Inclusive Birth Supporters' Space and Recovery Care in the Postnatal Hospital Environment

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Abstract: The social and emotional dimensions of childbirth and recovery suggest the inclusion of partners and childbirth supporters' to facilitate the recovery phase of new mothers while in hospitals but the postnatal environment currently appears largely to ignore the role of women's childbirth supporters or families. The aim of this paper is to identify specific design features for enabling and enhancing the birth supporters' role in the hospital postnatal environment. An on-line questionnaire survey complemented with focus group interviews with women and midwives was used to determine the physical design features for birth support-centred spaces in New Zealand hospitals, The findings revealed a disconnect in appreciation of the role of childbirth supporters even though participants found the need for an inclusive total environment both for birth supporters and new mothers yet there were hindrances due to existing hospital policies. These issues suggest a need to increase facilitation of the role of supporters in the postnatal environment. A range of design features for fostering inclusiveness for birth supporters is provided. The integration of more supportive family spaces can potentially engender recovery, while also fostering improved competencies in new mothers.

Keywords: Childbirth supporters, design features, inclusive environment, postnatal recovery.

1. INTRODUCTION

The design of the birth environment has been shown to be important for safe and satisfying experiences for a birthing woman during her stay in hospital (Foureur et al. 2010; Jenkinson, Josey, and Kruske 2014). Throughout history birth has normally required the continuous presence and support of female continuous birth companionship offering touch and comfort in times of stress (Pascali - Bonaro and Kroeger 2004). In recent years, this supporting role has grown to include fathers and/or birth partners as dyads in the birthing process (Symon, Dugard, Butchart, Carr, and Paul 2011). This concept of inclusion of family members has been the basis for the Planetree philosophy which emphasises patient empowerment and involvement of their family members as active agents in their healing and treatment care (Orr 1991; Verderber and Fine 2000), and this idea has guided refurbishments of some maternity units (Stichler 2007, 2011).

However, it is possible that labour rooms may be designed more to fit the purpose of clinical procedures than to facilitate physiological birth and to foster enjoyment of this important life event (Newburn and Singh 2003). We propose that this important life event can become more meaningful and rich if hospitals focus less on functions and aim to redress the factors that remove the new mother from her family and friends thereby alienating the experience

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(Wagenaar 2006). Women's choice to give birth either at home or in a hospital birth environment, largely hinges on social factors, with the confidence that family and friends will be able to present in a home birth set against the influence of medical facilities available in the hospital environment (Wiegers, van der Zee, Kerssens, and Keirse 1998).

In considering patient-centric design, designers have the task to see how the environment can support the inclusion of family members who understand the patient's needs and can provide emotional support (Henriksen, Isaacson, Sadler, and Zimring 2007).Therefore, to understand how the roles and presence of childbirth supporters and family might be met in the hospital birth environment this study examines perceptions of the impact of physical design factors on social support in hospitals in New Zealand.

2. LITERATURE REVIEW

2.1 Childbirth Environment and the Role of Birth Supporters

There is recognition that the design of the birth environment can offer support for the normal and physiologic birth process (Stark, Remynse, and Zwelling 2016). Childbirth often requires support from family members or others for physical, emotional and psychological needs. Research shows that some labours are taking longer hours in terms of hours than in past decades (Aburas, Pati, Casanova, and Adams 2017), thus measures to prevent maternal stress are becoming increasingly important (Carr 1994). In critical situations, the assurances of family and support persons contribute to boost the confidence of women of being in a familiar and safe environment and subsequently build their emotional strengths (Aune et al. 2015). Another aspect of care employed in supporting women during labour comprises physical therapeutic strategies such as touching, soothings and interactions with labouring women (Stenglin and Foureur 2013).

The provision of both a supportive environment and supportive people can help women manage labour and the design of the environment may further help to foster a sense of mastery and maternal autonomy (Carr 1994). A distinction between a supportive childbirth environment and a non-supportive childbirth environment is that the former involves active engagement of support persons and nurses who are both physically and psychologically closely attending the woman. By contrast, the non-supportive environment is one in which the support persons' role is diminished, providing little or no physical or psychological support, and the supporters are physically withdrawn from the woman (Carr 1994).

