

Views and Perceptions of Medical Representatives and Physicians about the Role of Medical Representatives and Pharmaceutical Advertisement in Saudi Arabia – A Pilot Study

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INTRODUCTION

“Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.”^[1] The marketing practice is being used continuously in approximately all industries, including pharmaceutical companies.^[2]

ABSTRACT

Objective: Medical representatives (MRs) frequently interact with physicians who may have different perceptions about and expectations from product promotional activities by pharmaceutical companies, especially through MRs. This can affect their prescribing practice. We explored the views and perceptions of MRs and physicians about the role of MRs and pharmaceutical advertisements in Saudi Arabia. **Methods:** Semi-structured interviews were conducted virtually through the ZOOM application with five MRs and five physicians from July to October 2022. The participants were recruited from the Makkah region in Saudi Arabia on a convenience sampling basis and through the snowballing method. The interviews were recorded with the consent of the participants, transcribed verbatim, and thematically analyzed. **Findings:** Data saturation was found to be achieved with four interviews from each group of participants. Thematic analysis generated 338 codes which were categorized into 31 subthemes. These subthemes were further categorized into 11 overarching themes: “MR daily work,” “Role of MRs in healthcare and their future,” “Value of MRs in healthcare,” “Pros and cons of the MR career,” “MRs in the COVID-19 pandemic,” “Differences between the pharmaceutical companies,” “Goods and not-so-goods about the MRs,” “Suggestions provided by physicians for MRs and pharmaceutical companies,” “Marketing strategies of different pharmaceutical companies,” “Experience of MRs” and “Support provided by pharmaceutical companies.” **Conclusion:** Our pilot study sheds light on the role of MRs and pharmaceutical advertisement from MRs’ and physicians perspectives. Several recommendations can be drawn from our findings to make the interactions between MRs and physicians more effective and improve pharmaceutical advertisement, prescribing practices, and patient care.

KEYWORDS: Medical advertisement, medical representatives, pharmaceutical advertisement, pharmaceutical companies, prescribing practices, Saudi Arabia

These pharmaceutical companies use several strategies to promote their pharmaceutical drugs and products by investing significantly to stimulate their sales. Unlike

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other types of marketing, the direct target consumers for pharmaceutical marketing are not the patients, whereas the physicians prescribing the medicines and products are the target audience of the pharmaceutical companies.^[3] Although patients are not the direct target consumers, their safety is of utmost importance in the marketing of pharmaceutical drugs and products.

The frontline personnel responsible for promoting these pharmaceutical drugs and products are the medical representatives (MRs).^[4] MRs are responsible for delivering complete and unbiased information to the prescribers and health-care professionals, and thus, they should possess appropriate background knowledge about the drug/product as well as about the disease area related to that drug/product with a high level of integrity and ethics for advertisement.^[5] The ultimate welfare and benefits for the patients must be the core aim of these efforts.^[6]

Several studies have demonstrated that physicians and health-care providers frequently interact with the MRs and rely on the MRs as sources of information about drugs/products.^[7,8] While these interactions are necessary and beneficial, they may involve a conflict of interest.^[9] This conflict of interest may influence physicians' moral responsibility toward their patients by overprescribing in an attempt to promote the sales of a pharmaceutical company, jeopardizing the interest of the patients.^[10,11] Thus, pharmaceutical marketing personalized to physicians, such as providing samples and incentives, raises ethical issues.^[12] There is mixed evidence regarding whether physicians' prescribing behavior is influenced by pharmaceutical marketing, which may be due to the varying marketing practices and regulations in different countries. Studies from Hong Kong and China report that prescribers do not perceive their prescribing practices as affected by pharmaceutical marketing.^[13] In contrast, a study from India found that physicians' prescribing behavior is influenced by pharmaceutical marketing, and the more expensive the marketing strategies, the more effective they are.^[3] Similarly, a study from Lebanon showed that pharmaceutical marketing strategies correlate to physicians' prescribing behavior.^[14]

