
Parent Stress and Coping in NICU and PICU

Ruth Young Seideman, RN, PhD
Margaret A. Watson, RN, MS
Karen E. Corff, ARNP, MS, NNP
Phillip Odle, RN, BS, CCRN
Joan Haase, RN, PhD
Jane L. Bowerman, PhD

The purpose of this study was to identify and compare parental perceptions of their stress and coping experiences with children in pediatric intensive care units (PICU) and the neonatal intensive care units (NICU). The sample consisted of 31 NICU and 20 PICU parents. Parents in both units experienced the most stress from alteration in their parenting role and in their infants' behavior and appearance. Parents of children in PICU found assistance with parenting role more helpful than parents of children in NICU. Parents with children in the PICU perceived problem-focused coping more helpful than parents with children in the NICU; parents of children in NICU found emotion-focused coping more helpful than parents of children in PICU. Parents in both units considered problem-focused coping more helpful than appraisal- or emotion-focused coping.
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MEEETING THE NEEDS of parents of children hospitalized in neonatal intensive care units (NICU) or pediatric intensive care units (PICU) is increasingly being recognized as an important factor related to their future parenting as well as the child's clinical outcome. Having a child admitted to either a NICU (Miles, Funk, & Kasper, 1991) or a PICU (Carter, Miles, Buford, & Hassanein, 1985) creates a stressful situation for the parents. Parents of an infant admitted to a NICU are faced with a high technology environment that inhibits normal parenting activities. They may also be confronted with the untimely birth of their infant who may be quite tiny and/or very sick. Parents of a child admitted to the PICU typically are responding to the crisis of the child's sudden illness or the gravity of a planned major surgery. Parents of children in both the NICU and the PICU experience interruption of the family's normal activities and their parental responsibilities.

Currently cross-training and cross-staffing practices among NICU and PICU nurses are common in hospitals as a strategy for minimizing staffing costs. This requires a broader knowledge base for the nurse to understand parents' experiences when their child is hospitalized in an ICU and to provide effective interventions.

Identifying experiences perceived as most stressful by parents can help the nurse in anticipating

parent needs. And further, knowing which nursing staff behaviors are perceived as most helpful and how parents might be facilitated in their coping with the ICU experience can help the nurse in formulating policies and interventions. The purpose of this study was to identify and compare NICU and PICU parental perceptions of experiences causing the greatest stress, nursing behaviors that were most helpful, and parents' coping experiences that were most helpful for them.

The conceptual framework for the study was the transactional model for understanding parental stress in the intensive care unit developed by Miles and Carter (1983). Their model was based on their research, Selye's (1956) theory on stress, Lazarus's (Lazarus & Launier, 1978) cognitive-phenomenological theory on stress, Roy's (Reihl & Roy, 1980) adaptation model of nursing, and Moos's (Moos & Billings, 1982) theory of coping with illness. Miles

From the University of Oklahoma, Oklahoma City, OK; the Covenant Medical Center, Urbana, IL; the Childrens Hospital of Oklahoma City, OK; Veterans Hospital, Marian, IL; the University of Arizona, Tucson, AZ; and Juvenile Services, Inc., Norman, OK.

Address reprint requests to Ruth Young Seideman, RN, PhD, University of Oklahoma, P.O. Box 26901, Oklahoma City, OK 73190.

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and Carter's transactional model focuses on interacting personal/family factors, situational conditions, and environmental stimuli which are cognitively appraised by parents. The transactional process continuously changes, and the stress response is the result of complex interactions. The model categorizes stressors affecting parents as situational, personal, and environmental. Parents respond to perceived stressors by using coping skills developed in the past, as well as by developing new coping skills. Lazarus and Folkman's (1984) definitions of stress and coping were used for the study. Stress is defined as a particular relationship between an individual and the environment that is appraised by the individual as exceeding personal resources and endangering well-being. The perception of stress is subjective; what is stressful to one person may be more, or less, or not at all stressful to another. Coping is defined as the cognitive and behavioral efforts used to manage external and/or internal stressful demands that are appraised to be exceeding the resources of the person. Coping is a process that changes as the individual's appraisal of the situation changes. Therefore, stress enters an interactional process and involves the cognitive appraisal and coping responses. This change may be brought about by a change in the individual, in the environment, or in the available resources.

