PREPARING PARENTS TO CARE FOR THEIR NICU INFANT: AN EVIDENCE BASED DISCHARGE TEACHING TOOL

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the project and proposed journal article of JEAN MARIE SCHLITTENHART find it satisfactory and recommend that it be accepted.

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Preparing Parents to Care for Their NICU Infant: An Evidence Based Discharge Teaching Tool

Abstract

By Jean Marie Schlittenhart
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May 2011

Chair: Kris Miller

The Neonatal Intensive Care Unit (NICU) can be a stressful and frightening experience for a diverse population of parents. Transition from the hospital to home requires discharge planning to assist parents in developing the skills necessary to care for their medically fragile infants. From admission of the neonate to discharge, the NICU bedside nurses teach the necessary skills sets to the parents. Prior to discharge, a comprehensive NICU discharge class was offered, ensuring consistent dissemination of information. However, encouraged but not required, the class had only a 50% attendance rate. Based on parents’ needs and staff requests a project was initiated to develop an alternative. A literature review revealed essential discharge information for the medically fragile infants. Addressing the generational needs of the diverse population of NICU parents, a 35-minute, evidence-based practice (EBP), NICU discharge Digital Versatile Disc (DVD/video) was created.

Key words: teen parent, advance maternal age parent (AMA), developmental learning needs, NICU discharge teaching and Digital Versatile Disc/video learning (DVD/video)
DEDICATION

The NICU Experience: Going Home DVD/video is the culmination of many years of serving infants and parents in the NICU. My knowledge and understanding of family dynamics and structure has grown over the years in working with a diverse population of parents. The vulnerable NICU infants and their parents have a big place in my heart. It is the care and safety of both infants and parents that has driven my desire to create a useful educational tool that would meet the needs of this underserved population.

I would like to express heartfelt thanks to my husband for his encouragement and support throughout graduate school. Without his willingness to be there for everything, I could not have attained my dream of a Masters in Nursing and creating The NICU Experience: Going Home.
Introduction

Preparation for discharge and transition to the parents’ care of the Neonatal Intensive Care Unit (NICU) infant is a process that begins on admission. Identifying educational needs and the knowledge base necessary for the parent to care for the delicate NICU graduate is a work that requires thought and experienced assessment on the part of the nurse. Total care of a NICU infant can be daunting to the parents. Utilization of a discharge class is extremely helpful to ease the transition to home. This paper describes an innovative approach, a NICU discharge informational DVD/video that was developed to deliver parent education to promote informed and safe transition from hospital to home.

Based on parents’ needs and low attendance rates at comprehensive NICU discharge classes, a project was undertaken to assess the use of a DVD/video to reach the target population more effectively. A literature review revealed the use of a DVD/video can be an effective discharge educational tool (American Academy of Pediatrics, 2001; Bandura, 2004; Heffron, 2009; Lee, Boyd & Stuart, 2007). The DVD/video can be viewed at the parents’ convenience to meet the generational needs of the diverse population of NICU parents. In the literature reviewed, both teen and advanced maternal age (AMA) parents were found to favor the use of technology for parenting information and education (American Academy of Pediatrics, 2001; Bandura, 2004; Heffron, 2009; Lee, Boyd & Stuart, 2007). Findings suggest technology increases the effectiveness of educational offerings thereby reducing the number of unprepared parents taking medically fragile infants home (American Academy of Pediatrics, 2001; Bandura, 2004; Heffron, 2009, Lee, Boyd & Stuart, 2007; Sims, Jacob, Mills, Fett & Novak, 2006).
Problem

