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Competences Of Knowledge And Practice Of Family Medicine Physicians About Referral System In Saudia Arabia

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Abstract

Background:
World health organization conceptualized Referrals are a dynamic process whereby a healthcare provider at one level of the system, lacking the authority or resources to appropriately manage a patient's clinical condition, looks to another facility at the same or higher level to assist in the treatment route. One of the mainstays of the primary care system is referrals.
Study objectives: To assess the knowledge and attitudes towards AIDS among practicing physicians in the family medicine clinics , Saudi Arabia.
Methods; Research design : cross sectional , descriptive research design was utilized to conduct this study; Settings :It was conducted at 10 family medicine clinics (The Western Region is home to ten (10) family medicine clinics, including the National Guard Training Center, Baharah clinics, Madinah clinics, Sharaie clinics, Um Alsalam clinics, Jazan clinics, Yanbu clinics, King Faisal residential city clinics (KFRCC)-Jeddah, and King Khalid residential city clinics (KKRCC)-Taif clinics.) , at Jeddah at Saudia Arabia ; p**articipants:** 276 family medicine physician was included in this study. Questions about knowledge and practice of referral systems were included in the questionnaire. Using a scoring system that adds up 1 for right answers and 0 for wrong replies, the questionnaire's examined variables are scored.
Findings: The majority of doctors (65.2% & 94.2%, respectively) knew and used the referral system well. Physicians employed by accredited versus non-accredited facilities had substantially more good knowledge (81.8% vs. 50%). Additionally, doctors who worked in family health units had a much greater percentage of good practices than those who worked in family health centers (96.8% vs. 66.7%). Based on the majority of the factors examined, there is little difference between knowledge and practice. To enhance the referral system, doctors recommended developing referral criteria, reforming medical education, changing payment methods, and creating culture-building activities (97.8%, 94.2%, 97.8%, and 97.8%, respectively).
Conclusion: The paper recommends more orientation programs for both groups of physicians and urges the private sector physicians to be more involved in Ministry of Health training programs and activities.

Cooperation in referral between the private sector and government hospitals is seen as one way of improving health care in Saudi Arabia.

Introduction:

World health organization conceptualized Referrals are a dynamic process whereby a healthcare provider at one level of the system, lacking the authority or resources to appropriately manage a patient's clinical condition, looks to another facility at the same or higher level to assist in the treatment route. One of the mainstays of the primary care system is referrals. It is an all-encompassing, long-term system that links hospitals and primary care facilities in both directions. Prioritizing those in need contributes to the ongoing improvement of comprehensive healthcare for all patients.2.Nearly 35 years have passed since Saudi Arabia's referral system was put into place in the middle of 1989. Numerous studies have shown how well the referral system works to lessen the burden on hospital outpatient clinics while boosting the workload for primary health care (PHC) centers' general practice clinics.

However, these investigations have not demonstrated the effect on the standard of patient care in general practice clinics or hospitals.1, 2. Additional research has revealed significant differences in Saudi Arabian general practitioners' referral rates,3 as well as poor hospital feedback report rates to PHC centers, which impede treatment continuity in PHC settings.3 The low caliber of the recommendation letters has also drawn criticism from hospital experts as well as primary care physicians 4. However, no study has addressed the flaws of the referral process itself. In 1993, another study from the Asir region showed the shortcomings in the administrative structure of the Hospital Coordination Offices (HCOs).

In order to identify the eight essential elements required for referral system implementation, Cicatelli Associates, Inc. (CAI) and the Centers for Disease Control (CDC) developed the fundamental components of a referral system framework. The eight key elements are: policy, referral staff, protocols, referral guide, marketing and communications, monitoring and assessment, management and supervision, and organizational collaborations. 3. Referrals might be made for a standard surgical procedure or to look for additional treatments for the client, such management admission.4. A successful referral system should maintain an efficient record system; as it depends on referral letters, it needs to be straightforward, uniform nationwide, and provide both an original and a duplicate.5In order to effectively meet clients' health requirements and guarantee that people receive the best care possible closest to their homes, it is essential that health care delivery levels have efficient referral mechanisms. Referral procedures must be optimized for medical care to be effective, safe, and efficient. 6

The introduction of a referral system based mostly on primary care family physicians was started by Saudi Arabia. This project started out as a pilot study and was later extended. It was started as a component of the initiative to restructure the health sector.7. A good explanation for the wide range of referral rates among general practitioners is still elusive, even after controlling for medical education, socioeconomic features, and morbidity.