Saudi Arabia is a country with comprehensive regulations to control the promotion of pharmaceutical products. Saudi food and drug authority developed the Saudi Code of Pharmaceutical Promotional Practices in the Kingdom of Saudi Arabia in 2018, which regulates the marketing practice in line with medical and pharmaceutical ethics.^[15] However, physicians and healthcare providers may have different perceptions about and expectations from these product promotional activities from the pharmaceutical companies, especially through MRs, which may affect

their prescribing practice. Moreover, it is not known what value the drug promotional activities through MRs add to the prescribing practice and thus the overall healthcare system in Saudi Arabia. To the best of our knowledge, no studies have explored these issues about the role of MRs and pharmaceutical marketing in Saudi Arabia from the perspective of physicians and MRs. The primary aim of this study was to qualitatively explore the views and perceptions of MRs and physicians about the role of MRs and pharmaceutical advertisements with the possible effect on prescribing practices in Saudi Arabia.

METHODS

In this study, we employed qualitative methodology and conducted semi-structured interviews virtually via the ZOOM application instead of face-to-face interviews as social distancing and precautionary measures were strictly in place due to the COVID-19 pandemic. We approached and recruited physicians (either in primary or secondary care) and MRs (either from multinational or local pharmaceutical companies) on a convenience sampling basis and via the snowballing method. On approaching the participants, we explained to them the background and aim of the study before obtaining their consent to be interviewed. The potential participants were mainly from the Makkah region in Saudi Arabia. No financial incentive was offered to the participants.

To facilitate the interviews, two separate interview guides, one for MRs [Panel 1] and the other for physicians [Panel 2], were developed in the English language and then translated into the Arabic language. A bilingual academic staff member double-checked the accuracy of the translation. The interview guides comprised open-ended questions covering the topics related to the project's aim. These questions were then checked for face validity and content validity with the help of one experienced physician and two experienced MRs. The interview guides were then piloted with another two physicians and two MRs. Minor changes were made in the interview guides following the piloting. The interviews were scheduled at a time convenient for the participant and conducted in either Arabic or English, as preferred by the participant. The interviews were conducted by one co-author (AAlh), also an experienced MR, and audio- and video-recorded using the recording option in the ZOOM application. The recordings were transcribed verbatim later by four other co-authors (AAlh, MoA, SF, SA). The accuracy of the transcriptions was checked alternatively by the transcribers and the interviewer.

This study was approved by the Biomedical Ethical Committee of Umm Al-Qura University, Makkah, KSA

Panel 1: Topics and questions in the medical representatives' interview guide

1. Medical representatives and companies

- Q1. Would you like to tell me why you entered this field of pharmaceutical advertisement?
Q2. Can you please tell me what your opinion is about current pharmaceutical advertisements in general?
Q3. What support pharmaceutical companies are currently providing to the MRs for performing their jobs efficiently?
Q4. What do you think about the cooperation of pharmaceutical companies with the government/regulatory authorities?
Q5. Do you think pharmaceutical companies are sales oriented or science-oriented? Can you provide the reason for your opinion?
Q6. Do you think there are any differences between multinational and local companies? In your opinion which one of them adds more value to healthcare?

2. Medical representatives and other healthcare professional/hospital

- Q7. In your opinion to what extent do MRs affect the doctor's prescribing decisions?
Q8. Do you think the MRs add any value to the patient's care by interacting with the physician? and how?
Q9. How much do you think physicians value the daily job of MRs?
Q10. When the physician asks the MR a question, do you think he/she gets back to the physician with the answer? If yes, how quickly?
Q11. As we know the MRs have restricted access to healthcare providers in some organizations. What is your opinion on this?
Q12. In your opinion, how many times should a MR visit the healthcare provider and why?

3. Role and daily jobs of medical representatives

- Q13. If there was no MR in the pharmaceutical industry, what do you think that could lead to?
Q14. What factors affect the efficiency of the daily job of MRs (let them answer)? (If required, ask: What about the role of the medical department in affecting the efficiency of your job, accessibility to meds, arranging meetings with doctors, etc.?)
Q15. In your opinion how important the MR's background knowledge in the disease area and the related product is?

4. Suggestions

- Q16. What is the best way pharmaceutical companies can provide support to the physician as well as the healthcare organization?
Q17. What do you think the role of MRs should be ideally?
Q18. In your opinion, what are your suggestions to make pharmaceutical companies' advertisements better in the future?