The Neonatal Intensive Care Unit (NICU) can be a stressful and frightening experience for parents. Transition of the medically fragile infant from the hospital to home requires careful discharge planning and parent skills development (Broussard & Broussard, 2010; Griffin & Abraham, 2006; Hummel & Cronin, 1994; Scherf & Reid, 2006; Sneath, 2009). A medically fragile infant is defined as a premature or sick newborn requiring hospitalization in the NICU. These infants remain vulnerable for several years after birth (Black, Holditch-Davis & Margaret, 2009). Post discharge risks for the infant include sudden infant death syndrome (SIDS), growth and developmental delays and health problems for which parents need to be alert after discharge (American Academy of Pediatrics, 2010; March of Dimes, 2009; Scherf & Reid, 2006). From admission of the neonate to discharge, NICU bedside nurses teach the necessary skills sets parents will need at home to care for their infant (Griffin & Abraham, 2006; Hummel & Cronin, 1994; Scherf & Reid, 2006).

In the setting where the project described here was carried out, an optional comprehensive NICU group discharge class was offered providing consistent dissemination of information by a primary facilitator. The one hour class was offered once a week at different times of the day and different days of the week. Attendance at the discharge class was encouraged, but not required by unit staff. Despite posted invitations to the class in numerous locations and personal invitations, class records showed attendance rates of only 50% of all discharges. Attendance criteria included at least one parent in attendance. Nurses on the unit were disappointed by low class attendance and were concerned that this placed medically fragile infants at risk after discharge. When parents are unprepared to care for their infants at home, there are potentially poor outcomes (Herrman, 2010).
The comprehensive NICU discharge class was intended for all NICU parents. The diverse population of NICU parents includes teen and AMA parents who have unique developmental needs. It was noted that some AMA parents preferred to spend time with their infant in the NICU instead of attending the class. Teen parents often visited the NICU in the late evening past the time of class offerings. It became a challenge to provide essentials of home care of the medically fragile infant in discharge teaching when parents avoided attending the weekly class. Lack of parental attendance put an increased burden on the already busy beside nurses.

NICU Nursing Care

The NICU requires the nurse to care for one to four infants depending on acuity. Typically a NICU nurse cares for three to four stable infants, or one to two critically ill infants (National Association of Neonatal Nurses, n.d.). Caring for multiple infants and providing discharge information presents a challenge for the NICU bedside nurse. Infants may be at different stages in their discharge planning and parents present at different levels of readiness for assuming full-time care. Parents need a lot of teaching before discharge of their infant, including cardiopulmonary resuscitation (CPR), SIDS prevention, feeding techniques, formula preparation, signs and symptoms of illness, and medications administration (American Academy of Pediatrics, 2010; Broussard & Broussard, 2010; Council of International Neonatal Nursing, 2010; Griffin & Abraham, 2006 Scherf & Reid, 2006). Ideally, frequent visits from the parent provide teaching opportunities for the parents to learn the necessary infant care; however, teen and AMA parents may refrain from visiting their infant due to their developmental needs and stress, which present barriers to learning to care for their medically fragile infant (American Academy of Pediatrics, 2001; Bailoskurski, Cox & Wiggins, 2002; Herrman, 2010; Heffron, 2009). Because of their lack of experience, compressed stages of development (teen parents
advance through the normal stages quickly due to early parenthood) and lack of knowledge of infant care and development, teen parents often require special individualized attention to assure discharge information is understood and assimilated (American Academy of Pediatrics, 2001; Herrman, 2010). AMA parents also may require more attention because of their busy professional life or competing responsibilities and fears about their infant’s well being (Bialoskurski, Cox & Wiggins, 2001). Discharge teaching was intended for parents of all ages. Capturing parents’ attention while they are experiencing the stress and uncertainty of having an infant in the NICU led to the decision to develop a teaching tool that would better meet the needs of NICU parent populations (American Academy of Pediatrics, 2001; Bialoskurski, Cox & Wiggins, 2001; Herrman, 2010).

