

Factor that Influence on Ultra-Orthodox Jewish Mothers' Service Satisfaction with Obstetric Care in Israeli Public Hospitals

Iris gertner moryossef (✉ irisge@hadassah.ac.il)

Research article

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Factor that Influence on Ultra-Orthodox Jewish Mothers' Service Satisfaction with Obstetric Care in Israeli Public Hospitals

Dr. Iris Gertner Moryossef
Author Affiliation:
Hadassah Academic College, Jerusalem, Israel
Correspondence to: Dr. Iris Gertner Moryossef
irisge@hac.ac.il

Dr. Keren Mazuz - Corresponding Author
Author Affiliation
Hadassah Academic College, Jerusalem, Israel
kerenma@hac.ac.il

Abstract

The Ultra-Orthodox sector is a uniquely conservative and closed community within Israeli society, which makes up 8-11% of the population of Israel. The Ultra-Orthodox live in separate neighborhoods that constitute closed cultural quarters with little interaction with the non-orthodox society. Within these neighborhoods, they maintain their traditional lifestyle, which adheres to strict, Torah-based Jewish law. Observance of Jewish laws and customs is closely monitored and access to the internet and the general media is limited, keeping the exposure to undesired contents at the minimum. Religious law observance includes modest dress codes, complete separation between male and female that begins in early childhood, and strong family values, including marrying young and aspiring to form a big, close-knit family unified around the traditions of the community. The men in the Ultra-Orthodox

society dedicate themselves to full-time religious studies in specialized institutions (the *Kollel*), while the women oversee the family income, children's education and all domestic matters. Whereas 61% of Ultra-Orthodox Jewish women are employed, only 52% of the men have a job, while the other men dedicate their time to studying the Tora. On average, an Ultra-Orthodox woman gives birth for the first time at the age of 19, and the overall fertility rate among this population is three times that of the secular population (8.5 children versus 2.9).

Since 99% of childbirths take place in hospitals (the general homebirth rate in Israel is smaller than 1%) and due to the generous grant (3,000 dollars) that hospitals receive from the Health Ministry for each delivery, hospitals make persistent efforts to encourage orthodox mothers to use their maternity service and thus are interested in providing obstetric care that will satisfy them. As the Ultra-Orthodox community assigns special importance to childbirth and maintains a high fertility rate, researchers were motivated to examine the factors that affect the satisfaction of Ultra-Orthodox Jewish Mothers (UOJM) with their childbirth experience, including with the caregivers and the delivery rooms. The underlying assumption is that the mother's satisfaction is essential to her loyalty when choosing hospitals in her future labors. We also examined whether the mother's satisfaction correlated with sociodemographic factors, such as the mother's age, level of education and number of previous deliveries. We wanted to study whether older, more educated mothers who have experienced previous childbirths will be less anxious and more confident during labor, thus more satisfied with obstetric care. This is in comparison to younger and less experienced mothers, who may be more concerned and anxious, thus have higher expectations of the staff and the labor experience, leading to decreased satisfaction.

This study was composed of two phases: in the first phase we conducted explanatory research, in which we used focus groups and asked 36 UOJM about the major factors that affected their obstetric satisfaction. Based on this phase we identified 17 factors that influence mothers' satisfaction.

In the second phase we distributed questionnaires to 161 UOJM asking them to declare their satisfaction of each factor using Likert scale.

The questionnaires were based on the former questionnaires from the scholar
evaluate obstetrics' evaluation among mothers after childbirth.

We conducted the survey in April-October 2018 in infant healthcare centers,
which provide healthcare services to the mother and her infant (ages 0-2 years
old) like vaccination a weight measurement.

Results:

Results show three dimensions of factors that have significant influence on
UOJM's satisfaction. The first is the *Interpersonal* dimension, which refers to the
attitude of service givers and their interaction with the mother; the second
dimension is the *Physical surroundings*, including sanitation and privacy during
childbirth; and the third dimension is the *Technical dimension*, which includes
emergency and anesthesia equipment.