The physical environment of childbirth appears to have contributed very little to support women through the experiences of both birth and the postnatal recovery phase in many birth facilities. An Irish study found women often felt alone and unsupported; by extension this is the reason why some may not choose to have another child in hospital (Larkin, Begley, and Devane 2012) In Japan, it was found that a mutual relationship between the woman and midwives in which the woman and her family become autonomous can not exist outside the context of the birth environment (Igarashi, Wakita, Miyazaki, and Nakayama 2014). A comparative survey of mothers and birth

partners on their impressions of the unit environment and care given in England found birth partners were significantly less positive than birthing mothers about a range of environmental and care features even though their interactive role was more obvious and improving their experience could help fulfil this goal (Symon et al. 2011). Although the focus has largely been on labour stress, concerns for social support during the postnatal period as well could have greater impact for recovery needs of birthing women and healthcare planners and managers need to recognise the important role of this aspect (Dunne, Fraser, and Gardner 2014; Negron, Martin, Almog, Balbierz, and Howell 2013; Pascali - Bonaro and Kroeger 2004). Another study found the importance of place and people are critical to providing optimal birth space for a women-centred model of care (Seibold, Licqurish, Rolls, and Hopkins 2010). In this regard, the role played by support persons, including midwives/nurses as they are regarded by women as people who give first-hand help becomes obvious.

A comprehensive study by Harte, Sheehan, Stewart, and Foureur (2016) explored both inhibiting and facilitating design factors impacting the experiences of childbirth supporters. The authors found that childbirth supporters experiences were complex, yet there was very little understanding of their needs, and consequently they were not facilitated by the physical space (Harte et al. 2016). They suggested some design guidelines to enable childbirth support roles to be achieved. However, such guidelines were exclusive only to labour/delivery rooms and not to postnatal spaces. In spite of the increased awareness of the role of childbirth support, to date, no studies have examined the impact of the built environment on the experiences of women in the postnatal environment. All the attention appears to be concentrated around labour and birth rooms. Thus, the focus of this study is to identify those needs of women that may require the presence of childbirth supporters especially in the postnatal space so that they could be provided for in the design of such spaces. Knowledge of appropriate design of postnatal space would also be of value for both the new design and adaptive re-use of existing childbirth settings.

3. METHODS

The study presented here, part of a larger study of postnatal experience, is an attempt to determine whether in talking about wellbeing and birth recovery during postnatal care, the experiences of women could be referenced to the need and role of childbirth supporters. It provides an opportunity to understand not just the role of childbirth supporters but the salient reasons why such needs may be relevant to the recovery and wellbeing of women.

To provide more exploration of the intial on-line survey responses, focus groups were used. These participants were already familiar with the study and were willing to volunteer additional information. The study adopted a mixed methods approach which allows integration of both findings, the survey and the focus groups, by drawing inferences from both qualitative and quantitative approaches in a program of inquiry (Teddlie and Tashakkori 2006) Aspects of the findings on physical and sensory/ambient aspects from the larger study have been presented elsewhere (Lawal and Vale 2018).

3.1 Study Sample and Design

An on-line questionnaire survey was used to investigate the design factors in the postnatal environment (Qualtrics 2017). Participants were 229 postnatal women who gave birth in different hospitals in New Zealand between July 2016 and November 2017. More than one-third (35%) of the participants births occurred within the past 1- 6 months. 88.5 percent (n =192) of participants were first time mothers.

The second category of participants comprised midwives who work in the hospitals. Both groups survey questionnaires were similar with the exception of a few aspects of particular relevance to each population. Interviews were conducted with 14 member focus groups using a semi-structured questionnaire protocol. Ethical approval for the study was obtained from the Human Ethics Committee of Victoria University of Wellington including consents from the focus group participants. The focus group interviews were audio-recorded and transcribed verbatim.

