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Enhancing Sibling Presence in Pediatric ICU

Janlyn R. Rozdilsky, RN, MN, CNCCP(C)

Clinical Nurse Educator, Pediatric Intensive Care Unit, Royal University Hospital, 103 Hospital Drive, Saskatoon, Saskatchewan, Canada S7N 0W8

Four-year-old Jamie stands transfixed and rigid at the foot of his infant sister's crib. She has required intubation and ventilation for an acute viral respiratory illness. Jamie's eyes are wide. His mother strokes his hair, rumpled from a night of sleeping in the family waiting room. You ask if he has any questions. He shakes his head "no" but wants to leave immediately. Before you can reassure him, he is at the door. His mother escorts him back to the waiting area. He does not return for the remainder of your shift.

Samantha, 16 years old, rushes frantically over to her sister's bedside. Her 14-year-old sister, Sibyl, remains unresponsive, still under the effects of anesthesia from surgery to repair internal and orthopedic injuries sustained in a car crash last night. Sibyl's face is puffy and pale, with a few superficial abrasions and bruises. Samantha grabs her mother and cries, "Her face, her face—just look at her face. You said she was going to be okay." You explain the temporary nature of her sister's appearance, and Samantha becomes more upset. Sibyl begins to move and her monitor alarms. Samantha becomes even more distressed and is requested to return to the family waiting area.

Sam has cerebral palsy and yesterday had spinal surgery to correct severe scoliosis of the spine. Sam is intubated and asleep with the help of analgesics and sedatives. His 10-year-old brother, Jason, saunters into the room. He looks at his sleeping brother, then asks if Sam has had any seizures since his operation. The nurse answers that he has not had any. Jason then wants to know why his brother is not awake, and if Sam will be able to have dinner tonight.

Hospitalization of a child dramatically affects the entire family, including well siblings. A critically ill child demands highly technical and patient-focused nursing; how we respond to their well siblings influences the view, the response, and the coping of well brothers and sisters. Although family-centered care is integral to the pediatric settings, the focus often is on the critically ill child and parents. The needs of parents are widely identified [1–8]; however, little has been written regarding the brothers and sisters of the critically ill child. Nurses may overlook siblings and assume parents and other family members are supporting them; however, distraught parents may not have the insight to identify the needs of their well children [9], not know how to explain the situation [10], or even realize that well siblings benefit from being with their ill sister or brother. Siblings frequently remain invisible, are relegated to the waiting room, are rushed in and out, or are sent home with relatives.

Although most pediatric ICUs (PICUs) permit sibling visits [9,11], few have developed sibling policies or educational resources. This results in little staff or parental education regarding well sibling needs and little support for the sibling when present. Integrating knowledge of child development and well sibling stressors, along with understanding of illness and family adaptation, creates a sibling policy that enables PICU nurses to use their expertise and situation to provide holistic care to critically ill children and their family support systems.

Family: the changing center of children's lives

Family-centered care seeks to understand experiences from the perspective of the child and their

E-mail address:

janlyn.rozdilsky@saskatoonhealthregion.ca

family [12]. While families work toward maintaining integrity by supporting each other, each member's actions and reactions have a dynamic influence on roles and relationships within the family [1]. Because parental reactions strongly determine the family's abilities to cope and rebuild after critical illness of a child [1], assessing the impact of parental reactions, along with changes in routine and relationships within the family, is important in facilitating well sibling care.

Changes in parenting behaviors

Admissions to PICU cause a great deal of parental guilt associated with not recognizing symptoms, not seeking care quickly enough, or not preventing the occurrence. Parents are on a "roller coaster" of emotion during this time [1], and often must adjust to an outcome involving some form of loss [1,5]. Not surprisingly, the critically ill child becomes the focus of the parents' lives [1,2,5,13]. Everything else is put aside to protect, to comfort, and to make decisions related to the critically ill child [1-3,6,14]. How this obvious stress, grief, preoccupation, and fatigue specifically influence parenting and interactions with well children has been explored only partially.

Changes in parent behavior are a significant source of stress [15-17]. Well siblings perceiving parenting changes of less supervision, less emotional availability, and greater anger showed higher stress compared with those not reporting these changes [10,15]. Greater parental behavior changes were reported by well siblings than by the parents themselves [18]; this indicated that parents are unaware of their own responses when immersed within the crisis of a critically ill child.

Because understanding of illness results from an interplay of educational, social, and cultural influences, parents with limited formal education or who are socially disadvantaged may have less understanding of the complexities of the situation, fewer problem-solving strategies, and fewer resources to cope with their ill child's situation. Therefore, they are less able to support well siblings [8,15]. Lower socioeconomic status of the mother correlates with increased well sibling anxiety [15,19], possibly related to less maternal attention toward well siblings and less ability to assist them through the event [15]. How specific cultural understanding of illness influences parental reactions has not been explored [8]. However, if language barriers, religious beliefs, and ethnic health care practices limit understanding or acceptance of the science and technology inherent in the intensive care setting, ensuing parental stress

and conflict is perceived by well siblings and adds to their stress.