MRs: Medical representatives

Panel 2: Topics and questions in the physician interview guide

1. Perception of healthcare professionals about a pharmaceutical company

- Q1. Can you please tell me what is your opinion on pharmaceutical advertisements? and why?
Q2. What support do you think the pharmaceutical companies are currently providing the healthcare providers? What is your opinion about it?
Q3. What do you think about the cooperation of pharmaceutical companies with the government/regulatory authorities?
Q4. Do you think pharmaceutical companies are sales oriented or science-oriented? Can you provide the reason for your opinion?
Q5. Do you think there are any differences between multinational and local companies? In your opinion which one of them adds more value to healthcare?

2. Perception of physicians about the medical representatives

- Q6. What is your opinion about the MR in general
Q7. Do you think the MR has an important role (if yes: How much important is? If no: Why do you think that?
Q8. If there was no MR in the pharmaceutical industry, what do you think that could lead to?
Q9. In your opinion how important the MR's background knowledge in the disease area and the related product is?
Q10. Do you think something is missing in the MR's background knowledge in the disease area and the related product?
Q11. Do you consider MRs to provide valuable information on the current treatment of diseases and drugs?
Q12. In your opinion, what the strong point MRs have that they should continue? Your recommendation?
Q13. Is there any difference between when you meet an experienced MR and when you meet a new MR, if yes what difference?
Q14. Do you think the information the MR providing is in the best interest of the patients?
Q15. Do you contact the MR if you have any concerns regarding the related product?
Q16. Do you think MRs are willing and capable of dealing with the concerns you may have about the related product
Q17. Do you think the MRs follow up with you after the meeting if there is a need for a follow-up?

3. Hospital and pharmaceutical companies

- Q18. As you know that some of the hospitals have restricted the access of pharmaceutical companies to healthcare providers who work in it. What is your opinion about that?
Q19. How many times the MRs should visit a physician in a month?
Q20. When do you prefer a virtual meeting? and when do you prefer an in-person meeting?

4. Suggestion

- Q21. What is the best way pharmaceutical companies can provide support to the physician as well as the healthcare organization?
Q22. What do you think the role of MRs should be ideally?

MRs: Medical representatives

(Approval Number: HAPO-02-K-012-2021-07-701). Verbal consent for the interviews was taken from the participants again at the start of each interview and recorded for reference.

Written transcriptions were analyzed using thematic analysis employing the inductive method. The first step of the analysis was familiarizing with the qualitative data by reading the transcripts. The two teams of co-authors then manually derived the initial codes from the data independently. The codes were then reviewed and verified by the academic supervisor. This was followed by the next phase of the analysis, which involved categorizing the codes into potential subthemes and themes independently by the same two teams of co-authors. The subthemes and themes were further reviewed and verified by the academic supervisor. Any variations in the coding and thematizing processes were resolved by discussion between the two teams and the academic supervisor. The final themes were then refined, defined, and explained by the authors.

RESULTS

We interviewed ten eligible participants (five physicians and five MRs) from July to October 2021. Characteristics of the participants are presented in Table 1. Data saturation was found to be achieved with four interviews from each group of participants. Thematic analysis generated 338 codes which were categorized into 31 subthemes. These subthemes were further categorized into 11 overarching themes [Table 2 and Panel 3].

Medical representative’s daily work

There are many factors that influence MR’s daily work. MR should be well versed in the scientific data related to the products they advertise as it helps answer physicians’ queries supported by evidence. The participants highlighted several ways of communication between the physicians and the MRs. Both of them preferred face-to-face interaction because it is “easier”

Table 1: Demographic characteristics of the study participants

Participant	Gender	Age range (years)
MR 1 (P1)	Male	31-40
MR 2 (P2)	Female	26-31
MR 3 (P3)	Male	26-30
MR 4 (P4)	Female	30-40
MR 5 (P5)	Male	27-31
Physician 1 (P6)	Male	31-40
Physician 2 (P7)	Female	31-40
Physician 3 (P8)	Male	31-40
Physician 4 (P9)	Male	35-41
Physician 5 (P10)	Male	41-50

MR: Medical representative

and “more effective.” The participants (both the physicians and MRs) believed that the ideal number of visits by the MRs to the physicians is 1–3 per month. However, some indicated that the number of visits