Parents' coping responses to stressful experiences while their child is in an ICU unit takes place in an environment in which nurses are present and highly visible. Knowing what nursing behaviors are most helpful to the parents becomes an important issue for effective nursing care.

LITERATURE REVIEW

Parental Stress

Investigators have examined the stress experienced by parents of children hospitalized in PICUs through parent interviews, observation of parent/child interactions, and the use of parent responses to instruments. Several investigators have focused on the needs of parents of children hospitalized in a PICU. For example, Jay (1977) found that children's need for their parents increased while in the PICU, but that parents may not be available to their children because of their own emotional state. Kasper and Nyamathi (1988) interviewed parents whose children were in a PICU and found that the parents' greatest needs were to be with their child and to be kept informed of their child's condition. Fisher (1994) found that parents of children hospitalized in a PICU felt that knowing about their

child's prognosis, why things were done for their child, feeling there was hope, and knowing their child was being treated for relief of pain were their most important needs.

Researchers have also focused on the actual stressors that parents experience. Lewandowski (1980) studied parents of children in a PICU who had undergone open-heart surgery and identified several stressors, including unfamiliar machinery, noise, change in child's appearance, lack of privacy, and disrupted sleep and eating patterns experienced by parents of children in a PICU. Miles and Carter (1982) identified 79 items describing sources of stress for parents of a child in PICU, which were organized into the eight dimensions that provided components for development of the Parental Stressor Scale:PICU (PSS:PICU). Miles, Carter, Spicher, and Hassanein (1984) found that when their child was hospitalized in a PICU, both mothers and fathers found the total ICU experience stressful. Carter et al. (1985) found that parents felt that the alteration in parental role was the greatest stressor. Miles, Carter, Riddle, Hennessey, and Eberly (1989) found that the dimensions of child's behavior and emotions and parental role alteration were the most stressful aspects of the PICU experience. Carnevale (1990) interviewed parents of children in a PICU and identified five categories of stressors they experienced, including parental role changes, concern for their child, the PICU environment, lack of support from friends, and concern for the child's siblings.

Investigators have also begun to document the needs of parents of infants in the NICU and the stressfulness of the experience. Youngblut and Jay (1991) found that parents of children in PICU were most concerned about their child's future, concerning the child's survival or potential of brain damage or physical handicap. Miles (1989) in her study of parents of children in the NICU found the appearance of the fragile, sick infant seemed to cause more stress than alteration in parental role. However, in a subsequent and larger study Miles, Funk, and Kasper (1991) found that alterations in parental role caused the greatest stress for parents of children in NICU, with the second highest being the appearance of the fragile, sick infant. Miles, Funk, and Kasper (1992) found that alterations in the parental role were stressful for both mothers and fathers. Alfonso et al. (1992) determined that stressors for parents of children in the NICU changed over time. Although "not being able to hold their infant" was initially stressful, later on in the hospitalization period "being able to hold their

infant" was stressful because of their infant's potentially unstable condition. In a qualitative study Hughes, McCollum, Sheftel, and Sanchez (1994) found that the majority of stressors pertained to the separation due to the hospitalization and to the infant's appearance, health, and course of hospitalization.

Staff Behaviors

In a study of parents of children in PICU, Miles and Carter (1985) identified staff behaviors that parents found most helpful were that of being able to be near their child and making sure their child was getting the best care possible. Curley (1988) used a quasi-experimental design and determined that the Nursing Mutual Participation Model of Care (NMPMC), a set program of support and information, is helpful in alleviating parental stress in the PICU. Curley and Wallace (1992) later found that when nurses used the NMPMC parents felt significantly less stress. Heuer (1993) found that during a time with low census in the PICU, staff behaviors were perceived as nonstressful.

Bass (1991), in a study of parents of children in NICU, found that the most important parent needs were for information and person-related support. Miles, Carlson, and Funk (1996) found that parents of children in NICU perceived nurses to be very helpful in coping with their infant's birth, illness, and hospitalization.