Substitute caregivers

The extra demands of a critically ill child necessitate reframing and reassigning parenting and other family roles and duties [7], especially if the PICU is located some distance from the family home or hospitalization is of long duration. Although substitute parenting is undertaken in an effort to normalize the lives of well siblings [7], these arrangements can produce feelings of vulnerability, uncertainty, and emotional abandonment [15]. Research is unclear on what care arrangements minimize sibling stress. Knafl [20] found that siblings cared for outside their home or by rotating caregivers had increased stress as compared with well siblings who were cared for in their homes by a consistent caregiver. Simon [16] found that siblings who were cared for outside their home by neighbors had less stress than did siblings who were at home with relatives; differences were attributed to the relatives being more upset. Sibling stress also was greater if parents expected well siblings to adjust easily to these changes [20]. Clearly, changes from the usual living situation or routine [15-17] coupled with parental absence can create stress for the siblings.

Sibling relationships

Siblings play an important role in each other's emotional and psychologic development—and aside from parents—form the most long and enduring relationship within a child's life [21]. Sibling bonds before hospitalization influence well sibling reactions. Siblings describing themselves as "best friends" show increased stress levels as compared with those who rated their relationship as less close [16].

Pediatric intensive care hospitalization creates changes within sibling bonds. Carnevale [1] described the parental attachment to the injured child as immediately increasing, and bonds between the other well children strengthened to support each other through the initial crisis and parent's divided attention. At the same time, sibling bonds with the injured child weakened slightly, related to absence from the family unit and fear of losing the ill sibling. Sibling bonds often must be reworked following the critical illness, and may change permanently to protect or distance the ill or injured child.

Given changes in family social structure that produce more one-parent, two working-parent, and blended families, the impact of siblings on one an-

other may be even greater [17,22]. Older siblings provide substitute parenting during hospitalization [2]. How this change in relationship alters future sibling relationships requires further study.

Siblings' perspectives of critical illness

Because there are no studies that explore responses of well siblings to the critical illness of their sister or brother, responses of children with siblings in other acute care settings, and children's general concepts of illness provide the framework for nursing and parental interventions.

Influence of maturation and experiences

Knowledge of growth and development is crucial in understanding well siblings' reactions and planning interventions [9,23–25]. Piaget [26] described understanding as constructed through increasingly sophisticated processes involving biologic maturation, assimilation of experiences, and social interactions. Children's understanding of illness follows a similar maturational pattern of prelogical, concrete logical, and formal logical sequencing [27].

In the prelogical stage, the young child is unable to see self as separate from others, and so react similarly to those around them. Thus, sensing their parents' emotional distress and physical reactions, the child reacts in like manner. Because object permanence has not developed, separation from parents and siblings produces distress; what is out of sight ceases to exist in the world of the toddler. This egocentric perspective places themselves central to world happenings with illness resulting from something immediate in their lives. For the toddler, cause and effect are unclear, and creates "magical thinking" where thoughts influence happenings (eg, not sharing a toy with a sibling can be seen as causing their sibling's illness). Likewise, not thinking about an event can prevent its happening. Jamie, the 4-year-old who was described earlier, wants to leave his infant sister's bedside and refuses subsequent visits as a way of coping with a situation that he does not understand. Unfortunately, hospitalization also may be seen as punishment, especially if parents have used this threat as disciplinary measure [23].

During the stage of concrete logical explanation, the preschooler to early school-aged child begins to distinguish self from surroundings and realize cause and effect. Illness, although not always visible, is something internal with an external cause, such as germs. Wellness is dependent upon conformity to

rules, so children may become extremely diligent at routines, such as hand washing. Children understand more than they can articulate, so they need to be provided with information rather than having to ask questions. Although multiple points of view are understood, experience is lacking to determine the validity of each perspective; this results in misconceptions about illness if varying explanations are used.

The formal logical explanation of illness in the older child and adolescent, as in the adult, is grounded in the understanding of physiologic processes. Formal education, and social and cultural factors strongly influence the development of this abstract form of reasoning [23,28]; however, experientially acquired knowledge creates a novice-to-expert progression in conceptualizing illness, and increases perception and problem solving related to illness experiences [27]. Therefore, well siblings with previous illness experiences often have a greater understanding of their ill sibling's situation [27], especially if many of the circumstances are similar [28]. In the third vignette at the beginning this article, Justin, at 10 years of age, demonstrates a mixture of concrete and formal logic. He asks about Sam's seizures, something familiar, but he does not understand the other unfamiliar aspects of Sam's intensive care. Because most well siblings have no previous experience with the PICU environment, information provided by nursing staff and parents influences their interpretation and coping with critical illness.

A mixture of emotions and behaviors

Children are acutely aware of changes in their environment. When well-meaning adults try to shield them from unpleasant situations by providing little or no information, their stress is accentuated [5,15, 29–31]. Because children's imaginations are their strength and weakness, gaps in information are filled with vivid and imaginative pictures that often are more distressing than reality [5,21,29]. The situation—imagined or real—can produce emotional, psychologic, and physical disruptions [24] if coping resources are exceeded. Feelings of isolation and loneliness can be severe [32,33], fueled by diminished attention from parents, substitute caretaker arrangements, and lack of information about what is happening. Physical or emotional separation from parents also can be interpreted as withdrawal of love, abandonment, punishment, or rejection. Diminished attention from parents can lead to jealousy. This can be expressed in statements such as, "My parents pay less attention to me because they love me less" [1].

