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Transition from an open plan to a two cot neonatal intensive care unit: A participatory action research approach

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Abstract

Study Objective

To facilitate staff transition from an open plan to a two cot Neonatal Intensive Care Unit (NICU) design.

Background

In 2012, an Australian regional NICU transitioned from an open plan to a two cot NICU design. Research has reported single and small room NICU design may negatively impact on the distances nurses walk, reducing the time they spend providing direct neonatal care. Studies have also reported nurses feel isolated and need additional support and education in such NICUs. Staff highlighted their concerns regarding the impact of the new design on workflow and clinical practice.

Design

A Participatory Action Research (PAR) approach

Methods

A participatory action group titled the Change and Networking (CAN) Group collaborated with staff over a four year period (2009-2013) to facilitate the transition. The CAN Group utilised a collaborative, cyclical process of planning, gathering data, taking action, and reviewing the results in order to plan the next action. Data Sources included: meeting and workshop minutes, newsletters, feedback boards, sub group reports and a staff satisfaction survey.

Results

The study findings include a description of 1) how the PAR cycles were utilised by the CAN Group: providing examples of projects and strategies undertaken; and 2) evaluations of PAR methodology and Group by NICU staff and CAN members.

Conclusion

This study has described the benefits of using PAR to facilitate staff transition from an open plan to a two cot NICU design. PAR methodology enabled the inclusion of staff to find solutions to design and

clinical practice questions. Future research is required to assess the long term effect of NICU design on staff workload, maintaining and supporting a skilled workforce as well as the impact of the a new NICU design on the NICU culture.

Summary Box

What does this paper contribute to the wider global clinical community?

- Participatory action research provides structure and direction when engaging in organisational change such as a Neonatal Intensive Care Unit redevelopment.
- Reducing the negative impact of a new work environment on clinical practice is critical in providing high quality health care.
- Future research is required to assess the long term effect of NICU design on staff workload and clinical practice.

Keywords

Intensive Care, Neonatal, Participatory action research, Work environment, Clinical practice.

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Introduction

The work environment has been described as the backbone to facilitating a nurse providing in the provision of clinical care (Hendrich et al. 2009). "A supportive nurse work environment should enhance the efficiency of nurses while limiting the stress and physical burdens of nursing practice, thereby fostering nurse satisfaction and retention" (Hendrich et al. 2009). To foster a developmentally appropriate family centred approach to neonatal care, many Neonatal Intensive Care Units (NICUs) are modifying open plan units to single or small room designs (SRD) (White 2003,

2007, 2011). These changes aim to improve neonatal outcomes, but it is also important to consider the impact on nursing staffs' ability to provide safe, high quality care in a new environment.

In open plan NICUs, nursing staff work side by side sharing tasks and workload: they are able to assist each other in emergencies or with complex tasks, relieve each other for breaks and discuss their concerns or care plans. Whereas in SRD NICUs nurses are required to work independently, with assistance only available at the end of the phone or buzzer. Moving from an open plan to SRD NICU requires nurses to develop new models of care and different strategies to provide clinical care (Goldschmidt et al. 2006; Shahheidari et al. 2012). Until now there has been limited published research regarding the impact the NICU design has on clinical nursing practice or the processes used to facilitate the change.

Background

The environment an individual is exposed to has both positive and negative effects on both their physical and emotional wellbeing (Ulrich 1984). Providing a healing environment is particularly important in NICUs where one of the most vulnerable population groups; neonates are admitted (Cooper 2007, Shepley et al. 2008). Whilst open plan design provides direct visibility of the neonates and immediate access to assistance in emergencies (Domincio et al. 2010), various studies have shown specific features of this traditional design such as the confined space, high noise and light levels may negatively impact on neonatal developmental outcomes (Blackburn 1998, Graven et al. 2006, Graven et al. 2008). Other research has reported the SRD reduces infection rates, length of hospital stay and facilitates an individualised approach in the care of neonates; improving neonatal outcomes and parental experiences (Harris et al. 2006; Walsh et al. 2006, White 2003, 2011). Given the research findings many NICUs undergoing renovation or rebuild, are choosing SRD catering for 2-6 neonates (White 2003).

Nurses have acknowledged the benefits of SRD in their ability to provide a developmentally appropriate environment and facilitate family centred care (Broom et al. 2013, Carlson et al. 2006, Cone et al. 2010; Smith et al. 2009); but a systematic review reported increased staff walking distance, workload and staffing requirements (Shahheidari & Homer 2012). Previous studies also highlighted additional support and education needs, difficulties in team communication and staff isolation in SRD (Bosch et al. 2012, Stevens et al. 2010, Swanson et al. 2013; Walsh et al. 2006).

