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Preferred Obstetrician-gynaecologist Gender among Female Residents in Jeddah, Saudi Arabia

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ABSTRACT

Background: A number of studies have investigated female patient's preference for their obstetrician/gynecologist (OG) physician. This topic was rarely investigated in Saudi Arabia.
Aims: This study investigated OG gender preference among female resident in Jeddah, Saudi Arabia and factors that influence their choice.
Methods: In this cross-sectional study, 596 female participants answered a self-reported questionnaire. Participants were recruited from shopping malls in four different areas in Jeddah using convenient sampling. The participants were asked or questioned about their OG gender preference and factors affecting it.
Results: OG gender preference was found to be an important issue among females in Jeddah, as 66.6% of the participants do ask about the OG gender before their visit, and 39.4% would feel uncomfortable if the preferred OG gender is not available. The results showed that 57.89% preferred female OG, 20.47% preferred male and 21.64% had no preference. Participants answered that for presence at delivery, 50.34% preferred female OG, 27.35% preferred male OG and 22.32% had no preference. Also, in the case of OG emergency and critical surgery, 9.2% reported they would refuse surgery if the preferred OG was not available and seek an alternative solution such as changing hospital. The most important factors that influenced the participant's choice were: the ability to handle OG emergencies situations with confidence (53.40%), OG knowledge about women health (45%), and OG sympathy (42%).
Conclusions: OG gender is an important issue for Saudi female, as the majority prefer female OG in general, but prefer male OG in critical conditions.

1. Introduction

Many studies were conducted to know the patients preference in choosing their physician [1-6]. In fact, a recent systematic review highlighted patient preference as a growing topic of interest and indicated that there are many psychological constructs affecting that including: mood, health beliefs, individual differences, motivation and cognitive factors [7].

Some studies have focused on the investigation of female patients' preference for their obstetrician/gynecologist (OG) physician [8-10]. Another systemic review indicated that most females prefer female OG because female OG tends to communicate in patient-centered style [11]. Also, the review could not find a clear association for female age or ethnicity toward patient gender preference. Such topic is important as it is patient right to choose the health care provider [12], which fulfil patient's autonomy and improve patient's satisfaction of treatment [13].

A number of studies investigated female patients' preference for their obstetrician/gynecologist (OG) physician in different countries around the world. For example, studies in Emirates [9, 14] and Iraq [15] indicated that the majority of females preferred female OG (96.8-86.4% and 73% respectively). Also, there is a small percentage that prefers male OG and others who have no gender preference. However, a study in Nigeria [16] had around 36.7% preferred female OG, 30.3% preferred male OG, and 33% had no preference. Also, a Turkish study found that 32.3% of the participants preferred female OG, while 53.5% of them had no preference [17]. A study in the United States (USA) reported that the majority 66.6% have no gender preference, and 80.8% believe that gender does not influence the quality of treatment [18]. This can reflect the diversity of choices available based on their culture.

Nevertheless, preferences noted in studies, might be more accentuated in other countries where religion and culture are very crucial in the patient's behavior. In religious countries, such as Saudi Arabia, females are known to wear an ankle-length over-dress (Abaya), and most of the women avoid physical contact with unrelated male following Islamic teachings, as the majority of the Saudi are Muslim. So, this is important for women with deep religion cultural roots, because OG visits can include intimate examination, involving breast and genitalia [19-21]. Therefore, it is very important to understand the Saudi cultural dimension in order to improve the quality of care provided [22]. In light of the Government reforming plan in Saudi Arabia, the health workforce is projected by the Saudi Health Commission for Health Specialties report [23], to meet Saudi Arabia vision 2030.