Panel 3: Themes and the associated subthemes

1. Medical representatives’ daily work

Barriers that affect MR daily job (9) (MRs)
 Facilitators that affect MR daily job (20) (MRs)
 Number of visits by MRs (9) (MRs)
 Effects of MRs on prescribing decisions (9) (MRs)
 Role of MRs (33) (MRs)
 Means of advertisement and communication (with doctors) (16) (MRs)
 Meeting with doctors (23) (physicians)

2. Role of medical representatives in healthcare and their future

Ideal MR (3) (MRs)
 Advertisement without MR (5) (MRs)
 Suggestions for improving pharmaceutical advertisement (9) (MRs)
 Requirement of MR (5) (physicians)

3. Value of medical representatives in healthcare

The value provided to the patient by MRs (7) (MRs)
 Value provided to MRs by physicians (10) (MRs)

4. Pros and cons of the medical representatives career

Advantages of working in pharmaceutical company (12) (MRs)
 Disadvantages of working in pharmaceutical company (6) (MRs)
 Support provided by companies to MRs (10) (MRs)

5. Medical representatives in the COVID-19 pandemic

Restrictions due to COVID-19 (7) (MRs)
 Effects of COVID-19 on advertisement (7) (MRs)
 COVID-19 effect on MR daily job (2) (physicians)
 COVID-19 effect on pharmaceutical advertisements by companies (3) (physicians)

6. Differences between the pharmaceutical companies

Company orientation (sales versus science) (12) (MRs)
 Multinational companies versus local companies (1) (MRs)

7. “Goods” and “Not-so-goods” about the medical representatives

Weak points of MR (16) (physicians)
 Strong points of MR (9) (physicians)
 Impact of MR on doctors (4) (physicians)

8. Suggestions provided by physicians for medical representatives and pharmaceutical companies

Suggestions to pharmaceutical companies (5) (physicians)
 Suggestions to MRs (14) (physicians)

9. Marketing strategies of different pharmaceutical companies

Difference between local company and multinational company (11) (physicians)
 Sales-oriented or science-oriented (11) (physicians)
 Advertisement of medication (7) (physicians)

10. Experience of medical representatives

Difference between a senior MR and junior MR (10) (physicians)

11. Support provided by pharmaceutical companies

Support provided by pharmaceutical company (6) (physicians)

MRs: Medical representatives

Table 2: Themes with the number of associated subthemes and codes

Themes	Number of associated subthemes	Number of associated codes
1. MR daily work	7	119
2. Role of MRs in healthcare and their future	4	22
3. Value of MRs in healthcare	2	17
4. Pros and cons of the MR career	3	28
5. MRs in the COVID-19 pandemic	4	19
6. Differences between the pharmaceutical companies	2	13
7. Good's and "Not-so-goods" about the MRs	3	29
8. Suggestions provided by physicians for MRs and pharmaceutical companies	2	19
9. Marketing strategies of different pharmaceutical companies	3	29
10. Experience of MRs	1	10
11. Support provided by pharmaceutical companies	1	6

MRs: Medical representatives

may be increased on physicians' demand. Some MRs pinpointed that they struggle to arrange meetings with busy physicians as they do not have time to meet with them. Some physicians thought that MRs are useful but they do not recognize them as health-care professionals.

"Participant: I see even those who talk a lot with doctors. I see maximum of 3 times a month. This is enough and the least thing is once a month, meaning it is not less than that. Only a few doctors want to see you 3 times a month, the doctor will need you to come back frequently" (MR 2, line number 171).

"Participant: It's possible to increase the number of visits if there is a new request from a doctor or provide the doctor with a sample of medication, otherwise one visit per month is enough"(MR 5, line number 256).

Role of medical representatives in healthcare and their future

MR career is important for doctors and patients. The participants in our pilot study thought that MRs have many critical roles such as providing the most updated drug information. An ideal MR should be well equipped with scientific background information and some essential soft skills such as time management, planning, and communication skills.

"Participant: The ideal medical rep is the one who has a good personality, is aware of how people behave, has time management and very good communication skills"(MR 4, line number 109).

Other participants mentioned that the ideal MR should have sufficient scientific background information to be provided to the doctors.

"Participant: Ideal medical rep should have some characteristics such as scientific background, planning, time management and good relations with doctors and colleagues" (MR 5, line number 356).

