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IDENTIFIER L'IMPACT DU RÔLE DE L'INFIRMIÈRE DE LIAISON DANS LA SALLE D'OPÉRATION PÉDIATRIQUE

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RÉSUMÉ

Une étude quasi-expérimentale comprenant deux groupes (N=92) a été effectuée afin d'examiner les effets de la communication intra-opératoire d'une infirmière de liaison sur l'angoisse parentale. Le groupe 1 a reçu en personne des rapports de l'infirmière de liaison. Le groupe 2 a reçu les soins péri-opératoires standard. Le questionnaire sur l'anxiété chronique et réactionnelle de Speilberger [1] (STAI) et celui développé par les chercheurs ont été distribués aux deux groupes et utilisés comme approche quantitative et qualitative afin de déterminer quelles actions les membres des familles ont trouvées utiles pendant la période opératoire.
Deux cent quatre-vingt feuilles de réponse ont été distribuées à un groupe varié de professionnels de la santé, y compris des anesthésiologistes, chirurgiens, infirmières et autres membres de l'équipe des soins péri-opératoires, tels ceux de la salle d'opération et les services de chirurgie ambulatoire et de salle de réveil. Des feuilles de réponse ont également été distribuées au personnel des services de soins intensifs et de malades hospitalisés. Les résultats ont démontrés que les familles ayant reçu les rapports en personne ont vécu un niveau d'anxiété inférieur, mais que la différence n'était pas statistiquement importante. Les réponses écrites thématiques ont fourni de exemples de comportements démontrant de meilleurs soins et une gestion de temps plus efficace de la part des professionnels de la santé. Les réponses écrites ont validé les scores de questionnaire pour les familles ainsi que pour les professionnels de la santé et ont indiqué un appui pour le rôle de l'infirmière de liaison. Les résultats qualitatifs laissent entendre que l'infirmière de liaison a facilité le transfert de l'information requise entre l'équipe péri-opératoire et la famille, ce qui fournit un mécanisme d'appui pour les familles en situation de stress.

1 Speilberger, C., Gorsuch, R. & Lushene, R. (1969) *The State Trait Anxiety Inventory Manual*. Palo Alto: Consulting Psychologists Press.

DETERMINING THE IMPACT OF A SURGICAL LIAISON NURSE ROLE IN THE PAEDIATRIC OPERATING ROOM

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ABSTRACT

A two-group (N=92) quasi-experimental pre-post test design was used to examine the effects of intra-operative communication by a surgical liaison nurse (SLN) on parental anxiety. Group I received in person progress reports from the SLN. Group II received routine perioperative care. The Speilberger's[1] State-Trait Anxiety Inventory (STAI) Scale and investigator developed family rating scales were distributed to both groups and used as a quantitative as well as a qualitative approach to determine what was helpful for the family members during the operative period.

Two hundred and eighty feedback forms were dispersed to various health care professionals including all anaesthetists, surgeons, nurses and other staff in the perioperative care team, including the operating room, day surgery unit and the post anaesthetic recovery room areas. Feedback forms were also circulated to staff from the intensive care unit and the surgical in-patient units. The results showed the anxiety levels were lower for the families who received in person progress reports but the difference by group was not statistically significant. Thematic written responses provided examples of improved care and effective time management behaviours on the part of the health care professionals. Written responses provided validation for the scale scores for both families and health care professionals and were an indication of the support for the role of the surgical liaison nurse. Qualitative findings implied that the surgical liaison nurse facilitated the transfer of necessary information between the perioperative care team and the family thus providing a support mechanism for families under stress.