Individual methods and context can explain the seeming large differences in general practitioners' approaches to healthcare.8.

The family doctor referral system is guided by an intelligent and controlled system based on the patient's actual needs.11. A family physician can only order a certain number of treatments, drugs, and diagnostic tests; patients can only refer to one doctor (the health team); and a family physician must create and complete a patient's health record for each referral. Every other service is offered at different levels 12. Physician training was seen as a crucial component in guaranteeing the quality of the referral system, and recommendation letters were the main method of referral.13

As far as the authors are aware, no prior research has examined family health practitioners' practices and awareness of the Saudi Arabia referral system. Thus, the purpose of this study was to evaluate family health physicians' knowledge and usage of the referral system, to determine the characteristics that are related to knowledge and use, and to outline participant recommendations for referral system enhancement.

The goal of the current study was to investigate the referral system in family medicine center in Jeddah City by: 1) examining the system's structure (including its facilities and premises) and procedure to pinpoint any barriers; 2) figuring out the quantity and caliber of referral letters coming from the center as well as the

quantity and caliber of hospital feedback reports; and 3) testing the hypothesis that the caliber of hospital feedback reports and referral letters was correlated with the type of clinical specialty.

Methods:

Research design : cross sectional , descriptive research design was utilized to conduct this study

Settings :It was conducted at 10 family medicine clinics (The Western Region is home to ten (10) family medicine clinics, including the National Guard Training Center, Baharah clinics, Madinah clinics, Sharaie clinics, Um Alsalam clinics, Jazan clinics, Yanbu clinics, King Faisal residential city clinics (KFRCC)-Jeddah, and King Khalid residential city clinics (KKRCC)-Taif clinics.) , at Jeddah at Saudia Arabia

Participants: Every general practitioner and family physician from the family facilities who was available during the visit and gave their agreement to take part in the study was enlisted. We focused on all family doctors who were on duty and working on family health facilities at eight family medicine clinics that met the study's eligibility requirements. 276 family medicine physician was included in this study of them finished the questionnaire, according to Local Health Administration figures. Family doctors who agreed to participate in the study and had been in practice for at least a year met the inclusion requirements. Participants who declined to participate were excluded.

Questions related to knowledge & practice about referral system.

Questions about knowledge and practice of referral systems were included in the questionnaire. Using a scoring system that adds up 1 for right answers and 0 for wrong replies, the questionnaire's examined variables are scored.

Part I:Regarding knowledge: Since there were 32 questions in all about referral knowledge, the score varied from 0 to 32, with a score of less than 16 being regarded as poor, a score between 16 and 23 as fair, and a score of more than 24 as good.

Part II :Regarding the practice, 13 questions were used to assess the practice regarding referral. The practice score varied from 0 to 13, with a score of less than 7 being deemed poor, a score of 7 to 9 being deemed fair, and a score of 10 or higher being deemed good. 14

Data collection:

Information gathering: During the study period, the researcher created a self-administered English questionnaire14 to gather the following data: Profile of sociodemographic characteristics, such as age, sex, education, years of experience working in family health facilities, and particular training programs in family medical centers about referral schemes Accreditation and facilities.

Validity and reliability:

The tool's validity was confirmed by two separate linguists who first translated it forward into Arabic and then backward into English. The concept was then examined for relevance and content translation by a group of ten public health specialists. For knowledge, the scale-content validity index (S-CVI/Ave) = 0.88, and the scale-content validity index/universal agreement (S-CVI/UA) = 0.77 were used to measure the content validity. as a drill. This suggests a high degree of content validity. Cronbach's alpha was used to assess the tool's internal consistency and reliability. The tool used in this investigation had a Cronbach's alpha of 0.780.