According to the best of our knowledge, there were two studies which have investigated this topic in Saudi Arabia; in Jeddah [24] and Riyadh [22]. The study conducted in Jeddah included a sample of 418 university hospital's patients. The results showed that the percentage of patients who preferred to be examined by a female OG, during pelvic examination was 77.1% but for major OG surgery 47%. The study also showed that participants preferred female OG due to being comfortable with a female, in line with their husband preference and their feeling that a female OG is more knowledgeable. Nevertheless,

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the study had a small percentage of participants from a high income category (7.9%), and most of them were unemployed (70.7%). This might affect the results as another Turkish study, who have similar Islamic culture, indicated that the participants who preferred female were mostly with lower income and were unemployed [17].

The other study in Riyadh was a qualitative study and indicated that female patients tend to choose a female OG, and highlighted that religion was an important factor in their choosing the preferred OG gender [22]. However, the data from those two studies are not enough and there is need for further studies to be generalized over the Saudi population.

Due to the paucity of research and the lacked information, this study aims to identify OG gender preference levels among the general population of female residents in Jeddah and to identify the factors that affect their choices. The study also aims to identify the female population choices during an emergency time, as a decision in a life-threatening situation may be different.

2. Material and Methods

This cross-sectional study investigates the preferred OG gender among the general population of female residents in Jeddah, Saudi Arabia, which is the target population for this study. The inclusion criteria include female individuals who are aged more than 18 years old. All participants who did not sign the study consent were excluded from the study. Using a confidence level of 95%, the accuracy level of 5%, and estimated prevalence of 50%, 385 participants were needed in this study as the minimum number. Sample size was calculated using G*power software.

To have a more representative sample, data were collected by dividing Jeddah city into four geographic areas: South, North, Center, and East, and a shopping mall was selected from each area that represents different socio-economic status in convenient way.

A convenience sampling technique was used in this study. Research team member approached shopping mall visitors face to face and asked them if they were willing to participant in this study. Consent approvals were obtained from the participants from shopping malls before starting data collection.

Each participant was required to complete a self- administrated questionnaire that was provided in hard copy. Each participant answered the questionnaire voluntarily. The questionnaire was developed from a similar previous study [18], with some modifications. The questionnaires were distributed by the research team, and participants signed the consent form before answering the questionnaire. Each questionnaire took approximately 5 to 10 minutes to answer. The questionnaire was administrated in the Arabic language as it is the formal language of the country. The questionnaire composed of three sections: Section one measured participant's gender preference via eight questions: the preferred doctor gender in general; the preferred OG gender, the preferred OG gender to perform vaginal delivery; the preferred surgeon in general; the preferred OG gender to perform cesarean section; and the preferred OG gender to manage OG emergencies. Also, there were two questions to ask about the action taken when the preferred OG gender is not available, and if the participant usually asks about the OG available gender. In Section two, factors that could lead the participant to prefer OG gender over another were explored. These factors included the following: religion, parents/husband influence, tradition, OG ability to handle emergency situation with confidence, OG knowledge about women health, OG sympathy, previous experience with OG, family and friends experience with OG, shyness, religion, parents/husband influence, tradition, and OG nationality. Also in this section, participants were asked if they had previously visited a non-preferred OG gender, and if they were uncomfortable when they didn't find their preferred OG gender. The last section contained nine questions about demographic data including: age, marital status, number of children, previous cesarean section, level of education, occupation, income, nationality, and residency.

Data analysis was conducted using SPSS v.21. Frequency tables and descriptive statistics were generated. Chi-square test was used to test for difference in the data responses. All assumptions for chi-square were fulfilled before conducting the test. Statistical significance levels were detected by using the P-value of 0.05

Informed consent was obtained from each participant before starting the questionnaire, all data were treated anonymously, and any identifiable data would be destroyed. The Ethical Committee at Faculty of Public Health and Health Informatics approved this study.

3. Results

A total of 596 female participants completed the study questionnaire. The mean (m) age of participants was 31.36 years and standard deviation (sd) was 10.45. Also, the median of participants' children was 1. The number of children ranged from 0 to a maximum of 12. Other demographic variables are shown in table 1.

