

Ideal Maternity Unit Design from Women's Perspective: A Cross-Sectional Study from Turkey

Kadınların Gözündeki İdeal Doğum Ünitesi Tasarımı: Türkiye'den Kesitsel Bir Çalışma
Ideal Maternity Unit Design from Women's Perspective: A Cross-Sectional Study from Turkey

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ÖZET

Amaç: Doğumdaki fizyolojik sürecin anlayamadığımız bazı yönleri olsa da kadınlar üzerinde doğum ünitesi koşullarının oldukça önemli bir etkisi vardır. Bu araştırmanın amacı doğum deneyimlemiş kadınların doğum ünitesi koşulları ve doğum memnuniyetini etkileyen ideal doğum ünitesi tasarımı üzerine düşüncelerinin incelemesidir.

Gereç ve Yöntem: Bu çalışma, normal doğum deneyimi olan 232 kadın ile gerçekleştirilen kesitsel bir araştırmadır. Çalışmada araştırmacılar tarafından geliştirilen bir anket form kullanılmış, bulguların yorumlanmasında *tanımlayıcı* istatistik tekniklerden yararlanılmıştır.

Bulgular: Çalışmamızda kadınların çoğu tarafından doğum ünitesinin özel girişi olması (%62,9), tek kişilik doğum odası (%96,6), doğum ünitesinin ses düzeyi (%89,6), mahremiyetin korunması (%100,0), şahsi tuvalet (%92,2) ve ılık duş alma imkânı (%74,1) ideal doğum ünitesinden beklenen özellikler olarak bildirilmiştir.

Sonuç: Çalışmanın sonucunda doğum ünitesinin özel girişi olması, tek kişilik doğum odası, doğum ünitesinin ses düzeyi, mahremiyetin korunması, şahsi tuvalet ve ılık duş alma imkânının kadınların doğum memnuniyetlerini etkileyeceğini düşündükleri belirlenmiştir.

Anahtar Kelimeler: Doğum odası, Doğum memnuniyeti, Doğum, Kadın, İdeal

ABSTRACT

Purpose: Although the physiological process of childbirth has some aspects that we do not understand, maternity unit conditions have a significant impact on women. The aim of this research is to examine the thoughts of women who had childbirth experience on the ideal maternity unit design, which affect maternity unit conditions and birth satisfaction.

Materials and Methods: This is a cross-sectional study that was conducted with 232 women with normal childbirth experience. In the study, a questionnaire form developed by the researchers was used, and descriptive statistical techniques were employed in the interpretation of the findings.

Results: In our study, most of the women had a private entrance to the maternity unit (62.9%), the private room (96.6%), the sound level of the maternity unit (89.6%), the protection of privacy (100.0%), private toilet (92.2% and the possibility of taking a warm shower (74.1%) were reported as expected features from the ideal birth unit.

Conclusion: In conclusion, it was determined that the women in the current study thought their birth satisfaction would be affected by some factors, including a reserved entrance to the maternity unit, a private birthing room, the sound level of the maternity unit, protection of privacy, availability of a personal toilet and the possibility of taking a warm shower.

Keywords: Delivery room, Birth satisfaction, Birth, Woman, Ideal

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INTRODUCTION

Birth is an important life experience for women, which includes interrelated psychological and physiological processes that are affected by social, organizational, and environmental factors (1,2). Especially the labor process plays an important role in shaping the birth experiences of women. Although there are some aspects of the physiological process in labor and childbirth that we cannot understand, we can say that one-on-one support and the birthing environment make a significant difference for women (3).

The birthing environment, which has undergone great changes from the past to the present with the effect of developing technology and medicalization, is one of the factors that can increase the fear and anxiety experienced by women during the birth process. Such a childbirth environment has been associated with failure to meet both the physiological and psychological needs of women (5, 6). Since labor and birth are innate, biological, and instinctive processes, giving birth in a safe, secure, and private environment is the most basic need of women, like all mammals (7). Although evidence-based knowledge has increased rapidly in recent years, more scientific results are needed about the ideal features of a maternity unit design and the effects of the design on childbirth outcomes (8). Several experimental studies have shown that the childbirth environment may affect the duration of childbirth, severity of pain, and the use of augmentation but that the sample sizes of the studies are small, and more robust trials are needed (4,9).

