Original Article

# Muslim female gender preference in delaying the medical care at emergency department in Qassim Region, Saudi Arabia

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## Abstract

**Background:** Hospitals are responsible for considering patients religious beliefs and spiritual ideas as part of their rights in emergency department (ED), where the urgent seek of medical intervention usually needed, these rights can be sometimes violated. This study is designed to take female Muslim patients view and their consideration when it comes to receiving health care from the same physician's gender or sex. **Materials and Methods:** This research is a cross-sectional study, which was conducted at three hospitals in Saudi Arabia, Qassim region. The collection of the data by using a questionnaire distributed to 393 patients and visitor in ED, mostly female which represent 87.5% of the entire sample in this study. **Results:** Indicated that more than half of female patient prefer to be seen by female physicians. The same preference with a male when the case involves one of their first-degree female relatives with exceptions in life-threatening cases, where more than half of the patients have not choose gender preference and want to rely on the available physician in ED either male or female physician. **Conclusion:** The study result shows an obvious considerable preference of the presence of a female physician in the ED to handle gastrointestinal disease, clinical assessment, non-life-threatening cases, and physical examination. However, in few situations such as life-threatening, psychiatric illnesses, and history taking, there was no preference for female over male physician. The religion was the main factor that affects in participants decisions. The intervention from the religious leader is mandatory to correct patient's beliefs, therefore, improve the outcome.

**Keywords:** Emergency department, Muslim female, Qassim region

## Introduction

Islam as a religion has detailed rules and regulations for daily interactions and health-related decisions. These rules are subject to interpretation on a systematic level (by religious institutions and clerks of Islam) as well as on a personal level (by Muslims themselves). These regulations often get confused with the cultures and social norms of a community. Such confusion might lead to unnecessary precautions, which might delay medical care. Furthermore, the stigmatization of female patients who observe Islamic law might preclude physicians from making medical decisions for fear of the patient's reaction. A prime example of such stigmatization and mixing between culture, social norm, and religious belief is the conclusions of some previous work in the literature where authors believed it was mandatory for physicians to talk to the legal man guardian in the family of the patient regarding her care. This conclusion has no religious grounds; it might be part of the social norm in the sampled population or part of that particular culture.[1-3]

Religion has a vital role in patients' health care related decisions.[4]However, if the patient has misinterpreted her true

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religious rules, she might contribute to her delayed care.[4-7] An example of which is what was previously identified as a cause of delay in medical care for Muslim females who rate themselves as very religious; those patients wanted same gender physicians only.[8]

Most of the work that has been published in the literature has been conducted in a western country with a Muslim minority from a specific cohort of cultures and social status. In our project, we have investigated Muslim females in a Muslim country in a rural and urban environment, in the Qassim region/Saudi Arabia.

Emergency departments (EDs) pose an interesting set of circumstances. Patients are usually more ill, require quick interventions, and have limited freedom of service preference and selection. Emergency physicians have limited time to establish rapport, communicate, and management plans to patients. Female emergency physicians are limited, and usual staffing practices do not include the insurance of both gender physicians in the department at all times. In this study, we conduct a poll to find out what Muslims especially female think about being treated in ED by physician with the same gender and understanding the reasons behind this preference if it is about religion, or it is only about tradition and the way they are raised where they have been separated from men who are not from their first relative for their entire life, so being seen by male physician even if it is necessary, it is unacceptable. By using a cross-sectional survey, we distributed a questionnaire to both males and females Muslims who were in the ED as victors or patients. The results mostly were religious-related, but the age, educational level, and social state did not have a significant influence on the answers. To find what female Muslim patients need will provide scientific guidance for health care providers in this environment.

## Research problem

The gender preferences among Muslim patients especially females may cause delays in the medical care they need, this issue is more sensitive in the ED where the outcome mostly is time sensitive.

## Research significance

The study will improve patient care by highlighting the importance of social and religious concerns of female Muslims in the ED that the staff should be aware.

## Objectives

### *General objective of the study*

Muslim female gender preferences in delaying the medical care at ED.