3.2 Data Analysis

Quantitative data were analysed using statistical analysis SPSS version 24, whereas qualitative data from the focus groups were examined using content analysis and thematic coding techniques. This method has been used in other studies to analyse focus group data in healthcare research (Gardiner, Brereton, Gott, Ingleton, and Barnes 2011). Careful reading of the transcript material from the focus groups yielded three main themes and subthemes. Direct quotations from the transcripts have been selected below to illustrate the concerns raised by the participants which are suggestive of the need for birth supporters presence and ultimately the impacts of these issues on space provision provision in the postnatal environment.

4. RESULTS AND DISCUSSION

Table 1 presents the frequencies of responses on the aspects of childbirth supporters space. With regard to women's opportunity to choose rooms, both women and midwives had greater negative responses suggesting that the room choice may be not be able to be determined by women currently. The need for communal space for counselling and parental skills generally elicited positive answers indicative of the need for these services especially in the days after birth.

Table 1: Specific Design Factors for Social Comfort for Birth Support Space

	Yes, n (percent) Women/Midwives	No, n (percent) Women/Midwives
Women have opportunity to choose the room	55 (29.9%) 9 (18%)	97 (52.8%) 19 (40.4%)
Communal space for counselling and parental support	148 (80.5%) 37 (78.7%)	7 (3.8%) 4 (8.5%)
	131 (71.2%) 43 (91.5%)	4 (2.2%) 3 (6.4%)

Furniture and décor in the room helps breastfeeding learning skills				
Open postnatal ward decreases interactions	72 (39.1%)	41 (87.3%)	35 (29%)	2 (4%)
Family support and need for space	144 (71.6%)	- (N/A)	20 (10%)	- (N/A)

Positive responses were given by both the midwives and women with regard to provision of appropriate furniture and décor for maternal skill learning. In terms of whether open wards with several beds decrease interactions, responses about this aspect were positive and surprisingly higher from the midwives than from women. This was because midwives felt that some inimate private health issues can not shared in the presence of other women in double rooms. The presence of family members and the need for space also elicited positive answers from women. However, this question was not asked of midwives as this portion was not directly related to them. Figure 1 shows the percentages of responses on the different categories of design features for childbirth support space.

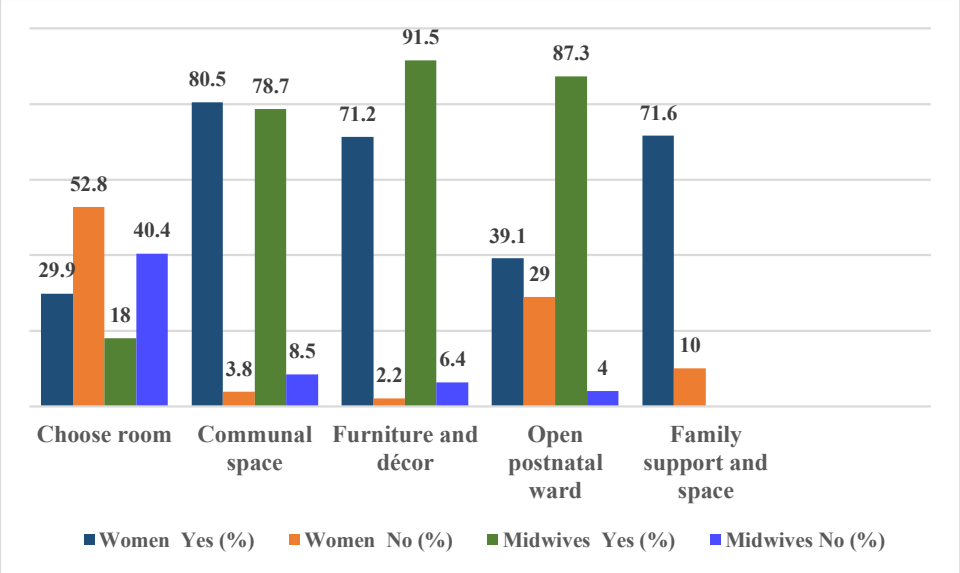

Figure 1: Percentages of responses for childbirth support space in the postnatal environment

The three main themes and subthemes that emerged from the focus groups are shown in Table 2. These themes are discussed in detail below.

