

Attitudes and barriers toward the presence of husbands with their wives in the delivery room during childbirth in Riyadh, Saudi Arabia

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ABSTRACT

Objectives: The objective of the study is to assess the husbands' attitudes toward their presence with their wives during childbirth in the delivery room and to determine the barriers that prevent their presence. **Methods:** A cross-sectional study was conducted at two tertiary hospitals in Riyadh. Data were collected from a total of 250 husbands whom were selected randomly in the waiting areas of the delivery rooms and asked to participate in this study by filling a questionnaire after giving informed consent; data were collected during the period between December 2016 and April 2017. **Results:** The majority (95.6%) were Saudi and had only one wife. The positive mean score for the attitude increased significantly with increasing educational level ($P < 0.01$). The highest positive attitude was mainly for the item "It is calming for the mother." Conversely, the highest negatively scored item was "my presence with my wife in the delivery room is insulting to my manhood" and "our culture is against a husband attending his wife's childbirth" (1.91 ± 1.12). The hospital system and not having a private room for their wives were the most identified barriers to the husband's presence in the delivery room. **Conclusions:** Increased level of education has better outcomes on husbands' attitudes toward supporting their wives in the delivery room. Authors recommend flexible hospital policies to support husbands' presences with their wives in the delivery room and provide privacy for them during childbirth, such will provide psychosocial support to the wife, and it is an important part in transition to a mother-friendly hospitals.

Keywords: Childbirth, delivery room, husbands, presence, wives

Introduction

In recent years, the role of men in safeguarding maternal health has gained increased interest.^[1,2] Previous studies have reported that involving men in pregnancy and childbirth has a positive effect on pregnancy outcomes as it improves maternal health and reduces the incidence of low birth weight, risk of preterm birth, and infant mortality.^[3-8] In addition, male involvement reduces maternal stress by providing emotional, social, financial support as well as decision-making purposes and logistical support.

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Additionally, husbands' presence makes women felt protected and secure^[3,9,10] increases interest in prenatal care^[11] and ensures their involvement from an early stage in their upcoming parental roles.^[12-14] Moreover, male involvement in maternal health issues could promote better relationships between couples and enhance maternal well-being.^[15]

Sciarra^[16] reported that the psychoprophylactic method is a noteworthy approach to decrease pain during labor, in which the active presence of the husband in the delivery room may also reduce the requirement for analgesics. Moreover, he added

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that, as per the results of previous studies, preparing women for delivery and accompanying them with a supportive person results in shorter and less complicated labors, reduced use of analgesics, and more successful labors with more positive reactions to neonates.^[16] Similarly, Hodnett *et al.*^[17] reported that several methods have been suggested to reduce tension during delivery including the Lamaze relaxation method, hydrotherapy, emotional support, and accompaniment by the husband or a relative in the delivery room.

Despite findings that women and men had a positive attitude toward the husband's presence during delivery,^[18-20] several barriers to the husband's involvement have been identified, such as feelings of embarrassment in learning about pregnancy health, communication barriers between the husband and wife, job obligations, and hospital restrictions and rules.^[20] The refusal by the health-care provider is considered to be a common barrier against the partner's presence during delivery.^[20,21] A study in Tanzania found that women preferred to be accompanied by their husbands to the clinics, particularly on the first antenatal care visit;^[22] however, the main barriers preventing male involvement included previous negative experience with health services, traditional sex-based roles, lack of knowledge, and perceived low accessibility to attend antenatal care visits.^[23]

Indeed, many countries such as the United States, Australia, and Sweden allow the husband to be present during childbirth to provide support during labor; furthermore, the husbands also undergo preparatory classes and counseling during the antenatal period.

One of the characteristic features of the Saudi Arabian community is their desire to have large families.^[24] The birth rate and the total fertility rate in Saudi Arabia are much higher than those in other developed countries.^[24] Despite the high birth rates observed among Saudi populations, studies related to the husband's involvement during delivery are lacking. The rapid changes in the sociodemographic pattern of the Saudi Arabian community, the cultural and structural limitations in Saudi Arabia regarding the presence of the husband in the delivery room, and the reports of high stress levels among Saudi pregnant women that are significantly associated with the lack of family support^[25] were the rationales for conducting this study. Data regarding attitudes and barriers to the presence of the husband in the delivery room during childbirth in Saudi Arabia are scarce, and the issue has been neither tackled frequently nor studied in depth. In the present study, the aim was to assess the husbands' attitudes toward their presence in the delivery room and to determine the barriers that prevent them from taking part in their wives' childbirth experience.

