statement, please indicate by circling if you:

Agree (A), are Uncertain (U), or Disagree (D)

1.	I received consistent (the same) answers to the questions I asked the maternal-infant nurses.	A	U	D
2.	The nurses gave directions too fast.	A	U	D
3.	The nurses explained things in simple language.	A	U	D
4.	The nurses used my bedside checklist to tell them what questions I wanted answered.	A	U	D
5.	The nurses answered all the questions I asked.	A	U	D

TO BE COMPLETED BY MOTHER AT HOME

Date of First Public Health Nurse Visit: _____

Routine Visit ☐ Visit Request of Mother ☐ Other ☐

Specify _____
(ie. Doctor referral)

Please leave this checklist booklet with your doctor at your six-week check-up! If not left with your doctor, your Public Health nurse may collect it. Please don't destroy.

Your responses to the following questions will assist us in determining how satisfied you are with the teaching you have received since having your baby.

For each statement, please indicate by circling if you:

Agree (A), are Uncertain (U), or Disagree (D)

1.	The maternal-infant information is easy to understand.	A	U	D
2.	There are words in the maternal-infant information that I do not understand.	A	U	D
3.	The maternal-infant information helped me talk to my partner.	A	U	D
4.	The maternal-infant information helped me talk with a health care professional (ie. nurse, doctor).	A	U	D
5.	The maternal-infant information that I received is useful.	A	U	D
6.	The checklist prompted me to ask for information that I was not aware I needed to know.	A	U	D

Appendix E

RESOURCE MANUAL SAMPLE PAGE

77. How should I hold my baby while feeding him/her?

This should be a happy and relaxed time for you both. Whether you are sitting or lying, be certain that you are comfortable and that your baby is positioned safely and securely. Change your baby's diaper before feeding.

1. Position your baby upright, cradled in your arm.
2. To prevent your baby from swallowing air, tilt the bottle so that formula is filling the nipple.
3. Hold your baby close to you so that there is "eye to eye" contact.
4. Change your baby's position from one side to the other to enhance the use of his/her eyes and for equal eye stimulation.
5. Cuddle your baby, smile and talk to him/her - show your baby that you enjoy his/her responses.

78. Is it all right to "put down" my baby with a bottle?

Absolutely not for the following Reasons:

1. When your baby is young, s/he can choke on the formula and get milk in his/her air passages and lungs.
2. Even when s/he can hold the bottle, leaving your baby in his/her crib with milk or juice can cause tooth decay from these fluids always being in their mouth.
3. It is not only dangerous but unfair to your baby as s/he enjoys the closeness, comfort and security of being held when fed.
4. Ear infections are more common in babies who are fed with the bottle propped.

Appendix F

RESOURCE MANUAL TABLE OF CONTENTS

RECORD OF MATERNAL-INFANT LEARNING

THE GENERAL HOSPITAL OF PORT ARTHUR

AREA OF LEARNING	TEACHER: DATE OF TEACHING / INITIALS	KEY	ASSESSOR: DATE LEARNING ASSESSED / INITIALS
MY BODY - BREASTS			
ENGORGEMENT			
NIPPLE CARE			
EXPRESSION			
BREAST SELF-EXAM			
MY BODY - PERINEUM			
PERICARE: HOSPITAL			
HOME			
LOCHIA			
INVOLUTION			
AFTER PAINS			
MY BODY - GENERAL			
EXERCISE			
DIET			
REST			
CESAREAN BIRTH			
COMFORT/POSITIONS			
CARE OF INCISION			
PARENTHOOD			
RELATIONS: BABY			
PARTNER			
FAMILY & FRIENDS			
FAMILY PLANNING			
RESUMING INTERCOURSE			
POSTPARTUM BLUES			
RETURN TO WORK			

AREA OF LEARNING	TEACHER: DATE OF TEACHING / INITIALS	KEY	ASSESSOR: DATE LEARNING ASSESSED / INITIALS
MY BABY - FEEDING			
MILK PRODUCTION			
POSITIONING			
FREQUENCY/DURATION			
BURPING			
FORMULA/PREPARATION			
WEANING			
SOLID FOOD			
BABY CARE			
BATH/CORD/CLOTHES			
STOOLS			
JAUNDICE			
RASHES			
TEMP./SICK BABY			
BABY AT HOME			
ENVIRONMENT			
DEVELOPMENT			
IMMUNIZATION			
SAFETY/CAR SEATS			
OTHER LEARNING NEEDS			
FILMS			
POSTPARTUM			
BABY BATH DEMO			