BACKGROUND

Surgical procedures are known to be stressful events for patients and family members and may even be more so for parents and children. During the hospital experience, parents like to be involved in their child's treatment and provide support for their child. Instead, parents find themselves restricted with their ability to cope, due to their state of anxiety and lack of information. Previous research suggests that family members feel left out during the intraoperative period.[2] O'Connell[3] reports that family members of children undergoing surgery exhibit feelings of anxiety and also verbalize their anxieties and feelings of isolation. One study compared three parent groups; one having no intra-operative support, a second, receiving information shared with families by a nurse, and a third having the family member accompanied by a 'support' person. The anxiety scores for the group receiving nursing support was significantly lower than the other two groups. Research indicates that contact with family members during surgery reduces their anxiety.[2] Information helps people understand what is occurring and reduces fear of the unknown, thereby enabling them to cope better with the situation. In another study with four randomized samples, receiving various types of support during surgery, the group with the intra-operative nursing support had significantly lower blood pressures (MAP) and anxiety scores post operatively than any of the other groups.[2]

Photo by/par K. MacDonald

The family is briefed by the surgical liaison nurse pre-operatively

In terms of actual surgical time, Donnell has reported that family anxiety levels increase when the length of surgical time exceeds the time originally anticipated.[4] The longer the parent waits, the more anxious they begin to feel.[4] Many unpredictable factors may increase the length of surgical time. By explaining what is happening, the surgical liaison nurse can help reduce family member's tension and it has been commented that general explanations given for delays are especially reassuring.

Clinical research has also examined the role of a surgical liaison nurse as an initiative to improve support, strengthen communication and provide a holistic health approach with the families of

surgical patients throughout the perioperative period.[5] The SLN role opens the lines of communication between the family and the perioperative team. Communication between the OR nursing staff and the parents during the intra-operative period remains a key principle toward enhancing family members' well being. Reports from families, after having received intra-operative communication, include an increased sense of control, and perception that they have received an increased level of care.[2] Puopolo & Cordasco identified that intraoperative communication prepares the family for a more positive interaction with the child during the recovery period.[6]

Although there are limited studies specifically related to the SLN role, review of available literature has demonstrated that face to face communication by a registered nurse is the best way to provide a communication link with families and to reduce their anxiety while their loved ones are undergoing surgery. Decreased levels of anxiety for family members can only enhance their experience in this constantly changing health care environment.

Given current fiscal restraint, and competition for necessary resources, it was important to research the clinical outcomes of intra-operative nursing support. The purpose of the study was to examine the degree to which the implementation of a Surgical Liaison Nurse's role impacts family members' level of anxiety during their child's surgery when compared to current standards of peri-operative nursing care. Pre-study anecdotal evidence from nurses at the study site had revealed that families described feeling very isolated and detached from what was happening when their child was in surgery. Families had stated it was the most stressful and anxious period during their hospital stay. Based on the literature and experiences of other health centers, anticipated outcomes of the SLN role included a decrease in the feelings of isolation and anxiety experienced by families and an increased understanding of the perioperative process.

We hypothesized that families who were less anxious would be more receptive to the post-operative teaching. Not all family members may wish to receive intraoperative up-dates but, if they are being made available, may feel obligated to remain in the Health Centre in order to receive the updates. This would be a draw back, for some, of offering the surgical liaison nurse support.

OBJECTIVES

There were clearly identified gaps in service when it came to meeting the needs of families with children undergoing surgery. The SLN role was developed to bridge this gap and to enhance the service provided by the perioperative team. The objectives of the role as defined by researchers Fowlie, Francis & Russell[7] & Donnell,[4] can be described as:

1. Establishing communication between the surgical team and the patient's family;
2. Providing a support mechanism for families under stress;
3. Enhancing the perioperative role of the nurse in promoting holistic health care for the surgical patient and the family;
4. Promoting a positive image of the health care facility as a family centered care focused facility; and
5. Fostering the perioperative nurses' professional and personal growth.

PROCEDURE

All research involving living human subjects requires review and approval by the IWK Research Ethics Board (REB) before the research is started. The REB was established to help ensure ethical principles are applied to research involving human subjects. After IWK REB approval names from the prospective OR list were randomly selected and contacted by phone. Names were drawn from an envelope and families were randomly placed in either the SLN group or the routine care (RC) group. Routine care normally involved no reports being passed on to family members. Occasionally, in some services, if a case was booked for more than a few hours the surgeon might send one telephone message, regarding the progress of the surgery, to the nursing unit to be passed on the family.