The mothers were highly satisfied with all three dimensions, but the
interpersonal dimension was the strongest predictor of satisfaction (**17.63****),
compared to the Physical and O dimension (14.23**, 13.36**). On a scale of 1-5,
the mothers were highly satisfied with the following factors: : 1) privacy during
delivery (4.49); 2) professional conduct of the staff; and 3) waiting time for
personnel (4.17, 4.20).

In contrast, the mothers were less satisfied with the following factors: 1)
consulting with the mother; and 2) giving her enough information (these factors
relate to the interpersonal dimension) (2.79 and 2.81 respectively).

No correlation was found between satisfaction and sociodemographic variables or
previous childbirths.

Conclusions

The results point to the importance of Interpersonal, Physical and Technical
dimensions in UOJM's satisfaction with obstetric care. The most influential
factors were found to be professionalism of the staff, waiting time and privacy
during the procedure. Improving the staff's assistances and accessibility allowing
more privacy to the mother and reducing wait time can improve satisfaction and

confidence among UOJM and increase their loyalty to a specific hospital in future deliveries. 95
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Key words: Obstetric care satisfaction, Interpersonal dimension, Technical 97
dimension, Physical environment. 98

Background 99

Ultra-Orthodox Jews in Israel (who made up 8%-11% of the Israeli population in 2018) live in closed neighborhoods and adhere to traditions and customs based on Jewish law (the Torah and subsequent writings). They avoid accessing the internet and wear modest clothes. Ultra-Orthodox children acquire the knowledge and motivation to continue the strictest enforcement of Jewish law. Men enter a regime of full-time study of religious Jewish texts at 18 years old ([1];[2]). While the men spend their days studying, the women take charge of the house, including income and children's education. The high fertility rate among this population (three times that of the non-Orthodox) is based on Genesis (1:28:)"Be fruitful and multiply and replenish the earth and subdue it" ([3];[4]). Within the Ultra-Orthodox society, having a baby is not only a physical and biological experience but also a fulfillment of a spiritual purpose, since the core experience in this world, in their view, is bringing a soul into the world ([5];[6]). Motivated by the high grant from the Ministry of Health for each delivery (3,000 dollars), Israeli hospitals make extreme efforts to bring in more Orthodox women. Their efforts to encourage women to use their services throughout their deliveries include *Kosher* food, separation between men and women, a synagogue on premises, or taking care for the young children .. ([2];[4]). Prior studies that focused on healthcare service used questionnaires to evaluate service satisfaction. These studies have pointed to the main parameters influencing mothers' satisfaction with obstetric care ([7]; [8]; [9]). The first parameter is the *interpersonal* relationships with the service givers in the maternity room, which refers to their support, professional training, courtesy and empathy toward the mother and her companion. The second parameter is the *Physical surroundings*, which includes the attendance and accessibility of the service giver in the room, sanitation of the environment, a private space given to the mother, and the team - organization. The third parameter determining the level of satisfaction included *Technical* factors, such as medical, anesthetic or 100
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emergency equipment used during the delivery. All three parameters are 128
important and affect mothers' satisfaction with the service, although not to the 129
same extent. ([10]; [11]). This study's aim is to determine and rank the main 130
factors that influence the satisfaction of Ultra-Orthodox Jewish Mothers (UOJM) 131
during childbirth. 132

Methodology

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The Aim of the study

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The aim of this study is to evaluate the cultural factors that affect UOJM's 135
satisfaction level when receiving childbirth services in Israeli hospitals. These 136
factors will then be classified into dimensions, and the 137
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The study area and study design

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The study population is UOJM who had vaginal deliveries (no caesarean or other 140
operations) in public hospitals in Israel within a period of twelve months prior to 141
the study (which took place in August 2017). The study was conducted in four 142
cities with large Ultra-Orthodox populations: Jerusalem, Bnei Brak, Netania and 143
Ashdod. We identified and approached mothers in playgrounds adjacent to infant 144
healthcare centers located in Orthodox neighborhoods. These healthcare centers, 145
known as *Tippat Halav*, are public clinics that provide overall infant healthcare, 146
including weight measurement, vaccination and nutrition guidance. 147