Feelings of resentment may surface in the form of angry outburst, acting out, and attention-seeking behaviors. Guilt surrounding these new feelings and behaviors only adds to the well siblings' stress and may precipitate regression or reversion to previous coping behaviors. Young siblings may require their favorite blanket or toy, seek more attention, or become withdrawn and cling to parents. Older children may disconnect from friends, depend excessively on parents, and need detailed instructions on previously mastered tasks. Other manifestations of stress in well siblings may include physical symptoms, such as inability to sleep, bad dreams, refusing to eat, overeating, or bedwetting [24,34]. Whether siblings are provided with information is not the question, but when and how this information is shared can add to sibling stress or enable growth within the crisis situation [24].

Sibling presence benefits family adaptation

Family members, including siblings, are not mere visitors but are an essential component of the ill child's life [1]. Sibling presence helps to facilitate family adaptation to hospitalization [15], can help to retain the feeling of "family" [7,33], and helps children integrate a stressful situation into their lives [9,16]. Presence at the bedside helps siblings cope with the intense emotions, stress, and change that are brought about by this event [1,10,11,16,21,31,34,35]. Siblings have an opportunity to see, feel, and touch their sibling, so they can reassure themselves that they really exist [15]; this helps them to dispel fantasies in young children, such as Jamie [5,33]. Being with their ill sibling may assist older well siblings in understanding the changes in their lives, why parents need to be with the ill child, and why parents are acting differently. Understanding can bring increased feelings of control that potentiate adaptation and growth in the situation. Shared experiences, even if stressful and unpleasant, can unite a family and produce growth and adaptation within the family [36]. Support and interventions that are aimed at maintaining a functioning family unit will assist with the hospitalized child's recovery and integration back into their family [1].

Nurses caring for critically ill children are situated ideally to lessen the detrimental effects of intensive care hospitalization on well siblings through direct interventions that are aimed at preparing siblings for the PICU environment, and through indirect interventions that are aimed at parental education and support. Development of a sibling policy is instru-

mental in optimizing the well sibling's presence in the PICU; however, barriers to implementation need to be identified and eliminated for successful integration of siblings.

Sibling presence: a good idea but not on my shift

Despite evidence that supports the importance of including children in any family member's hospitalization, there has been resistance to children's presence in ICUs expressed as concerns of increased nursing time, increased risk of infections, effects on the patient, and psychologic trauma to the child. Whatever the underlying reason, children virtually have been unseen in many intensive care settings.

Children take nursing time

When children's hospitals were established, restricting visitors was a way of protecting them from the undesirable influence of their impoverished environments. With advances in medicine and professionally trained nurses, hospitals became militarily regimented institutions with "doctor knows best" paternalism. Families were relegated to short Sunday visits, least they upset their children and hospital routine [23].

Even now, despite more family-centered initiatives, nursing and medical staff still question the effect of children's presence on workflow [9,10,33] and nursing time [29], and worry about supervision [33,37]. Although there has been little investigation of staff concerns, several studies indicate increased staff acceptance following the experience of facilitated sibling visits; this suggests that reluctance is of habit, rather than necessity [37–39].

Children have infections

Transmission of infection from well siblings to brothers and sisters within the PICU has not been investigated; previous studies within neonatal intensive care settings have not validated these concerns [39–42]. Because most problematic organisms are hospital-acquired or of endogenous origin, the risk of infection from the well sibling should be no greater than from any other visitor, as long as infection-control measures (eg, hand washing) are adhered to (Sharon Cronk, RN, BSN, Infection Control Practitioner, personal communication, 2004).

There is no documentation of the reverse situation of well siblings contacting infection from the ill sibling or hospital setting. Although adherence to

isolation precautions decreases the risk of infection, the development of antibiotic-resistant strains of bacteria and pandemics of little understood illnesses (eg, Severe Acute Respiratory Syndrome) raise the question of risk to well siblings. McIvor [43] acknowledged increased risk to infants younger than 9 months of age because of immature humoral immunity. Personal colleagues suggest that siblings who are younger than 2 years of age have little concrete understanding of the situation and immature immune responses, and should be restricted from bedside visitation. Although actual infection risks to well siblings needs further investigation, parents need to be informed of the infection risks to well children that are inherent in any hospital setting, not only the PICU.

It is upsetting to my patient

Studies done in adult intensive care concluded that family presence does not produce any greater physiologic stress, as reflected in vital signs, than other care interventions [44]. It is essential that PICU nurses assess the effects of any interactions—parental, sibling or health care staff—on their patient and implement alternatives if detrimental changes result. For the awake and aware child, sibling visitations help to maintain a feeling of normalcy and routine and foster a sense of caring and family integrity.

There is only one mention of a poorly supervised toddler pulling out a medication line. The resulting consequence was a stricter limitation on visiting by young siblings, rather than an increase in preparation and supervision of the sibling [35].