### *Specific objectives of the study*

- What are the religious obligations concerning cross-gender interactions in the view of the public of a conservative Muslim community?
- Are the previously mentioned obligations come from a religious or a social theology?
- What other special considerations do physicians need to observe or consider when they have a Muslim female patient in the ED?

# Materials and Methods

This research was a cross-sectional survey, descriptive – analytical study that was conducted at hospitals in Al-Qassim province, Saudi Arabia. In this study, we selected three hospitals from different cities in Al-Qassim depending on convince ensuring the inclusion of a variety of hospitals, which includes King Fahd Specialist Hospital/Buraydah, King Saud Hospital/Unayzah, and Al Midhnab General Hospital/Mithnab in different settings.

## Participants

Participants were female Saudi patients and visitors or their accompanying chaperones in the ED. All participants were Muslim and Arabic speakers.

## Survey instrument: Questionnaire and interviews

The questionnaires were to be answered anonymously. In those hospitals, 1,000 questionnaires were disrupted to female and male visitors and patients in EDs in the target hospitals covered of all types of ED shifts (night shifts, weekends, etc.) in 30 days. The questionnaire was originally designed in English, students did Arabic translation, and then a professional translator translated back into English. Final agreement done after compared the english with the original english and arabic version, we distributed 10 samples to 10 random patients which they all had no trouble answering the questions in the survey.

The questionnaire was distributed following ethical approval by the Faculty Ethics Committee and the hospitals.

The data collectors were medical students of the final medical school year. After the students had introduced themselves, the students were explained to the individual participant and offered an information sheet, after taking verbal consent from the participant they proceed with the interview, which lasted approximately 30 min. Inquiries were made about past experiences with medical students regarding the level of student participation (i.e., attended the examined, consultation, or took a history).

The questionnaires were designed to be solved by the participants themselves, but the student interviewed some participants verbally who were too sick to circle the answer or who cannot read.

Biographical information collected included marital status, age, parity, and level of education. The participants were asked to indicate the level of male and female physician involvement; they would permit to be seen by, in many clinical scenarios.

The three-level Likert scale was used to specify the degree of the agreement as "agree," "disagree," and "no difference."

## Data capture and statistical analysis

The data entered into EXCEL sheet after transferred the interviews and information on the questionnaire to an English version and coded. Entries were checked by the supervisor and the student who had collected the data. Data were analyzed using SPSS (Version 21).

The biographical data are presented as median (range), mean (± standard deviation [SD]) for age (continuous variable) and as a percentage for categorical variables such as parity, marital status, level of education, and literacy.

## Inclusion criteria

Female patients in the ED were either visitors or patients who are older than 14 years old and willing to participate in the study.

## Exclusion criteria

Patients who are too sick to answer the questionnaire (loss of conscious, active massive bleeding, and polytrauma), non-Muslim subjects, and subjects who do not complete the survey were excluded.

## Potential risk/discomfort

The risk of loss of confidentiality will be decreased to the minimum level by removal of personal identification at the time of data entry; there is no anticipated risk of discomfort, in general, there is no risk more significant than those the participants may face in their daily life.

## Conflicts and financial support

None of the investigators listed in this protocol has a financial conflict of interest with the goals and objective of this project. There is no financial support needed to complete this study.

## Quality control measures

All data collection will be monitored and reviewed daily by field team supervisors. Supervisors will check all questionnaires for completeness and accuracy. All data collection will be supervised by a survey coordinator who will monitor survey teams at frequent intervals.

# Results

## Participants demographic

Participants ranged within age from 14 to 72 years, with a mean age of 33 years (median 31 years).

Total of 1,000 participants who fills the sample in ED, 607 were excluded because of missing data and leaving the sample uncompleted.

The study sample consisted of 49 Muslims male (12.5%) and 344 females (87.5%). The study included participants of several different educational level: 71 less than High school degree (18.1%), 96 High school degree (24.4%), 51 Diploma (13.0%), 162 Bachelor's degree (41.2%), 12 Master's degree (3.1%), and 1 Doctor's degree (0.3%). (All the previous information's shown in Tables A and B).