Statistical analysis: IBM SPSS version 26 (Armonk, NY: IBM Corp.) was used to gather, code, and analyze the data. There were no missing data found. Numbers and percentages were used to summarize the qualitative data. To compare the categorical variables, the chi-squared test was used. When the cell count was less than five, Fisher's exact test was used to determine significance. Statistical significance was defined as a P value of less than 0.05.

Results:

According to Table 1, the majority of participants were aware of the referral system's description (85.5%), its advantages for the client (97.8%), and that PHCC is the initial level of care (97.1%). Family health care physicians reported that the most frequent reasons for the referral system were emergency (92%), followed by chronic disorders (97.1%). Additionally, 56.2%, 33.3%, and 1.4% of doctors, respectively, had good, fair, and poor awareness of the referral system.

Tables 1 : Distribution of knowledge responses of studied family health physician Number of correct answers

Knowledge of referral	**No (%)**
Referral means:	
Process of requesting another physician to examine a patient to obtain advice or management).	118 (85.5%)
Process of transferring patient to big hospitals (no)	19 (13.8%)
Process of transferring not sharing responsibilities in patient care (no)	113 (81.9%)
Process in which family physician has inadequate skills due to qualification and/or lesser facilities to manage a clinical case.	93 (67.4%)
The benefits of referral for the client	
Early detection of cases	135 (97.8%)
Draw the attention of specialist.	57 (41.3%)
Avoid the loss from one hospital to another	34 (24.6%)
The benefits of referral for the family physician	
Learning and training	67 (48.6%)
Organizing health services	136 (98.6%)
Improve image of PHCC	128 (92.8%)
Enhance communication	120 (87%)
The benefits of referral for the consultant in hospitals	
Save time and efforts.	133 (96.4%)
Gather data about patients	69 (50%)
Improve quality of care	134 (97.1%)
PHCC is the first level of care	
The first level of referral is	134 (97.1%)
HCC (no)	83 (60.1%)
General hospital	101 (73.2%)
Specialized hospital (no)	78 (56.5%)
Patient should attend to primary health centres before hospitals	
Patient must have a referral letter before going to hospitals	129 (93.5%)
Hospitals deal with severe/special cases only	130 (94.2%)
Reasons for referral	22 (15.9%)
Emergencies	127 (92%)
Patient request (no)	110 (79.7%)
Chronic illnesses needed admission and management.	134 (97.1%)
Cases needed to seek expert opinion regarding patient	131 (94.9%)
Cases need specific facilities for investigation	80 (58%)
It is necessary to notify the receiving centres before referring	
It is necessary to have an ambulance to transport critical cases	127 (92%)
Referral should always be received, or accepted without queries	135 (97.8%)
Elimination of self-requested referral by:	30 (21.7%)
Health education	130 (94.2%)
Increase health awareness of people	129 (93.5%)
Provision of better health services at PHC	131 (94.9%)
Total knowledge score:	
Poor	2 (1.4%)
Fair	46 (33.3%)
Good	90 (65.2%)

Table 2 revealed that while there was no statistically significant difference between their competitors ($p > 0.05$), female family physicians, family health specialists, rural residents, those with less than 15 years of experience, those working in family medicine units, and those who have received training all had higher

levels of knowledge about the referral system. Additionally, the majority of doctors (81.8%) employed by authorized facilities had higher levels of expertise, with a statistically significant difference ($p < 0.001$).

Table 2: relationship between the sociodemographic traits of the family health physicians under study and their referral knowledge levels

	Total	Poor knowledge	Good knowledge	P value
Overall	**276**	**96 (34.8)**	**180(65.2)**	
Age **< 40** **≥ 40**	**116** **160**	**20 (34.5)** **28 (35.0)**	**38 (65.5)** **52 (65.0)**	**0.850****
Sex **Male** **Female**	**114** **162**	**21 (36.8)** **27 (33.3)**	**36 (63.2)** **54 (66.7)**	**0.770****
Residence **Rural** **Urban**	**116** **160**	**19 (32.8)** **29 (36.3)**	**39 (67.2)** **51 (63.8)**	**0.571****
Job title **General Practitioner** **Family medicine residents/ Specialists**	**192** **84**	**34 (35.4)** **14 (33.3)**	**62 (64.6)** **28 (66.7)**	**0.713****
Years of experience **<15** **15≤**	**122** **154**	**20 (32.8)** **28 (36.4)**	**41 (67.2)** **49 (63.6)**	**0.861****
Have a specific training course regarding referral system? **Yes** **No**	**10** **266**	**3 (60.0)** **45 (33.8)**	**88 (66.2)** **2 (40.0)**	**0.442***
Type of facility: **Family medicine unit** **Family medicine center**	**252** **24**	**41 (32.5)** **7 (58.3)**	**85 (67.5)** **5 (41.7)**	**.133***
Facility accreditation **Yes** **No**	**132** **144**	**12 (18.2)** **36 (50.0)**	**54 (81.8)** **36 (50.0)**	**< 0.001****