Methods

This cross-sectional study was designed to assess attitudes and barriers to the presence of husbands in the delivery room during childbirth in two tertiary hospitals: King Khalid

University Hospital and King Saud bin Abdulaziz University for Health Science in Riyadh, Saudi Arabia. In this study, data were collected from all husbands in the waiting areas of the labor rooms excluding those who were waiting for other purposes other than delivery. The included husbands have been asked to fill a questionnaire which developed in both Arabic and English languages by the study authors. The questionnaire was developed after extensive literature review of similar studies.^[18] The questionnaire was reviewed by two experts in the field to ensure the validity of the content. The questionnaire consisted of three sections. The first section concerned demographic data including age, sex, educational level, number of wives, wife's age, years of marriage, and willingness to be present with their wives during childbirth. The second section consisted of 18 items used to assess the attitude toward the presence of the husband in the delivery room during childbirth, and the third section consisted of 10 items used to assess the barriers to the husband's presence in the delivery room during childbirth. The responses to the attitude and barriers sections were scored from complete disagreement (1 point) to strong agreement (5 points) on a 5-point Likert scale. The study was approved by the Institutional Review Board of King Saud University. A pilot study was conducted on 20 husbands who answered the questionnaire. Cronbach's alpha coefficient was calculated and scored 0.780 overall for the 28 items of the questionnaire, which reflects good reliability and internal consistency.

Patient husbands were selected randomly and were approached by two medical students who were well trained on data collection in the waiting area of the labor rooms of the abovementioned hospitals. Husbands were asked to participate in the study and the questionnaire was provided after clarifying the aim and objectives of the study and assurance that all answers would be strictly confidential and used for research purposes only. A total of 250 male partners agreed to participate in the study and a written informed consent was obtained from all enrolled. Data were collected during the period between December 2016 and April 2017.

Statistical analysis

Data were analyzed by using the Statistical Package for Social Studies software (SPSS version 22; IBM Corp., New York, NY, USA). Continuous variables were expressed as mean \pm standard deviation (SD), and categorical variables were expressed as percentages. The Cronbach's alpha coefficient was used to assess reliability and internal consistency of the items in the questionnaire, and the *t*-test and ANOVA test were used for continuous variables. A *P* value of <0.05 was considered statistically significant.

Results

Cronbach's alpha coefficient was calculated and had an overall score of 0.780 for all 28 items of the questionnaire. When the coefficient was tested for each single question in turn, using the "alpha if item deleted," no significant improvement was

observed in the score; thus, this confirmed that all questions were relevant and should be included in the questionnaire, which also reflects good reliability and internal consistency of the items in the questionnaire.

The characteristics of the study participants are shown in Table 1. A total of 250 husbands participated in the current study. The vast majority (95.60%) was Saudi and had only one wife; 94.80% were employed. The mean age of husbands was 34.15 ± 7.04 years, whereas for wives giving birth, the mean age was 29.33 ± 6.06 years. The mean year of marriage was 7.02 years, and the mean number of children was 2.02. Only one of the participants was illiterate, with the highest percentage (45.60%) having a university bachelor's degree; only 11.20% had studied abroad, and 43.20% had a monthly income of 5000–10,000 Saudi riyal per month. When men were asked about their willingness to

attend their wife's childbirth, 35.60% responded that they were very willing, 30.40% were slightly willing, 19.20% were unwilling, and 14.80% were moderately willing.

When the husbands' attitude toward their presence in the delivery room was assessed, the mean \pm SD for the individual items of the questionnaire (18 items) was calculated. The highest positive attitude score (4.08 ± 1.12), which was obtained for agree and strongly agree scorers, was mainly for the item "It is calming for the mother." This was followed by some items with positive scores ranging from neutral to agree, including "strengthens the couple's relationship" (mean score of 3.82 ± 1.22), "the presence of problems in her pregnancy makes it imperative for me to stay with my wife until birth" (mean score of 3.64 ± 1.33), "accompanying my wife has a positive effect on the father-child relationship" (mean score of 3.37 ± 1.82), "if the delivery takes place in a private hospital, I will attend" (mean score of 3.37 ± 1.44), and "I do not mind staying with my wife in the delivery room if the delivery takes place outside of Saudi Arabia" (mean score of 3.23 ± 1.48). Conversely, the highest negatively scored item was "my presence with my wife in the delivery room is insulting to my manhood," which had a mean score of 1.48 ± 0.87 . The latter suggests that our participants both strongly disagreed and disagreed with this item and this was followed by other items that were also negatively scored in the same area, including "knowing the sex of the fetus makes accompanying my wife not important" (1.64 ± 0.93), "our culture is against a husband attending his wife's childbirth" (1.91 ± 1.12), "the presence of other couples in the waiting room makes me feel embarrassed to be with my wife" (1.92 ± 1.12), and "having a relative working at the hospital makes it embarrassing for me to be with my wife in the delivery room" (1.95 ± 1.16) [Table 2].