Evidence-based guidelines on what birthing environments should look like and tools that measure the qualities of an ideal birthing environment are needed to achieve an ideal transformation in maternity units. A review of the literature indicated that Jenkinson et al. (2013) established an evidence-based guideline for birthing setting design and that Foureur et al. (2010) developed the Birth Unit Design Spatial Evaluation Tool (BUDSET) to contribute to designing maternity units in a way that facilitates and supports the physiology of childbirth (10, 11). The number of such guiding studies, which make significant contributions to science in encouraging women to have a normal birth and reducing cesarean rates, should be increased. In addition, it is important to consider the ideal maternity unit design features from women's perspectives to make progress in this field. In this context, this study was conducted to examine the thoughts of women who had childbirth experience on maternity unit conditions and the ideal maternity unit design, which affects birth satisfaction.

MATERIALS and METHOD

At the outset, the approval of the Non-Interventional Ethics Committee of Eskisehir Osmangazi University was obtained (Date: 23.07.2019 Issue: 07). This research is a cross-sectional study that was conducted on pregnant women who presented to Tokat Gaziosmanpasa University Health Research and Application Hospital, Obstetrics and Gynecology outpatient clinics, and maternity unit between February-May 2019. The study group consisted of 232 women who presented to the related polyclinic/service, had given normal childbirth in the previous pregnancy, volunteered to participate in the study, and had a risk-free multiparous pregnancy.

In the study, a questionnaire form which was prepared by making use of the literature and suitable for the aim of the study was used as the data collection tool (6,10-13). The form consisted of questions about women's socio-demographic and obstetric characteristics, their previous childbirth environment conditions, and their opinions of the ideal maternity unit characteristics that affect their birth satisfaction. The questionnaire forms were filled by the researchers in an average of 15 minutes using face-to-face interview technique.

Statistical analyses were conducted on the SPSS (IBM SPSS Statistics 21) software package. Frequency tables and descriptive statistics were employed to interpret the findings.

RESULTS

Table 1. Distribution of the findings about the participants

Variable (N=232)	n	%
Level of education		
Not literate	19	8,2
Primary education	76	32,8
High school	91	39,2
University or higher	46	19,8
Employment status		
Not working	190	81,9
Working	42	18,1
Gestational age		
First trimester	4	1,7
Second trimester	48	20,7
Third trimester	180	77,6
Count of pregnancies		
2	135	58,2
3	66	28,4
≥4	31	13,4
The place of previous childbirth		
State hospital	159	68,5
Private hospital	16	6,9
University hospital	57	24,6

Table 2. Distribution of women by maternity unit conditions and their effects on them

Variable (N=232)	n	%
Availability of a reserved entrance of the maternity unit		
Yes	123	53,0
No	109	47,0
The effect of the reserved entrance (n=123)		
I felt special	63	51,2
I felt safer	52	42,3
I didn't feel anything	8	6,5
Number of beds in the maternity unit		
Private room	112	48,3
Rooms for 2 and more	120	51,7
The effect of the private room (n=235)*		
Protection of privacy	96	85,7
I felt more comfortable	81	72,3
Quieter and calmer	58	51,8
Availability of medical equipment in the birthing environment in abundance		
Yes	158	68,1
No	17	7,3
I don't remember	57	24,6
The effect of seeing the medical equipment (n=158)		
Made me worried	68	43,0
Made me feel safe	90	57,0
The color of the maternity unit (walls, bedspread, etc.)		
White everywhere	109	47,0
Shades of pink	36	15,5
I don't remember	87	37,5
The effect of the color of the environment		
Peaceful	8	3,4
It did not have an affect	146	62,9
No idea	78	33,6
Birthing room lighting		
Bright fluorescent	131	56,5
Daylight	77	33,2
Dim/light dark	24	10,3
The effect of the lighting		
It was disturbing	55	23,7
It did not affect	164	70,7
No idea	13	5,6
Level of sound in the maternity unit		
Quiet	137	59,1
Noisy	95	40,9
The effect of the ambient sound (n=95)		
Fear	71	74,7
I was not affected	24	25,3
Protection of the privacy in the environment		
Yes	166	71,6
No	28	12,1
I don't remember	38	16,4
Availability of a personal toilet		
Yes	112	48,3
No	88	37,9
I don't remember	32	13,8
The effect of the personal toilet (n=112)*		
More hygienic	106	94,6
Not meeting anyone else	36	32,4
Easy access	13	11,6
Possibility of taking a warm shower		
Yes	81	34,9
No	122	52,6
I don't remember	29	12,5
The effect of taking a warm shower (n=81)		
It relieved me	5	6,2
I didn't use it	76	93,8

* Since women provided more than one answer, the counts were evaluated not on the count of participants but on the effects of the private room.

