



KEY POINT SUMMARY

OBJECTIVES

This study aims to understand how women in labor experience certain customizable features in a birthing room.

Women's experiences of physical features in a specially designed birthing room: A mixed-methods study in Sweden

Skogström, L. B., Vithal, E., Wijk, H., Lindahl, G., Berg, M., 2022 | *HERD: Health Environments Research & Design Journal*, Pages in press

Key Concepts/Context

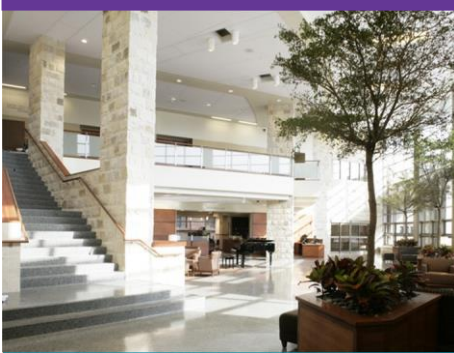
Prior research shows that birthing environments that support privacy, safety, and comfort can have a positive impact on labor outcomes. Familiar homelike features and rooms that allow for free movement have been linked with shorter labor and reduced pain. Results from this study show that women want a space where they have control over their birthing environment (e.g., lighting, music), and elements that allow for activities that support the labor and delivery process (e.g., a bathtub).

Methods

This study is part of a larger research project testing the impact of a new specially-designed labor and delivery room. In addition to the usual features and elements found in a traditional room, the new room included features designed to allow for personalization according to the women's wishes and needs (dimnable lights, music, a bathtub, and a window with an option of a media screen with programmable nature scene projections). Medical devices were hidden behind wooden panels unless needed.

Women in labor over the age of 18 and at least 37 weeks along in their pregnancy were invited to participate. Women who agreed were randomly assigned to either a traditional birthing room or to the new room.

The study was conducted in two phases. In the first phase, after giving birth and before leaving the labor ward, women completed a survey with a Likert scale question about how meaningful the features in the room were for giving birth. Then they ranked the importance of nine different features in the room. In the second phase of the study, researchers purposefully sampled women from the first phase who had answered the questions differently from one another. Nineteen women agreed to participate in this second phase, one to two years after giving birth. The interviewers asked participants about their first impression of the room, and if they



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felt they had been able to make adjustments to suit their personal needs. Then they asked each woman follow up questions about their individual ratings of the nine features in the Phase 1 survey.

Researchers analyzed the survey data and reported percentages and means. They reviewed the interview data using content analysis, by reading through transcripts, coding common themes, and working together to identify categories.

Findings

Of the women who were randomly assigned to the new room, 202 women between 18 and 40 years old completed the Phase 1 survey. Of the 19 women interviewed, 16 had given birth vaginally and three had had emergency cesarean section.

Almost all of the women (93.6%) considered the room meaningful to “a high” or “a very high extent.” Only two women indicated the room was not at all meaningful. Participants ranked the bathtub as the most important feature in the room, and the media screen with nature projections as the second most important. The media screen was considered as a combination of light and sound. Dimmable lights were ranked as third most important. The birth support rope was ranked as the least important.

Three main themes came out of the interviews in the second phase of the study: (1) A positive impression; (2) Opportunities offered by the room; and (3) Limitations and areas of improvement. Responses that fell in the “positive impression” category centered on the combined impact of the different features in the room (rather than crediting specific features by themselves). In the second category regarding “opportunities,” one woman commented, “I felt this is the room of opportunities, providing the best birthing experience possible.” The women discussed all of the options in the room and indicated that they felt in control in the room, and that it was “their place.” In the third category related to “limitations,” women shared that they would have preferred to have a window with access to fresh air and a view of nature outside of the room. (While there was a window in the room, it was covered by the media screen.) The covered window seemed to create some disorientation as to the time of day and passage of time in the room.

Limitations

The members of the research team have clinical backgrounds, which they acknowledge come with preconceptions. However, they report a concerted effort to challenge one another on these potential biases.

The authors also recognize that in addition to the physical environment there are many factors that influence the birthing experience, including people and institutional context. They discuss the reality that humans experience a room as a



collection of features all at once, and that ranking separate components of the room may not be the best measure of the environment.

Additionally, the survey tool and interview guide were not tested for validity or reliability.

Design Implications

Women appreciate features and elements that provide options for personalization and a sense of control during the birthing process. These may include lighting, music, media with nature scenes, and a bathtub.

And Also...

The photo of this room in the full article is very helpful when considering the design implications, especially the visual of the media screen covering the window. The authors note that the view from the window without the screen is a brick wall of a nearby building.

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