Family members were informed that their role in the study involved completing a brief survey package on two occasions – once before their child's surgery and then again after their child was transferred to the in-patient, or same-day, surgery unit. Potential participants were informed there was a 50% chance they would be assigned to either the surgical liaison nurse support group or routine care group.

Parents were notified, on the day of the surgery, as to which group they had been randomly assigned. Written consent was obtained, at that time, from each subject (parent). A copy of the information form was given to each subject and the pre-op survey was completed.

Instruments

The study package included 5 documents:

1. the information and consent form;
   a demographic sheet;
2. one Speilberger's State-Trait Anxiety Inventory (STAI) survey to measure families anxiety pre-operatively;
3. the same Speilberger's State-Trait Anxiety
4. Inventory (STAI) survey to measure families anxiety post-operatively; and
5. an investigator designed Family Rating Scale (FRS).

Two instruments were used to detect possible changes in parents' anxiety levels and perception of support related to the perioperative and intra-operative period — the Speilberger's State-Trait Anxiety Inventory (STAI) survey and the Family Rating Scale. The STAI survey was administered to both groups of parents no more than one hour before the surgery and the identical STAI survey was administered immediately post-operatively. The FRS was administered post-operatively. Questions were intended to evoke feelings of anxiousness and included participants' reactions to statements such as "I feel secure" and "I feel calm".

The State Anxiety Inventory Form Y-1 of Speilberger's State-Trait Anxiety Inventory (STAI)[1] was used to rate family members' anxiety level. The Form Y-1 is a 20-item self-administered questionnaire that takes approximately six to ten minutes to complete. Although anxiety is not mentioned in the questionnaire, the items are designed to elicit feelings of anxiousness. Respondents indicate on a scale from 1-4 how anxious they are feeling at that moment; a rating of 1 indicates "not at all", while a rating of 4 indicates "very much so". Final scores range from 20 for those who are "not at all anxious" to 80 for those who were "very much anxious". This is well-established instrument with good psychometric properties.

The Family Rating Scale (FRS) was used to determine what specifically was helpful for the family members during the intra-operative period. The FRS elicited feedback on the participants' information needs as they related to the surgical experience and items were scored on a 5-point Likert scale. This survey also included 2 open-ended questions. FRS items included such questions as "did you have your questions answered?" and "Did you receive information regarding your child's condition/progress?" designed to evaluate the effectiveness of the SLN role. The SLN group's FRS had one additional item: "Do you feel that having a contact person helped your anxiety level?" Content validity was assessed prior to the study, by giving the instrument to six families for their review for the relevancy, meaning and clarity of items

In addition to the above-mentioned instruments distributed to study participants; a form was also developed to obtain feedback from health care professionals potentially impacted by the SLN role. Questions were designed to capture the individual's overall satisfaction with the role and any changes in the employee's workload as a result of the SLN implementation.

SETTING AND SAMPLE

This study was conducted in a paediatric operating room at a tertiary center-providing healthcare to women, children and families in eastern Canada. The paediatric operating room provides surgical health services to infants, children and adolescents, and their families, throughout the Maritime region and performs approximately 6,000 surgeries each year. Services include general surgery; otolaryngology; ophthalmology; orthopaedic; urology; neurosurgery; cardiac surgery; plastic surgery; dentistry; ear, nose and throat (ENT); and gastro-intestinal (GI) procedures.

SURGICAL LIAISON NURSE (cont.)

The eligible population included all English-speaking families that had a child pre-booked for an operating room surgical procedure that was expected to last at least one hour. The sample consisted of a subset of 92 families from a total of 145 families invited to participate in the study. Of the total random sample recruited by telephone (n=145), 11 families declined to participate, 47 were randomly assigned to the support (SLN) group and 45 were randomly assigned to the routine care (RC) group. The remaining participants either withdrew from the study (n=11) did not complete all surveys (n=21) or the child's surgical procedure was cancelled (n=11).

FINDINGS

All data were coded and analysed using the Statistical Package for Social Sciences (SPSS) Version 10. Frequency analyses were performed to gain demographic information about the sample.