The mean age of the women was 29.62 ± 5.4 (years), 91 women (39.2%) were high school graduates and 190 (81.9%) were not working in any job. Of the women in the study, 180 (77.6%) were in the 3rd trimester of pregnancy, 135 (58.2%) were having their second pregnancy, and the place of previous childbirth of 159 (68.5%) was a state hospital (Table 1).

The women's maternity unit conditions and the effects of these conditions on them were as follows: 123 (53%) of the women entered the maternity unit through a reserved entrance (separate from the general hospital entrance), and 63 (51.2%) of them felt special due to this option; 112 (48.3%) stayed in a private room, and 96 (85.7%) of them thought it protected their privacy; 112 (48.3%) had a private toilet in their room, and 106 (94.6%) of them found the private toilet more hygienic; 81 (34.9%) had the opportunity to take a warm shower during the process, and 5 (6.2%) of them felt relaxed by taking a shower (Table 2).

Table 3. Opinions of the women about maternity unit conditions affecting their birth satisfaction

Variable (N=232)	n	%
Availability of a reserved entrance to the maternity unit		
Affects	146	62,9
Does not affect	86	37,1
Private room		
Affects	224	96,6
Does not affect	8	3,4
Availability of medical equipment in the maternity unit		
Affects	74	31,9
Does not affect	158	68,1
Color of the maternity unit		
Affects	76	32,8
Does not affect	156	67,2
Lighting of the maternity unit		
Affects	62	26,7
Does not affect	170	73,3
The sound level in the maternity unit		
Affects	208	89,6
Does not affect	24	10,4
Possibilities of the environment to protect privacy		
Affects	232	100,0
Availability of a private toilet		
Affects	214	92,2
Does not affect	18	7,8
Possibility of taking a warm shower		
Affects	172	74,1
Does not affect	60	25,9

The examination of the women's opinions about the conditions of the maternity unit that affected their birth satisfaction indicated that they thought their birth satisfaction would be affected by a reserved entrance to the maternity unit (146, 62.9%), a private room (224, 96.6%), the invisibility of the medical equipment in the maternity unit (74, 31.9%), the color of the maternity unit (76, 32.8%), the lighting of the birthing room (62, 26.7%), the sound level of the

maternity unit (208, 89.6%), the possibilities of the environment to protect privacy (100%), availability of a private toilet (214, 92.2%), the possibility of taking a warm shower (172, 74.1%)(Table 3).

DISCUSSION

Women need to feel safe and comfortable from the moment they enter the place where they will give birth. It is unpleasant and worrisome for women presenting to the hospital for childbirth to enter the maternity unit through the emergency unit, pass through long and confusing corridors, and go past other patients. For this reason, the maternity unit must have a reserved entrance (12). In our study, it was found that the unit where 53% of the women gave birth before had a separate entrance from the general hospital, which made 51.2% of them feel special and 42.3% safer (Table 2).

The results of the Cochrane review of alternative birth settings for labor and childbirth show lower rates of medical intervention and greater maternal satisfaction with the private room (13). In our study, 48.3% of the women stated that their birthing room was a single-bed room in their previous maternity unit and that it was effective in terms of protection of privacy (51.8%), feeling better (72.3%), and the peace of the environment (51.8%). In addition, the majority of the women (96.6%) stated that a private room would affect their birth satisfaction.

Sheehy et al. (2011) stated that women preferred environments that made them feel special, calm, and comfortable, instead of the physical conditions that included white beds, white walls, and metal surfaces that they associated with fear and anxiety in the birthing environment (14). Regarding the color of the environment in which the women in our study gave birth, 47.0% stated that everywhere was white, 15.5% said it had shades of pink, and 37.5% said they could not remember anything (Table 2). In addition, 32.8% of the women stated that the color of the maternity unit would affect their birth satisfaction. Although most of the women ignored the color aspect in our study, modern medicine accepts that the color and decor used in healthcare settings have important effects on the healing process of the patients. In this context, the choice and harmony of colors are very important in ensuring the comfort, peace, and pleasure of women in the birthing environment and the motivation and energy of health professionals.