Review of the literature

Developing a more appealing and flexible educational tool that would help prepare parents to care for their medically fragile infant at home was the goal of the innovative project. Work on tool development began with an extensive literature review. The focus of this literature review was the use of an educational DVD/video for discharge education. Validation and support for the unique learning needs and the modalities with which the teen and AMA populations might be most comfortable were identified. The NICU nurses noted that teen and AMA parents frequently avoided the discharge class. The literature showed both age groups believed parenting classes were not intended for individuals of their age (DeVito, 2005; Edwards, 1994; Passero, 1988). Recent reports showed a high incidence of premature and low birth weight births that potentially required a stay in the NICU in both the teen and advance maternal age populations (March of Dimes, 2009; Center for Disease Control and Prevention, 2007; Martin, Hamilton, Sutton, Ventura, Menacker, Kirmeyer & Mathews, 2009). Studies and articles discussing learning needs
and educational tools for these populations were included. The electronic data bases searched included: CINHAL, Cochrane Online Review, Google, Google Scholar, Washington State University/College of Nursing faculty publications, PubMed and US Preventive Services Task Force. Search words included: teen parent, AMA parent, developmental learning needs, NICU discharge teaching and DVD/video learning.

**Class Attendance**

Edwards (1994) conducted a longitudinal study of Canadian immigrant first time mothers examining infant care behavior predictors and prenatal class attendance. The researcher noted that mothers less than 25 years of age and over 35 years of age were less likely to attend prenatal classes compared to mothers aged 25 to 34 years and mothers aged 30-34 were more likely to attend prenatal classes (Edwards, 1994). The reported findings suggest a need for innovative approaches to prenatal education for immigrant mothers, especially those in younger and older age groups (Edwards, 1994). Passero (1988) interviewed 50 families of discharged NICU infants. Findings from the study showed 42% had not attended prenatal classes and 76% had not taken a class on baby-care. Further, after discharge of their medically fragile infant, 82% of the families experienced problems and found information independently. Recommendations included involving parents in discharge planning, meeting parent learning needs and anticipating discharge teaching to prevent problems at home (Passero, 1988). In a research study examining self-perceptions of parenting by adolescents, DeVito (2005) found self-limiting attendance at prenatal and parenting classes by teens because they believed the classes were designed for older mothers and would not meet their needs. Herrman (2010) suggests similar findings of teens’ self-limiting attendance at prenatal classes.
Parent Learning

Wood, Smith and Grossniklaus (2001) described Piaget’s stages of cognitive development for learning, teaching and technology application. They discussed developmental stages that must be completed to attain adult cognition. Further recommendations included incorporating this concept into educational material and the development of educational tools such as visual aids and models. Herrman (2010) described a nursing assessment tool applied to the teen family which included compressed stage of teen development, high risk behaviors, parental stress and poor infant outcomes. This article suggested a plan for parent education that would meet teen developmental and environmental issues. Recommendations included educational interventions such as risk identification and prevention strategies to improve infant outcomes (Herrman, 2010).

Bialoskurski, Cox and Wiggins (2002) identified parents’ needs to receive self-care and infant care in discharge information. Sims, Jacob, Mills and Fett (2006) describe the needs of all parents to become experts in the care of their medically fragile infant.

Teaching Strategies

In a descriptive study, Bachman (1993) investigated learning needs of pregnant teens. Findings suggest teaching strategies preferred by this age group were media related, such as films and videotapes. The American Academy of Pediatrics (2001) described the care of adolescent parents and their children, suggesting teaching strategies such as the creative use of videos and media for the teen parents. Heffron (2009) described learning needs of teens and AMA parents, and recommended using “high tech” interventions embraced by both generations along with the importance “of a knowledgeable, supportive nurse” in the discharge process. Bandura (2004) promoted the use of video technology as a means for reaching the young with
health education programs. The suggestion of technology use to increase the effectiveness of discharge education and to catch the attention of both parent groups is supported by Bandura’s (2004) social cognitive theory and his concept of self-efficacy.