Study Setting

This study was undertaken in an Australian regional NICU that provides intensive and special care for 700 neonates per annum, born between 24-44 weeks gestation. In 2009, funding was allocated to rebuild the open plan NICU to a two cot design as part of the first stage of building a new Women and Children's Hospital. The two cot NICU is composed of interlinked rooms that accommodate two neonates and the unit is triple the size of the previous open plan NICU. The layout of the new facility has also been divided into across two wings: Intensive Care/High Dependency (NICU, 20 neonates) and Special Care Nursery (SCN, 14 neonates).

The two cot design and increased occupancy created the need for extra staff as well a change in unit workflow, practice and culture. During early consultations with staff they acknowledged the benefits of SRD for neonates and their families, but also voiced concerns about the potential impact of the new design on their ability to provide safe clinical care. They also identified fears of isolation and anxiety related to working in two cot design.

Study Aim and Design

To facilitate staff transition from an open plan to a two cot NICU design using a PAR approach.

Ethics

Ethical approval was obtained from the ACT Human Ethics Committee in 2011. ETHLR.11.046 and the Australian Catholic University Ethics Committee: 2013 1888Q.

Methods

Similar to previous PAR studies, this project started with a group of people who recognised a problem; that being changing the design of the NICU would impact on staff workflow and practice, and collectively decided to take action to identify specific solutions (McNiff 2013). Previous researchers have described the foundation of PAR as a collaborative cyclic process of planning, gathering data, taking action, and reviewing the results of the action in order to plan the next action (Coghlan & Brannick 2009). It provides a range of methods by which stakeholders centrally affected by an issue can explore their experience, gain clarity or understanding of events and activities, and use that extended understanding to construct effective solutions to the problem on which the study has focussed (Pope & Mays 2008).

Formation of the Change and Networking (CAN) Group

In 2009, staff members (who had previously shown interest in the NICU redevelopment) were invited to attend a meeting where the Clinical Director, Clinical Nurse Consultant and Research Nurse (MB) asked the group for opinions on engaging staff in the redevelopment. This meeting led to the formation of the CAN Group. The first author was employed as the research nurse in the NICU, taking an insider approach she documenting the Group's activities, processes and the outcomes. As well as co-ordinating the communication strategies implemented (e.g. newsletter, emails and meetings) and encouraging Group members to take up leadership roles at workshops and in sub groups. Group members included nursing, medical and allied health staff as well as a member of the hospital redevelopment team. Members NICU experience ranged from 1-20 years. The

membership of the group was fixed with new members invited to join if a member was no longer employed in the unit.

The CAN Group aims included the following:

- to inform and support staff about the NICU design plan
- to liaise between the redevelopment stakeholders and NICU staff
- to facilitate a successful transition to the new NICU
- to assess the two cot NICUs impact on:environmental features(noise, light), staff and families.

The CAN Group worked together to develop terms of reference, a mission statement, a group philosophy and aims to assist the group in developing strategies to facilitate the transition. As this project was undertaken in a large organisation the Group oversaw the transition reporting to NICU and Redevelopment Management Committees.

Study Recruitment

Staff of the NICU (nursing 80%, medical 10% and technical support 10%) employed during the transition period from the open plan to the two cot NICU (2009-2013) were invited to participate in different segments the study. Flyers and emails were circulated to publicise the projects being undertaken by the CAN group and staff were invited to attend study information sessions. Participation was voluntary in all of the research activities; surveys, workshops and sub group meetings held by the CAN Group. Ethics guidelines regarding information and consent were followed throughout the project.

Data Collection

Data collection involved a continuous process of reviewing the CAN Group work undertaken over the four years the Group was active. Sources of data for this paper included: meeting and workshop minutes, newsletters, feedback boards, sub group reports and project notes. Staff were invited to complete a satisfaction survey containing questions aimed to evaluate the effectiveness of the CAN Group. Questions covered informing and supporting staff, staff being included and involved in the

process and the CAN Group's success at facilitating the transition. Staff responded to questions: e.g. *The CAN Group has provided staff with education and updates on the new NICU;* and, *I have been well supported by the CAN Group as the redevelopment has progressed'.* Staff responded to questions on a 5-point Likert scale with 1 being strongly disagree and 5 being strongly agree.