In each city we approached about 40-50 UOJM. We had face to face interviews 148
with them in the explanatory stage as well as in the second phase, during which 149
we delivered the questionnaires. The study instrument was self-administered 150
questionnaires, designed, validated and pretested for the purpose of a large cross- 151
sectional study of women's satisfaction with perinatal care. The closed ended 152
questionnaires were given to UOJM by religious college students after receiving 153
intensive training by the authors. The students' background in Orthodoxy helped 154
them communicate with the mothers. They had four days of training, each three 155
hours long. During the training the purpose of the study was explained, the 156
academic goals of the study were emphasized and the interaction with the 157
participants was simulated. 158

The participating mothers had to fill in the questionnaires by themselves. The 159
students were guided to make sure the mother understood that the questionnaire 160
is for academic purposes. They gave the questionnaire to the mother and waited 161

while she completed it. We used 5 students for each of the four cities, 20 students all together. Satisfaction with one of the aspects was defined as the proportion of mothers who had chosen a mark of 4 or 5 with all the variables under this aspect of care.

Data collection, data instrument

The journey of the study was conducted using mixed methodologies in two phases as described in Table 1:



Table 1: The research phases

Step	Purpose	Number
Qualitative interviews	Identifying main factors that have significant influence on mothers' evaluation of obstetric care service.	36 UJOM
Quantitative questionnaire	Ranking the influence of the significant factors on the mothers' evaluation.	161 UJOM
Quantitative questionnaire	Classifying the factors into three separate dimensions (Physical, Personal and Technical dimensions).	161 UJOM
Quantitative questionnaire	Identifying correlations between factors and sociodemographic variables.	161 UJOM
Quantitative questionnaire	Determining predictors of mothers' satisfaction.	161 UJOM

Explanatory phase: At this first phase we aimed to identify the main factors that influence mothers' satisfaction with childbirth services. We used face-to-face interviews with UJOM, asking them open questions such as "what is important to you?" We also asked the mothers about their prior expectations, and what aspects of the Technical procedures (equipment, anaesthesia and alternative medicine), the Physical surrounding (sanitation of the facilities, privacy, team work and accessibility of service) and interpersonal service (professionalism, waiting time

or empathy by the midwives) they were pleased with. Based on phase one, we found 17 factors that significantly influence mothers' satisfaction (good internal consistency Cronbach's $\alpha = 0.741$).

In the second phase we used close ended questionnaires to evaluate the satisfaction with childbirth services in relation to each of the 17 factors. The questionnaire used in this phase was adopted from preliminary valid questionnaires [13]; [14]; [15]. The first draft of the English questionnaire was translated into Hebrew by independent translators and then back to English to check for consistency.

The questionnaires were given to each mother after explaining the academic purpose of the study and ensuring its anonymity (we also made sure she gave birth within the last 12 months). The mothers signed a form of consent. The questionnaires were filled out by the mother and handed back to the students. The mother was asked to rate each factor using a 5-point Likert scale (1 –very dissatisfied, 2 – dissatisfied, 3 – neutral, 4 – satisfied, and 5 – very satisfied).

Overall, we approached more the 190 UOJM and received 161 responses the academic and anonymous study, make sure she had her baby within the last 12

Data analysis

Data analysis was performed using SPSS v.18.0 (IBM Corp., Armonk, NY, USA). The association between UOJM satisfaction and each component was examined by Varimax rotation, and stepwise multiple regressions were performed to identify the significant predictors of the three satisfaction dimensions. Using Spearman's rank correlation coefficient, we measured the relationship between sociodemographic variables and satisfaction with each item, and stepwise logistic regression was used to determine the main predictors of satisfaction. An adjusted odds ratio was used to determine the level of association between selected variables, and variables having $*p < 0.05$ were retained for the model.

Ethical considerations

The study proposal was approved by the Internal Ethical Review Board of Hadassah Academic College. Informed oral consent was obtained from each study participant. Confidentiality was assured by making the questionnaire anonymous.