**Interventions and Risk Reduction**

Scherf and Reid (2006) identify the necessity of discharge planning for the medically fragile infant written from the perspective of a home health nurse. Recommendations include discharge criteria and individualized teaching focused on the infant and caregiver. Further, the NICU nurse is identified as a resource for education which assists in reducing the risks for the medically fragile infant at home. Hummel and Cronin (1994) affirm that the discharge process needs to be well-planned to assure safe and effective care in the home and to minimize avoidable hospital readmissions. In a literature review and consultation with experts in the discharge process of NICU infants, the research recommended approaches to smooth the transition to home while decreasing infant’s risks of complications and re-hospitalizations. The better practices suggested were: use of a planning tool, scheduled discharge plans, consistent use of discharge tools, means to promote communication between parents and staff and resources to promote smooth transition to home (Sims, Jacob, Mills, Fett & Novak, 2006).

Griffin and Abraham (2006) identify the essential components of discharge planning in anticipating homecare needs of the medically fragile infant. Using the family-centered approach, parents are included as partners in care and decision making. Nurses play an important part in helping parents become informed about the risks to their individual infant. The stress and anxiety parents experience in the process of transition to home is identified, suggesting that discharge planning begin on admission of the neonate (Griffin & Abraham, 2006). Appropriate
resources, assistance with learning infant care skills and infant’s needs and supportive services promote successful transition to home (Griffin & Abraham, 2006).

In a literature review, Sneath (2009) described parents’ perceptions of the discharge process in preparing to take their baby home. The article describes using a variety of discharge check lists and teaching sessions for dissemination of discharge information. Parents reported less anxiety when discharge information was given in a planned manner, as well as including other family members in the teaching sessions. Parents’ perception of readiness for discharge was equated with consistent and comprehensive discharge information. Lack of adequate discharge preparation resulted in unprepared parents who had unanswered questions at discharge, placing the infant at risk for hospital readmissions and delays in growth and development (Sneath, 2009). These authors also described inadequate information about infant development, signs of illness and feeding given prior to discharge as problematic (Griffin & Abraham, 2006; Sneath, 2009).

Standardized discharge teaching tools which provide consistent information can reduce parent stress and build their confidence so they can become partners in the discharge process. The discharge process needs to be well-planned to assure safe and effective care in the home to minimize avoidable hospital readmissions (Hummel & Cronin, 2004; Sims, Jacob, Mills, Fett & Novak, 2006).

**DVD/Video Educational Tools**

Fleming, Reynolds and Wallace (2009) described the use of educational media such as the DVD/video as convenient and easily accessible for use in education reaching diverse learners. They promote DVD/videos as effective learning tools; however, they do not focus on adjusting content to viewers’ developmental stages. Lee, Boyd and Stuart (2007) conducted a randomized controlled trial using a DVD/video for teaching clinical skills to nurses. The study found the use
of an instructional DVD/video more effective than face-to-face teaching. These authors also do not mention the importance of developmentally appropriate content. Bandura (2004) describes the use of technology and interactive media in health promotion stating that young people and children may learn more effectively through the media link which provides easily accessible and convenient education through socially acceptable milieus.

**Essential Discharge Curriculum**

Literature was reviewed to identify essential elements of discharge teaching that would reduce risk factors for the medically fragile infant at home. Six organizing concepts were identified which laid the foundation for the development of the discharge DVD/video. The concepts chosen focused on aspects of premature and low birth weight infant care that could reduce risks of illness necessitating re-hospitalization, reduce delays in growth and development, and promote safety and bonding (Broussard & Broussard, 2010; Sneath, 2006). The organizing concepts include: infant safety, hygiene, wellness, illness prevention, growth and development and parent care (American Academy of Pediatrics, 2010; Blakewell-Sachs & Gennaro, 2004; Griffin & Abraham, 2006; Sneath, 2006). Within the six concepts areas, thirteen topics were identified for inclusion in the discharge DVD/video (See Appendix A). Also included were recommendations about reporting any concerns regarding changes in their infant’s condition or behavior to their healthcare provider. An additional recommendation was that the parent report any concerns about the parent’s own personal wellbeing to a healthcare provider (American Academy of Pediatrics, 2010; Blakewell-Sachs & Gennaro, 2004; Griffin & Abraham, 2006).
Discharge Process