A final CAN Group meeting was held November 2013 where 12 past and current members attended to evaluate the Group's role and PAR methods in the context of the NICU redevelopment. Staff members who participated in the surveys were given an information form on the study and return of the survey was seen as inferred consent. Participants were seen as core to this project and were engaged at every stage of data generation and analysis.

Data Analysis

Surveys responses were analysed using simple descriptive statistics to analyse frequencies and group percentages (SPSS 18). Thematic analysis of staff meeting and workshops minutes, newsletters and project notes was undertaken with an emergent theoretical perspective where data was continuously collected and reviewed by the Group. The Group tested previous results and underlying presumptions with a duel focus to resolve issues in our project as well as build current research evidence to clinical practice adjustments needed when transition to a new work environment. Results were reported back to staff throughout the project, entered onto the project spreadsheet and stored for future reference. Forty-two projects were included on the CAN Group project excel spreadsheet by MB. On completion of the study data was systematically reviewed by MB (literature, group feedback, survey response, newsletter, etc.) using the project spreadsheet as a guide to identify project findings. The final CAN Group meeting was audio taped and then manually transcribed. Thematic analysis was undertaken following a qualitative descriptive approach.

Study Findings

The study findings include a description of 1) how the PAR cycles were utilised by the CAN Group: providing examples of projects and strategies; and 2) evaluations of PAR methodology and Group by NICU staff and CAN Group members.

How PAR cycles were utilised by the CAN Group

In a simple project the PAR cycles may be sequential i.e. conduct an action research cycle and then move to the next one. But in this large complex project where there were multiple action research cycles operating concurrently, it can be better explained by representing it as an analogue clock (Coghlan & Brannick 2009). The clock face image of the hour, minute and second hands portray these cycles within cycles. The ever revolving second, minute and hour hands represent the completion of action research cycles (Coghlan & Brannick 2009).

The hour hand, which takes the longest time to move around the clock, is the overall action research cycle: thus describing the overall project of facilitating the change to the new design overseen by the CAN Group through weekly meetings. At these meetings members reviewed the results of the major projects in progress (room design, staff requirements in rooms, move day plan) planned the next actions; such as staff workshops, surveys, mocking up rooms to gather further data, organised these activities with staff and then evaluated the findings with the Group and staff from which new projects were generated.

The minute hand moves more quickly and represents the many sub projects undertaken in this study. An example of this was room design where we started with a footprint of the rooms provided by the architects. Staff were invited to meetings to develop the layout of the rooms, thus creating a sub projects of several workshops where staff discussed different aspects of the design (e.g. creating a developmental environment, families and staff requirements).

The second hand represents each individual meeting, workshop or a survey conducted by the Group, with all the data collected cycling back to the CAN Group to evaluate outcomes and plan the next action. Due to the size of the project the NICU Research Nurse who was also the Co-Chair of the CAN Group, coordinated the Group's activities, which included provision of a weekly agenda and establishment of an expansive excel spreadsheet that outlined the progress of each project undertaken by the Group. The following section outlines three examples of how the cyclic methodology was used in the project.

Organising Staff Meetings and Workshops

The fish bone analysis tool illustrated below in Figure 1 was a visual tool built using the NICU Mission Statement as a reference, with the main heading: bones categorised according to the Mission Statement features (Phillips & Simmonds 2013). The fish bone analysis tool provided a logical method of organising staff meetings and workshops based around each of the six features: functional and safe, technologically up to date, developmentally appropriate environment and babies' sensory environment, layout and plans, parent's needs and clinical space.

Staff meetings and workshops were coordinated by the CAN Group to engage staff in discussions regarding each of the six features. Prior to each meeting/workshop the CAN Group developed a plan for the meeting/workshop, the Group then held the workshop at which staff and the CAN Group worked together to identify what they perceived should to be considered or added to the design to meet neonates, families and staff needs. The data collected from the workshop on message boards and meeting notes were then collated by the CAN Group who at their next meeting evaluated staff feedback, to report back to the redevelopment team or to staff through a newsletter produced by the CAN Group. This methodology was repeated or replicated for all projects undertaken by the Group, one PAR cycle being completed could launch the next linked cycle, although in many cases projects were being conducted concurrently.