***Fishers exact test **Chi-square test**

According to Table 3, every doctor used the referral form 100% of the time. When requesting a reference, nearly all doctors (99.3%) recorded the information in a referral form and informed the patient that his condition would not necessitate hospitalization. Additionally, 83.3% of participants provided information to the client and family. The lowest percentage of them, 27.5%, stated that illegible handwriting frequently leads to patient rejection. There were none with poor practice, 5.8% with fair practice, and the majority of doctors (94.2%) with high practice.

Table 3: Distribution of practice responses of studied family health physician Number of correct answer N (%)

Practice of referral	**N (%)**
Refer patients by	
Referral form	276 (100)
Verbally (no)	250 (95.6)

The information you write down in referral form	
Demographics and clinical history of patients	274 (99.3)
Details of treatment given	274 (99.3)
Clinical findings/provisional or definitive diagnosis	274 (99.3)
Specific reason or indication justifying the referral	272 (98.6)
The measures you follow	
Fill in an outward referral form	272 (98.6)
Communication with receiving facility	230(78.3)
Information to the client and their family ([reasons and importance of referral, risks of non-referral, how to get to the receiving facility - location and transport, who to see and what is likely to happen, follow-up on return])	240 (83.3)
Empathy - understanding of implications for client and family (overall fear, transportation and cost of treatment)	223 (76.1)
How participant react when patient asked for a referral and his condition is not indicated	
They won't refer him	
They explain to him that his condition is manageable and does not need to go to hospital	276 (94.2)
They will ignore his request	276(99.3)
	88 (21.0)

Table 4 demonstrated that while family doctors with over 15 years of experience, those employed by accredited facilities, and those who were well-versed in the referral system had more effective referral system practices than their rivals, the difference was not statistically significant ($p > 0.05$). A statistically significant difference was found between physicians working in centers and family medicine units regarding their use of the referral system.

Discussion:

For individuals, families, groups, and the community at large, a family health care center offers basic medical treatment. Promoting health, preventing disease, and quickly identifying and treating minor accidents and illnesses are the goals of this basic healthcare. Referrals must be made once the health issue has been removed from the family health care authority. It was well recognized that health care professionals who possess a sufficient understanding of the referral system will be able to ensure that resources are used effectively and efficiently, which will improve patient outcomes. 15. According to the current survey, the majority of family doctors knew a lot about the referral system. This is similar to earlier research in Nigeria.6,16,17,18,19, and Baghdad14 The majority of doctors were family medicine specialists who worked in recognized hospitals, which may have influenced their familiarity with the referral system. That finding, however, runs counter to earlier research conducted in Nigeria 15,19, and can be explained by differences in the participants' socioeconomic status, the medical education they received, and the accessibility of information regarding the referral system.

he majority of doctors in the current study demonstrated good awareness of the referral system, which is positive and encouraging and is consistent with findings from Al-Erian et al. in Saudi Arabia. [7] and further research conducted in Ghana and Nigeria where participants showed a high level of referral system awareness.[2, 8] In keeping with previous studies conducted in Saudi Arabia and Egypt [9,10] and in line with a WHO (2008) study that demonstrated that the referral letter is the primary pillar of the referral process and the sole channel of communication between general practitioners and specialists, the current study revealed that all physicians used referral forms, and that 94.7% of them wrote down the necessary information and followed the required procedures when referring patients.