Parent Coping

Strategies that parents have used in coping with their child's hospitalization in a PICU or a NICU have been identified. Lewandowski (1980) identified six general coping styles used by parents of children who had had open heart surgery: (1) initial immobilization (delay in approaching child to reduce the impact of the situation), (2) visual survey (observed and became familiar with the environment before focusing on the child), (3) withdrawal (removed themselves and avoided talking about or with child), (4) restructuring (focused on one manageable aspect to regain parental mastery of the child's care), (5) assistance (learned how to perform routine medical procedures), and (6) intellectualization (focused on technological issues and procedures). Affleck, Tennen, and Rowe (1991) found that the majority of mothers sought support from others and tried to assign meaning for why this (their child's hospitalization) happened to them.

Miles and Carter (1985) identified six coping strategies used by all parents of children in the

PICU: believing that their child is getting the best care possible, seeking information, asking questions of the staff, being near their child as much as possible, praying, and making sure that their child is getting proper care. Philichi (1989) reported that parents' perceptions of their family's coping abilities were higher than the norm, possibly because the admission to the PICU is a crisis situation. The coping strategies that these parents found to be most helpful included mobilizing the family to acquire and accept help, passive appraisal, and acquiring social support. Carnevale (1990) identified the following coping strategy themes used by parents of children in a PICU: cognitive (thinking about things); interpersonal (actions directed towards others); social support (seeking support from others); direct action (things they did); and environment (using their surroundings to help deal with the situation). La Monfagne and Pawlak (1990) found that all parents of children in PICU used a combination of problem- and emotion-focused forms of coping.

Coping strategies of parents with children in the NICU have also been studied. Hughes et al. (1994) found that both mothers and fathers relied primarily on the coping strategies of communication and seeking social support. Miles, Carlson, and Funk (1996) found that highest source of support for mothers and fathers of children in NICU was the other parent. Other important sources of support included NICU nurses and physicians and the child's grandparents.

The present study was designed to examine experiences of parents whose children were in NICUs and PICUs and to compare differences in parental experiences in the two ICUs. Parents of children in the PICU present with a different set of parenting experiences than parents of children in the NICU, primarily because of the child's age and developmental maturity. No previous study has specifically compared responses of parents of children in PICU with parents of children in NICU. What are the perceived stressors in NICU and PICU? What staff behaviors help parents most in the two ICUs? And, how do parents in the two ICUs cope with stress? This information can lead to more appropriate nursing care for hospitalized children and their parents when children are in either the PICU or the NICU.

METHODS

Setting

The study was conducted in a large children's tertiary care hospital which is part of a South

Central state health sciences center. The hospital has a 12 bed PICU and a 25 bed, Level III NICU, both of which receive admissions from throughout the state.

Sample

The sample consisted of 51 parents whose children had been in the NICU or the PICU for at least 3 days. There were 31 NICU parents (19 mothers, 12 fathers) and 20 PICU parents (15 mothers, 5 fathers). Ages of NICU mothers ranged from 16 to 43 years ($M = 25$); fathers' ages ranged from 20 to 35 years ($M = 25.5$). Ages of PICU mothers ranged from 16 to 38 years ($M = 28.9$); fathers' ages ranged from 32 to 41 years ($M = 35$). NICU parents included 18 White, 2 African-American, 3 Native American, 2 Hispanic American, 1 Asian American, and 5 who did not identify race. PICU parents included 14 White, 2 African-American, 2 Native American, and 2 who did not identify race. Medical diagnoses of children in the NICU included sepsis, respiratory distress, congenital anomalies, hyperbilirubinemia, and preterm/low birth weight. Medical diagnoses of children in the PICU included sepsis/meningitis, respiratory disease, cardiac surgery, neurosurgery, diabetic ketoacidosis, and trauma. NICU infants included 17 boy and 14 girl infants. The mean age for children in the NICU was 36 days, and the mean length of stay in the NICU was 33 days. PICU children included 12 boy and 8 girl children. The mean age for children in the PICU was 1.67 years, and the mean length of stay in the PICU was 6.6 days. NICU children included 17 boy and 14 girl children. All children had been hospitalized in the ICU units at least 3 days and less than 3 months at the time of the interview.

Instruments

Three instruments used in this study, the Parental Stressor Scale: Pediatric ICU (PSS:PICU), the Parental Stressor Scale: NICU (PSS:NICU), and the Parental Coping Scale: Pediatric ICU (PCS:PICU). All of these instruments were based on the transactional model for understanding parental stress in the ICU (Miles & Carter, 1983). The PSS:PICU and the PSS:NICU were used to measure parental perception of environmental stressors experienced during their child's ICU hospitalization. The PCS:PICU was used to measure parental coping in both units.