During the project timeline the Group held over 100 CAN meetings and coordinated over 25 meetings and workshops for staff. These started with the six workshops highlighted on the fish bone diagram then moving to new features highlighted as needed to facilitate the transition by staff and CAN Group. Transition faciliations included: information sessions on family centred and developmental care, creating mock-up rooms (patient, procedure and family) with staff and families, as well as workshops to develop our new model of care and plan the move day. The Group worked with staff to consider how the two cot design would impact on every aspect of clinical practice. Members of the Group worked directly with the architects providing staff feedback on modifications to meet clinical needs. Nursing staff constructed a layout template for each room that included: neonatal, staff and parent spaces, stock cupboard, milk fridge and mobile equipment trolleys (Table 1).

Figure 1: Example of CAN Group Strategy (Fishbone Analysis Tool)

Table 1: Outline of CAN Group Stategies Workshops, Activities and Projects

CAN Group Newsletter

The CAN Group produced a newsletter to inform staff about the NICU redevelopment. In the first two years we averaged a newsletter bimonthly, then monthly in the year prior to relocating to the two cot NICU. The newsletter provided a link between staff and the Group in two ways highlighting factors such as: the progress in the development, choices in room layout, equipment and fit out and move plan as well as when and what the next CAN Group workshop, meeting or survey being held. Writing and publishing each newsletter followed a PAR cycle with members of the CAN Group discussing an outline for the newsletter based on the projects in progress and from these ideas and suggestions a plan of the newsletter was developed. At the next CAN meeting the Group reviewed the newsletter changes and additions were made as requested. A final draft was then formatted and reviewed by members of the Group prior to releasing it to NICU staff.

Sub-Groups

At one of the workshops, when participants realised the amount of work that needed to be undertaken, they suggested smaller groups that focussed on one aspect of the project might assist in dividing the workload. This action meant staff could join a sub-group they were interested in; increasing the number of staff engaged in various aspects of the project. Five aspects were highlighted as core to the transition of the new design: Education, Model of Care, Workforce, Workflow, Practice and Move planning. This created several different cycles undertaken by the Group. CAN Group members coordinated focus groups and each group planned and undertook projects to facilitate their aspect of the project. The focus groups then evaluated their work, which was presented by the CAN Group member leading their focus group, to the CAN Group. The CAN Group oversaw the entire project and also assisted the focus group with information or practical support to complete group projects.

Evaluating the impact of the CAN Group

Throughout the redevelopment of the NICU the CAN Group met to evaluate and analyse the project, highlighting themes, ideas and questions to identify the future direction of the project. By integrating this process of continuous evaluation at each stage the CAN Group was able to maintain authenticity and add rigour to the overall project. Staff were included in these discussions and they were also asked to evaluate the effectiveness of the CAN Group in managing different aspects of the transition in a short survey. Surveys were completed by 86/108 (79.6%) of NICU staff. Results highlighted staff supported the work undertaken by the CAN Group with over 75% of the survey respondents agreeing or strongly agreeing that the CAN Group process had been an effective way to engage staff in the transition (Table 2). Overall response from participants indicated the CAN Group had a positive effect with assisting staff with the transition to the new design – approximately 70% of staff agreeing or strongly agreeing with the questions posed. Staff reported the CAN Group was

most successful in providing staff education and updates on the new NICU, (86%) with 73% of respondents responding that they were well supported by the CAN Group. The lowest recorded percentage was associated with the question about open and honest communication of ideas and concerns; highlighting the complexity of identifying individual needs and managing varied interests in such a large project.

Table 2: Staff evaluation of the CAN Group

Final CAN Group Evaluation

On closing the CAN Group in October 2013, past and current members were invited to attend the final meeting. The aim was to explore what members thought the CAN Group had achieved over the previous four years. Objectives of the meeting included: reviewing PAR as a framework to facilitate the change process; considering the Group role throughout the process and evaluating what were the most successful strategies and complex projects undertaken by the Group. Findings from the meeting have been reported under three major themes: creation of a structured approach for the transition; staff engagement in transition; and analysis of the challenges faced during the transition, which are described below.

Creating a structured approach for the transition

Upon reflection participants thought the PAR methodology allowed quick evaluation of what needed to be done and by whom, legitimised Group members roles and enabled team members to provide support for each other. It provided a structured process to facilitate the communication of staff feedback and enable negotiation with the redevelopment team. By using the methodology we were able to achieve: important design changes (i.e. staff tea room, interlinking rooms) and better address staff needs (i.e. store cupboards, procedure packs, resuscitation packs).