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Results	214
Dimensions of mother's satisfaction:	215
Using an explanatory study among 36 mothers we interviewed them	216
in related the main factors influence their satisfaction in the delivery	217
room.	218
The mothers mentioned that interpersonal interaction as well as the	219
surrounding environment and technical equipment and procedure	220
are the factors influencing their satisfaction. The main factors (17 all	221
together) were collected to subgroups and dimensions using factor	222
analysis as shown below.	223
Using factor analysis, we categorized the items into the following	224
three domains as follows, each having high internal consistency (see	225
Table 2): the first dimension is mothers' satisfaction with the	226
technical proceeding dimension (four items, Cronbach's $\alpha = .67$), the	227
second dimension is mothers' satisfaction with the physical	228
environment dimension (four items Cronbach's $\alpha = .93$) and third	229
dimension relates to interpersonal aspects dimension of service	230
giver (nine items, Cronbach's $\alpha = .74$ is a significant factor explained	231
45% of the frequency).	232
For each item, the mothers marked their satisfaction using a 5-point	233
Likert scale, (1-very dissatisfied, 2-dissatisfied, 3-neutral, 4-satisfied,	234
and 5-very satisfied).	235
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Table 2: Factor analysis influence the mother's satisfaction	237

Dimension and items	Cronbach's α
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<p>[1] Technical dimension</p> <ol style="list-style-type: none"> 1. Process and medical facilities in the room (drugs, equipment, etc.) 2. Equipment for emergency 3. Availability of anesthesia equipment 4. Alternative medicine and therapy during delivery 	<p>0.67</p>
<p>[2] Physical environment</p> <ol style="list-style-type: none"> 5. Sanitary facilities (water, toilets, bathrooms) in the room 6. Privacy maintained by the health staff during the care 7. Organizational teamwork 8. Attendance and accessibility of the service giver in the room 	<p>0.93</p>
<p>[3] Interpersonal dimension of care</p> <ol style="list-style-type: none"> 9. Professional training, literacy, the nurses and midwives 10. Waiting time and responsiveness of the personnel 11. Listening and attending to the mother's wishes 12. The quality of the service and treatment 13. Kindness and attitude of the personnel to the mother as an individual 14. Kindness & courtesy of the personnel to mother's accompanying person 15. Consulting with the mother before interfering 16. Information was given to the mother during procedure 17. Empathy and consideration of the nurses and midwives 	<p>0.74</p>

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Demographic characteristics of the sample:

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Table 3: Socio-demographic characteristics of the UOJM

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Table no 3 shows the representative distribution of the sample related to age, income, education and previous childbirths.

242	Variables
Age (years) 243	18-24
244	25-34
245	35 +
Education 246	Low level of education (high school)
247	High level of education (1 st degree)
Primiparity 248	Nulliparous new mother for the first time
249	Parous (1-4 children include the new baby)
250	Multiparous (more than 4 children)
251	the new baby)
Income of the household 252	Lower than the average income
253	Average income
254	Higher than the average income
255	Total

Satisfaction in general items and dimensions

Mothers' satisfaction in general was high (3.67) regardless of age, income, education, and previous birth (see Table 4). The most satisfied factors were

privacy during delivery (4.49), waiting time (4.17) and 256
 professionalism and literacy of the nurses and midwives (4.20). 257
 Dissatisfaction was found in consultation with the mother (2.79); 258
 Information that is given to the mother (2.81) and alternative 259
 medicine treatment (mothers' satisfaction was only 1.52). Other 260
 items, such as work organization, sanitary facilities, kindness and 261
 empathy towards the mother and her companion received a median 262
 score (3.52-3.88) 263
Table 4: Mean and Std. Deviation of the item's satisfaction 264

Dimension and items	Satisfaction	Std. Deviation
Technical dimension		
Process and medical facilities in the room (drugs, equipment, etc.)	3.67	1.98

Equipment of emergency	3.65	1.86
Availability of anesthesia equipment	3.74	1.90
Alternative medicine and therapy during delivery	1.22	1.02
Physical dimension		
Sanitary facilities (water, toilets, bathrooms) in the room	3.67	1.22
Privacy maintained by the health staff during care	4.49	3.51
Organizational, teamwork	3.45	1.32
Attendance and accessibility of the service giver in the room	3.67	1.22
Interpersonal dimension of care		
Professional training, literacy of the nurses and midwives	4.70	1.04
Waiting time and responsiveness of the personnel	4.47	2.53
Listening and attending to the mother's wishes	2.20	1.12
The quality of the service and treatment	3.77	1.18
Kindness and attitude of the personnel to the mother as an individual	3.84	1.25
Kindness & courtesy of the personnel to mother's accompanying person	3.52	1.78
Consulting with the mother before interfering	2.29	1.23
Information was given to the mother during procedure	2.21	1.45
Empathy and consideration of the nurses and midwives	3.88	1.33