In a literature review, Sims, Jacob, Mills, Fett and Novak (2006) proposed better practice recommendations to improve the discharge process for NICU graduates. Their recommendations included early planning, continuous discharge teaching throughout the stay of the neonate, interdisciplinary team collaboration, communication among interdisciplinary team members to identify a discharge timeline, and effective parent educational strategies to smooth the transition from hospital to home. Sims et al. (2006) identified the essential elements for a potentially successful discharge while noting the widespread lack of evidence-based practice concerning the NICU discharge process in various NICU's surveyed. However, the author did not identify the use of technology or a comprehensive discharge class as a potential intervention or discharge tool.

Discussion

The extensive literature review revealed several gaps in the literature related to discharge preparation, including the use of technology or DVDs/videos for concise targeted discharge teaching. All NICU parents require discharge education and support to prepare for taking their medically fragile infant home (Sims, Jacob, Mills, Fett & Novak, 2006). The literature validated the need for a teaching tool that would promote a safe transition of the NICU graduate. Despite identification of parent learning needs and recommendations for use of technology in parent education, the literature was lacking in evidence for use of a comprehensive discharge DVD/video for NICU parent education.

Limited information on learning needs and effective modalities for the AMA parent was noted as a gap in the literature. Some barriers to class attendance by this population were identified as fear, stress and perceiving traditional classes as not intended for people of their age.
In contrast, teen learning needs and modalities are abundantly addressed in the literature. Similar to AMA mothers, the literature reports that teens experience fear and stress (American Academy of Pediatrics, 2001; Herman, 2010; March of Dimes, 2009). Like AMA parents, teens also viewed traditional classes as not applicable to them. They perceived the classes to be planned for someone not their age so they refrained from attending class (DeVito, 2005; Herman, 2010).

Risks to the NICU graduate after discharge described in the literature were consistent and well represented. Evidence identifying factors that place infants at risk, if their parents are unprepared to care for them at hospital discharge also were well documented in the literature. These factors are lack of appropriate discharge education, including identification and prevention of illness, knowledge of growth and development, SIDS prevention, and infant safety.

In the NICU prior to discharge parents need support and appropriate interventions to reduce the risks for their medically fragile infant. Using appropriate teaching tools the nurse can meet these needs through well planned discharge preparation strategies. Using a developmentally appropriate technological discharge tool could promote acceptance of discharge information in a learning mode that is appealing to parents from teens to AMA parents as well as other hard to reach populations.

The DVD/Video Development Process

A DVD/video for NICU discharge preparation of NICU parents was created using information from the literature review along with support from a midsized hospital NICU and a university college of nursing. Essential elements of the discharge process and curricula were identified and incorporated into the script and action scenes maximizing the information disseminated while minimizing viewing time (see Appendix A). Other health care professionals and content experts
assisted the author with review of the DVD/video content for accuracy and appropriate evidence-based practice. The focus of the DVD/video was providing evidence-based discharge information to the diverse population of parents of infants in the NICU, including hard to reach teens and AMA parents. Consideration was made to provide for the wide age range as well as cultural diversity.

**Interprofessional Collaboration**

Neonatal developmental therapists, feeding specialists and an audiologist were consulted for accuracy of essential information in the DVD/video. Their recommendations were especially important in clarifying and organizing developmental topics deemed essential, including motor development, social and emotional development, tummy time, and hearing and vision (March of Dimes, 2007). These topics were affirmed as essential for NICU discharge teaching through the literature review and the interprofessional developmental team (Blakewell-Sachs & Gennaro, 2004; Griffin & Abraham, 2006).