Participants also described how the CAN Group provided a channel for management to bring questions related to the NICU design to staff and encouraged open discussion about concerns, ideas and potential solutions. Feedback from management included the statement: *"It was great to have an expert group to take questions about new design and planning the move."*

Staff engagement in the transition

Group members identified PAR as a very effective method to get staff involved and thinking about the transition to the new NICU, highlighting the continual process of staff meetings, education sessions, staff workshops, site visits, sub groups and staff newsletter as effective strategies to engage staff in the transition. Feedback included: *"Having lots of different ways made it easy for staff to get information and be involved.*" The newsletter and sub-groups were identified as the most successful engagement strategies, as they gave all staff the opportunity to learn about and participate in different aspects of the project: "*The newsletter did a fantastic job…… staff not able to participate at meetings were able to learn through reading the newsletter."* Attendees at the final CAN Group meeting stated the workshops and sub-groups coordinated by the CAN Group increased feelings of involvement and empowered staff to take on new roles: "*the sub groups allowed staff to choose what they thought was important in the NICU……they look at a diverse range of issues….."*

Members also discussed the benefits of the comprehensive staff orientation program compiled from staff survey feedback, and the impact of holding staff workshops to discuss and organise the move day, with everyone agreeing the move day was an overwhelming success. Comment included: *"I thought the move day was a positive experience… it all went so smoothly."*

Challenges during the transition

Participants at the final CAN Group meeting highlighted the complexity of communicating with hospital and redevelopment administration throughout the transition, *"We outlined the staff requirements four years before we moved…but things were left till the last minute."*

Participants commented that the first three months in the new unit was complicated by the necessity to make the move into an active and ongoing building site, as our unit was only the first of three stages opened in the new Women and Children's Hospital: *"It was frustrating to have to continually remind the builders of faults and wait till the building was completed till they resolved the problems."*

When reviewing challenges during the transition, attendees discussed how they had not anticipated the ever increasing expectations placed on the CAN members throughout design, construction and move process. In such a large project we relied on key driving personnel to facilitate and maintain the Group momentum and this was not always possible as members were all still carrying a full clinical load: *"The most difficult part was finding time to work on the project…..lack of resources created the need for Group members to work in own time."* Although this was reported as one of the most significant problems, CAN members recognised having the Group allowed the tasks to be divided up whereas if the CAN Group had not been active much of the work the Group accomplished would not have occurred or be the responsibility of senior nursing staff.

Discussion

This is the first paper to describe the use of PAR in the context of transitioning from an open plan to a two cot NICU design. This project describes a ground-up approach, outlining the benefits of PAR methodology in achieving change through research and action in unison (McNiff 2013). The capacity to use different methods to collect data enabled Group members to be involved in the organisation and coordination of research (e.g. collecting data at workshops, though surveys and question boxes)

in groups or as individuals, to add to evidence that was built into strategies to facilitate the change (McIntyre 2008). This study has shown the positive impact the CAN Group had on finding solutions to design and clinical questions to facilitate clinical practice in the two cot NICU design.

This project is an example of how PAR methodology can provide structure when undertaking research in a large organisation (Coghlan & Brannick 2009). In this project through implementing the cyclic approach that is the core of PAR methodology; several projects ran consecutively (e.g. planning the move, education staff on developmental care, development of staff orientation package), but be at different stages. The structure generated allowed each sub-project to be continuously appraised and evaluated, enabling the Group to keep the project moving forward or be highlighted as completed by the CAN Group.

Recent studies have also discussed the need to create an environment that while fostering neonatal brain growth and development, should concurrently create a nurturing environment for families and staff (Shepley 2014; White 2014). Researchers have highlighted new evidence regarding: the negative impact NICU SRD may have on neonates, the emotional and physical stresses placed on families, as well as the health risks for staff working in an NICU (Pinada et al. 2014; White 2014). Similar sentiments were brought to the forefront by the work undertaken by the CAN Group to engaging staff and collaborating with nursing staff throughout the transition. This study has considered these concerns by using current evidence to guide the process but has also considered the study centre's individual requirements (e.g. location, staffing levels, and financial constraints) in the new design.