Scores for individual items for potential barriers to the husband's presence in the delivery room are shown in Table 2. "Hospital policy does not allow me to accompany my wife during childbirth" was the highest positively scored item at 3.28 ± 1.39 , an indication that the respondents' opinion ranged from neutral to agree to the presence of this barrier. The second highly positively scored item was that indicating not having a private room for their wives prevents husbands from accompanying them, although with similar mean scores of 3.25 ± 1.37 . Our participants strongly disagreed and disagreed to the item indicating having family problems or conflicts with their wives prevented them from accompanying their wives; it was given the highest negative score at 1.84 ± 1.02 .

Based on educational level, the current study participants were stratified into three groups: secondary education or lower, university bachelor degree, and postgraduate studies. The mean of the attitude item scores was calculated according to these educational levels, and a statistically significant difference was found among the three educational groups for 8 of the 18 items assessing attitudes in the current study. For the highest positively scored item ("it is calming for the mother"), the positive mean score increased significantly with increasing

Table 1: Characteristics of the study participants and their willingness to attend their wives' childbirth

	n (%)
Hospital	
King Khalid University Hospital	122 (48.8)
King Saud bin Abdulaziz University for Health Science	128 (51.2)
Nationality	
Saudi	239 (95.6)
Non-Saudi	11 (4.4)
Number of wives	
1	239 (95.6)
2	7 (2.8)
3	2 (0.8)
4	2 (0.8)
Educational level	
Uneducated	1 (0.4)
Primary school	8 (3.2)
Secondary school	85 (34)
Bachelor degree	114 (45.6)
Postgraduate	42 (16.8)
Studied abroad	
Yes	28 (11.2)
No	222 (88.8)
Monthly income	
<5000	31 (12.4)
5000-10,000	108 (43.2)
11,000-15,000	70 (28)
>15,000	41 (16.4)
Occupational status	
Employed	237 (94.8)
Unemployed	13 (5.2)
Willing to attend their wives' childbirth in the delivery room	
Unwilling	48 (19.2)
Slightly willing	76 (30.4)
Moderately willing	37 (14.8)
Very willing	89 (35.6)
Age of the husband	34.15 (7.04)
Age of the wife in	29.33 (6.06)
Years of marriage to the current wife	7.02 (7.19)
Number of children	2.02 (2.24)

SD: Standard deviation

Table 2: Scores for individual items assessing attitude towards and barriers to the husband's presence in the delivery room

	Mean±SD
Items assessing attitude to the husband's presence in the delivery room	
1. Strengthens the couple's relationship	3.82±1.22
2. Has a positive effect on the husband's practice of contraception	2.42±1.20
3. It is calming for the mother	4.08±1.12
4. It is frightening for the husband	2.68±1.26
5. Accompanying my wife has a positive effect on father-child relationship	3.37±1.28
6. My presence in the delivery room with my wife is embarrassing to her	2.71±1.31
7. My presence with my wife in the delivery room is insulting to my manhood	1.48±0.87
8. The presence of my wife's family in the same area makes accompanying her not important	2.32±1.16
9. Frequent pregnancies/deliveries make accompanying my wife not important	2.02±1.10
10. The good health of my wife makes accompanying her not useful	2.15±1.06
11. The existence of problems in her pregnancy makes it imperative for me to stay with my wife until birth	3.64±1.33
12. The strong personality of my wife and her ability to bear pain make staying with her unnecessary	2.19±1.17
13. I do not mind staying with my wife in the delivery room if the delivery takes place outside of Saudi Arabia	3.23±1.48
14. Having a relative working in the hospital makes it embarrassing to be with my wife in the delivery room	1.95±1.16
15. The presence of other couples in the waiting room makes me feel embarrassed to be with my wife	1.92±1.12
16. If the delivery takes place in a private hospital, I will attend	3.37±1.44
17. Our culture is against a husband attending his wife's childbirth	1.91±1.12
18. Knowing the sex of the fetus makes accompanying my wife not important	1.64±0.93
Items assessing barriers to the husband's presence in the delivery room	
1. The time of birth conflicts with my work schedule	2.62±1.23
2. Lack of timed communication with midwife/health-care provider prevented me from attending on time	2.86±1.20
3. Not having a private room for my wife prevents me from accompanying her	3.25±1.37
4. The absence of a baby sitter to take care of my children at home prevents me from accompanying my wife	2.79±1.29
5. My wife refuses to be accompanied to the delivery room	2.30±1.24
6. I cannot bear seeing my wife while she is out of control	2.75±1.31
7. I cannot bear the screams of the patients and weeping relatives in my wife's room	2.95±1.45
8. Having family problems or conflicts with my wife prevents me from accompanying her	1.84±1.02
9. Accompanying my wife is not a good idea as the delivery room is not suitable for men	2.53±1.43
10. Hospital policy does not allow me to accompany my wife during childbirth	3.28±1.39