In a study conducted in an independent midwife-centered maternity unit, Grigg et al. (2015) found that a private environment that feels like a home environment that has less technology or an environment with less visibility of medical devices that feels like a clinical environment were more attractive to women (15,16). However, in the study of Sheehy et al.

(2011), one participant stated that the presence of equipment in the environment made them feel safe (14). In our study, too, the majority of the women (68.1%) stated that there was a lot of medical equipment in their previous maternity unit, and most of them (57.0%) described this situation as "it made me feel safe" (Table 2). In addition, 68.1% of the women in our study stated that the availability of medical equipment in the maternity unit would not affect their birth satisfaction (Table 3). A birthing environment that combines technological medical sophistication with a home-like environment design will make women feel safer and more comfortable throughout the process.

The lighting of maternity units, though often overlooked, is very important. When women can set the light in the birthing environment according to the level that they feel best, except for emergencies, this can increase their autonomy during childbirth and thus provide a higher birth satisfaction (10). Newburn and Singh (2003) reported that more than half of the women (56%) in the labor process attached great importance to controlling the brightness of the light in the birthing room (17). Most of the women in our study (56.5%) stated that the lighting of the environment in which they gave birth was bright fluorescent and that the lighting of the birthing environment would not affect their birth satisfaction (73.3%) (Table 3).

One of the basic needs of the woman giving birth is silence. Noise, which is inherent in the hospital environment, has effects on people, such as behavioral disorders, anger, and discomfort. In addition, there are research results that noise, which is an environmental stressor, reduces pain tolerance in patients and increases the use of pharmacological painkillers (10, 18). In our study, 59.1% of the women defined the sound level of the environment in which they gave birth as "silent". Most of the women (74.7%) who were in a noisy birthing environment stated that noise caused fear (Table 2). In addition, 89.6% of the women stated that the sound level of the maternity unit would affect their birth satisfaction (Table 3).

Privacy is one of the most necessary elements for the natural physiology of childbirth, and it should be given great importance during the childbirth process (19). In the study conducted by Panth and Kafle (2018) with 178 mothers in Nepal, 84.3% of the women were found to be satisfied with the protection of privacy (20). Of the women participating in our study, 71.6% stated that their privacy had been protected in the environment where they had given birth before (Table 2), and all of the women (100.0%) in the study stated that providing privacy in the maternity unit would affect their birth satisfaction (Table 3).

In traditional birthing settings, women often use communal toilets and bathrooms. In a study conducted in the United Kingdom, 4 out of 10 women reported that it was not easy to access the toilet during childbirth, while 70% of them stated that access to a private toilet was

of 'high importance' to them¹⁷. In our study, 48.3% of the women (have a toilet in their room) stated that the personal toilet is more hygienic and affects their birth satisfaction. Also, 34.9% of the women stated that although they had the opportunity to take a warm shower in the environment where they had given birth before, 93.8% of them did not use this opportunity (Table 2).

In conclusion, it was determined that the women in the current study thought their birth satisfaction would be affected by some factors, including a reserved entrance to the maternity unit, a private birthing room, the sound level of the maternity unit, protection of privacy, availability of a personal toilet and the possibility of taking a warm shower. Considering that normalizing childbirth has important effects on the bond between mothers and their newborn babies, family functions, and ultimately public health, birthing environments should be improved urgently to meet both the physical and psychosocial needs of expectant mothers in all health institutions. In addition, future studies should examine the effects of birthing environment conditions on women's birth satisfaction and their expectations from an ideal maternity unit.

Limitations of the Research

The limitation of the study is that it was conducted only with women who had experienced childbirth in a university hospital. Results from the study can only be generalized to women included in this study.

Ethics Committee Approval: This study was approved by the Non-Interventional Ethics Committee of Eskisehir Osmangazi University was obtained (Date:23.07.2019 Issue:07).

Conflict of Interest: The authors declare that they have no competing interests.

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