Mean satisfaction in general	3.67	1.35
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Correlation between mother's satisfaction with demographic variables:

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To find a significant correlation between sociodemographic variables, we conducted Spearman analysis (see Table 5). The results indicate no significant correlation. Satisfaction with all three dimensions was not related to the UOJMs' demographic characteristics. There was no relation to age, income, education or previous childbirths. The same satisfaction rank was given to interpersonal dimension, physical surroundings and technical dimension.

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To find any correlation between items' dimensions and demographic variables, we used a Spearman correlation (see Table 6). Results show that there is no significant correlation between the UOJMs' satisfaction and demographic variables or former childbirths.

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Table 5: Correlation between dimensions' satisfaction and demographic variables

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Dimension and items	Age at birth	Educate ion	Inco me	Previous childbirth
Technical dimension				
Process and medical facilities in the room (drugs, equipment, etc.)	.02	.18	-.06	-.01
Equipment for emergency	-.16	.04	-.22	-.20
Availability of anesthesia equipment	-.02	.22	.01	-.20

Alternative medicine and therapy during delivery	.02	.04	.06	-.06
Physical environment				
Sanitary facilities (water, toilets, bathrooms) in the room	.01	.11	-.01	-.07
Privacy maintained by the health staff during the care	.17	.17	.12	.17
Organizational, teamwork	.05	.07	-.07	.03
Attendance and accessibility of the service- giver in the room	-.01	.09	-.08	-.12
Interpersonal dimension of care				
Professional training, literacy the nurses and midwives	.01	.23	.11	.05
Waiting time and responsiveness of the personnel	-.11	-.04	-.03	-.05
Listening and attending to the mother's wishes	.09	.11	-.01	-.04
The quality of the service and treatment	.03	.13	.04	-.12
Kindness and attitude of the personnel to the mother as an individual	.06	.05	.02	.14
Kindness and attitude of the personnel to the mother as an individual	.11	.11	.03	-.02
Consulting with the mother before interfering	-.04	.20	-.02	-.01

Information was given to the mother during procedure	-.22	.19	.02	-.11
Empathy and consideration of the nurses and midwives	-.04	.20	-.06	.12

*p<0.05 **P<0.01

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Table 6: Correlation between items' satisfaction and demographic variables

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Dimension and items	Age in birth	Educatio n	Income	Previous child birth
Technical dimension	-.07	-.05	.11	-.14
Physical environment	.01	-.09	.07	.08
Interpersonal dimension	-.15	.19	.19	-.11
Mean satisfaction	-.07	-.04	.18	-.07

*p<0.05 **P<0.01

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Predictors of mother's satisfaction:

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Linear regression including service's dimensions:

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Linear multiple regression was conducted to define significant dimensions predicting mother's satisfaction (see Table 7). The regression t explained 91% of the satisfaction variance (F (3,147) =146.62, p<0.001)

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Al three aspects had high correlation to mother's average satisfaction, but the interpersonal dimension had the high score ($\beta=.57$).

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Table 7: Linear multiple regression of dimensions' satisfaction

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Dimensions	t	B	Std. Error	Beta
Interpersonal dimension	17.63**	.594	.03	.57
Physical environment	14.23**	.474	.02	.48
Technical dimension	13.36**	.437	.02	.43

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*p<0.05 **P<0.01

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Linear regression with all variables:

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Linear regression between UOJM mothers' satisfaction and all variables (service dimensions and demographic variables):

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The regression analysis was found to be significant [F (7,117) =98.17, p<0.001] and explained 93% of the satisfaction' s variance. As seen in Table 8, the demographic variables (age, income, education, and previous childbirths) were not found to be significant predictors of the UOJMs' satisfaction. ($\beta = -.05$).