KEY TO ASSESSMENT OF LEARNING

L - LEARNED R - REINFORCEMENT NEEDED *SEE PATIENT PROGRESS RECORD

ADDITIONAL COMMENTS RE: LEARNING

White Copy - Mother's Chart Yellow Copy - Public Health Pink Copy - Baby's Chart

NS-211 N168-LEHTO

Appendix G

GUIDELINES FOR COMPLETING RECORD OF MATERNAL-INFANT LEARNING

Purpose

To document postpartum patient teaching and learning. To facilitate communication between the hospital nursing staff and the community health nurse regarding the patient's level of understanding.

Procedure

Teacher Column - indicate teaching completed with date and initials.

Assessor Column - indicate learning assessed with date and initials.
- indicate learning assessment by L or R in the Key column (as per Key code)

If problem encountered with learning mark * (see Patient Progress Record - Care Plan) in the KEY column because a follow-up nursing note is expected regarding the specific learning problem assessed.

Additional teaching which is not included on the form may be indicated by including under OTHER LEARNING NEEDS. Other learning needs may refer to circumcision, triple diapering, etc.

ADDITIONAL COMMENTS may include other significant information which is important to consider in patient teaching/learning.

eg. newborn admitted to Intensive Care Nursery
inadequate or unavailable support system
social or financial problems
parental age
guilt related to less than perfect child or prematurity
sensory-perceptual alterations related to overload
pain, fatigue
impaired verbal communication related to inability
to speak the language

NOTE:

All learning should be assessed as many new parents need information repeated more than once.
If the patient has not identified a learning need then this is the minimal teaching necessary to adequately prepare the patient before discharge.

Distribution

The record of Maternal-Infant Learning will be tacked on the bulletin board at the patient's bedside. The white copy is filed with the mother's chart, pink copy is filed on baby's chart, and the yellow copy is given to the Public Health Nurse during the first Public Health conference following discharge of mother and baby (kept on baby's chart if mother discharged first).

Appendix H

QUESTIONNAIRE I

DO NOT WRITE YOUR NAME OR OTHER IDENTIFYING MARK ON THIS FORM!
PLEASE COMPLETE FORM AND RETURN TO NURSING OFFICE WITHIN 48 HOURS!

Questionnaire I
for
Maternal-Infant Nurses of PAGH
for
Pre-Workshop Completion

Below are a few statements that describe how some nurses feel about the teaching component of postpartum care as well as some questions designed to learn how much information nurses have regarding postpartum care. PLEASE read each sentence carefully, then circle the answer that best describes what YOU THINK about each statement. Please answer ALL the items, taking care not to miss any. We are interested in your personal feelings about each statement. PLEASE COMPLETE THIS FORM INDEPENDENTLY. Completion of this form will take approximately ten minutes.

For each statement, please indicate by circling if you:
Agree (A), are Uncertain (U), or Disagree (D)

1.	Babies in hospital should be fed either breastmilk or formula every 4 hours.	A	U	D
2.	Babies (who will be breastfed) should be put to their mother's breast soon after delivery, condition permitting.	A	U	D
3.	Public Health Nurses provide important postpartum teaching.	A	U	D
4.	Postpartum mothers (day 1, day 2) are not able to learn.	A	U	D
5.	The hospital stay for postpartum patients is too short to bring about any real learning for mothers.	A	U	D
6.	Mothers are given <u>different</u> information in response to the same question by nurses on the unit.	A	U	D