Demographically, the groups were similar in terms of age of child, number of previous surgeries, and length of surgery. The majority of children were between 2-10 years of age (65%), with less than 10% younger than one, and between 25-29% older than 10 years. For SLN group there were more males (n= 26) than females (n=21). The Routine Care group had more males (n=27) than females (n=18) out of a total of 45. Both groups were also similar in terms of surgical procedures performed.

QUANTITATIVE DATA FINDINGS

STAI

The scores for anxiety for both groups are outlined in Chart 1 and 2. Preoperatively, the anxiety scores for both groups were similar and ranged from 1.8 to 2.3. No significant differences were found between the two groups according to analysis of variance (see Chart 1 & 2). Post-operatively, both groups had lower anxiety scores than they had preoperatively, (see Chart 1 & 2). However, the scores show that families who received intra-operative SLN support had lower anxiety scores than the RC group. There was a clear trend toward a decline in the anxiety scores of the SLN group when means and standard errors were graphed on an error bar chart (Chart 1 & 2). The SLN group also showed less variability in their

Total Anxiety Scores Pre & Post-Op

Chart #1 Pre-Op

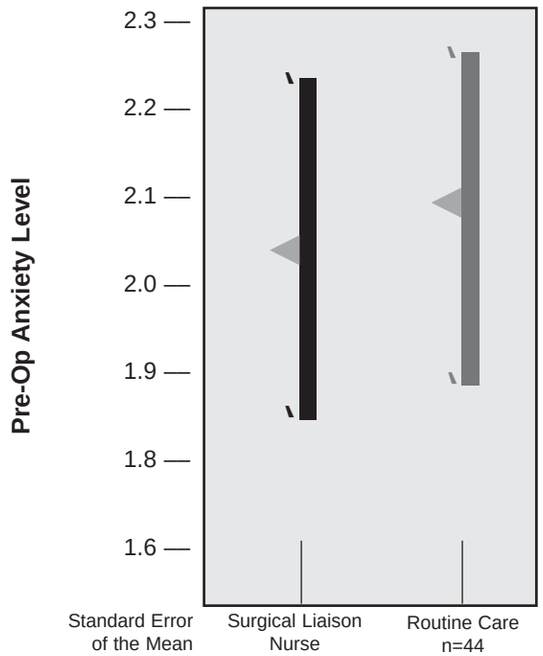

Chart #2 Post-Op

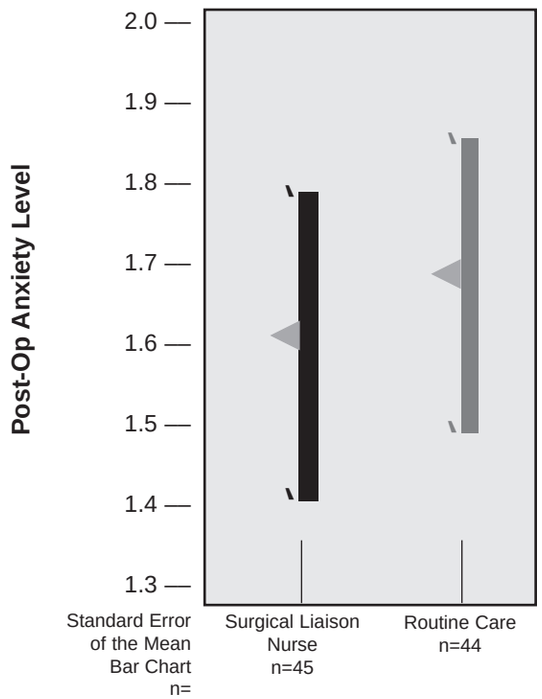

Photo by/par K. MacDonald

The surgical liaison nurse updates a family member

anxiety scores than the RC group. However, despite the lower anxiety scores for the SLN group, there was no statistically significant difference between the two groups according to an analysis of variance (see Chart 1 & 2).

FAMILY RATING SCALE

In the SLN group, 50% of the scores on the Family Rating Scale (FRS) were 4, while for the routine care group 50% of the scores were between 2.5 and 3 in terms of satisfaction with care, which indicates that the parents in the SLN group reported higher levels of satisfaction with care than parents in the RC group. Eighty-seven percent (n=41) of parents in the SLN group responded that having intra-operative SLN support reduced their anxiety level.

