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## Impact of the Coved 19 Pandemic on the Core Functions of Primary Care: A Qualitative Study in the National Guard Primary Care Physicians at Western Region of Saudi Arabia 2021

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### ABSTRACT

**Introduction:** The COVID-19 pandemic has shifted priorities of the health system, which is finding itself not only overwhelmed but also with restricted capacity to provide services it has been hitherto extending to communities. Logistics and supplies are disrupted especially of material and equipment that were imported till date (API of essential drugs, personal protective equipment, to name a few) adversely affecting the services.

**Method:** Qualitative descriptive study in primary healthcare centers at Western region of Saudi Arabia, where physicians who work in these centers were selected. Semi structured interviews were conducted by the investigators as a tool for data collection.

**Results:** About 97 physicians were participated in this study, 44 (45%) were males and 52 (55%) were females, 21(22%) were GPs or staff physicians, 3(3%) were Registrar Doctors, 12 (24%) were Assistant consultants, 54(56%) were consultants and 7 (7%) were family physicians consultants. In regard to the physicians' opinion about system change due to COVID 19 pandemic in term of general practice core competencies; Most of participants mentioned that the collaboration with colleagues decreased to minimize direct contact with them and by applying the MOH protocol such as taking safety precautions with each other, by social distancing and decrease contact; Some mentioned that workload has increased while other mentioned that workload in the beginning of covid has decreased but responsibility increased; Majority of participants indicated that telephone consults are not enough, and they cannot depend on them 100%, they also agree that telemedicine consultations makes the job of doctors more difficult due to lack of non-verbal communication or body language, The faces difficulties in clinical decision-making due to variation of problem weather acute or chronic problem, they totally agree about importance health education and providing comprehensive care or patient centered care, some participants mentioned that they provide health education for their patients or families, while others support providing patient education but it's too difficult to conduct health education for patient or comprehensive care due to lack of enough time and shortage of staff. All of participants are agree the importance of community orientation and community awareness because the Covid-19 pandemic is a global community event which has affected everyone in some way; Majority of participants are totally agree in providing holistic approach in dealing with covid 19 patient and consider all treatment aspects because the disease have physiological, social, psychological and economic impacts but they give special consideration in treating medical effects of the patients and finally all physicians were aware about the importance of protection their self, colleagues and patients and application of MOH protocol in managing COVID 19 pandemic.

**Conclusion:** There are various benefits in using technology of telehealth, especially in non-emergency / routine care and in cases where services do not require direct patient-provider interaction, such as providing psychological services.

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### Introduction

The COVID-19 pandemic has changed the healthcare system's roles and responsibilities, and positively affect the overall health services provided to the community, at the beginning of this pandemic most of healthcare settings focused only on treating patients with COVID-19 and emergency cases only, making it difficult for other types of symptomatic patients with other (non-covid) acute or chronic illnesses to receive standard care [1]. When the entire health system is focused on fighting against the COVID-19 pandemic, medical and surgical emergencies are neglected. COVID-19's interrupt health services especially people

who are suffering with chronic or noncommunicable diseases who require regular follow-up [2]. The governments should have to plan to manage challenges related to health of its population as a result of COVID-19 pandemic. Critical areas which may be given priority should address the needs of children, women, elderly with non covid relate disease and others with special needs. The vulnerable should not be allowed to become more vulnerable. Children, women and elderly are the most vulnerable groups even in peace time. The gains of MDGs and SDGs stand to be negated unless the services for these groups are sustained (1). When patients have health concerns they may seek emergency

room care directly because they are not sure about the cause or severity of their symptoms. Telephone triage is a system in which clinician use standardized protocols to evaluate symptoms over the phone and determine the appropriate course of action. The clinician must be well trained in assessment skills in order to evaluate patients without having actual physical contact. They use their knowledge of symptoms and disease processes, along with evidence-based protocols, to achieve an accurate understanding of the patient's symptoms and to provide the best care plan based on those symptoms [3]. The quality and consistency of telephone triage services at many community health centres is increasingly being reviewed due to the absence or inconsistent use of established protocols. In the last two decades there has been a growing interest in health centres acquiring established evaluation protocols for triage nurses to use [4,5]. As a result, community health centres across the United States have begun to develop strategic plans to implement telephone triage systems that are accurate, reliable, and cost-effective [5-7].

## Methods

**Study Design:** Qualitative descriptive study primary healthcare centers at Western region of Saudi Arabia, where physicians who work in these centers were selected. Semi structured interviews were conducted by the investigators as a tool for data collection from physicians who work at selected primary healthcare centers at Western region of Saudi Arabia.