**Special Considerations**

Considering the diverse ages and developmental capabilities of NICU parents, the DVD/video script was written at an approximate fifth grade reading level (Cotugna, Vicery & Carpenter-Haefele, 2005). Often, teenage parents have not completed high school and the NICU population of parents includes individuals with intellectual disabilities requiring special attention throughout the discharge process (McConnell, Mayes & Llewellyn, 2008). Along with reading level considerations, the script was written to appeal to parents with a limited understanding of medical terminology. However, enough medical language was included for commonality, clarity and for promotion of understanding of the concepts they would be hearing often in the future. The simplicity of the script also addressed concepts that could be easily understood by the AMA
parents who may be well versed, but due to fear and stress can more easily assimilate simply stated content (Black, Holditch-Davis & Miles, 2009). These factors were considered in the development of the project to enhance parent acceptance and understanding for the NICU parent population as a whole.

The literature review suggests that both teenage parents and AMA parents favor the use of technology, especially DVD/video educational offerings (American Academy of Pediatrics, 2001 Bachman, 1993 Bandura, 2004; Heffron, 2009; Lee, Boyd & Stuart, 2007). The decision to develop an evidence based NICU discharge DVD/video was made in collaboration with the local medical center and the university college of nursing. Utilization of the DVD/video project was envisioned for parents of NICU infants and as a resource (or teaching tool) for nursing faculty and students. However, final content decisions were made by the author based on the extensive literature review and nursing practice experience in the NICU.

A video production team from the university, experienced in medical and nursing educational projects, participated during all phases of the DVD/video project, from scripting and storyboard development to the authoring of the DVD/video (see Appendix B). Production techniques were designed to present scholarly topics in realistic vignettes that were interesting, educational and relevant to an under-educated audience and the educated as well.

Production locations varied and included actual home nurseries, NICU nurseries, medical offices, skills laboratories at the college of nursing, and cars and trucks in parking lots. Video participants ranged from nursing college faculty and students to actual fathers and mothers with their infants in an NICU. Appropriate media releases were obtained from all participants according to university and medical center policies.
Care was taken to avoid product bias or promotion by using a variety of infant product brands and formulas in the script content. Realistic and practical use of products that would be used at home was incorporated into the scenes. Safe, careful handling of the infants was demonstrated throughout the project by both parents and professionals.

The DVD/video was developed on a limited production budget. Using students, faculty and volunteers from the community and the medical center NICU, costs were kept to a minimum. The university production team participated without charging for services because the production of the DVD/video would fulfill a curriculum need. Medical center contributions included locations for some scenes, infant care products, bedding, support staff and access to infants and parents.

The collaborative efforts of university staff, faculty and students along with the medical center staff and inter-professional specialists were very successful. NICU clinical nurse specialists, maternity nursing faculty, NICU staff nurses and specialists reviewed the final project for accuracy and evidence based presentation before giving approval for utilization. The project resulted in a captivating 35 minute evidence based discharge DVD/video tool welcomed by both staff and parents.

Staff Use and Parent Utilization

While the targeted focus of this educational tool was teen and AMA parents, this teaching tool is applicable to all parents who have a neonate admitted to the NICU. Parents can, at their convenience, view the DVD/video whenever and as often as they like. The medical center NICU unit director and discharge coordinators initially encouraged bedside nurses to use this innovative alternative with parents; however, once NICU nurses had used the DVD/video, it "sells" itself via the enthusiasm of colleagues. Nurses find the time saving DVD/video to be a
valuable educational tool (see Appendix C). Preliminary evaluation reveals the following
DVD/video viewing patterns: late night viewing, weekend and holiday viewing and regular use
by bedside nurses.

Utilization of the DVD/video in the NICU allows nurses to provide concise and consistent
discharge education for the parents. The 35 minute DVD/video is 25 minutes shorter than the
face-to-face discharge class more readily maintaining the attention of the NICU parents.
Following the DVD/video review and prior to discharge of the infant, the NICU nurse assesses
the parents’ ability to identify and use essential discharge information by observing parent care,
receiving appropriate questions from parents, and parent interactions with staff and their infant.
The DVD/video covers infant safety, wellness, growth and development, signs and symptoms of
illness and parent self-care including identifying “Baby Blues”. Parents can access the
DVD/video several times to reinforce self-directed learning. Family members can view the
DVD/video as social support and for understanding discharge information.