The PSS:PICU encompasses seven dimensions of ICU stressors: Child's Appearance, Sights and Sounds, Procedures, Staff Communication, Child's

Behavior and Emotions, Staff Behaviors, and Parental Role Alteration (Carter & Miles, 1989; Miles & Carter, 1982, 1983, 1985). Parents also indicate an overall stress score for the whole PICU experience. Parents were asked to rate items using a 5-point Likert-type scale from "not stressful" to "extremely stressful." The possible range for item response is 1 to 5, with higher scores indicating higher stress. In the present study, the Cronbach's alpha internal consistency reliability coefficients for the subscales ranged from 0.62 to 0.91. Analysis of data in this study included responses from parents who reported having the experience described in the item.

The PSS:NICU, adapted from the PSS:PICU (Miles, 1989; Miles, Funk, & Carlson, 1993; Miles, Funk, & Kasper, 1991), includes four subscales: sights and Sounds, Parental Role Alterations, Staff Relationships, and Infant Appearance. Parents also indicated an overall stress score for the total NICU experience. The possible range for item response is 0 to 5, with 0 indicating "not experienced," 1 indicating "not stressful" and higher scores indicating higher stress. The Cronbach alpha internal consistency reliability coefficients in this study for each subscale ranged from 0.72 to 0.91. Analysis of data in this study included responses from parents who reported having the experience described in the item.

The PCS:PICU (Miles & Carter, 1985) is a 40-item scale with two sections, Staff Behaviors and Parental Coping. Items for the instrument were drawn from the results of two pilot studies, literature on coping, and other coping instruments. Although the instrument was originally developed for the PICU, items on the scale were judged to be also relevant to the NICU setting.

On the Staff Behaviors section of the PCS:PICU, parents rate the helpfulness of specific staff behaviors during their child's ICU hospitalization on four subscales: Assistance with Parenting Role, Information/Communication, Emotional Support, and Good Physical/Technical Care, using a 5-point Likert-type scale. The Good Physical/Technical Care subscale consisted of a single item focusing on the care the child was receiving, whereas other subscales had multiple items. The possible range for item response is 1 to 5, with the higher score indicating the item was more helpful. Staff Behaviors also has a 3-point Likert-type scale to rate the frequency of each staff behavior, with the possible range for item response being 1 to 3, with a higher score indicating greater amount of staff behavior provided. The Cronbach alpha internal consistency

reliability coefficients in this study for each PCS: PICU subscale were as follows: Parenting Role, NICU = 0.46, PICU = 0.41; Information/Communication, NICU = 0.88, PICU = 0.88; and Emotional Support, NICU = 0.74, PICU = 0.70. In this study analysis included responses from parents who had experienced the intervention described.

The Parental Coping section of the PCS:PICU contains three subscales: Appraisal-Focused Coping, Problem-Focused Coping, and Emotion-Focused Coping. Each item is rated on a 4-point Likert-type scale of the helpfulness of coping responses using a range of "not used" to "extremely helpful." The possible range for item response is 0 to 4, with the higher score indicating that the behavior was more helpful, and 0 indicating that the behavior was not used. In this study analysis included responses from parents who had used the coping strategy. The Cronbach alpha internal consistency reliability coefficients in this study for each subscale were as follows: Problem-focused, NICU = 0.73, PICU = 0.49; Appraisal-focused, NICU = 0.69, PICU = 0.34; Emotion-focused, NICU = 0.72, PICU = 0.60. Two items were omitted from analysis because the numbers of parents who reported using these for coping was so low (drinking: NICU = 1, PICU = 0; taking drugs: NICU = 3, PICU = 1).

Procedure

Data were gathered by two of the investigators, one a staff nurse in the NICU, and the other a staff nurse in the PICU. Nurse investigators invited parents to participate in the study either near the time of discharge from the ICU or soon after the child was transferred to a general care unit within the hospital. Parents completed instruments near the time of the child's discharge, or within 3 days after transfer to another unit in the hospital. Eligible parents were told about the study and given an opportunity to sign the consent form and to participate in the study, and no parents declined the invitation to participate. Once the child was discharged from the ICU and consent was obtained, investigators instructed the parents about the questionnaires and arranged for a private place for their completion.