**Table A: (Age)**

| | |
|---|---|
| Mean | 33.28 |
| Median | 31 |
| Standard deviation | 11.91 |
| Minimum | 14 |
| Maximum | 72 |

**Table B: (Education Level)**

| Education level | Number of participants | Percentage |
|---|---|---|
| Less than High School | 71 | 18.1% |
| High School | 96 | 24.4% |
| Diploma | 51 | 13.0% |
| Bachelor's | 162 | 41.2% |
| Master's | 12 | 3.1% |
| Doctor's | 1 | 0.3% |

There was no significant association found between participants' marital status, age, or education level.

The questionnaire was distributed in ED and solved by visitors and patients; we interviewed 199 out of 393 for those with severe pain, cannot understand the questions, or who cannot read.

The results indicated that most ED visitors and patients preferred female physicians to examine the female patients (either by females themselves or by their male guardian/brother or any of their relative).

In general, Muslims participant from both gender "male and female" majority prefer to be examined by female physicians for problems that related to women health issues "including pregnancy, delivery, or any problem that require genitalia or breast exposure" and most of these preferences clarified by religious reasons by 64.7% [Table 1].

## Psychological problem

Muslim males have no particular issue with their female first-degree relatives "sister, wife.etc." to be seen by male physicians in case of a psychological problem. [Table 2].

**Table 1: Sensitive for Female**

| | | | |
|---|---|---|---|
| Problems related to pregnancy and delivery | Prefer Man | 6 | 1.5% |
| | Prefer Women | 348 | 88.5% |
| | No Difference | 39 | 9.9% |
| Problems related to pregnancy and delivery | Prefer Man | 12 | 3.1% |
| | Prefer Women | 306 | 78.1% |
| | No Difference | 74 | 18.9% |
| Problems that require exposure of breast or genitalia | Prefer Man | 3 | 0.8% |
| | Prefer Women | 372 | 94.7% |
| | No Difference | 18 | 4.6% |

## Gastrointestinal tract problem

Almost all of the participants were preferring female over male physicians in this particular issue (96.4%). However, 3.6% had no gender preference difference [Table 3].

## For clinical assessment

Overall, 63.9% of all participants (male and female) have no gender preference compared to a physical examination, where 65.1% of them prefer female physicians and 33.1% had no difference. [Table 4].

## For discussion serious results of investigations

However, 64.1% of all participants had no gender preference [Table 5].

## Life-threatening cases vs. non-life-threatening cases

More than half of Muslims "from both gender" prefer not to choose the gender of the physicians who will cover those cases by 57.5% in opposite to non-life-threatening cases "general physical exam, suturing, etc." They prefer to be covered by female physicians by 48.9%, but 43% have no difference between the gender. [Table 6].

**Table 2: Psychological problem**

| | | | |
|---|---|---|---|
| Problems related to psychiatric illnesses | Prefer Man | 51 | 13% |
| | Prefer Women | 161 | 41.1% |
| | No Difference | 180 | 45.9% |

**Table 3: GIT problem**

| | | | |
|---|---|---|---|
| Problems related to the rectum and the end of the GI tract | Prefer Man | 0 | 0% |
| | Prefer Women | 379 | 96.4% |
| | No Difference | 14 | 3.6% |

**Table 4: Clinical assessment**

| | | | |
|---|---|---|---|
| Taking History | Prefer Man | 17 | 3.8% |
| | Prefer Women | 127 | 32.3% |
| | No Difference | 251 | 63.9%% |
| Physical Examination | Prefer Man | 7 | 1.8% |
| | Prefer Women | 256 | 65.1% |
| | No Difference | 130 | 33.1% |

**Table 5: Results investigations**

| | | | |
|---|---|---|---|
| Discussing serious results of investigations (laboratory results and radiological results) | Prefer Man | 28 | 7.1% |
| | Prefer Women | 113 | 28.8% |
| | No Difference | 252 | 64.1% |