Table 2: Key Findings: Birth Supporters Space

	Main Themes	Subthemes	Design implications
1.	Negotating Space	**Honouring family unit;** It is a very positive thing to have support persons around women, however supporters have less opportunity for involvement in the postnatal environment due to hospital policy against co-staying in double rooms. Women would like to bond, especially in that private time, with their baby and don't like their partners to be sent away.	Single room, privacy Furniture/furnishing; pull-out bed for partners.
		Getting in the way; The environment is not designed to make birth partners feel welcome in the space, as it was difficult to locate where they really belong. Creating options for	More spacious rooms, options for family unit,

		private/single rooms in more home-like setting is ideal. Support role includes actively attending to the baby, assisting women in walking, babycrying. Finding a place for support persons to stay is important.	storage for belongings, homely environment.
2.	Inclusive Education Environment	**Learning parental skills;** Postnatal public hospital environment lack space to perform the first task for learning parental skills. This space should be appropriate and inclusive of the role of supporters/partners. This space should not have the feel of being medicalised, but like a homely environment. Comfortable and relaxing ambience for everyone to share their experiences and learn more.	Layout and configuration, Furniture design, reclining, comfy armchair.
		Social interactions; Having a shared space where mothers can get together for conversations with other new mums and other couples, including making the place better for breastfeeding, food/toast, in a warm atmosphere.	Space, location, Access to outdoor, green areas, Eating areas.
3.	Supporters as safety havens	**Vulnerability;** Women are uncomfortable within the environment especially in the night. Needs to be safe and be in comfort with partners.	Firm and secured doors/openings.
		Confidence/trust of support persons; There is a level of trust with which women can leave their baby alone even though they trusted their midwives. The midwives can not always be around and can not replace the position of family. At night mother wanting sleep, baby awake.	
		Restrained conditions; supporting the physical needs of women that may arise due to birth complications, immobility and birth pain.	Floor coverings, furnishings in rooms, distance to walk, bathroom door.

4.1 Negotiating Space

The majority of participants were unanimous about the challenge posed by inadequacy of space in the postnatal wards.The choice of whether or not birth supporters will be allowed to stay is dependent on two factors including primarily the nature of a woman's birth and consequently, the type of room she gets allocated to, whether this is single or double room occupancy. Most women if given the opportunity to choose their rooms, would prefer a single room as it offers privacy and opportunity for them to bond together with family and have a quiet time.

> Midwife: "The postnatal ward obviously as if they have double rooms, designed as hospital, they should have made them like a small room, like everybody in a single room because it'sreally hard when your baby is crying and you [have] got another person trying to sleep next to you if your are truthful".

Indeed, participants expressed that because of room issues, partners had a difficult time fitting in nicely to the environment as the place is unwelcoming and some even struggled to just to make sure they were able to stay close with the family.

Woman: ”It became chaotic because it wasn’t a comfortable place to rest and especially for my partner as well, he felt like he was getting in the way. So for a while, he just snuggle in bed with us and then someone came in and said he can’t be there”.

Woman: ”...some kind of, is that there is no place for my husband to stay (partner), because on the first and second nights, I really need his help, but he was not there”.

However, some participants disclosed that the hospital policy gives preferences to women with health issues such as women who have had Caesarean sections and were physically immobile and generally those with birth complications. Similarly, this applied to some women whose babies were unwell and would need some forms of special care while the mothers spend some time in hospital. For this category of people, their experiences were a bit different in terms of getting the room they preferred and being able to have their partners stay with them.

Woman: ”I was there for a long time... and my sister and my husband [were] staying the night, and we were able to have visitors stay for a while. It was too crowding... also because there was no where to go, you can move around your room. It was the bed and nothing else. If I had been in a smaller room, I wouldn’t have stayed for that very long

Suprisingly, another perspective was that the hospital might view the presence of birth supporters as consumers of the hospital’s resources as they could not seemingly feel the beneficial impact of the partners while they were there. This assertion may be not apply to the labour and delivery rooms however.