According to the current survey, a fifth of doctors chose patient requests as the basis for a referral. Similar outcomes were noted in Baghdad and Nigeria 17. 14 This viewpoint may eventually lead to the overstretching of tertiary healthcare facilities' services and infrastructure by avoiding lower levels of treatment and increasing the number of self-referrals that occur there. 20, 21 The current study demonstrated that physicians' sex and place of residence had no bearing on their referral knowledge. This is consistent with a prior study conducted in California and Nigeria15.22

The recent study also found that doctors with less than 15 years of experience knew more than other doctors. This is consistent with earlier research conducted in California. 22 The fact that family medicine is a relatively new specialty and that the majority of less experienced physicians are family medicine specialists and residents who have worked in recognized family medicine units may help to explain this. There was no statistically significant difference between family physicians and general practitioners, according to the current study, but trained physicians knew more about referrals. A prior study carried out in the United States of America (USA) demonstrated that training programs enhance family medicine residents' understanding.23 The fact that most of the trained doctors in the current study were specialist family physicians employed by recognized family medicine units may further help to explain this.

In comparison to general practitioners, the current study demonstrated that family physicians employed by recognized facilities possessed a high level of proficiency and expertise in the referral system. In a similar vein, a prior Danish study demonstrated that accreditation improved competences or promoted information exchange.24 One possible explanation is that family health care specialists work in an accredited institution that offers them ongoing medical education and knowledge exchange, and they are more familiar with the concepts of the referral system and their application, as well as the principles of family medicine.

Furthermore, the current study found that the majority of doctors used the referral system effectively. This is in line with earlier research conducted in Nigeria16 and Baghdad14, which may be explained by the fact that the majority of doctors possessed solid expertise. Nevertheless, other research from Tanzania25 and Nigeria615 contradicts this results, demonstrating that knowledge and practice were unrelated. Regarding referral feedback recipients, the findings were consistent with prior research conducted in Saudi Arabia, Iran, and Nigeria [9,12,13], where over 50% of participants agreed that they rarely receive feedback from the facilities they recommend.

The lack of referral letters from healthcare professionals, which have been demonstrated to affect the rate of feedback of referred patients, may be the cause of this low rate of feedback reports when compared to higher rates in some western countries. It may also be the result of hospital consultants' ignorance of the significance of communication with PHCCs in preserving continuity of care and patient satisfaction [9].[14].

utilize a referral form and record the data there. This is consistent with past research from Saudi Arabia 26, Egypt 13, and Baghdad 14, which demonstrated that the reference letter is the primary component of the referral process and the sole channel of communication between specialists and general practitioners. This conclusion runs counter to a Nigerian study that revealed barely a fifth of participants knew about the referral form.17

According to the current study, when a patient requests a referral, all of our doctors explain to him why his condition does not necessitate a hospital stay. This aligns with Iraqi research 14, yet it runs counter to Nigerian study 27, which discovered that patients were referred without explanation or forced to accept referral by other means. Referral practices are thought to be influenced by family physicians' expertise.15

According to the results of the current study, the majority of our physicians who were well-versed in the referral had better practices than their less-versed colleagues. This is consistent with earlier Nigerian research.6, 15, and 18

According to the current survey, the majority of family doctors recommended creating referral criteria as a way to enhance the referral system. This is comparable to a prior study carried out in Iran that created guidelines, supported regulations, and strategic goals for their referral systems.28 Additionally, the current study revealed that the majority of doctors believed that improving medical education would enhance the referral system. This is in line with an Iranian study28 that demonstrated that a major element in enhancing the referral system is the advancement of medical education.Ultimately, the current study identified a way to enhance the doctor referral system: culture-building, which includes ongoing training, resource availability, and the creation of centers for confidence-building. This supports earlier research conducted in Iran (28), the United States (30), and other countries that emphasized the need for enough resources to deliver services and foster confidence.

Conclusion: The paper recommends more orientation programs for both groups of physicians and urges the private sector physicians to be more involved in Ministry of Health training programs and activities. Cooperation in referral between the private sector and government hospitals is seen as one way of improving health care in Saudi Arabia. Better patient satisfaction and continuity of care for patients would be achieved if PHCs include pertinent patient information in their referral letters and hospitals to which these patients are sent provide comprehensive feedback reports.

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