Children will have nightmares

The main reason cited by parents for limiting children's visits is the desire to protect the well siblings from the sights and sounds of the PICU [9–11,31]. Parents often feel unprepared or incapable of supporting the well sibling because of their own distress or believe that the child is too young to understand or cope [31]. However, this lack of information and the lack of bedside presence leaves well siblings formulating their own interpretations; they often imagine that the situation is worse than reality [21,29].

Simply permitting well siblings to visit without preparation and support may have unintended consequences. Well siblings who visited daily demonstrated greater stress than those who visited every other day or weekly; this suggests that intense contact may be more anxiety producing than reducing [16]. There are few anecdotal reports of children experi-

encing nightmares after a nonfacilitated visit to an adult ICU [25]; however, children who were prepared for what they saw before visiting a critically ill parent were not frightened but did desire more information [34]. Nicholson and colleagues [35] reported fewer negative behaviors in children who visited an adult ICU following a facilitated visitation program; this suggests the importance of nurse-based interventions.

The desire to protect is echoed by nursing staff that limit or deny sibling presence [9–11,31]. Nurses need to examine honestly whether this is used as a way to protect siblings or a way to shield themselves from the demands and emotions that are generated by children visiting because sibling presence humanizes the critically ill patient [9]. However difficult, providing emotional care for the siblings can provide rewards that are not gleaned from other aspects of intensive care nursing, and provide a way of knowing the ill child though his or her siblings [45]. This points to the importance of providing parents and nurses with education that alleviates their concerns and policies that provide strategies to support siblings at the bedside.

A sibling policy makes presence possible

A sibling policy indicates to families that they are valued and that thought is given to all members of the family. A sibling policy enables the nurse to make sound clinical decisions based on knowledge of growth and development; family systems theory; and current literature applied in a skilled, caring, consistent, and individualized manner—not just bending the rules whenever it seems to be justified [10].

Structured visitation programs have been introduced and advocated by adult and neonatal intensive care areas as a way of increasing staff comfort levels in dealing with children and diminishing resistance to child visitation [11,25,35,37–39]. These programs include a screening for infection, facilitated visits, and a debriefing session after the visit. Although evaluation of these programs is limited, no reports of such programs within PICU were found. This may be due to the PICU nurses' comfort in working with children and broad acceptance of family-centered care within these units. Help from the clinical nurse specialists, child life workers, and social workers may be valuable. Because not all PICUs have these supports and many situations occur during off hours, education of the bedside nurse is essential for ensuring sibling support is available night and day. Sibling policy should be reviewed with

Table 1
A parent's guide to helping children visit in the PICU

Age	How child sees world	Things to consider
Infant Up to 18 months	Afraid of separation from caregivers May be afraid of strangers Upset by changes in sleeping or eating times Watch parents and others around them to see how to react to new situations	Will not remember places or what happens but sense how those around them feel and will react in like manner Try to keep to child's usual schedule Visit when child not tired or hungry
Toddler 1.5 to 3 years	See themselves as center of their world May have magical thinking about why things happen Don't understand much about being sick or hurt Watch parents or others around them to see how to react to new situations Needs usual routines (nap time, snack time) to feel in control May have tantrums, more crying and clinging when stressed Needs space to run and play away from hospital	Keep explanations simple like "your brother has a sick tummy" or "your sister has a hurt head" Tell them nothing they did or thought about caused illness Keep favorite toys or blankets close by to help them feel safe Help them use words to tell about how they feel or ask questions. Give them lots of time to find words. Get them to draw a picture or tell a story about how they feel or what they see Keep time at hospital short
Preschool 3 to 5 years old	May ask many "why?" questions Take words to mean what they know from everyday life. For example, may think a "broken leg" is broken right off as with a broken doll May think that their thoughts or actions caused things to happen (eg, brother is sick because thought they didn't like him or sister is hurt because they bumped them with toy) May have trouble sleeping, eat less, or be active after visiting Only understand a bit of the situation	Keep explanations simple Try not to use scary words like "cut" Ask them about what they are feeling and give them lots of time to get their feelings and thoughts out Drawing pictures or telling stories with dolls or puppets may help Tell the child it is not their fault their brother or sister is sick even if it does not seem possible that they might think that May choose not to visit and use other ways to keep in touch (eg, pictures or videos) Child may respond in matter-of-fact way and want to leave soon Point out familiar things like toys, blanket, book
School age 6 to 12 years	Listens well and beginning to understand more complexity May say they understand to look more grown up May not want to ask questions because they are embarrassed Like to feel in control of situation May be embarrassed if express emotion such as crying Beginning to understand body injury and may have questions about death May remember details but in an exaggerated form May be afraid they will get sick as well	Ask what they know about the situation Provide more information even if don't ask Illustrations may help them to understand May feel guilty about brother or sister being sick or injured because can't help them May want 1 or 2 days to think about visiting and prepare themselves Keep visits short (5 to 10 minutes) in case embarrassed by emotions that are not controlled May benefit from concrete task (hold hand, put on lotion, read story) Point out familiar things like pictures, toys, blanket Let them know it is okay to cry and okay not to visit Let them know that the chance of them getting sick as well is small Keep answers honest. Tell them what you know and don't know. Give them time to prepare for visiting
Adolescent 12 to 17 years	Like to be in control Like to be with friends (peer group) Understand situation as whole and what it means in longer term May look physically grown-up but still need lots of support and understanding	Try to help them keep in touch with their friends if possible Carefully explore what they know and don't know, because they may worry about what others think and don't want to be embarrassed