Table 1: Demographic categories of participants

Variable		Count (%)
Marital status	Married	307 (51.50%)
	Single	237 (39.80%)
	Divorce	42 (7.00%)
	Widow	10 (1.70%)
Nationality	Saudi	515 (86.40%)
	Non-Saudi	81 (13.60%)
Occupation	Employee	340 (57.00%)
	Non-employee	256 (43.00%)
Family financial status	Less than 5000 SR	122 (20.50%)
	5000 - 15000 SR	284 (47.70%)
	More than 15000 SR	190 (31.90%)
Educational level	Less than college	388 (65.10%)
	Completed college	208 (34.90%)
Have had a cesarean section	Yes	136 (22.80%)
	No	460 (77.20%)

SR: Saudi Riyal

The participants' gender preference for general physician and OG is displayed in Table 2 according to different situation. This was also was displayed in figure 1.

Table 2: The participants' gender preference for general physician and OG.

Question	Preference		
	male	female	no preference
preferred general physician	185 (31.04%)	158 (26.51%)	253 (42.45%)
preferred OG	122 (20.47%)	345 (57.89%)	129 (21.64)
preferred OG in delivery	163 (27.35%)	300 (50.34%)	133 (22.32%)
preferred general surgeon	335 (56.21%)	58 (9.73%)	203 (34.06%)
preferred OG in cesarean section	278 (46.64%)	142 (23.83%)	176 (29.53%)
preferred OG in in emergency settings	303 (50.84%)	83 (13.93%)	210 (35.23%)

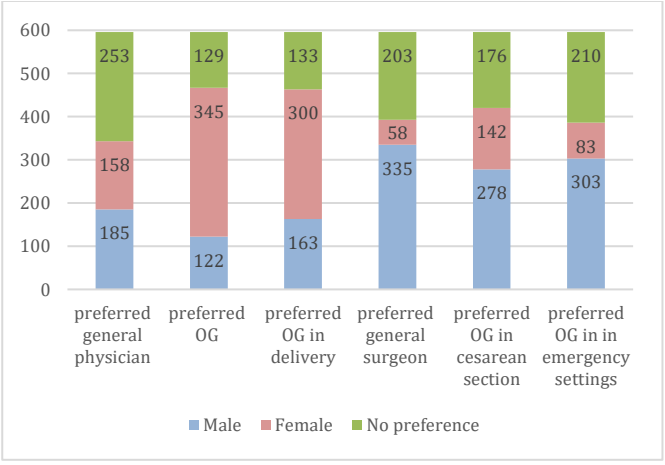

Figure 1: The participants' gender preference for general physician and OG.

A total of 90.8% of the participants answered that they will go with the available OG gender in case of emergency during delivery, however, 55 participants (9.2%) chose not to conduct the surgery and seek alternative solution including transferred to another hospital in

the emergency situation, (49 preferred male, and 9 preferred female in emergency situation)

Results showed that 397 (66.6%) of the participants do usually ask about the OG gender before their visit. Also, 269 (45.1%) reported that they become uncomfortable when the preferred OG gender is not available. There was 235 (39.4%) who answered that they had visited OG who is not their preferred gender in the past.

Table 3: Factors affecting participant's OG gender preference.