**Table 6: Life-Threatening vs. Non-Life-Threatening**

| | | | |
|---|---|---|---|
| Performing emergency procedures (life-threatening in the emergency department) | Prefer Man | 70 | 17.8% |
| | Prefer Women | 97 | 24.7% |
| | No Difference | 226 | 57.5%% |
| Performing procedures are not life- threatening (sutures, dental care, abscess evacuation, etc) | Prefer Man | 32 | 8.1% |
| | Prefer Women | 192 | 48.9% |
| | No Difference | 169 | 43% |

## If absence of female physician

In total, 37.2% of participants do not prefer to be examined by female trainer or student instead of male physician, in the absence of any female (trainee or physicians), whereas 36.6% prefer to be examined by female trainer or student, 40.7% of participants strongly suggest the presence of mahram (relative male) to present while the male physician examine an unwell woman in ED, whereas 37.9% of participants disagreed with the presence of mahram. [Table 7].

## The presence of female during the clinical assessment

More than a half strongly prefers the presence of the female during history taking from a male physician by (58%) 228 out of 393 of cases. However, 19.8% strongly disagree with the idea of the presence of the female while the male physician is taking history [Table 8].

## Regarding face cover

Overall, 69.5% of participants agreed to show their faces to a female physician only. However, 2% will allow the male physician, whereas mean 28.5% have no gender preference. [Table 9].

## Neonate, infants, and toddler ages

When it comes to treating neonate, infants, or toddler participants prefer not choose the sex of the physician by 67.2%, 70.2%, and 71%, respectively [Table 10].

All the previous answers applied to the nurses as well, where all the participants did not change their preferences when it comes to a male nurse.

# Discussion

This study focuses on Muslims behavior and preferences that justified by many factors including social, traditions, and religious contexts inside the ED.

Results confirm the difficulty faced by male physician and Muslim female patients in the ED.

In Islam, cross-gender modesty involves the physical covering of the body as a self and Allah respect[9] men and women both required to show modesty in their dress, but women modesty in Islamic culture is more sensitive and iconic[10] begin separated from other gender are a form of modesty too, however, a patient's requirement of preference for physician may reflect culture, religion, or simply personal preference.[11] However, religious have the most influence on Muslim behavior, including refusing health-care seek from an opposite-sex physician even in the ED, where the cases often are time-sensitive. As it is universally acknowledged that patients and their families have the right to

| Table 7: Present of trainee and mahram | | | |
|---|---|---|---|
| Delegating physical examination of a trainee or a student who is a female | Strongly Disagree | 146 | 37.2% |
| | Disagree | 19 | 4.8% |
| | Neither | 65 | 16.5% |
| | Agree | 19 | 36.6% |
| | Strongly Agree | 144 | 29% |
| Presence of (Mahram). A male chaperon of my family | Strongly Disagree | 149 | 37.9% |
| | Disagree | 16 | 4.1% |
| | Neither | 52 | 13.2% |
| | Agree | 16 | 4.1% |
| | Strongly Agree | 160 | 40.7% |

| Table 8: Present of female during history taking | | | |
|---|---|---|---|
| Presence of a female person (nurse or otherwise) during the history taking (even if this the person will likely not be present | Strongly Disagree | 78 | 19.8% |
| | Disagree | 13 | 3.3% |
| | Neither | 56 | 14.2% |
| | Agree | 18 | 4.6% |
| | Strongly Agree | 228 | 58% |

| Table 9: Exposure of face | | | |
|---|---|---|---|
| Problems that require exposure of the face | Prefer Man | 8 | 2% |
| | Prefer Women | 273 | 69.5% |
| | No Difference | 112 | 28.5% |

| Table 10: Neonate, infants, and toddler ages | | | |
|---|---|---|---|
| Neonate (less than 30 days old) | Prefer Man | 50 | 12.7% |
| | Prefer Women | 79 | 20.1% |
| | No Difference | 264 | 67.2% |
| Infant (less than 1-year-old) | Prefer Man | 50 | 12.7% |
| | Prefer Women | 67 | 17.0% |
| | No Difference | 276 | 70.2% |
| Toddler (less than 5-year-old | Prefer Man | 48 | 12.2% |
| | Prefer Women | 66 | 16.8% |
| | No Difference | 279 | 71% |

decide the gender of their health care providers. Therefore, patient's opinion about this matter should be considered as the hospital's responsibility to provide patients with their preferred health care services.