RESULTS

Stressors

Table 1 lists the stressors for parents with children in the NICU as reported on the PSS:NICU and for parents with children in the PICU as reported on the PSS:PICU. Item and subscale

Table 1. Parents' Stressors

Subscale	M	SD
<i>PSS: NICU (n = 31)</i>		
Parental role alteration	3.29	(0.90)
Infant behavior and appearance	3.15	(0.96)
Sights and sounds	2.40	(0.90)
Staff relationships	2.52	(0.88)
<i>PSS: PICU (n = 20)</i>		
Parent role alteration	3.49	(1.18)
Child's behaviors and emotions	3.47	(1.10)
Procedures done to child	3.22	(1.15)
Child's appearance	3.14	(1.26)
Staff communication	1.72	(1.55)
Sights and sounds	2.80	(1.09)
Behaviors of the professional staff	1.67	(1.23)

ABBREVIATIONS: PSS, Parental Stressor Scale; NICU, neonatal intensive care unit; PICU, pediatric intensive care unit.

scores were calculated using data from parents who had experienced the stressor.

The PSS:NICU subscale with the highest mean score was Parental Role Alteration. Inspection of the item means on the Parental Role Alteration subscale revealed that being separated from their baby, feeling helpless about how to help their baby, and being unable to protect the baby from pain had the highest means. Inspection of item means for the Infant Behavior and Appearance subscale revealed that seeing their baby stop breathing, seeing their baby suddenly change color, and seeing their baby in pain had the highest means. Inspection of item means for the Sight and Sounds subscale revealed that sudden noises of monitor alarms had the highest mean.

The PSS:PICU subscale with the highest mean was Parental Role Alteration, reflecting similarity between NICU and PICU parents. Inspection of item means for the Parental Role Alteration subscale revealed that "not knowing how to help my child" and "not being with my crying child" had the highest means. The second highest subscale mean score was on the Child's Behaviors and Emotions subscale. Inspection of item means for that subscale revealed that "fright" and "acting or looking as if in pain" had the highest means.

In general, parents in both the NICU and PICU experienced the greatest stress from alteration in their parenting role and their child experiencing pain. NICU and PICU parent stressor scores could not be compared with statistical procedures because parents in the two units used different instruments to measure their stressors. The overall rating of how stressful the total ICU experience for parents of children in NICU had a mean of 3.35, standard deviation 1.42, and for parents of children in PICU the mean was 3.35, standard deviation of

1.06. There was no significant difference between parents of children in the two ICUs on the rating of their overall stress.

Staff Behaviors

Parents were asked to indicate how helpful staff behaviors were as listed on the PCS:PICU. Item and subscale scores were computed using data from parents who had the staff behavior provided to them. Table 2 presents the means and standard deviations for Staff Behaviors subscales. When differences between subscale scores for parents with children in NICU and parents of children in PICU were examined, there was a statistically significant difference with scores on one subscale. The Assistance With Parenting Role ($t = 2.28$, $p = .03$) subscale scores were higher for parents of children in PICU than for parents with children in NICU, indicating that parents of children in PICU found staff interventions related to assisting them in their parenting role more helpful than did NICU parents. There were no significant differences on the Emotional Support subscale scores or the Information/Communication subscale scores between parents of children in PICU and parents of children in NICU.

The single item addressing Good Physical/Technical Care and the subscale of Information/Communication had the highest means for both parents with children in NICU and parents with children in PICU. Inspection of item means for the Information/Communication subscale for parents of NICU patients revealed the most helpful staff behaviors were, in the order of importance, being

able to phone the unit at any time, having explanations about equipment, having questions answered honestly, and being kept informed about their child's progress. For parents with children in PICU being kept informed about their child's progress, being able to telephone the unit at any time, knowing the names of staff, and being given complete explanations were, in order of listing, the most helpful in coping with their child's hospitalization.

Coping Responses

Table 2 presents the means and standard deviations for most helpful coping strategies on the PCS:PICU. Item and subscale scores were computed using data from parents who had used that coping response. There was a statistically significant difference with scores on two of the three subscales. On the Problem-focused coping subscale, parents of children in PICU had a higher mean score than parents of children in NICU. On the Emotion-focused coping subscale parents of children in NICU had a higher mean score than parents of children in the PICU. There was no difference between the two groups of parents on the Appraisal-focused coping subscale.