Variable		Preferred OG gender		
		Male n (%)	Female n (%)	No preference n (%)
Age	18 - 30 years	65 (19.2%)	194 (57.2%)	80 (23.6%)
	31 - 50 years	44 (20.6%)	131 (61.2%)	39 (18.2%)
	More than 50 years	13 (30.2%)	20 (46.5%)	10 (23.3%)
Marital status	Married	54 (18.7%)	162 (56.1%)	73 (25.3%)
	Not married (singe, divorced, widow)	68 (22.1%)	183 (59.6%)	56 (18.2%)
Nationality	Saudi	106 (20.6%)	293 (56.9%)	116 (22.5%)
	Non-Saudi	16 (19.8%)	52 (64.2%)	13 (16.0%)
Occupation	Employee	60 (17.6%)	208 (61.2%)	72 (21.2%)
	Non-employee	62 (24.2%)	137 (53.5%)	57 (22.3%)
Family financial status	Less than 5,000 SR	22 (18.0%)	73 (59.8%)	27 (22.1%)
	5,000 – 15,000 SR	57 (20.1%)	181 (63.7%)	46 (16.2%)
	More than 15,000 SR	43 (22.6%)	91 (47.9%)	56 (29.5%)*
Educational level	Complete college	41 (19.7%)	126 (60.6%)	41 (19.7%)
	No college	81 (20.9%)	219 (56.4%)	88 (22.7%)
Preferred general physician	Male	101 (54.6%)	65 (35.1%)	19 (10.3%)
	Female	4 (2.5%)	149 (94.3%)	5 (3.2%)
	No preference	17 (6.7%)	131 (51.8%)	105 (41.5%)*
Had previous cesarean section	Yes	45 (33.1%)	57 (41.9%)	34 (25.0%)
	No	77 (16.7%)	288 (62.6%)	95 (20.7%)*

***p <0.05**

Using chi-square, there was three variables that had a significant relationship with preferred OG gender, which is: family financial status, preferred general physician gender and previous cesarean section experience, which are detailed in Table 3. According to the table, participants with different family income have different preferences. The OG gender preference for participants with low and high family income have a similar pattern, as majority prefer female, no gender preference, and then male OG. While the majority middle family income participants chose female, male, then no preference choice. Also, the majority (94.3%) of participants who preferred female physicians preferred female OG. There were 51.8% of participants who have no physician gender preference in general, but preferred female OG. Despite that 45.6% of participants who preferred male physician were found to prefer also male OG, other 35.1% of them prefer female OG. The percentage of participants who prefer male OG was significantly higher among participants who had a cesarean section, compared to those who did not. Age, marital status, nationality, occupation, and educational level were found to be not significantly related to participants' choice for their preferred OG gender.

As participants were asked to choose all factors to determine the factors that lead them to prefer specific gender over another, the participants' factors are displayed in Table 4, bearing in mind that many of them choose more than a factor.

Table 4: Factors that influence participants to prefer OB gender over another.

Factor	Count (%)
OG handle the emergency situation with confidence	318 (53.4%)
OG knowledge about women health	268 (45.0%)
OG sympathy	253 (42.4%)
Previous experience with OG	228 (38.3%)
Family and friends previous experience with OG	209 (35.1%)
Shyness	179 (30.0%)
Religion	137 (23.0%)
Parents/ husband influence	137 (23.0%)
Tradition	84 (14.1%)
Nothing effect on my choice	50 (8.4%)
OG nationality	41 (6.9%)
Community influence	37 (6.2%)

4. Discussion

This study investigated Jeddah females preference toward OG gender. In fact, OG gender preference seems to be a point of concern for Jeddah females, as this study results showed that more than two-thirds of the participants ask about the OG gender during taking an appointment, and around half of participant reported they would be uncomfortable when their preferred OG gender is not available.

The results obtained indicated that female OG, in general, was the most preferred by 57% of the participants, while other participants were divided between preferring male OG, or having no preference. However, this preference changes slightly in a different situation. For example, half the participants preferred to deliver their babies by a female, while 27% preferred to be delivered by male OG. So, the percentage that preferred female OG decreased and the percentage that preferred male OG increased in case of delivery. Furthermore, when there is a cesarean section, 23% preferred female OG, while 46% preferred male OG. In emergency and life-threatening setting, male OG was preferred by 50%, followed by no preference choice (35%), and only 13% preferred to be handled by 13%. This trend might indicate that female OG is preferred in a regular situation and in delivery. However, during cesarean section and emergency setting male OG was preferred.