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As seen in the results, interpersonal dimension is the main predictor influence religious UOJM's satisfaction($\beta=.47$). Based on linear regression, service's technical and physical surrounding predict mother's satisfaction but less than personal interaction. ($\beta = .27$, $\beta=.21$)

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Table 8: Linear multiple regression of factors influences mothers' satisfaction

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Dimensions	t	B	Std. Error	Beta
Interpersonal dimension	23.81**	.62	.02	.47
Physical environment	11.78**	.37	.03	.27
Technical dimension	9.74**	.35	.02	.21
Age when giving birth	1.42	.06	.04	.05
Education	-1.09	-.04	.04	-.05
Income	-.67	-.02	.03	-.02
Previous childbirths	1.33	.05	.03	.04

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Discussion

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In general: The high childbirth rate among UOJM in Israel (more than six children per family compared to a national average of 2.9 children) and the fact that more than 99% of deliveries take place in public hospitals make this an exciting and motivating research, as it studies the factors that influence UOJM's satisfaction during childbirth in public hospitals. The Ultra-Orthodox Jewish community holds a traditional and conservative lifestyle with codes of modesty and resistance to the internet and social networks, relying on word of mouth communication ([3]; [6]). Understanding the central factors that play a role in UOJM's satisfaction or dissatisfaction with their childbirth experience and the

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ability to predict their obstetrics service satisfaction may encourage maternity departments in public hospitals to improve their service and fulfill the mothers' needs during this important event.

Dimensions of satisfaction: The factors that influence UOJM's satisfaction can be divided into three dimensions: the *Interpersonal* dimension contains factors relating to the service giver and his or her interaction with the mother; the *Physical* surrounding relates to sanitation, the organization and accessibility of the medical staff, and privacy given to the mother; and the *Technical* dimension relates to anesthesia, emergency and alternative equipment during the procedure. All three dimensions were found to be as important in obstetric care as they are in other high involvement medical services ([16] [17]; [18]). Studies conducted in Ethiopia, Sri Lanka, Peru and Serbia ([19]; [20]; [21]; [22]) show that only the dimension of personal interaction predicts mothers' satisfaction; however, in this study, all three dimensions predict significant mothers' satisfaction. This difference may relate to the high level of the Israeli healthcare system (ranked eighth globally in 2015 in terms of life expectancy by Bloomberg rank [24]) that cause the mother to expect high standards of the room sanitation, alternative medicine, the attitude of the service giver or the information provided to her [23]. [15].)

The interpersonal dimension: within this dimension, the high level of satisfaction derived from the professionalism of the staff and the waiting time (satisfaction rate was higher than 4.4). This result is related to the concerns and involvement of women in labor. They need to feel secure during the procedure, and professional staff and accessibility can relieve their uncertainty.

In addition, laboring women want to take active part in the process. When they are not routinely closely informed and consulted with, they feel dissatisfied with the service (2.21, 2.29).

These results are comparable to other studies ([24];[25] ;([26]) which emphasize the mother's need to be informed and consulted during the procedure. In western countries such as Australia or the Netherlands, ([8]; [27]) the personal, caregiver-based service was an important factor in explaining the high percentage of home childbirths (more than 33%).

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The Physical surrounding dimension: All items in the Physical dimension	365
(room sanitation, mother's privacy, accessibility and organization of the medical	366
staff) received high satisfaction rate. Our findings indicate that UOJM are more	367
sensitive to the issue of privacy than to other factors, likely due to the modesty	368
requirement of their community. The Ultra-Orthodox woman in labor needs a	369
quiet environment and a closed door, which can be opened only upon knocking,	370
or she might feel exposed and insecure. [3]; [6])	371
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The Technical dimension: although birthing women use conventional	373
medical care, they need to have access to alternative obstetric care, which is	374
highly popular in Israel ([28]; [29]). When this is not the case, they express	375
dissatisfaction (mean satisfaction 1.22).	376
The fact that UOJM do not access the internet and avoid social network	377
communication makes them more dependent on the professional knowledge of	378
the staff as well as on the surrounding and Technical equipment. The Israeli	379
Ultra-Orthodox mother wishes to be informed and consulted during labor, needs	380
to be offered alternative therapy in addition to the conventional methods and	381
wants to be treated as an individual.	382
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Sociodemographic variables: UOJM's satisfaction with all three dimensions	384
was the same regardless of sociodemographic variables such as age, education or	385
previous childbirths. These findings contrast with those of other studies ([30];	386
[31]; [32]; [33]), which have shown that low income and highly educated mothers	387
will be less satisfied with maternity care.	388
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Research limitations	390
The research has several limitations that arise mainly from the type of population	391
examined. The first limitation concerns the small number of participants,	392
resulting from the difficulty in interviewing UOJM. In addition, the research was	393
limited to a small number of healthcare facilities. The participants all gave birth	394
in one of five public hospitals, in which more than 98% of UOJM births are	395
performed. This concentration of hospitals limits the ability to compare	396
satisfaction between diverse hospitals or between public and private facilities. In	397