Some participants suggested that universities and pharmaceutical companies must collaborate to enhance this career.

"Participants: The first step is to establish the students appropriately, we explain to them that these options are job opportunities and you will succeed in the thing they desire. Secondly, if there is cooperation between universities and companies, it will be good"(MR 4, line number 130).

Value of medical representatives in healthcare

According to the participants in our pilot study, MRs can benefit patients indirectly by providing the most updated and unbiased pharmaceutical information to the physicians and by arranging the uninterrupted product supply to the hospitals to help patients readily access their medication.

"Participant: We are talking with doctors about things that provide benefit to the patients, and we can indirectly benefit the patients by speeding the process of medication availability in the hospitals" (MR 2, line number 122).

However, some MRs revealed that some physicians only maintain good relationships with the MRs and prescribe their products if they receive any benefits from their pharmaceutical companies.

"Participants: I can see the value that the MR offer. If there is data, he will offer it. If there is a conference, you will make it available to attend. if the doctor sees that there is a benefit from the company he will maintain a good relationship with MR" (MR 5, line number 194).

Pros and cons of the medical representative career

MR career has been recognized as challenging by MRs in our pilot study. Pros of MR career, as enlisted by MRs, included continuous professional development, salary benefits, and promotions based on soft skills. Likewise, pharmaceutical companies provide support to

MRs by providing training focused on the continuous development of soft skills.

“Participant: Honestly, my previous company supported us with continuous training and development in soft skills and background knowledge” (MR 5, line number 70).

Cons of MR career, as enlisted by MRs, encompassed lack of experience which they recognized as one of the barriers for Saudi pharmacists in the pharmaceutical advertisement job market.

“Participants: I felt that this (lack of experience) was the most challenging thing, but the company helped grow professionally” (MR 2, line number 13).

“Participants: I noticed a lot of people (MR) can't continue or they face difficulties with continuing as MR due to lack of experience and support” (MR 4, line number 44).

Medical representatives in the COVID-19 pandemic

The COVID-19 pandemic has affected the daily work of MRs due to the restrictions imposed on meeting with physicians in person. MRs in our pilot study reflected that they have been forced to conduct their meetings with the physicians virtually and this has ultimately affected pharmaceutical advertisement.

“Participants: The interaction between MRs and doctors is not as frequent and effective as before COVID-19” (MR 1, line number 19).

However, for some participants, the COVID-19 pandemic has positively impacted their professional relationships with doctors.

“Participant: Calls with doctors have become more efficient but with less number of visits” (MR 1, line number 28).

Differences between the pharmaceutical companies

We have both local and multinational pharmaceutical companies operating in Saudi Arabia. Our participants believed that generally multinational companies are more patient-oriented and focus more on providing benefits to the patients as compared to the local pharmaceutical companies. The majority of the local pharmaceutical companies in Saudi Arabia were thought to be “sales-oriented” and some “science-oriented,” i.e., they present unbiased scientific information about their product regardless of their sales.

“Participant: I see that the issue is due to the experience in the market because the multinational companies have been operating for more than 100 years, and some of them

have been working to serve the patient. They know that investing in the patient will increase the sales eventually, increase profits and increase the new molecular industry, and the cycle continues” (MR 4, line number 12).

However, some of the MRs reported that local companies may be preferred because they are cheaper than multinational companies.

“Participant: Often customers prefer local companies because they are cheaper” (MR 3, line number 166).

“Goods” and “Not-so-goods” about the medical representatives

The physicians in our pilot study recognized the “goods” and “not-so-goods” of the MRs. They believed that MRs have good communication skills and generally have good knowledge regarding the product they advertise. They added that MRs provide very updated information about their product. They also recognized that some MRs lack the scientific background in the product they advertise. They focus more on sales and try to hide the negative effects of their products. The physicians thought that this could be biased and therefore they do not sometimes completely trust the information provided by MRs.

“Participant: I specialize in disease, but this is his medicine. He knows more things than me about his drug, but he focuses only on positive things and not on the negative things” (Physician 4, line number 99).

Suggestions provided by physicians for medical representatives and pharmaceutical companies

The physicians in our pilot study suggested that MRs should focus on presenting more meaningful scientific data that includes data on diseases relevant to the products they advertise.