SD: Standard deviation

educational level ($P < 0.01$). For the highest negatively scored item ("my presence with my wife in the delivery room is insulting to my manhood"), the negative score decreased with increasing educational level, with a statistically significant difference among the three groups ($P < 0.01$). Similarly, with regard to the analysis for barriers to the husband's presence in the delivery room according to educational level, there was a statistically significant difference based on education groups for 3 of the 10 barrier items, namely "the time of birth conflicts with the husband's work schedule," "they cannot bear the screams of the patients," and "having family problems or conflicts with their wife prevented husbands from accompanying their wives." For these items, the negative scores increased significantly ($P = 0.03$ and 0.04 , respectively) with increasing the educational level (2.86, 2.52, and 2.33; and 1.97, 1.86, and 1.50 for individuals with secondary education or less, bachelor, and postgraduate degrees, respectively). The third item, "husbands cannot bear the screams of the women and weeping relatives in their wife's room," for which participants with secondary education or less gave positive scores (3.19 ± 1.57), whereas individuals with bachelor (2.90 ± 1.39) and postgraduate (2.52 ± 1.25) degrees scored this item negatively, with a P value of 0.04 [Table 3].

When scores for individual items assessing the attitude toward the husband's presence in the delivery room were stratified based on monthly income, the results showed that there was no statistically significant difference among the four monthly income groups with regard to any of the attitude items with the exception of only two items: "frequent pregnancies/deliveries make accompanying my wife not important" and the "strong personality of my wife and her ability to bear pain make staying with her unnecessary," with a P value of 0.02 for both. A similar analysis for the barriers items found that the difference between the income groups was significant ($P = 0.01$) only for the item "lack of timed communication with the midwife/health-care provider prevented me from attending on time." This item was positively scored between neutral and agree (3.37 ± 1.25) by the <5000 SR income group but was negatively scored by other income groups, and negative scores increased with increasing income as follows: 2.87 ± 1.23 , 2.86 ± 1.13 , and 20.46 ± 1.10 , respectively [Table 4].

Younger participants (aged <35 years old) showed a higher statistically significant negative attitude (1.84 ± 0.99) for the item "frequent pregnancies/deliveries make accompanying my wife

Table 3: Scores for individual items assessing attitude and barriers to the husband's presence in the delivery room according to educational level