Spanish Version Need

Plans for a Spanish version were included from the beginning in the development of the
DVD/video. With the Hispanic teen birth rate at three times that of Caucasian teenage births the
need is high in many NICUs for Spanish educational material (Martin, Hamilton, Sutton,
Ventura, Mathews, Kirmeyer & Osterman, 2007). The U.S. Census Bureau (2010) report shows
the Hispanic population as the fastest growing minority representing 16% of U.S. population.
Language is a predictor for attendance and comprehension of prenatal classes (Edwards, 1994).
Evidence suggests having discharge information in the parents’ own language would increase
effectiveness of the discharge tool (Edwards, 1994). Currently, the DVD/video is being
translated into Spanish and will be moderated fully in Spanish. Throughout the DVD/video, diverse cultures are represented including Hispanic teens and their infants.

Future Dissemination

Parents often request opportunities for family members to view the discharge DVD/video to assist with teaching family members to care for the medically fragile infant when necessary. Families also have requested that rural referring hospitals receive similar discharge information for families of the infant who returns home and copies of the informational discharge DVD/video for rural hospital use. A grant application for funding for a healthy newborn version is being considered for further application and use of the discharge DVD/video. Further, a specific companion handout with infant risk reduction content along with references for resources is in the planning stages.

Benefits and Limitations

Realized benefits for the DVD/video project include:

• Unbiased, consistent delivery of discharge information to the diverse population of parents
• Time saving intervention for nurses
• 24/7 viewing availability for parents visiting or patients in the hospital
• Delivery of discharge information in a modality that parents find comfortable
• Potential for an increase in preparation for parents taking medically fragile infants home
• Potential for a decreased risks for medically fragile infants
• Modular format that can easily be updated with practice changes
• Bedside nurse or primary class facilitator reinforcement of infant risks and discharge information
Limitations of the DVD/video project include:

- Information changes could be difficult to incorporate after DVD/video complete
  - Change in practice; for example, CPR or updated recommendations
  - Cost of updating
- No specific handouts developed for DVD/video; however, it could be supplemented with standard hospital handouts
- Parents can only view the DVD/video at the hospital

**Significance to Nursing**

Parents and infants are the foundation of the family and the community (Heiney, 1988). Nurses can promote good health for infants at the beginning of life and contribute to a solid base for a lifetime of health through effective evidence based discharge preparation of the NICU family. Educating parents on preventive measures such as SIDS prevention, CPR, signs and symptoms of illness, wellness principles and growth and development begins to prepare them to promote the health for their infant. Teaching parents self-care and recognition of postpartum depression helps them understand the importance of their own health in caring successfully for their infant. Developing a nursing intervention that is not only educational but meets the unique learning needs using modalities that they might be most comfortable with can promote the health of the parents and infant, and ultimately, the community.

**Conclusion**

Research and clinical expertise from many years experience in the NICU helping parents learn to care for their infants has revealed the challenge of preparing parents for the transition to home. Frightened parents who are hesitant just to touch their fragile infant in the beginning gain
confidence as the days and weeks progress. As their infant grows, so does the parent’s ability to
care for their infant. Facing discharge is an exciting, but a very scary time for many parents.