The subscale with the highest mean for both parents with children in NICU and parents with children in PICU was Problem-focused coping. Inspection of item means for that subscale revealed that for parents with children in NICU "making sure my child is getting care," "being near my child as much as possible," and "making sure my child is getting proper care" were the most helpful. For parents of children in the PICU "being near my child as much as possible," "seeking information about situation," and "making sure my child is getting proper care" were the most helpful.

DISCUSSION

We had been curious about what differences we would find between parents of children hospitalized in the NICU and parents of children in the PICU. The two instruments used for measuring parental stressors were different, with the PSS: NICU for parents of children in NICU and the PSS:PICU for parents of children in PICU. Analysis regarding differences in parental stress focused on the comparison of subscale means of each instrument, and the identification of those instrument items that were perceived as most stressful by parents. Because many items were similar on both instruments we were able to compare many of the same stressors for parents in both units.

Table 2. Parent Coping

PCS: PICU Subscale	NICU (n = 31)		PICU (n = 20)		t	p
	M	SD	M	SD		
Section I: Helpful Staff Behaviors						
Assistance with parenting role	3.99	(0.71)	4.43	(0.56)	2.28	.03
Information/communication	4.19	(0.67)	4.45	(0.51)	1.42	.16
Emotional support	4.09	(0.67)	4.38	(0.66)	1.45	.15
Good physical/technical care	4.51	(0.62)	4.56	(0.78)	0.19	.85
Section II: Effective Coping Responses						
Appraisal-focused coping	3.18	(0.61)	3.21	(0.59)	0.16	.87
Problem-focused coping	3.29	(0.51)	3.56	(0.37)	2.07	.04
Emotion-focused coping	2.98	(0.54)	2.73	(0.46)	2.02	.05

ABBREVIATIONS: PCS, parental coping scale; PICU, pediatric intensive care unit.

The findings of this study revealed that parents with children in the NICU and parents of children in the PICU reported greatest stress related to the alteration in the parental role. This was consistent with findings of Miles, Funk, and Kasper (1991) in their study of parents in NICU, and with the findings of the study of parents in the PICU by Carter et al. (1985). Parental stress concerning the child's behavior was also very high for parents of children in NICU and parents of children in PICU in our study, consistent with other research findings of Miles, Funk, and Kasper (1991) for parents in the NICU and of Miles, Carter, Riddle, Hennessey, and Eberly (1989).

Instrument items identified as most stressful helped us understand some subtle differences between parents in the two ICUs. Examination of specific items showed that parents with children in PICU were most stressed with not knowing how to help their child, seeing their child frightened or in pain, and not being able to be with their crying child. Parents of children in the NICU were stressed most specifically with being separated from the infant, as well as by seeing threatening physiological changes such as stopping their breathing, turning blue, and being in pain. This seemed to reflect that PICU parents were feeling the loss of being able to take care of their child as they usually had, whereas NICU parents were stressed most by being separated from their child which impeded their getting to know their child and beginning parental caretaking behaviors. Even though NICU parents had not been in the parent role with their infant as long as the PICU parents, they still experienced stress related to the interruption in their expected parenting activities. They also experienced marked stress from alarming physiological changes they observed in their child. Parents in both units were stressed to see their child in pain.

Hospitalization of a child alters the parenting role because the parent is no longer the major caregiver for their child. The parenting role also typically includes that of trying to help a child avoid pain and to take care of the child's pain when it is experienced. Therefore, it is not surprising that study parents in each of the ICUs found the perception that their child was experiencing pain to be one of the most stressful experiences.

A crucial issue for nurses who care for children in the NICU or the PICU is how to best support and help parents during their child's hospitalization. Our findings on the PCS:PICU indicated that greatest difference between parents in the two units

related to the importance of being assisted by staff with the parenting role, with parents of children PICU thinking this was more important than parents with children in NICU. We recognize that in our study Cronbach's alpha were low (NICU = .46, PICU = .41) for the Assistance with Parental Role subscale. However, because parents in this study showed on the stress measurement instruments that their greatest stress was related to alteration in parental role, we felt it merited our attention in the examination of helpful staff behaviors.