4.2 Inclusive Education Environment

The need for an inclusive environment came out from the discussion to strengthen the crucial needs of education especially to cater for the first few days after the birth. Participants recognised this was an important aspect of childbirth that could be supportive to start off the caring process for both newborns and mothers. Participants felt the role of family support is key as both mother and father can learn the first sets of parenting skills while in the hospital.

Midwife: ”There is an environment that she can use for learning new skills, especially for first time mums. And want to be able to include the partners. Getting the support of education total environment and not medicalised environment”.

Furthermore, creating an inclusive environment or communal area also comprised opportunity for social interactions. Participants stated that there was little or no social contact with other women even though they felt lonely and isolated and in need of companionship which they could not find and there was no encouragement in that regard.

The communal space was thought helpful in acquiring experience especially if it was their first-time at birth. Having good ambience to support family and provision of comfortable furniture and furnishings in a more home-like setting are considered to promote inclusion of supporters.

> Midwife: "Some people really enjoy being with another person being there because they are lonely, and they might be the kind of persons they want. Want to know that there is somebody else is going through the same thing as them".

> Woman: "Having a mix of shared spaces where other mums can give you a hug where you can go and bring your baby... I think the big thing about having a baby is that you need experience, and having a chance to talk with other people who have just had babies is a nice thing".

4.3 Supporters as Safety Havens

Concerns for safety came up not in terms of medical procedures but specifically about safety in comfort with the partners especially when the midwives could not be present for one reason or another. Participants complained about the vulnerability of women at night with fears that some male strangers or an aggressive partner could harm women. While a partner's aggression is a one-off and rarely common, participants believed it should not be a reason to prevent partners from staying. Consideration for the family as an entity should be the focus.

> Midwife: "And if there are men looking around in and out ...over the woman's spaces potentially may make other women on the ward feeling uncomfortable always... the deal is that the guy can stay if he is actively intended to help with the baby".

Participants compared the birthing rooms in which they were allowed to have their partners to stay, whereas they were denied the same rights in the postanatal wards. Some participants felt there was more need for partners to continually offer support postnatally, especially with situations such as physical stress and exhaustion from birth, bleeding and to assist with activities of daily life.

> Woman: "...even just support people as the midwives are so busy to help overnight and I've often heard of mums struggling to find someone to help overnight when nurses and midwives are so underfunded and understaffed".

Confidence and trust come with the understanding that one can depend on some people and you can rest assured you are safe and protected in case of emergency and support. Participants demonstrated the feelings of having their baby with them all the time without wanting to keep an eye off them for seconds. This works against the need for women to get some sleep and rest after being exhausted.

> Midwife: ”I didn’t trust this midwife in this hospital, unless it was such a right to feel like. I don’t know where my baby is going. Even after looking around it wasn’t clear”.

4.4 Research Limitations

This study should be taken as an initial exploration of the birth supporters role in the postnatal hospital environment for a number of reasons. It is limited to the childbirth supporters’ roles in the postnatal wards rather than in the labour and delivery rooms. It focused on women and midwives and did not include the views of the birth supporters directly. Although comprehensive, the data did not have the depth it would have if the social environment for childbirth supporters were to be separately explored. Since birth requires several different spaces the role of childbirth supporters needs further investigation in the postnatal environment as the needs are different from the point of view of recovery and wellbeing.

5. CONCLUSIONS

The initial findings from this study reveal that the existing postnatal environment does not yet recognise and appreciate the role of childbirth supporters. This environment appears not yet to be designed for an inclusive total environment. It offers less opportunity for close family interactions for learning parental skills and for a sense of safety at night when support persons were sent home. These issues suggest the need for inclusion of well- designed spaces that are better able to support childbirth supporters and in turn to help women in their experience of post-birth recovery care and wellbeing.

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