7.	The information doctors tell their postpartum patients is confusing to the mothers.	A	U	D
8.	Rectal temperatures should be taken daily during a baby's stay in hospital.	A	U	D
9.	I do not need to improve my teaching skills.	A	U	D
10.	It's not safe to allow grandparents and siblings to hold the baby during the hospital stay.	A	U	D
11.	Babies should be returned to the Nursery in case they might cry.	A	U	D
12.	The mother is the best person to provide care for her baby.	A	U	D
13.	Teaching is an important part of my job.	A	U	D
14.	Babies are bathed daily while in hospital.	A	U	D
15.	Breastfeeding frequently with proper attachment of baby to nipple (every 2 hours) for shorter periods of time may help the problem of sore nipples.	A	U	D
16.	It is the doctor's responsibility to teach the postpartum mother about baby conditions such as jaundice.	A	U	D
17.	Breastfeeding babies require water while in hospital.	A	U	D
18.	It is recommended that mothers begin a weight reducing diet while breastfeeding.	A	U	D
19.	Discharge should be removed from a baby's eyes by wiping from outside to the inner corner of the eye.	A	U	D
20.	A baby's umbilical cord should be kept moist until it falls off.	A	U	D
21.	A bottlefed baby should be urged to finish every bottle.	A	U	D
22.	Bottlefed babies feed less often than breastfed babies.	A	U	D
23.	Babies should always be burped after feedings.	A	U	D

24.	Some neonatal jaundice is a normal occurrence in many newborns.	A	U	D
25.	Vaginal lubrication is reduced in the postpartum period which may make intercourse uncomfortable.	A	U	D
26.	Milk left in a bottle after the feeding could be saved and used for the next feeding.	A	U	D
27.	Postpartum blues are very uncommon in a mother's early postpartum days.	A	U	D
28.	My views are listened to by others on the unit.	A	U	D
29.	We can successfully implement a new postpartum program on this unit.	A	U	D
30.	The nurses on this unit support each other and work well together.	A	U	D
31.	I feel adequately prepared to teach maternal-infant information to my patients.	A	U	D
32.	I understand principles of adult education.	A	U	D
33.	I use principles of adult education when I teach my patients.	A	U	D
34.	I usually have enough time to adequately teach my patients.	A	U	D
35.	Records of patient teaching are always completed correctly on this unit.	A	U	D
36.	The postpartum information packages do not need to be changed or improved upon.	A	U	D
37.	I always correctly complete the record of patient teaching.	A	U	D

If you think changes are need, what changes would you suggest to improve maternal-infant teaching? (List here)

_____

_____

_____

_____

Please check area of work:

Nursery ____ Postpartum ____ Labour and Delivery ____

Appendix I

QUESTIONNAIRE II

DO NOT WRITE YOUR NAME OR OTHER IDENTIFYING MARK ON THIS FORM!

Staff Questionnaire II
for
Maternal-Infant Nurses at PAGH
for
Immediate Post-Workshop Completion

As part of our effort to evaluate the effectiveness of this workshop, we would appreciate your completing this questionnaire. For each statement, please indicate by circling if you:
Agree (A), are Uncertain (U), or Disagree (D)

1.	I have learned new material.	A	U	D
2.	Parents will find the maternal-infant information packages helpful.	A	U	D
3.	We can successfully implement a new maternal-infant education program on this unit.	A	U	D
4.	I feel adequately prepared to teach maternal-infant information to my patients.	A	U	D
5.	My involvement in this workshop was worth my time and effort.	A	U	D
6.	The workshop instructor was properly prepared.	A	U	D
7.	Materials and information were clearly presented.	A	U	D
8.	The maternal-infant education program information will provide me with a useful guideline for my teaching.	A	U	D

COMMENTS: _____

_____

Please check area of work:
Nursery ____ Postpartum ____ Labour and Delivery ____

Appendix J

QUESTIONNAIRE III

DO NOT WRITE YOUR NAME OR OTHER IDENTIFYING MARK ON THIS FORM!
PLEASE COMPLETE FORM AND RETURN TO NURSING OFFICE WITHIN 48 HOURS!

Staff Questionnaire III
for
Maternal-Infant Nurses at PAGH
for
Six Month Post-Workshop Completion

Please read each sentence carefully, then check the answer that best describes what YOU THINK about each statement. You may recognize many questions that were asked on Questionnaire I. Please answer all the items, taking care not to miss any. Completion of this form will take approximately 20 minutes.