(continued on next page)

Table 1 (continued)

Age	How child sees world	Things to consider
	<p>May have many questions, some with no easy answer</p> <p>Have clear understanding of body injury and may have questions about death</p>	<p>Reactions may be out of proportion with event—may be upset or crying, or not talk at all</p> <p>Encourage them to talk about feelings instead of acting out feelings</p> <p>Try not to give them too many adult responsibilities during this time. They may not want to help with family decisions. Ask them about this.</p> <p>Keep answers honest. Tell them what you know and don't know.</p> <p>Have support persons (social worker, teacher, spiritual leaders) speak with them if appropriate</p>

all parents, even those not asking about well sibling presence, because it introduces the possibility of sibling presence. It also provides time for parents to share concerns about sibling coping and care arrangements, and offers the nurse insight into family dynamics, adaptation, and understanding of the situation. It also may identify financial, travel, and accommodation concerns that require interventions through other resources and agencies.

Helping parents prepare

Preparation for the well sibling should begin with a discussion with the parents because they know their children the best. Although parental perspectives need to be respected, parents often express reservations about how to explain the situation to their children. The nurse can support the parents to do this or provide the previsit preparation for the sibling. Whoever is speaking with the child needs to be honest, even if this is painful. Children, who believe that they are lied to—even as a protective strategy—may develop distrust of the people they love and depend upon the most [24]. It is not necessary to tell everything, but rather to share the seriousness of the illness and understandings of what may happen, including the changes that may result in the well sibling's life. Reassure the sibling that they did nothing to cause the illness, and provide accurate information about the risk of themselves or others becoming ill with the same thing and measures that are taken to minimize the risk [5,24].

Helping parents to prepare for their well child's reactions and questions enables confidence in their parental role. Providing verbal or written information about common reactions of siblings provides examples of how to explain illness and deal with reactions in a developmentally appropriate manner (Table 1). Alerting parents to extreme reactions, such as per-

vasive feelings of guilt, persistent regressive behavior, use of alcohol or drugs, or threats of self-harm, needs to be included so parents recognize maladaptive behaviors and seek early professional interventions. It is essential that verbal explanations reinforce any written material to ensure comprehension where literacy and language difficulties exist.

Health screening

Previsit discussion should include a health screening that focuses on current health, immunization status, and contact with infectious disease. A structured approach using a checklist as a guide ensures that no important information is missed (Box 1). A brief visual check of the sibling can validate there are no "cold" symptoms, rashes, or other obvious exclusionary conditions. Rather than repeating the health screen with each sibling visit, educate parents to monitor the entire family's health, including adult visitors, and inform the staff of any changes before entering the PICU.

If the sibling does not meet the health screening criteria, it is essential that he or she receives an explanation of why he or she cannot visit. Siblings need to be assured that they have done nothing wrong, can visit in the future, and strategies should be undertaken to maintain sibling contact (eg, sending pictures, stories, or videos to be shared).

Offering alternative strategies and a tentative time as to when visiting may be feasible should be provided. Visiting with precautions may be warranted if opportunity for sibling presence is limited, as in end-of-life situations.

Guiding the visit

Parents often may feel hesitant about their abilities to represent the situation accurately and appreciate

Box 1. Sibling health screening tool

In an effort to protect the child in PICU from infection, please ensure that the following are asked:

Does the sibling have any of the following conditions or symptoms?

Sore throat
Cough
Runny nose
Fever
Stomach flu (vomiting, diarrhea)
Rash
Cold sore or herpes infection
Impetigo
Open wound or sore

Has the sibling been in contact with any of the following within the past 4 weeks?

Chickenpox or shingles
Mumps
German measles
Measles (rubella or rubeola)
Roseola
Fifth's disease (parainfluenza)
Strep throat
Pneumonia
Whooping cough (pertussis)
Tuberculosis
Hepatitis
Croup
Respiratory syncytial virus
"Colds"

If yes to any, check with physician or Infection Control Practitioner before permitting visit.

the nurse's assistance. Preparation of the sibling should focus on what they will see, hear, and smell during the visit, including a brief general description as to their brother or sister's level of consciousness, obvious injuries, and invasive tubes and lines. Mentioning that their brother or sister is unclothed may help to alleviate discomfort for older school-aged children or adolescents who are struggling with body image and modesty.

Time should be given time for the well sibling to process this information, appropriate to their devel-

opmental level and urgency of the situation. For young children like Jamie, presenting information as close to the time of the visit as possible increases understanding and retention. Older children, like Samantha, may benefit from time to think about, ask questions, and psychologically prepare for the visit, which may lessen the emotional outbursts at the bedside. Provision of a handout tailored especially to the older sibling may help them to feel more included in the information process. Sibling decisions not to visit need to be respected but explored for misunderstandings that are leading to fears. The choice of visiting later should be left open to accommodate changing needs and desires (Box 2).