	Educational level (mean±SD)			P
	Secondary or lower	Bachelor degree	Postgraduate	
Items assessing attitude towards the husband's presence in the delivery room				
1. Strengthens the couple's relationship	3.46±1.40	4.05±1.03	3.90±1.23	0.000
2. Has a positive effect on the husband's practice of contraception	2.13±1.20	2.51±1.22	2.62±1.25	0.030
3. It is calming for the mother	3.66±1.36	4.21±1.04	4.26±1.17	0.000
4. It is frightening for the husband	2.47±1.18	2.89±1.27	2.57±1.33	0.050
5. Accompanying my wife has a positive effect on father-child relationship	3.14±1.37	3.48±1.21	3.43±1.40	0.150
6. My presence in the delivery room with my wife is embarrassing to her	2.87±1.32	2.64±1.35	2.43±1.23	0.170
7. My presence with my wife in the delivery room is insulting to my manhood	1.69±1.02	1.34±0.71	1.33±0.82	0.010
8. The presence of my wife's family in the same area makes accompanying her not important	2.44±1.30	2.27±1.14	2.10±0.96	0.270
9. Frequent pregnancies/deliveries make accompanying my wife not important	1.99±1.19	2.04±1.06	1.98±1.09	0.940
10. The good health of my wife makes accompanying her not useful	2.16±1.17	2.18±1.00	1.95±1.03	0.490
11. The existence of problems in her pregnancy makes it imperative for me to stay with my wife until birth	3.37±1.44	3.91±1.16	3.52±1.42	0.010
12. The strong personality of my wife and her ability to bear pain make staying with her unnecessary	2.40±1.28	2.19±1.10	1.71±0.94	0.010
13. I do not mind staying with my wife in the delivery room if the delivery takes place outside Saudi Arabia	3.16±1.57	3.16±1.46	3.29±1.60	0.890
14. Having a relative working in the hospital makes me feel embarrassed to be with my wife in the delivery room	2.00±1.24	2.01±1.16	1.67±0.90	0.220
15. The presence of other couples in the waiting room makes me feel embarrassed to be with my wife	2.06±1.20	1.85±1.07	1.79±1.05	0.270
16. If the delivery takes place in a private hospital, I will attend	3.10±1.50	3.49±1.40	3.50±1.49	0.110
17. Our culture is against a husband attending his wife's childbirth	2.01±1.22	1.91±1.09	1.62±0.99	0.170
18. Knowing the sex of the fetus makes accompanying my wife not important	1.82±1.15	1.61±0.83	1.33±0.53	0.020
Items assessing barriers to the husband's presence in the delivery room				
1. The time of birth conflicts with my work schedule	2.86±1.23	2.52±1.20	2.33±1.22	0.038
2. Lack of timed communication with midwife/health-care provider prevents me from attending on time	2.94±1.23	2.90±1.19	2.57±1.15	0.231
3. Not having a private room for my wife prevent me from accompanying her	3.15±1.30	3.38±1.38	3.12±1.48	0.375
4. The absence of a baby sitter to take care of my children at home prevents me from accompanying my wife	2.88±1.32	2.77±1.25	2.67±1.37	0.654
5. My wife refuses to be accompanied to the delivery room	2.42±1.23	2.21±1.25	2.26±1.23	0.475
6. I cannot bear seeing my wife while she is out of control	2.92±1.34	2.72±1.30	2.48±1.27	0.176
7. I cannot bear the screams of the patients and weeping relatives in my wife's room	3.19±1.57	2.90±1.39	2.52±1.25	0.042
8. Having family problems or conflicts with my wife prevents me from accompanying her	1.97±1.12	1.86±0.99	1.50±0.74	0.044
9. Accompanying my wife is not a good idea as the delivery room is not suitable for men	2.70±1.42	2.47±1.46	2.29±1.33	0.246
10. Hospital policy does not allow me to accompany my wife during childbirth	3.19±1.33	3.26±1.44	3.52±1.40	0.436

SD: Standard deviation

not important" compared to older participants (2.24 ± 1.23), $P = 0.02$. There were no statistically significant differences between the two age groups for the remaining 17 items of the attitude section. For the items assessing barriers, the older population gave a positive score of 3.06 ± 1.33 compared to a negative score of 2.6 ± 1.24 from the younger population (P value <0.01) for the item "the absence of a baby sitter to care for my children at home prevents me from accompanying my wife." The negative score was significantly higher ($P = 0.01$) in the younger (2.34 ± 1.38) than in the older (2.78 ± 1.46) population for the item "accompanying my wife is not a good idea as the delivery room is not suitable for men" [Table 5].

Discussion

Based on our literature review, we look to studies assessing the attitude toward the presence of husbands in the delivery room during childbirth. We have realized that there has not been a lot of studies conducted in this subject, particularly in Saudi Arabia. In addition to their attitude, the findings of this study provide important new information with regard to barriers that, until now, have prevented men from attending and being involved in their wives' childbirth.

The current study showed that the husband's involvement plays a vital role in childbirth as the presence of the husband in the

Table 4: Scores for individual items assessing attitude and barriers to the husband's presence in the delivery room according to monthly income