Careful planning and preparation for discharge requires extensive teaching on the part of the
NICU nurse. The discharge process is time consuming for both the nurse and parents. Poor
attendance to the discharge class was concerning to NICU staff who believed parents were going
home potentially unprepared. Providing consistent and current discharge information in a
modality that is appealing to the parent population of the NICU is a challenge. The use of
technology such as a DVD/video to increase the acceptance of educational offerings appears
promising. Decreasing the number of unprepared parents taking medically fragile infants home,
thereby, decreasing infant risks is a goal of the discharge process. The development of a NICU
discharge DVD/video became an innovative solution to decrease infant risks and improve the
discharge process of assisting parents to provide safe infant care at home.
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http://www.marchofdimes.com/Pregnancy/trying_after35.html

http://www.marchofdimes.com/Professionals/medicalresources_teenagepregnancy


Appendix A

Essential Discharge Topics

• Safety
  o Cars seat regulation and guidance
  o CPR
  o Removing a foreign object
  o Sudden Infant Death Syndrome (SIDS) prevention

• Hygiene
  o Infant bathing/ swaddled bathing
  o Hand hygiene

• Signs and symptoms of illness
  o Temperature
  o Activity & muscle tone
  o Color
  o Rashes
  o Nutrition
  o Elimination
  o Change in feeding
  o Vomiting
  o Thrush

• Exercise & Development
  o Tummy Time
  o Hearing
- Vision
- Motor development
- Social and emotional development

- Parent Care
  - Stressful environment of the NICU
  - Suggestions for coping
    - Establish a routine
    - Drink plenty of fluids
    - Eating well
    - Rest
    - Moderate exercise
  - Symptoms of “Baby Blues”
    - Easily crying
    - Difficulty sleeping
    - Difficulty concentration
    - Mood swings
    - Contact a healthcare provider if conditions worsen or last longer than a month

(American Academy of Pediatrics, 2009; Blakewell-Sachs & Gennaro, 2004; Broussard & Broussard, 2010; Griffin & Abraham, 2006; Sneath, 2006)
Appendix B
Sample Storyboard Utilized for Development of Vignettes

The NICU Experience:

Parent Care
Jean Schlittenhart, BSC, RNC-NIC
051110

<table>
<thead>
<tr>
<th>VISUALS</th>
<th>AUDIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) A collage of jpegs showing parents with baby in the NICU</td>
<td>1) NARRATION:</td>
</tr>
<tr>
<td>Dissolve to video of mother and dad leaving hospital with baby</td>
<td>Having a new baby is a big change for parents, adding new responsibilities and changes in lifestyle.</td>
</tr>
<tr>
<td></td>
<td>Taking care of yourself while your infant is in the NICU and after discharge is very important. Things like:</td>
</tr>
</tbody>
</table>
2) Freeze frame and character generate list:

Establish routine
Rest
Eat well
Drink plenty of fluids
Exercise
Accept help

2 NARRATION:

Things like:

- Establishing a routine
- Getting plenty of rest
- Eating well
- Drinking plenty of fluids
- Exercising in moderation, and

Accepting help from family and friends will help make the transition to home a success.

3) Dissolve to video of mother and dad with baby at home

3) NARRATION:

Spending time with your baby will help make up for the time apart while in the NICU.
Appendix C

Examples of Responses after Viewing the DVD/video

• Nurses
  - The DVD can be shown at anytime any day and saves time.
  - I would like one in Spanish.
  - The parents come back very prepared about required discharge information.
  - The parents come back asking questions and commenting about:
    - SIDS prevention avoiding sleeping in parents bed
    - Asking about swaddling infants in bed
    - Preventing illness by avoiding large crowds
    - Hand Hygiene/ need for hand sanitizing gels in diaper bag

• Parents
  - When I had my first baby I had to figure this information out for myself.
  - I feel more confident about taking my baby home.
  - I can see that the swaddled bath would help the baby cry less.
  - I did not know about the SIDS information about only sleeping on the back.
  - Can my relatives watch this DVD; they need to know this too?
  - Can I take a DVD home?
  - I really like having the DVD, last time it was a boring class.
  - I really like the developmental tips in the DVD
  - May baby is showing developmental growth like the babies in the DVD.
  - Will you have one in Spanish?
- Grandparents
  - A lot has changed since I had my children, I am glad for the information.
  - This is really helpful information.
  - This DVD has information the parents need. I learned a lot myself.