Whenever possible, arrange the first visit when the nurse can give the sibling some attention, guidance, and be available for questions. With 4-year-old Jamie, for example, pointing out familiar and normal behaviors (eg, opening eyes) and familiar objects (eg, a mobile for his infant sister) can help him to feel more secure in a strange environment. Simple explanations of ECG leads as "special stickers" and intravenous lines as a way of getting water when someone cannot drink can reduce fear of equipment. Blood transfusions can be referred to as "special red medicine" for preschoolers who often equate blood with experiences of trauma. Although the most alarming sights (eg, wounds, external fixation de-

Box 2. Alternatives to visiting

Children may not want to visit their brother or sister. They should not be forced to visit. Ask them again in a few days because they may change their minds.

Here are some other ways that they can keep in contact with their sick brother or sister:

Choose pictures of family, themselves, or family pet or home to be in brother's or sister's room

Draw pictures of family, pets, and favorite activities to hang in room

Write a letter, story, or poem that describes how they feel about their brother or sister or about what they did today

Tape record stories, songs, or messages to be played for the brother or sister

vices, drains) should be covered for young siblings who may not understand their necessity, the fascination of the school-aged sibling with technology may trigger questions about where tubes disappear to, what is under the covers, or the purpose of various equipment. Although answering questions does take up nursing time, how questions are answered is important. Words used with youngsters, such as Jamie, need to be chosen carefully because they can be interpreted in their literal sense. Avoid words with mixed meanings or synonyms, such as “dye” and “die.” Death and anesthetized states should not be described as “going to sleep” because the young child then may fear going to sleep.

Keep initial visits brief, usually 5 to 10 minutes. Younger children have limited attention spans. As with 4-year-old Jamie, their concepts of permanence may have them wanting only a quick look to assure themselves that their sibling still exists and then wanting to leave. Older children and teenagers have concerns about how others see them, and may struggle to maintain composure. For them, an initial short visit provides a graceful way out of a difficult situation. Older children also want to appear grown up and knowledgeable so they may not ask any questions and say that they understand when they do not. Encouraging questions can provide the nurse with insight into what meaning the situation has for them and their family. The nurse also needs to anticipate overreaction by adolescents that may be out of proportion and border on hysterics. With Samantha, the nurse’s calm demeanor and explanations of why her sister looks the way that she does and how this is expected to improve may dispel fears. Helping her focus on what she can do for her sister (eg, holding a hand or putting on lotion) may provide a channel for her emotions and a moment for her to regain composure.

It is important to address siblings directly—rather than through a parent—to help decrease their feelings of invisibility. During times of stress, sibling’s normal feelings of jealousy, rivalry, and hostility may become more pronounced. An adolescent’s angry, “You know he isn’t the saint everyone is making him out to be” [1] illustrates the need for discussion of overwhelming and conflicting emotions. Acknowledgments of “You must have many feelings and questions about your brother/sister” can diffuse the situation, minimize parental reprimands, and focus attention away from the remark while still acknowledging sibling needs. Encourage parents to respond to the feelings behind the outbursts rather than what was said. Help parents reassure siblings that it is common to have a mixture of feelings during times of stress.

Although structured preparation is ideal, it should not limit the frequency and timing of sibling visits. A few minutes of briefing at the doorway or at the bedside to discuss the predominant sights, sounds, and smells may help the well sibling prepare if formalized preparation is not feasible, such as in a life-threatening situation. Children, like adults, may remember how they were treated more than what they actually were told or saw during stressful times. The nurse must also be able to accept silence—situations where words cannot express the emotional burden that is weighing on all members of the family.

Addressing concerns about death

Obviously, admission to a PICU signifies a life-threatening illness. Well siblings often ask the nurse, sometimes unexpectedly, if their brother or sister will die. Although the nurse needs to be respectful of the parent’s decisions regarding how poor prognosis is explained, it is essential that the sibling receive honest answers. The nurse can assist the parents to share with them what is known and not known about the situation. When death is imminent, the nurse can share with parents what is known about children’s understanding of death at different developmental levels. Remind parents that school-aged and older siblings probably already know the gravity of the situation having gleaned their own interpretations from overheard conversations, parents’ demeanor, previous experiences, and their own observations.

Just as parents need time to say goodbye, so too do siblings. If possible, specific time for brothers and sisters with their parents should be provided, keeping in mind that older siblings may need privacy to express emotions. Give siblings the same opportunities that are offered to parents—the chance to hold infant siblings, or share a last snuggle in bed with an older sibling. Children should never be forced into behaviors. Giving a goodbye kiss may be awkward for the adolescent sibling, so suggesting giving a hand a squeeze or whispering a private message into the dying child’s ear may be more accepted by this age group.