Ninety-eight percent of the SLN families responded that they had their questions answered and that they understood the information in comparison to 87% in the routine care group.

Both groups felt the hospital staff cared about their child but when asked about receiving updates and progress reports 54% in the routine care group responded that they received this information versus 94% in the SLN group. Families in both groups consistently received information from the surgeons post-operatively. (This could account for the high percentage of the routine group stating that they received progress reports.) In addition families in the SLN group also received information intraoperative updates from the SLN.

QUALITATIVE DATA FINDINGS

FAMILY FEEDBACK

Surgical Liaison Group

In the surgical liaison nurse support group, 64% of parents provided thoughtful feedback. Of this feedback, 93% was positive, 3% was negative and one comment was not applicable. Themes that emerged from the parents' comments included:

1. Feeling more informed (n=12 f =26%);
2. Enhanced quality of care (n=4 f =9%);
3. Feeling less anxious (n=6 f = 13%); and
4. Recommendations (n=11 f =23%).

For the category "Feeling more informed" families commented they "very much like the flow of information" and " the surgical nurse was great to have on hand just to let us know that our little boy was doing great".

Enhanced quality of care was recorded as "makes the patient very comfortable" and "as a parent you are never left on the outside".

Comments in the "Feeling less anxious" category included parents descriptions of being "relieved" to be able to "hear so quickly" how their child did when going under anaesthesia. Less anxious comments were also expressed as "very reassuring", "it definitely put me more at ease and relaxed about the procedure" and "helped me feel relaxed".

Recommendations included "continuing the SLN role", having a contact nurse past 1500 hours and increasing the number of surgical liaison nurse reports.

Routine Care Group

Parents' responses in the comparison group, or routine care group, were categorized according to the same general themes, but reflecting the opposite findings.

Categories of comments included:

1. Feeling less informed (n=10 f= 22%);
2. Feeling more anxious (n=6 f =13%);
3. Positive comments – related to study outcomes (n=6 f = 13 %);

4. Positive comments – not related to study outcomes (n=11 f =24%); and
5. Recommendations (n=8 f =18%).

For the category "Feeling less informed" families stated, "during the surgery I was given no feedback" or "my husband and I were left with no information". Three parents did specifically stated that they were "given plenty of information" but this was not qualified by any detail about the type of information or any comparison to allow us to determine the definition of "plenty".

Comments in regard to "Feeling More Anxious" included statements such as, "I felt confident leaving my child in their care for his surgery". One parent wrote, "My child was comfortable and at ease which in turn made us comfortable and at ease".

Positive comments related to study outcomes included "I feel confident that the staff took great care in my daughter's surgery and recovery". This exemplifies the parents' positive feedback related to the outcome of the study. On the other hand, comments not related to the study outcome consisted of "very pleased", "very professional" or "thank you".

However, despite the positive comments most families made recommendations around improved coordination of information between staff and that regular updates or mid-term reports to families from the OR are needed.

HEALTH CARE PROFESSIONAL FEEDBACK

After all data was collected from families the study began to focus on staff perceptions of the role. 280 feedback forms were sent to various health care professionals, including all surgeons, anaesthetists and nurses in the perioperative care team, the Paediatric ICU, and the in-patient surgical units. Written feedback from health care professionals was analyzed using content analysis.

The research team captured four consistent thematic patterns in the data. The themes for both groups were inter-rated with an 85% agreement rate. Of the 280 feedback forms sent to the health care professionals, only 19% (n=53) chose to reply. From these responses, there were 38 comments, 81% of which were positive, and 19% of which were considered 'helpful constructive' feedback.

The themes included:

1. Improved time management for staff (n =13, *f* =31%);
2. Enhanced quality of care (n =17 *f* = 45%);
3. Comments that indicated that parents were more informed (n =22 *f* = 58%);
4. Comments that indicated that parents were less anxious (n =20 *f* =53%); and
5. Recommendations to improve SLN support (n = 12 *f* = 32%).