“Participant: Scientific background is very important for the MR, he should cover disease background which is related to his medication advertise” (Physician 3, line number 150).

Some of the physicians reported that the best MRs are the ones who talk about the disease also related to the product they are advertising.

“Participant: The best MRs who I enjoyed talking with were those who like to discuss the disease itself and the role of medication in this disease” (Physician 4, line number 168).

They further suggested that MRs should also attempt to answer the physicians' queries about the medication they are advertising in a short period. The physicians also added that the pharmaceutical companies should shift their strategy from sales-oriented to patient oriented by focusing more on what benefits the patients.

“Participant: I see the company. If the promotion is directed to serve patients, it would be better than trying to convince doctors to sell” (Physician 4, line number 60).

Marketing strategies of different pharmaceutical companies

The physicians in our pilot study believed that the local pharmaceutical companies tend to focus more on sales of their products and attempt to compare their generics with established brands. They suggested that the local pharmaceutical companies should also focus on research and technology development.

“Participant: “I wish they (local pharmaceutical companies) can improve themselves and place priority on research and technology” (Physician 5, line number 45).

Some physicians in our pilot study believed that local pharmaceutical companies communicate less than multinational companies. They added that physicians pay more attention to advertisements from pharmaceutical companies that focus more on clinical information and provide beneficial information in a more digestible way. Some of them specified that they prefer European and Canadian pharmaceutical companies over American and local companies because they focus on providing more meaningful information.

“Participant: The Europeans or the Canadians have their own method. They (companies) depend on the scientific method and information more than anything” (Physician 3, line number 60).

Experience of medical representatives

The physicians in our pilot study opined that generally there is no difference in the interaction between experienced MRs and the new MRs and the benefit obtained from them. However, they thought that the new MRs appear to be relatively more enthusiastic and supported their advertisement with more scientific data.

“Participant: The difference between them is their charisma and the way of presentation. For example, maybe an experienced medical rep is not improving for years and the new medical rep is more enthusiastic (in improving himself)” (Physician 2, line number 104).

Support provided by pharmaceutical companies

Pharmaceutical advertisements can be conducted online or face to face. The physicians in our pilot study thought that the pharmaceutical advertisement provided and supported by the pharmaceutical companies is beneficial because it provides them with the most updated information about medication.

“Participant: Sometimes they provide us new updated information about specific treatment” (Physician 2, line number 19).

They also believed that the support provided by pharmaceutical companies in the form of webinars, symposiums, and answering queries is helpful as it contributes to their continuing educational development.

“Participant: Pharmaceutical companies make an effort to make for us the webinars. And provide sponsor in many of the symposiums and we get CME hours” (Physician 2, line number 18).

DISCUSSION

Pharmaceutical advertisement in any country is greatly affected by the role MRs play. The practice of medical advertisement can be influenced by various factors including the views and perceptions of the MRs regarding their profession and the physicians they encounter. It can equally be influenced by the views and perceptions of physicians regarding the MRs and the medical advertisement offered by pharmaceutical companies. This pilot study, adopting the qualitative approach, explored the views and perceptions of both of these stakeholders in Saudi Arabia. Common grounds and differences in the opinion between the two stakeholders regarding several issues emerged.

As recognized in our study and several other previous studies across the world, the interaction between MRs and physicians is the hallmark of MRs’ daily work.^[16-18] The participants in our study mentioned that 1–3 visits by MRs to the physicians per month are the suitable frequency. Other similar studies have highlighted the practice of at least one visit per month.^[19,20] In addition, our participants also indicated that the number of visits per month can be increased under particular circumstances such as the request by the physician. It was opined by some MRs in our study that the relationship with some physicians depends on the benefits offered by the pharmaceutical company to the physicians. Although not surfaced to a greater extent in our study, various other similar studies from different countries have reported the type and frequency of gifts offered by pharmaceutical companies.^[19-22] Some of these studies confessed that these offers influence physicians’ prescribing behavior to some extent. However, some studies have reported no influence of these offers on physicians’ prescribing behavior.^[23,24]

Mukattash *et al.* surveyed with MRs in Jordan and highlighted the importance of enhancing MRs’ scientific research knowledge.^[25] Their study concluded that universities should update their curricula to equip the graduates with adequate knowledge and skills required to be competent MR. Similar opinions resonated in our study where the participants recognized the value of having a sound background in scientific knowledge.