For each statement, please indicate by circling if you:
Agree (A), are Uncertain (U), or Disagree (D)

1.	I have learned new material.	A	U	D
2.	I feel overwhelmed by the changes.	A	U	D
3.	I feel more confident teaching postpartum patients in small groups.	A	U	D
4.	I feel more confident teaching postpartum patients individually.	A	U	D
5.	I do more teaching now than before the revised maternal-infant education program.	A	U	D
6.	I do not have time to teach.	A	U	D
7.	I know the areas for which I need more information or practice.	A	U	D
8.	I am more likely to seek out material (resource information) to update my knowledge.	A	U	D
9.	I use maternal-infant education program resources to support my teaching.	A	U	D

10.	My attitudes and skills about teaching patients have changed.	A	U	D
11.	I am more likely to collaborate with nurses on other units ie. Intensive Care Nursery.	A	U	D
12.	I feel I am more aware about what my colleagues do with regards to teaching and direct care-giving.	A	U	D
13.	The question lists help mothers to ask questions.	A	U	D
14.	The resource material (answers) provide a useful guideline for my teaching.	A	U	D
15.	Parents will find the maternal-infant education program information packages helpful.	A	U	D
16.	I disagree with the content of some of the answers in the maternal-infant education program.	A	U	D
17.	A lot of the content in the maternal-infant education program is unfamiliar to me.	A	U	D
18.	I resented the in-service workshop session.	A	U	D
19.	It's worth my time and effort to use the maternal-infant education program materials.	A	U	D
20.	We received enough support during the implementation phase of the revised maternal-infant education program.	A	U	D
21.	The maternal-infant education program would be worthwhile in other hospitals.	A	U	D
22.	Babies in hospital should be fed either breastmilk or formula every 4 hours.	A	U	D
23.	Babies (who will be breastfed) should be put to their mother's breast soon after delivery, condition permitting.	A	U	D
24.	Public Health Nurses provide important postpartum teaching.	A	U	D
25.	Postpartum mothers (day 1, day 2) are not able to learn.	A	U	D

26.	The hospital stay for postpartum patients is too short to bring about any real learning for mothers.	A	U	D
27.	Mothers are given <u>different</u> information in response to the same question by nurses on the unit.	A	U	D
28.	The information doctors tell their postpartum patients is confusing to the mothers.	A	U	D
29.	<u>Rectal</u> temperatures should be taken daily during a baby's stay in hospital.	A	U	D
30.	I do not need to improve my teaching skills.	A	U	D
31.	It's not safe to allow grandparents and siblings to hold the baby during the hospital stay.	A	U	D
32.	Babies should be returned to the Nursery in case they might cry.	A	U	D
33.	The mother is the best person to provide care for her baby.	A	U	D
34.	Teaching is an important part of my job.	A	U	D
35.	Babies are bathed daily while in hospital.	A	U	D
36.	Breastfeeding frequently with proper attachment of baby to nipple (every 2 hours) for shorter periods of time may help the problem of sore nipples.	A	U	D
37.	It is the doctor's responsibility to teach the postpartum mother about baby conditions such as jaundice.	A	U	D
38.	Breastfeeding babies require water while in hospital.	A	U	D
39.	It is recommended that mothers begin a weight reducing diet while breastfeeding.	A	U	D
40.	Discharge should be removed from a baby's eyes by wiping from outside to the inner corner of the eye.	A	U	D
41.	A baby's umbilical cord should be kept moist until it falls off.	A	U	D

42.	A bottlefed baby should be urged to finish every bottle.	A	U	D
43.	Bottlefed babies feed less often than breastfed babies.	A	U	D
44.	Babies should always be burped after feedings.	A	U	D
45.	Some neonatal jaundice is a normal occurrence in many newborns.	A	U	D
46.	Vaginal lubrication is reduced in the postpartum period which may make intercourse uncomfortable.	A	U	D
47.	Milk left in a bottle after the feeding could be saved and used for the next feeding.	A	U	D
48.	Postpartum blues are very uncommon in a mother's early postpartum days.	A	U	D
49.	My views are listened to by others on the unit.	A	U	D
50.	We can successfully implement a new postpartum program on this unit.	A	U	D
51.	The nurses on this unit support each other and work well together.	A	U	D
52.	I feel adequately prepared to teach maternal-infant information to my patients.	A	U	D
53.	I understand principles of adult education.	A	U	D
54.	I use principles of adult education when I teach my patients.	A	U	D
55.	I usually have enough time to adequately teach my patients.	A	U	D
56.	Records of patient teaching are always completed correctly on this unit.	A	U	D
57.	The maternal-infant information packages do not need to be changed or improved upon.	A	U	D
58.	I always correctly complete the record of patient teaching.	A	U	D
59.	Did you complete Questionnaire I?	A	U	D