When comparing the results of this study with the results to previous studies conducted out Saudi Arabia, it is found that this study and other studies conducted in Islamic and Arabian countries such as the Emirates and Iraq [9, 14, 15], indicated that the majority of females prefer female OG. However, this was different than those studies in USA, Turkey and Nigeria [16-18]. When comparing this study with the only other study conducted in Saudi Arabia, it is noticed that there is a similarity in the percentages for female OG preference in general [24]. However, this study results show a difference in the preference during critical surgical condition related to OG, as this study result indicated that female OG were preferred only by 13% to 23%, while in another Saudi study [24] the percentage was 47%. Despite the fact that both studies were conducted in Jeddah, this variation might be due to the demographic variation in the target population. In the other study [22] the sample included a majority of women who were unemployed and were from low to middle socioeconomic status. While in this study, data were collected from women in the population (shopping malls) in different geographical areas who are likely to be more reasonably distributed according to family income and employment. However, a more representative study is needed to generalize such finding.

This study result indicated that around ten percent of the participants reported they would not undergo surgery and treatment in problematic surgical delivery cases if they did not find the gender, they prefer but rather seek an alternative option (Figure 1). Surprisingly, this was applied more in participants who prefer male OG. This has two implications. First, refusing to do surgery in critical cases might be fatal to the mother or child, therefore this attitude could have serious consequences. It is important to respect patient desire and culture but without jeopardizing lives. So, it is recommended that the number of female OG specialist be increased to meet the demand and patient

preferences, and also to educate the female population to be more aware of the consequences of their decision. These findings are especially salient when Islam teaches about the importance of saving a person's life and making it as a priority in such Caesarean es. The second implication is that a large percentage of those females preferred male OG, which seems not based on religious teachings or cultural desire, but rather because they believe male OG is more reliable in emergency situations. This can be inferred by the answers of participants who ranked the ability of OG to deal with emergency cases with confidence as the most important factor in preferring OG gender over another. This might lead us to recommend more efforts be directed to foster the reputation and capability in female OG, to address the beliefs of the women during pregnancy.

This study result in comparison to a previous study shows a variation in the level of importance toward factors leading females to prefer specific OG gender. The highest rated factors that influenced the participant choices in her doctor's gender are how the doctor handles the emergency situations steadily, OG knowledge about women health and OG sympathy. Comparing to the previous studies, in King Abdulaziz University Hospital the highest factors were comfort with a female practitioner, husband preference for a female OG and physician's knowledge respectively [24]. In a study conducted in Iraq, the most important factors were embarrassment, religion and culture [15]. In Emirates [9, 14] and in Nigeria [16] the religion and the traditions were the main influences on the participant choice. Lastly, in Turkey the factors influencing their choice were good communication of the doctor, embarrassment and feeling comfortable with the female OG respectively [17]. This variation could be attributed to the variation cross-culturally. However, it is interesting that in this study, religion was not the most important factor compared with reports in the previous studies.

Despite the fact that OG gender preference is an important topic, this is only the second study conducted in Saudi Arabia. Authors of this study argue that the sample from Jeddah city was less representative of the general population of pregnant women than in the previous study [24]. However, this study is still not scientifically representative, and might have reporting bias due to the self-reported questionnaire. Also, the questionnaire was not validated. Thus, it is recommended to conduct a further multicentered study with participants from different cities, using a clustered random sample to have more generalized data, as it is believed that different cities would have a different opinion toward OG gender preference.

5. Conclusions

OG gender is an important issue among females in Saudi Arabia, which can end up with serious consequences. This study concluded that the majority of females prefer female OG in general. However, females tend to prefer male OG in cesarean section and critical emergency cases. Around one out of ten of the participants chose not to undergo surgery in problematic surgical delivery cases, if they did not find the gender they prefer and would rather seek an alternative option. The most important factor in selecting OG gender preference was the ability to handle emergency cases with confidence. It is recommended to increase the number of female OG in Saudi Arabia to meet patients' demand, and to improve the confidence image of the ability of female OG to deal with critical cases.

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- **Conflict of interest**

The authors declare that there is no conflict of interest.

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