Siblings may remember little else but being included in this life event. Understanding of children’s concepts of health, illness and death, developmental expressions, and coping strategies may better prepare the nurse for the emotional expressions of grief by the well siblings. Without this, strong emotional reactions of the sibling may be a source of extreme stress for the nurse who already is struggling with not being able to sustain the child’s life. Being

able to provide effective support by being attentive, calm, and honest during the ill child's death may assist the family bereavement process [46] as well as bring a sense of closure for the nurse.

Creating a child-friendly atmosphere

The hospital can be a frightening place for children. Efforts aimed at creating a child-friendly atmosphere need not be elaborate or costly. If the child is in a private room, inclusion of siblings' names on a family name board gives siblings feeling of inclusion and importance while assisting busy, often changing nurses in caring for the family. The physical atmosphere of the family area should be inviting to siblings. Inclusion of child-sized tables and chairs, movies, books, toys, and drawing materials at different developmental levels can make siblings feel welcome and help pass the time. Families should be encouraged to stay at child-friendly facilities with resources especially for siblings (eg, playrooms, outside play equipment, and communal family areas). This encourages interaction with siblings from other families, and provides much needed opportunities for play and interaction.

If isolation precautions are needed, the use of child-sized pajama gowns as isolation gowns can make the sibling feel more comfortable and provide better protection than a gapping adult gown. If time permits, the sibling can be given isolation masks to decorate. The use of various nose and whisker combinations can lighten the atmosphere; having the parents and health care team wear these creations give the sibling a sense of accomplishment and pride.

Summary

Although nurses provide many types of support to the ill child they cannot overlook the needs of well siblings. Nurses cannot and should not serve as surrogate parents; however, the support and education that they offer can diminish well sibling feelings of loneliness and isolation. Direct interventions that are aimed at helping the sibling prepare for sights and sounds of the setting help them to maintain a sense of control and help them feel included and useful.

Providing parents with research-based insights into the impact of hospitalization on the well siblings helps them to understand the effects of hospitalization, maintain a parenting role, and anticipate stress produced by altered routines. A sibling policy

ensures that parents are aware of the possibility of sibling presence, helps them approach discussions with well siblings in a developmentally based way, and provides them with proactive strategies to assist well siblings to cope. For nurses, an understanding of well sibling stressors enhances preparation and guidance given to siblings, and diminishes nurse anxiety associated with sibling presence. A sibling policy provides nurses with a framework upon which to base assessments and ensures that interventions to support siblings are provided at the bedside; these enhance family-centered care.

Although the PICU setting is only a portion of a child's hospitalization, much of the family's adaptation to the illness and the future begins here. Although more research is required to strengthen the evidence to support the effectiveness of such interventions and demonstrate which interventions are most effective, helping to strengthen and maintain the ties that bind children to parents and siblings to each other can only enhance the family's abilities to care for each of its members.

References

- [1] Camevale FA. Striving to recapture our previous life: the experience of families with critically ill children. *The Official Journal of the Canadian Association of Critical Care Nurses* 1999;10(1):16–22.
- [2] Chow SM. Parental stress in critical care [master's thesis]. Saskatoon, Saskatchewan, Canada: University of Saskatchewan; 2003.
- [3] Fisher MD. Identified need of parents in a pediatric critical care unit. *Crit Care Nurs* 1994;82–90.
- [4] Giganti AW. Families in pediatric critical care: the best option. *Pediatr Nurs* 1998;24(3):261–5.
- [5] Hazinski MF. Psychosocial aspects of pediatric critical care. In: *Nursing care of the critically ill child*. 2nd edition. Philadelphia: Mosby; 1992. p. 19–77.
- [6] Kirschbaum M. Needs of parents of critically ill children. *Dimens Crit Care Nurs* 1990;9:344–52.
- [7] Mu PF, Tomlinson P. Parental experiences and meaning construction during a pediatric health crisis. *West J Nurs Res* 1997;19(5):608–36.
- [8] Noyes J. A critique of studies exploring the experiences and needs of parents of children admitted to pediatric intensive care units. *J Adv Nurs* 1998;28(1):134–42.
- [9] Clarke C, Harrison D. The needs of children visiting on adult intensive care units: a review of the literature and recommendations for practice. *J Adv Nurs* 2001;34(1):61–8.
- [10] Clark M. Children visiting family and friends on adult intensive care units: the nurse's perspective. *J Adv Nurs* 2000;31:330–8.