Additional Comments: _____

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Please check area of work:

Nursery ____ Postpartum ____ Labour and Delivery ___

Appendix K

WORKSHOP AGENDA

The inservice workshop session contained:

1. Introduction of group leader and participants
2. Why teaching is important
3. Patients Rights During the Teaching-Learning Process
4. Factors Nurses Identify as Interfering with Patient Teaching
5. Responsibilities of Maternal-Infant Nurses
6. Review of the Revised Maternal-Infant Education Materials
7. Adult Learning Principles
8. Implications for Adult Education
9. Learners Ability to Retain Information Studied
10. Attributes of an Effective Teacher of Adults
11. Nurses and Patient Education
12. Steps in the Educational Process
    Assessment, Planning, Implementation, Evaluation (Documentation)
13. Some Potential Problem Situations with Teaching Mothers
14. Some Potential Problem Situations with Nurses and Teaching
15. Common Mistakes Made When Attempting Patient Education
16. Question/Answer Period
17. Workshop Evaluation--Questionnaire II

Appendix L

EVALUATION BY PROFESSIONALS OF PRINTED PROJECT MATERIALS

Note:

You are not required to identify yourself on this evaluation. Should you wish to discuss your concerns with the evaluator, please do not not hesitate to do so.

For each statement, please indicate by circling if you:

Agree (A), are Uncertain (U), or Disagree (D)

Type size and style appropriate	A	U	D
Spacing between words and paragraphs appropriate	A	U	D
Contrast between ink and paper	A	U	D
Main points captured in captions and subtitles	A	U	D
Important ideas underlined	A	U	D
Utilization of point form instead of lengthy paragraphs	A	U	D
Interesting	A	U	D
Utilization of personal sentences i.e. you, your; not the, it, etc.	A	U	D
Utilization of nouns and pronouns which refer to both sexes	A	U	D
Utilizes language common to target group	A	U	D
Presents current and accurate information	A	U	D
Clear and simple organization	A	U	D
Material is unbiased	A	U	D
Material is comprehensive	A	U	D

Additional Comments:_____

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Important: If any of the above items are not clear, please circle the item and it will be reworded.

Appendix M

EVALUATION BY MOTHERS OF PRINTED PROJECT MATERIALS

For each statement, please answer by circling if you:

A (Agree), are U (Uncertain), or D (Disagree)

1.	The question/answer information given to you is easy to understand.	A	U	D
2.	There are words in the answers that I do not understand.	A	U	D
3.	I didn't understand some of the answers.	A	U	D
4.	The question/answer information would be useful.	A	U	D

APPENDIX N

THE GENERAL HOSPITAL OF PORT ARTHUR MATERNAL-INFANT PROJECT PROGRESS CHART

	1985	1986
Project Approval	October - December	
Adaptation of Resources		January - June
Drafts Prepared for Typing		April - June
Drafts Typed		May - June
Record of Maternal-Infant Learning Developed/Approved/Printed		April - June
Questionnaires Prepared/Approved		May - June
Draft Resources Printed		June
Readability Tests Completed on 12 Samples		June
Resources Reviewed by Professionals/ Non-Professionals		June - July
Questionnaire I Administered/ Analyzed		June
Nurses' Workshop Planned		June
Implementation of Workshop		June
Questionnaire II Administered/ Analyzed		June
Resource Evaluations Reviewed/ Collected/Analyzed		July
Suggested Resource Changes Typed		July
Revised Resources Printed		July
Project/Resources Implemented		July
Sample Bedside Checklists Collected for Analysis		July
Collection/Analysis of Bedside Checklists		July →
Administration/Collection/Analysis of Questionnaire III		December