	Monthly income (mean±SD)				P
	<5000	5000-10,000	11,000-15,000	>15,000	
Items assessing attitudes towards the husband's presence in the delivery room					
1. Strengthens the couple's relationship	3.71±1.37	3.88±1.06	3.77±1.34	3.73±1.41	0.858
2. Has a positive effect on the husband's practice of contraception	2.68±1.25	2.18±1.19	2.46±1.21	2.59±1.30	0.102
3. It is calming for the mother	3.81±1.42	4.05±1.22	4.07±1.04	3.98±1.37	0.763
4. It is frightening for the husband	2.77±1.38	2.61±1.19	2.76±1.24	2.63±1.39	0.848
5. Accompanying my wife has a positive effect on father-child relationship	3.48±1.34	3.34±1.27	3.29±1.28	3.34±1.49	0.922
6. My presence in the delivery room with my wife is embarrassing to her	2.84±1.51	2.79±1.24	2.57±1.39	2.54±1.31	0.559
7. My presence with my wife in the delivery room is insulting to my manhood	1.61±0.95	1.53±0.94	1.40±0.77	1.34±0.76	0.449
8. The presence of my wife's family in the same area makes accompanying her not important	2.55±1.43	2.28±1.17	2.30±1.13	2.20±1.08	0.630
9. Frequent pregnancies/deliveries make accompanying my wife not important	2.52±1.43	1.88±1.06	2.09±1.14	1.83±0.80	0.024
10. The good health of my wife makes accompanying her not useful	2.48±1.23	2.17±0.98	2.11±1.12	1.80±1.01	0.061
11. The existence of problems in her pregnancy makes it imperative for me to stay with my wife until birth	3.77±1.36	3.60±1.31	3.83±1.29	3.34±1.42	0.277
12. The strong personality of my wife and her ability to bear pain make staying with her unnecessary	2.55±1.29	2.29±1.19	2.14±1.18	1.76±0.86	0.023
13. I do not mind staying with my wife in the delivery room if the delivery takes place outside Saudi Arabia	3.29±1.57	3.23±1.47	3.13±1.53	3.05±1.64	0.881
14. Having a relative working in the hospital makes it embarrassing for me to be with my wife in the delivery room	1.74±0.96	1.99±1.23	2.01±1.17	1.88±1.08	0.681
15. The presence of other couples in the waiting room makes me feel embarrassed to be with my wife	2.00±1.24	2.04±1.17	1.81±1.05	1.73±0.98	0.372
16. If the delivery takes place in a private hospital, I will attend	3.32±1.60	3.44±1.40	3.24±1.56	3.29±1.38	0.848
17. Our culture is against a husband attending his wife's childbirth	1.81±1.22	1.91±1.12	1.96±1.08	1.85±1.20	0.927
18. Knowing the sex of the fetus makes accompanying my wife not important	1.65±1.05	1.68±0.96	1.63±0.89	1.56±0.90	0.928
Items assessing barriers to the husband's presence in the delivery room					
1. The time of birth conflicts with my work schedule	3.17±1.15	2.57±1.20	2.46±1.21	2.61±1.32	0.059
2. Lack of timed communication with midwife/health-care provider prevents me from attending on time	3.37±1.25	2.87±1.23	2.86±1.13	2.46±1.10	0.019
3. Not having a private room for my wife prevents me from accompanying her	3.48±1.24	3.15±1.37	3.43±1.33	3.02±1.49	0.294
4. The absence of a baby sitter to take care of my children at home prevents me from accompanying my wife	3.07±1.31	2.95±1.27	2.63±1.28	2.46±1.32	0.080
5. My wife refuses to be accompanied to the delivery room	2.17±1.32	2.30±1.18	2.23±1.25	2.51±1.33	0.626
6. I cannot bear seeing my wife while she is out of control	2.87±1.43	2.92±1.28	2.59±1.26	2.51±1.36	0.211
7. I cannot bear the screams of the patients and weeping relatives in my wife's room	3.00±1.44	3.15±1.50	2.69±1.38	2.83±1.45	0.200
8. Having family problems or conflicts with my wife prevents me from accompanying her	2.06±1.29	1.92±1.02	1.66±0.83	1.78±1.06	0.214
9. Accompanying my wife is not a good idea as the delivery room is not suitable for men	2.58±1.50	2.46±1.33	2.60±1.53	2.54±1.48	0.924
10. Hospital policy does not allow me to accompany my wife during childbirth	3.33±1.37	3.20±1.42	3.43±1.34	3.20±1.45	0.718

SD: Standard deviation

delivery room can provide emotional support for the mother. Indeed, the highest attitude score was for the item "it is calming for the mother." Additionally, the presence of the husband during labor and delivery can lead to a deeper relationship between the husband and his wife and has a positive effect on the father-child relationship. These findings are in accordance with what has been previously reported in the literature.^[26-29] In a previous similar study,^[18] the participants from both genders highly rated the beliefs that the husband's presence provides emotional support to the mother and gives the mother the opportunity to express her concerns to a familiar person. Similarly, studies from Finland and the United Kingdom^[30,31] have reported positive emotional effects of the husband's presence in the delivery room. In Finland, both men and women believed similarly and both agreed that the husband's presence reduced anxiety.^[30] In the