In an expansive project such as this not everything will go your way and you will not be able to provide solutions to every staff requirement. While we were successful in many of our undertakings, we were only able to predict future needs staffing, equipment, and impact of design. It is also important not to underestimate the difficulties that will be faced when people with diverse agendas, various levels of project knowledge, different personal situations and aspirations combined within a

framework of changing political and budgetary constraints, need to collaborate (Coghlan et al. 2009). It was necessary at different stages of the project to draw together the personnel as a team, addressing their disparate needs, drawing out solutions and working within the project constraints to obtain, deliver or recommend the best possible outcomes (Coghlan et al. 2009). An example of this in this project was when a member identified the need to build team and individual resilience in the early stages of the transition. Group members organised and participated in a change management education program facilitated by Hospital Human Resource Staff. The Group processes also provided members with an avenue to debrief that fostered the development of support and communication strategies members could apply when engaging in difficult conversations. While describing the challenges of this project is important, it should not diminish the positive impact the CAN Group had on finding solutions to clinical questions regarding the two cot NICU design. Many of the strategies implemented by the CAN Group (newsletter, notice boards, staff workshops, parent feedback) have continued since the relocation.

This study described a unique approach to explore the needs of staff when transitioning to a new NICU design, outlining several strategies and methods of inquiry that are translatable to other groups and situations. It is of interest to note hospital management endorsed and collaborated with the CAN Group, and have subsequently implemented a similar process to facilitate the move of maternity and paediatrics into our new hospital. This project provides an example of how PAR methodology can be used to facilitate change: highlighting a process, models and strategies that could be utilised in similar health care situations. The information and documentation has also been presented to several NICUs in Australia undertaking redevelopment and presented at these conferences: 2nd Biennial Australian Capital Region Nursing and Midwifery Research Centre Conference (2012) and Australian College of Neonatal Nurses Conference (2014).

Conclusion

This study has described the benefits of using PAR to facilitate staff transition from an open plan to a two cot NICU design. PAR methodology enabled the inclusion of staff in the planning, decision making and evaluation of the new design. It enabled the Group to collaborate with staff to find solutions to design and clinical practice questions. PAR provided a flexible structure when undertaking this type of project in a large organisation and could be translated into other health fields. It should also be recognised in such a transition the change group will be confronted with staff concerns and resistance and need to be positively supported by senior management. This project has focussed on the design and transition a new NICU, acknowledging future research is essential to assess the long term effect of NICU design on staff workload, maintaining and supporting a skilled workforce as well as the impact of the a new NICU design on the NICU culture.

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Strategy	Workshops, Activities and Projects
CAN Group Meetings **Staff Meetings** **Workshops** **Communication Book One to one information**	Monthly newsletters Redevelopment Noticeboard Information on intranet Staff feedback to management NICU farewell party 6th month thank you lunch Staff and Family 1st Birthday Party
Surveys **Question Boards** **Staff meetings**	Staff Tearoom Education on model of care Strategies to guide practice and workflow Recruitment and education plan Staff orientation and training programs Orientation Passports
Design Workshops **Sub- Groups**	Layout of patient rooms Develop design features to align with model of care Room mock ups Recommendations for new equipment Equipment lists for transport team Lists of essential supplies Develop emergency procedures Procedure and fire packs Resuscitation boxes for each area Information folders for rooms Standard Operating Procedures and Guidelines Site Visits/ Maps
Staff Meetings **Planning Workshops** **Focus Groups**	Move risk assessment/ Mock move Daily staff updates 10 days prior to move Simulated Training Sessions Move checklists for Patient and equipment Development of transport and clinical teams for move day Coordinate biomed and extra staff to troubleshoot equipment problems Parent information DVD and tours Move day parent support plan
Design Comparison Studies **Open plan versus two cot undertaken pre and post move**	Environmental light/noise Staff and parent satisfaction Surveys Staff walking distance Staff activity study Staff feedback to management

Survey Questions	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
	Total Participants n=86 n (%)				
The CAN Group has provided staff with education and updates on the new NICU	0(0)%	4(5%)	8(9%)	48(56%)	26(30%)
I have been able to openly and honestly communicate my ideas and concerns about the new NICU	2(2%)	14(17%)	15(18%)	40(45%)	15(18%)
I have been included and involved in the changes needed to transition to the new NICU	2(2%)	5(6%)	14(17%)	43(50%)	22(25%)
I have been well supported by the CAN Group as the redevelopment has progressed	2(2%)	5(6%)	17(20%)	44(52%)	18(22%)
The CAN Group has facilitated a collaborative approach while working towards the move to the new NICU	2(2%)	8(10%)	14(17%)	41(47%)	21(24%)
The CAN Group has facilitated an effective change process to engage staff in the transition to the new NICU	2(2%)	6(7%)	10(12%)	47(55%)	21(24%)