One participant even suggested that universities and pharmaceutical companies must collaborate to prepare graduates for this professional career.

In addition to sound scientific knowledge, the MRs need to have a strong conviction about their product as well as the appropriate soft skills. These qualities were recognized by the MRs themselves in our study. Al-Areefi *et al.* interviewed a sample of physicians in Yemen and reported that the physicians often refuse to see the MRs who lack conviction about their product.^[4] Appropriate soft skills including communication skills and presentation skills have been identified as indispensable for MRs.^[26] Pharmaceutical companies are aware of the importance of these skills for MRs. The participants in our study mentioned those good pharmaceutical companies help the MRs develop these skills continuously, especially on hiring new MRs.

The physicians in our study agreed on the importance of MRs' role in providing the most updated information related to their products. However, due to bias, physicians stated that they sometimes do not completely trust the information provided by MRs. Other studies have reported mixed attitudes of physicians about MRs being the sources of information and education. Some have shown positive attitudes whereas others reported skeptical attitudes of physicians toward MRs.^[27-30] Moreover, the physicians in our study also pointed out that some MRs, especially those who lack scientific knowledge, are more sales-oriented and attempt to hide the unfavorable effects of their products. This is similar to the findings of a study from Sudan which reported that more than a quarter of the MRs who were surveyed confessed that they sometimes deliberately hide unfavorable information about their product.^[31] It may be due to this reason that the physicians in our study indicated that they prefer interacting with the MRs who are less sales-oriented and also discuss the information regarding the disease related to their product. A study by Ali *et al.* from Iraq and Jordan has even reported that some MRs have a negative attitude toward their competitors' products.^[32]

The physicians in our study were able to identify the differences in the level of communication between the MRs from local pharmaceutical companies and international pharmaceutical companies. They considered all local pharmaceutical companies to be sales-oriented as compared to international pharmaceutical companies. They believed that the advertisements from international pharmaceutical companies tend to be more scientific oriented and focus more on providing benefits to the patients as compared to the local pharmaceutical companies. Nevertheless, it was highlighted that local companies may still be preferred because

they are cheaper than international pharmaceutical companies.^[33] Mukattash *et al.* have also reported that MRs from international pharmaceutical companies tend to have a significantly better understanding of research and terminologies compared to MRs from local pharmaceutical companies.^[25]

There are a few limitations to our study. Being a pilot qualitative study, it is a small-scale, hypothesis generating, and descriptive. Moreover, since all MRs in our study sample were from multinational pharmaceutical companies, our findings may be biased toward these companies. Further studies with larger samples including MRs from a variety of pharmaceutical companies are warranted to conform to our findings. Further quantitative studies can also leverage our findings to better understand the dynamics of interactions between MRs and physicians to improve prescribing practices and thus patient care.

MRs play a crucial role in a pharmaceutical advertisement. Our pilot study sheds light on their role from their perspective and from the perspective of physicians who are their primary targets for pharmaceutical advertisement. They both preferred face-to-face interaction and believed that the number of visits to physicians should be restricted to 1–3 per month although some MRs struggle to arrange meetings with busy physicians. MRs were recognized as an important source of updated drug information, and therefore, they must be equipped with sound scientific background information about their products and related diseases. The interaction between MRs and physicians was also thought to be affected by MRs' soft skills and communication skills. Although pharmaceutical companies pay attention to the continuous training and professional development of MRs, the universities and pharmaceutical companies should also collaborate to produce graduates who are practice-ready for the Saudi job market. Local pharmaceutical companies, in competition with international pharmaceutical companies, should focus more on training their MRs to be more science oriented and patient oriented and less sales oriented. MRs should also be less biased toward their own product to win the trust of the physicians.

AUTHORS' CONTRIBUTION

Majid Ali conceived, designed, and supervised the study. Abdulrahman Althagafi and Mutaz Qashlan recruited and interviewed the participants. All the other authors were involved in data analysis and interpretation. All the authors contributed to the drafting and critical review of the manuscript and have approved the final draft of the manuscript.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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