United Kingdom, women favored the presence of their husbands during labor and delivery, as they believed that it decreased their anxiety and loneliness.^[31] Furthermore, participants in our study considered the husband's presence to have a positive effect on the father-child relationship, a finding that is in line with that of the study by Vehviläinen-Julkunen and Liukkonen^[30] in which the authors reported that early contact between a father and his child led to a stronger relationship and the husband's presence at delivery was important for their evolution into fatherhood. Three decades ago, in 1987, Chalmers B in his study entitled "The father's role in labor-views of PEDI women" reported that Western women tended to like the presence of their husbands during delivery despite traditional African-American customs placing strong taboos on the male's involvement in child delivery. He found that most PEDI females still subscribed to the traditional

Table 5: Scores for individual items assessing attitude and barriers to the husband's presence in the delivery room according to age group

	Age group (mean±SD)		P
	Age <35 years	Age ≥35 years	
Items assessing attitude towards the husband's presence in the delivery room			
1. Strengthens the couple's relationship	3.97±1.09	3.58±1.39	0.858
2. Has a positive effect on the husband's practice of contraception	2.49±1.22	2.24±1.24	0.102
3. It is calming for the mother	4.07±1.24	3.93±1.19	0.763
4. It is frightening for the husband	2.73±1.29	2.61±1.21	0.848
5. Accompanying my wife has a positive effect on father-child relationship	3.37±1.29	3.31±1.34	0.922
6. My presence in the delivery room with my wife is embarrassing to her	2.67±1.35	2.72±1.29	0.559
7. My presence with my wife in the delivery room is insulting to my manhood	1.38±0.82	1.60±0.93	0.449
8. The presence of my wife's family in the same area makes accompanying her not important	2.19±1.15	2.46±1.21	0.630
9. Frequent pregnancies/deliveries make accompanying my wife not important	1.84±0.99	2.24±1.23	0.024
10. The good health of my wife makes accompanying her not useful	2.11±1.06	2.16±1.09	0.061
11. The existence of problems in her pregnancy makes it imperative for me to stay with my wife until birth	3.75±1.31	3.50±1.35	0.277
12. The strong personality of my wife and her ability to bear pain make staying with her unnecessary	2.17±1.18	2.22±1.16	0.023
13. I do not mind staying with my wife in the delivery room if the delivery takes place outside Saudi Arabia	3.19±1.47	3.16±1.60	0.881
14. Having a relative working in the hospital makes it embarrassing for me to be with my wife in the delivery room	1.90±1.12	2.02±1.20	0.681
15. The presence of other couples in the waiting room makes me feel embarrassed to be with my wife	1.88±1.04	1.98±1.21	0.372
16. If the delivery takes place in a private hospital, I would attend	3.47±1.44	3.16±1.48	0.848
17. Our culture is against a husband attending his wife's childbirth	1.79±1.06	2.06±1.20	0.927
Items assessing barriers to the husband's presence in the delivery room			
1. Knowing the sex of the fetus makes accompanying my wife not important	1.58±0.86	1.73±1.03	0.928
2. The time of birth conflicts with my work schedule	2.51±1.19	2.76±1.27	0.115
3. Lack of timed communication with the midwife/health-care provider prevents me from attending on time	2.81±1.20	2.92±1.20	0.484
4. Not having a private room for my wife prevents me from accompanying her	3.18±1.36	3.34±1.39	0.374
5. The absence of a baby sitter to take care of my children at home prevents me from accompanying my wife	2.61±1.24	3.06±1.33	0.007
6. My wife refuses to be accompanied to the delivery room	2.22±1.22	2.42±1.25	0.199
7. I cannot bear seeing my wife while she is out of control	2.73±1.33	2.79±1.30	0.728
8. I cannot bear the screams of the patients and weeping relatives in my wife's room	2.92±1.35	2.98±1.59	0.762
9. Having family problems or conflicts with my wife prevents me from accompanying her	1.84±1.03	1.83±1.01	0.961
10. Accompanying my wife is not a good idea as the delivery room is not suitable for men	2.34±1.38	2.78±1.46	0.018
11. Hospital policy does not allow me to accompany my wife during childbirth	3.20±1.46	3.39±1.30	0.287

SD: Standard deviation

and cultural role of the male at delivery.^[32] In another study on the determinants of the husband's domestic support in rural lowland Nepal, the authors reported that the involvement of males is culturally discouraged as many important barriers for husbands, such as social pressure, lack of knowledge, and spousal communication, are sex related.^[33] For the respondents in the present study, the participants disagreed that the husband's presence in the delivery room was against the Saudi culture. Furthermore, the respondents had a positive attitude toward the presence of the husband in the delivery room if the delivery took place in a private hospital or outside of Saudi Arabia. Therefore, it appeared that other reasons, especially in government-regulated hospitals, exist. These include the hospital's restrictions on the husband's admittance into most areas of the hospital and the relatively short hours of operation, which prevent or negatively affect the attitude of husbands attending their wife's labor and delivery.