An example of feedback in the improved time management category included reports that the SLN role was an efficient use of nursing time and "less time consuming to get information to and from the doctors".

Examples of enhancement of quality care comments included "less interruptions in care to other families due to liaison nurse".

Staff identified that parents seemed more informed because they had fewer questions about the status of surgery.

As an indication that parents were less anxious, staff also commented on the fact that parents were calmer coming into the recovery room because they were better informed. Communication with the staff was improved and the health care team stated that the surgical liaison nurse's role filled the void for parents by letting them know their child was safe and provided regular updates to ease further fears.

Several recommendations indicated that this role should be offered for the entire length of procedure (not just until 1500 hours when the usual nursing shift is over). Helpful recommendations identified that coordination between floors could be improved through the use of pagers. A recommendation included the surgical liaison nurse giving the pager directly to the family member so that the in-patient nursing station could be by-passed when information was passed on the family members. There were

Continued on Page 35

GREENLIGHT LASER (cont.)

The only shortcoming with this laser is the brief time that it has been used. So far we have only five years worth of statistics. The procedure is sustaining it's own worth in the statistics that we have but the long-term efficacy is unknown.

Dr.Liquornik, Urological Surgeon, in Newmarket, Ontario performed this groundbreaking procedure on three patients on November 12, 2003 as the first surgeon to perform the procedure in Canada. He had traveled to the Oakwood Annapolis Hospital in Detroit to learn the procedure from Dr. Hai. The three prostates were 40, 65 and 110gms respectively. With his extensive experience in the traditional TURP and in the Nd:YAG procedure Dr. Liquornik quickly and easily picked up the nuances of the new laser. All three patients had their catheter removed within a couple of days and had no postoperative problems.

From a nursing perspective the Greenlight laser follows the same laser protocol as the Nd:YAG and the Holmium laser yet because of the 532nm wavelength different glasses are required. The glasses are orange rather than clear and the laser warning signs are different than the Holmium and the Nd:YAG lasers, which have wavelengths of 2100nm. There is an initial set up of the Operating room as the laser needs a higher voltage of electricity and an external water irrigation system to cool the unit. A water outlet and drainage system must be installed in the room along with the new 50AMP electrical outlet before you are able to use the system. Prior to surgery the system is simply hooked up and the cooling system counteracts the high-powered flow of energy. There are no fibres to cleave or test and there are no tips to connect or exchange during the surgery. The one-piece probe is disposable and the system comes equipped with a light filter to protect your video unit from the distorting green light.

The advent of the Greenlight laser is proving to be very exciting news for all that have access to it, the health care system that funds it and the surgeons who may now offer it to their community. Traditionally, the treatment option was to make the patient initially worse by cutting away the prostate and then having it heal while staying in hospital and being subject to CBI. The new option, through the use of the Greenlight laser, is to melt away the prostate in a virtually bloodless surgery, cause no damage, treat a patient as an outpatient and have the same low risk of complications. It is definitely a breakthrough in prostate surgery!

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SURGICAL LIAISON NURSE (cont.)

Continued from Page 16

also suggestions around the SLN arranging a specific time and location to meet family members. However, this lends itself to increasing parent's anxiety levels because if the SLN is delayed for any reason the parents tend to relate the reason to their family member only.

DISCUSSION

The researchers wanted to understand the impact of the Surgical Liaison Nurse role on the anxiety levels of parents who had a child undergoing a surgical procedure. For this group of families Speilberger's State-Trait Anxiety Scale[1] did not appear to be a sensitive enough measure of parents worries either pre- or post-operatively.

The total anxiety score for this instrument was 4, indicating high anxiety. The mean for each group, pre-operatively, was 2 on a 4 point scale. Post-operatively the mean dropped to 1.52 for the SLN group and 1.78 for the routine care group.

Despite the fact that there appeared to be a greater overall reduction in the variance around the mean from the routine care group to the SLN group, the results did not achieve statistical significance. Families were indeed experiencing increased anxiety as indicated by their written feedback and results on the Family Rating Scale (FRS). The FRS and qualitative results supported the hypothesis that the Surgical Liaison Nurse reduced family members' anxiety levels, and also indicated that families were more informed about their child's surgery. In addition, health care professionals validated these findings by describing, more often in the SLN group than in the routine care group, behaviours that are consistent with reduced anxiety.