Islamic values that prevent Muslim patients from seeking a health-care from opposite-sex physician become less restricted in life-threatening cases as receiving medical care from the physician of the opposite gender becomes

permissible in Islam.[12] Wherein non-emergent cases Islamic state that patients should seek a medical-care firstly, a same-gender Muslim doctor, followed by a same-gender non-Muslim, then an opposite-gender Muslim and, lastly, an opposite-gender non-Muslim doctor.[12]

Although a female trainer or students have less experience than a male physician, but they are preferred when there is no evadible female physician in the ED.

In Saudi Arabia, social effect and tradition play a role in making decision that related to the gender of healthcare provider, in this study 22.5% of participants prefer women physician to treat a female patient for social causes and 10% for tradition causes.

However, 61.2% of male participants have no issues with their female family member with psychiatric illness including major depression, suicide attempts, or self-harming to be seen by a male physician.

This study shows Muslim participants prefer not to choose the gender of a physician who is going to take a medical history from the female patients who have no religious associations with body area or cultural issues.

Female physicians were preferred to be the one who cover the physical examination by 65.1%, in other study that done in Al Ain, United Arab Emirates, in oby/gyn department 79.4% of the participants' preferred to be examined by a female physicians if the examination involves a gynecological problem where 88.1% preferred female physicians if the examination involves the abdomen and chest.[13] Moreover, these results support the fact that in Islamic culture, Muslims prefer female physicians to examine female patients unless there is an urgent need to receive an immediate a medical intervention where more than half of participants' does not require to choose their health-care provider.

In cases where showing of the face are required, only 28% of women would allow the male physician to examine them, and 2% prefer male physician over a female physician. More than half of women were not agreed to show their faces in the study that done in oby/gyn department.[13]

Requiring a chaperone presence during clinical examinations and having the right to choose the gender of health care providers was considered as patient' indisputable rights. In a cross-sectional study done in Iranian hospitals, 64.3% of the participants request a presence of chaperone "mahram" during a female patient examination.[14] In our study, 40% of participants demand the presence of mahram during a physical exam. In Islamic culture, it is not permissible for a woman to be alone with a strange man, even if that man is a doctor, and the presence of mahram or female nurse is required in this situation.[15]

In the same study, participants also refuse to receive the nursing-care by male nurses as well by 68.3%, wherein our study all the participants did not change their answers when it comes to male nurses, so the participants who choose a female physician to cover a particular task continue to demand a female nurse over a male nurse.

In the case where the patient was newborn, infants, or toddler most of the participants would allow a male physician to provide necessary medical intervention because there are no religious or

cultural reasonsagainst treating a pre-pubertal period child by a physician with opposite gender.

There are many limitations faced by our study. First of all, the questionnaires were distributed in the ED in the crowded and uncomfortable environment for some participants that make some of them leave the survey incompleted many times. Secondly, we use a questionnaire as our mean tool to collect the information, so it is possible to miss some data while a collection of information. Finally, there are some factors influencing decision-making done by Muslims have not been considered in our study.

## Conclusion

The study result shows an obvious considerable preference of presence of a female physician in the ED to handle gastrointestinal disease, clinical assessment, non-life-threatening cases, and physical examination attributed to many factors including religious, traditional, and social factors. However, in few situations like life-threatening, psychiatric illnesses, and history taking, there was no preference for female over male physician. We hope in this study to raise the awareness of this need of female patients in Muslim and non-Muslim community to provide much efficient care to them and lightning the necessity of the existence of female physician. The religious leader have respectful and helpful effects in the correction of patients beliefs.

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### Conflicts of interest

There are no conflicts of interest.

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