In the study by Modarres Nejad,^[18] men had a positive attitude and tended to agree that the husband's presence during labor and delivery would affect his practice of family planning. This is in contrast with our study finding, wherein men had almost

neutral views toward this point, suggesting that the husband's presence might not have any effect on the husband's practice of contraception.

The respondents disagreed that knowing the fetus' sex made accompanying their wives not important and having other couples in the waiting room and a relative working in the hospital made them feel embarrassed to be with their wives in the delivery room. These points have not been previously addressed in similar studies and make it difficult for us to compare our results with those in the literature.

The highest scoring barriers toward husbands' attendance in the delivery room during childbirth in the present study were the hospital's policy and lack of private rooms. The primary reasons for such barriers might be time, space, and privacy. Hospital policy as a barrier to including men in reproductive health services has previously been reported in studies from different countries.^[28,34,35] Although the introduction of male partners into the delivery room might be a somewhat complicated transition; it is an ideal goal to work toward, mainly because husbands could offer vital emotional support, and perhaps

logistical support, to the wives throughout the delivery process. Therefore, changes in hospital policy should be considered as an important first step in the introduction of services allowing husbands to attend their wife's childbirth in the delivery room. Conversely, in some countries like Uganda, despite the fact that the Uganda Ministry of Health has a policy that supports male involvement in reproductive health, husbands in hospitals experience stressful situations in their attempts to be involved during pregnancy and childbirth, and the presence of fathers in delivery rooms has been limited owing to congestion and the need to maintain privacy. This tended to cause confusion among many husbands, as there was a discrepancy between governmental policy for male involvement and practices in the health system.^[36] Additionally, the authors of this study reported that the unwelcoming hospital environment was characterized by an absence of facilities in which men would be comfortable, lack of privacy, ostensible neglect by health-care providers, lack of communication, and near-total exclusion of husbands from health-care issues of their wives at this critical time.^[36] These are important points that should be considered while planning to implement services encouraging the husband's involvement during childbirth.

Job responsibilities of husbands and their work schedules did not appear to be an important barrier to men attending during childbirth in the current study. This finding is in line with that of a previously published study regarding barriers to and attitudes toward promoting the husbands' involvement in maternal health in Nepal, where the authors reported no conflict between the husbands' job responsibilities and playing more supportive or involved roles during their wives' pregnancy.^[28]

Attitudes were found to be significantly associated with the educational level of the respondents, where the highest positively scored item was "it is calming for the mother," whereas the lowest negatively scored item was "my presence with my wife in the delivery room is insulting to my manhood." Positive attitude increased with increasing educational levels, where participants with postgraduate and bachelor degrees were also found to have better attitudes than those with secondary degrees or below, a finding that is similar to what Olugbenga-Bello *et al.*^[37] reported in their study.

The present study generates information regarding the attitudes and challenges of the husband's presence in the delivery room during childbirth. It also highlights the critical need to identify innovative ways of operationalization of policies encouraging male involvement in childbirth.

As the Saudi culture traditions are not against the husband's presence in the delivery room, it is suggested that providing facilities that allow the husband's presence in the delivery room is necessary. Further research regarding the husband's presence, his ability to provide psychological support to his wife, and the effects of his presence on the conjugal relationship is highly recommended.

Strengths and limitations

As for limitations to this study, it should be considered that this was a hospital-based study, and the participants were restricted to men who came to the hospital, a population which may be considered highly selected and whose views are not representative of all men or of men who do not accompany their wives during childbirth. However, the current study generates information on the attitudes toward husbands' presence in the delivery room and the challenges faced by men who wish to be more involved during pregnancy and childbirth. It also highlights the critical need to identify innovative ways of operationalizing the policy of male involvement in childbirth.

Conclusions

The current study showed that the involvement of the husbands during childbirth plays a vital role in their wives' delivery. Moreover, the husband's presence in the delivery room in Saudi Arabia is not common. Our findings suggest that providing facilities that allow the husband's presence in the delivery room is necessary, especially in government-regulated hospitals where policies should be modified to permit such services. Further research relative to the husband's presence, his ability to provide psychological support to his wife, and the effects of his presence on the conjugal relationship is highly recommended.

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Conflicts of interest

There are no conflicts of interest.

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