Differences in parents responses between the NICU and PICU settings were also examined by looking at means for PCS:PICU subscale items. Parents of children in the NICU found most helpful being able to telephone, immediate attention to their child's changes, being provided with hope, and being informed of progress. Parents of children in the PICU found most helpful being allowed to stay with their child, being helped to do things for their child, being informed of progress, being able to telephone, and the staff being sensitive to their needs. These item differences seem to convey a general difference in parent orientation.

There were significant differences between parents in the different ICUs on two subscales of the PCS:PICU Coping Responses section. Parents of children in PICU were helped more with activities focusing on problems than were parents of children in NICU. However, it should be noted that the Problem-focused coping subscale mean score for parents of children in NICU was higher than other NICU subscale scores. The item on the Appraisal-focused coping subscale with the highest mean for parents in both the NICU and PICU, was related to believing their child was getting the best care. This clearly shows that it is extremely important for parents in both units to feel that their child is getting the best care possible. The item on the Problem-focused coping subscale with the highest mean for parents of children in the NICU was also related to making sure the child was getting the best care. The item with the highest mean for parents of children in the PICU the item with the highest mean was related to being near their child.

Limitations of this study include the relatively small numbers of subjects in the subgroups. Also, more definitive analysis could have been performed if the same instrument could have been used in both ICUs for examining parental stress. A strength of this study was that both ICUs were in the same hospital cultural environment. Also, comparing and contrasting parents in the two ICUs was

enhanced by studying parents in the two ICUs at the same time, with use of the same research methodology.

Implications for Nursing Practice

The parenting role is extremely important to parents of children in both the NICU and the PICU and would support attention to the general idea of family centered care. In this study, parents of children in PICU felt that actually staying with their child was most important, whereas parents of children in the NICU needed most to be able to have effective communication with the staff related to being able to call the unit, being offered hope, and being informed of their child's progress.

The child's appearance and behavior was stressful for parents of children in both the PICU and the NICU. Although little can be changed about the appearance and behavior of a critically ill child, nurses can reduce the magnitude of the stressor by helping parents to understand what is happening. Organization of the environment can improve the appearance of critically ill children. More specifically, tubing can be arranged so that it appears organized, bed linen can be kept clean, and blood and other body secretions can be removed as they accumulate.

SUMMARY FOR APPROPRIATE NURSING INTERVENTIONS IN BOTH ICU SETTINGS

Competent Care for Child

Provide quality care for child. Tell parents and show that you will be watching their child carefully and know how to care for acute episodes, such as apnea or difficulty in breathing.

Parental Presence

Encourage parents to stay at their child's bedside. Make them feel welcome. If parents are unable to stay at the bedside, find out why. Often lack of parental presence is caused by factors such as finances or child-care, that can be remedied by a social service consult. Be accepting and supportive to the few parents who can not stay with their hospitalized child because of the emotional distress they experience when at the bedside of their sick child.

Communication

Provide parents with clear, continuous, consistent, and honest communication about their child's condition, plan of care, and current status.

Comforting

Allow the parents to assume the role of comforter. Teach parents ways they can comfort their sick child as appropriate to their child's developmental level. Listen and believe parents when they say their child is in pain and then treat their child's pain appropriately.

Child's Appearance and Behaviors

The parents need to have an explanation for the changes they see in their child's appearance and behaviors. Even parents of a newborn infant have expectations of what their child should look and act like. Explain the child's disease processes and responses related to the child's developmental stage. Explain those things that act as stressors for the child (noise, light, immobility) and the need for various procedures and equipment.

Caregiving

Allow parents to resume some of their role as caregiver for their child. Parents can give care to even the sickest of children if they are taught what to do. Parents can in many situations, for example, apply skin lotion, take axillary temperatures, reposition, and comb the child's hair. As the child's condition improves the parents should be taught and encouraged to assume more and more of the child's care.

Coping

Encourage parents to do things they have done in the past that effectively helped them cope with difficult situations. Assess and support parents' coping styles.

Parental Needs

Be sensitive to individual needs of parents. Parents may be dealing with many other problems in addition to the crisis involved with the hospitalized child. Facilitate spousal support for each other.

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