In one month of 2003 20% of cases that had been booked in this study site's paediatric OR lasted longer than the booked time (OR Booking Database, 2003). For this group of families the statistics indicated a higher percentage of cases that exceeded their booked time (25-31%). In addition to this, it was discovered that for those families who had to wait longer, anxiety levels were higher. This is consistent with findings by Donnell.[3] Clinically, a surgical liaison should be able to have a direct influence on relaying accurate information to families regarding delay of surgery.

IMPLICATIONS

The Surgical Liaison Nurse had an impact on reducing family members' anxiety levels, and increasing their knowledge level re: surgery.

The surgical liaison nurse role will be continued at the study site. Solutions are being explored for the issues raised by parents and healthcare staff. Now that we recognize the impact that the sharing information has on parents we are exploring different strategies that will help meet the needs of families while remaining within our existing budgets. Key factors in making this research possible included a supportive Program Director, Health Service Manager, nurses and healthcare team members who were committed to seeking new and creative ways to support families.

FUTURE CONSIDERATIONS

Both family members and health care professionals were supportive of the introduction of this role. Both groups suggested the role be extended past the elective surgery block time. When implementing this role the team must be flexible with the hours of work to accommodate the families' needs.

A firm commitment is needed to sustain the position on a daily basis. If the position is seen as less important than the circulating or scrub nurse it will likely not be offered on a daily basis. If the position is not offered consistently the pre-op nurses cannot guarantee its existence to the families who are anxious about upcoming surgery for their child. It also makes it difficult for the surgeons and anaesthesia staff to see the SLN as a consistent member of the team.

Communication within the perioperative care team has been enhanced with the introduction of this role. Initially communication between the OR and the in patient units suffered with the introduction of this role. It is important to maintain communication with family members from in-patient units but this should be done without tying up the nurses from the in-patient units. If a nurse from an in-patient unit has to stop what he/she is doing to help the SLN locate a

family member then the nurse will likely resent the role. The use of pagers for family members and/or the designation of specific places to meet will help eliminate this concern. In-patient nurses were happy to hear the update on the family they were caring for as it helped them plan for post-op care.

LIMITATIONS

One of the difficulties in this study was that, due to limited space, both groups of families were waiting in the same area pre-operatively. Therefore, the routine care group was aware of the fact that some families received different support. Also, families were informed, prior to completing the first survey packet, in which group they had been placed. This may have influenced their anxiety level and expectations. It was observed that it was mostly mothers who completed the surveys. It would have been interesting to learn whether there were any differences between the responses and anxiety levels of moms and dads. Without this information we cannot determine if a gender bias is present in the study.

Families who were being influenced by other anxiety producing factors, already present in their life, would likely have a higher anxiety score regardless of the perioperative and intra-operative experience. We did not ask any questions to determine if there were outside influences contributing to their anxiety level.

The time of day during which the surgical procedure took place may also have had an impact on the anxiety level of families. If a family were required to keep a three year old without food (NPO) until 1200 this would likely make their anxiety level higher than if his/her surgery was scheduled for 0800. Another contributing factor related to time of day is that the surgical liaison nurse support was only provided until 1500. If the surgery ran later than this time there was no support available.

SUMMARY

The benefit of nurse-family interactions during the intra-operative period cannot be overestimated. Published research clearly demonstrates that having a child in surgery is a very anxiety producing experience. Families do not want to feel isolated when their child is undergoing surgery. Perioperative nurses have the ability to develop caring, respectful, trusting relationships by communicating with families. Perioperative nurses recognize that family centered care means supporting both the patient and his/her family.

This study lends support to the view that the Surgical Liaison Nurse (SLN) role has enhanced an already family-centred care environment by providing more focused care to families and by improving intraoperative communication among perioperative team members. This study is a demonstration of nurses' autonomy in practice and their ability to influence the quality of care provided to children and families.

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