- [11] Johnson DL. Preparing children for visiting parents in the adult ICU. *Dimens Crit Care Nurs* 1994;13(3):153–62.
- [12] Saunders RP, Abraham MR, Crosby MJ, et al. Evaluation and development of potentially better practices for improvement of family centered care. *Pediatrics* 2003;111(4):437–49.
- [13] Rennick JE. The needs of parents with a child in a pediatric intensive care unit [master's thesis]. Toronto, Ontario, Canada: University of Toronto; 1987.
- [14] Kasper JW, Nyamathi AM. Parents of children in the pediatric intensive care unit: what are their needs. *Heart Lung* 1988;15:574–81.
- [15] Craft MJ. Siblings of hospitalized children: assessment and intervention. *J Pediatr Nurs* 1993;8(5):289–97.
- [16] Simon K. Perceived stress of nonhospitalized children during the hospitalization of a sibling. *J Pediatr Nurs* 1993;8(5):298–304.
- [17] Small L. Early predictors of poor coping outcomes in children following intensive care hospitalization and stressful medical encounters. *Pediatr Nurs* 2002;28(4):393–401.
- [18] Craft MJ, Craft JL. Perceived changes in siblings of hospitalized children: a comparison of sibling and parent reports. *Child Health Care* 1989;18:42–8.
- [19] Craft MJ, Wyatt N. Effect of visitation upon siblings of hospitalized children. *Matern Child Nurs J* 1986;15:47–58.
- [20] Knafel KA. Parent's views of the responses of siblings to pediatric hospitalization. *Res Nurs Health* 1982;5:13–20.
- [21] Lewandowski LA. Needs of children during critical illness of a parent or sibling. *Nurs Clin North Am* 1992;4(4):573–85.
- [22] Nelms BC. Sibling relationships: more important now than ever. *J Pediatr Health Care* 1990;4:57–8.
- [23] Manworren RC, Woodring B. Evaluating children's literature as a source of patient education. *Pediatr Nurs* 1998;24(6):548–51.
- [24] McCue K, Bonn R. Helping children through an adult's serious illness: roles of the pediatric nurse. *Peds Nurs* 2003;29(1):47–51.
- [25] Pierce B. Children visiting in the adult ICU: a facilitated approach. *Crit Care Nurs* 1998;18(2):85–90.
- [26] Piaget J. *Psychology of the child*. New York: Basic Books; 1969.
- [27] Yoos HL. Children's illness concepts: old and new paradigms. *Pediatr Nurs* 1994;20(2):134–40.
- [28] Kurt SP, Rodrigue JR. Concepts of illness causality in a pediatric sample: relation to illness duration, frequency of hospitalization and degree of life threat. *Clin Pediatr (Phila)* 1995;34(4):178–83.
- [29] Wincek JM. Promoting a family-centered visitation makes a difference. *AACN Clin Issues Crit Care Nurs* 1991;2(2):293–8.
- [30] Klieber C, Montgomery LA, Craft-Rosenburg M. Information needs of siblings of critically ill children. *Child Health Care* 1995;24:47–60.
- [31] Titler MG, Cohen MZ, Craft MJ. Impact of adult critical care hospitalization: perceptions of patients, spouses, children, and nurses. *Heart Lung* 1991;20:174–82.
- [32] Hopper C. Perceptions of isolation: the impact of critically ill siblings on well children [master's thesis]. Montreal, Quebec, Canada: McGill University; 1994.
- [33] Andrade TM. Sibling visitation: research implications for pediatric and neonatal patients. *Online J Knowl Synth Nurs* 1998;5(6). Available at: <http://gort.ucsd.edu/newjour/o/msg/02454.html>. Accessed January 30, 2004.
- [34] Craft MJ, Cohen MZ, Titler M, et al. Experience in children of critical ill parents: a time of emotional disruption and need for support. *Crit Care Nurs Q* 1993;16(3):64–71.
- [35] Nicholson AC, Titler M, Montgomery LA, et al. Effects of child visitation in adult critical care units: a pilot study. *Heart Lung* 1993;22(1):36–45.
- [36] Walker CL. Sibling bereavement and grief responses. *J Pediatr Nurs* 1993;8(5):325–34.
- [37] Meyer EC, Kennally KF, Zika-Beres E, et al. Attitudes about sibling visitation in the Neonatal Intensive Care Unit. *Arch Pediatr Adolesc Med* 1996;150:1021–6.
- [38] Montgomery LA, Klieber C, Nichols S, et al. A research-based sibling visitation program for the neonatal ICU. *Crit Care Nurs* 1997;17(2):29–40.
- [39] Moore KS, Coker K, DuBusson AB, et al. Implementing potentially better practices for improving family centered care in the neonatal intensive care unit: successes and challenges. *Pediatrics* 2003;111(4):450–60.
- [40] Hamrick WB, Reilly L. A comparison of infection rates in a newborn intensive care unit before and after adoption of open visitation. *Neonat Net* 1992;11:15–8.
- [41] Omphenour JK. Bacterial colonization in neonates with sibling visitation. *J Obstet Gynecol Neonatal Nurs* 1980;9:73–5.
- [42] Solhiem K, Spellacy C. Sibling visitation: effects on newborn infection rates. *J Obstet Gynecol Neonatal Nurs* 1988;17(1):43–8.
- [43] McIvor D. Should children be restricted from visiting a relative in intensive care? *Nurs Crit Care* 1998;3:36–40.
- [44] Simpson T, Shaver J. Cardiovascular responses to family visits in coronary care unit patients. *Heart Lung* 1990;19:344–51.
- [45] Benner P, Hooper-Kyriakidis P, Stannard D. Caring for patient's families. In: *Clinical wisdom and interventions in critical care: thinking in action approach*. Philadelphia: W. B. Saunders; 1999. p. 293–332.
- [46] Meert KL, Thurson MA, Thomas R. Parental coping and bereavement outcome after the death of a child in the pediatric intensive care unit. *Pediatr Crit Care Med* 2001;2(4):324–32.