terms of the medical procedure, this study sample examined only vaginal 398
deliveries and excluded deliveries with additional risks (such as a caesarean 399
operation), which may impact the research results and the parameters of 400
mothers' satisfaction 401

Conclusions 402

Although satisfaction with childbirth services is multidimensional, the most 404
significant predictors were found to be privacy, waiting time and professional 405
conduct of the staff. It is important that the hospital staff pay attention to positive 406
and ongoing communication with the patient throughout the birth process. This 407
includes informing the mother about what is happening to her and to the fetus 408
and listening to her suggestions even if this is her first childbirth. This could 409
reduce the level of anxiety the mother is experiencing. 410

The study's findings are compatible with those of other studies ([34]; [35]; [36]), 412
showing that high involvement of healthcare services and hospitals should reduce 413
patients' fears and uncertainty when receiving healthcare services. They also 414
point to the importance of the quality of service in increasing patients' 415
satisfaction. The fact that hospitals in Israel receive high compensation from the 416
Health Ministry for every childbirth makes it a priority service for them and 417
encourages them to improve mothers' satisfaction, for example by arranging 418
private birthing rooms and adding alternative medical treatments to the labor 419
procedure. 420

Another way to increase mother's satisfaction is to highlight the personal 421
interaction between her and the staff. Hospitals should understand the 422
importance of sharing information with the mother during labor, treat her as a 423
partner, consult with her and inform her. Such an attitude may increase the 424
mother's certainty about the service and increase her loyalty to the hospital in her 425
subsequent deliveries. Our recommendation is to continue to explore the 426
parameters accounting for satisfaction amongst UOJM so that hospitals are able 427
to provide an outstanding service. Asking each mother before and during 428
childbirth about her special needs and desires may help adjust the service as 429
private and customizes service, thereby increasing the mother's satisfaction and 430
her loyalty to the hospital in future childbirths. 431

	432
Declarations	433
Ethics approval and consent to participate:	434
The ethical approval was granted by the Internal ethical review	435
board of Hadassah Academic College in March 2018.	436
The manuscript does not include any individual person's data; hence	437
consumerism	438
to publish is not applicable.	439
The participants confirm their consent by written	440
	441
Consent to publish	442
The manuscript does not include any individual person's data; hence	443
consumerism	444
to publish is not applicable.	445
	446
Availability of data and materials:	447
The data sets generated during and/or analyzed during the current	448
study are available from the corresponding author on reasonable	449
request.	450
The real database supporting the conclusions of this article is	451
available in the Israeli:	452
https://main.knesset.gov.il/pages/default.aspx	453
The data supporting the Ultra-Orthodox Jews Haredim in Israel	454
population are available in the Central Breuer of Statistic of Israel	455
https://www.cbs.gov.il/he/Pages/default.aspx	456
	457
Competing interests	458
The authors declare that they have no competing interests.	459

	460
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funder had no role in the study design, data collection and analysis or	463
preparation of the manuscript	464
	465
Authors' contributions	466
IGM designed the study and drafted the manuscript, KM helped	467
design the study, assisted with writing the paper, and, and performed	468
statistical analysis, NS assisted with advice, interpreting results and	469
the discussion. All authors read and approved the final manuscript.	470
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Abbreviations	479
UOJM - ultra-orthodox Jewish Mother	480
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