## Tools of Data Collection and Analysis

Semi structured interviews were conducted by the investigators as a tool for data collection, where a list of questions or topics were discussed with selected physicians, these questions were developed based on the core competencies of the GP in the European definition of General Practice [8]. These core competencies include, primary care management, person-centered care, problem-solving skills, comprehensive care, community orientation, holistic view and self-protection and self-care. In addition to the six questions based on the core competencies, GPs were asked what measures they took to protect themselves against COVID-19 during their work and personal characteristics of participants were also included as study variables, raw data after collection was cross checked for accuracy and completeness, cleaned and coded and physician opinions were categorized properly. The investigators were used the Standards for Reporting Qualitative Research reporting guidelines as a checklist for writing this article final report.

## Results

About 97 physicians were participated in this study, 44(45%) were males and 52(55%) were females, 21(22%) were GPs or staff physicians, 3(3%) were Registrar Doctors, 12(24%) were Assistant consultants, 54(56%) were consultants and 7(7%) were family physicians consultants.

## Primary Care Management

For participants opinion related to status of primary care management practices during COVID 19, most of participants mentioned that the collaboration with colleagues decreased to minimize direct contact with them and by applying the MOH protocol such as taking safety precautions with each other, by social distancing and decrease contact. Participants opinion related to workload, some mentioned that workload has increased because of easy access of telephone consults, while other mentioned that workload in the beginning of covid has decreased but now it's the same as before, other agree that virtual reduce the load but the responsibility increased.

In regard to what extent are telephone consults adopted and what is their impact on practice management; majority of participants indicated that telephone consults are not enough, and they cannot depend on them 100%, but telephone consults covered about 80% of patient's complains and it's useful even after covid because it decreases crowd in clinics and it is easy to the patients, while some participants concluded that , telephone consults are not enough or useful for new cases but it is only helpful for follow up cases or medication refill, they also mentioned that telephone consults are more effective especially for patients with chronic diseases and only need follow up. Generally, the status of primary care management practices became more difficult because now it is virtual and doctors can't see the patients.

## Person-Centered Care

The telemedicine consultations makes the job of doctors more difficult due to lack of non-verbal communication or body language, the opinion of all participants are similar and they mentioned many justification for the degree of effectiveness of telemedicine consultations, these include that Telephone consults are just an estimation and it's not enough to address the complain of the patient; this aspect has been affected negatively by telephone because we are not able to see patient and pick up things like when the patient was in the clinic, it depends on the case, mild cases or cases that don't require examination I can address patient's complains but other cases it's difficult and I need the patient to come to the clinic. I can use my clinical sense to find a primary diagnosis , Finally most of the cases can be managed through telephone specially to manage worries, fear, symptoms or any complain for majority of cases, but this method sometimes not effective for managing complicated cases or emergency, dermatological cases and first visit of chronic cases

## Problem-Solving Skills

Clinical decision-making is different, and depends upon health problem of the patient, weather acute or chronic problem, in addition because less information can be obtained in telephone consultations and mostly it is limited to question patients about their symptoms and self-examinations, but it is unable to take their temperature or pulse rate. So all participants mentioned that for the acute cases has no change, but for the chronic cases it depend on the case and when was his/her last follow up, the decision was different between acute and chronic problems. Some of acute cases need to be seen in the clinic not virtually, if patient came with any acute symptoms that suggest Covid I will treat him/her differently than before, but for chronic cases there is no change. It depends on the symptoms of the patient, if the patient has flu-like symptoms, corona virus will be on mind.

## Comprehensive Care

The media generally play a vital roles in increasing community awareness related to COVID-19 pandemic, at the ministry of health level all healthcare providers specially physicians have an essential role in providing health education to their patients, all participants totally agree the importance health education and providing comprehensive care or patient centered care, some participants mentioned that they provide health education for their patients or families, while others support providing patient education but it's too difficult to conduct health education for patient or comprehensive care due to lack of enough time and shortage of staff.

## Community Orientation

The response to coronavirus (COVID-19) has demonstrated the contribution that communities make to public health. Community

life is essential for health and wellbeing, and we are all more aware of the value of social connections, neighborliness, sense of belonging, control, and mutual trust. All of participants agree in the importance of community orientation and community awareness because the Covid-19 pandemic is a global community event which has affected everyone in some way and there have been many negative impacts, including illness and loss of life, psychosocial isolation, loss of schooling, employment and financial hardship. All of these events have significant psychological effects on individuals and communities. Regarding to community orientation and awareness all participants mentioned that the government of Saudi Arabia provide great efforts and succussed in minimizing the impacts and spread of COVID 19 in large scale, these efforts included using face mask, social distancing, providing free tests , and providing comprehensive care for COVID 19 patients.

### **Holistic View**

As mentioned previously the COVID-19 have many effects at all levels including intrapersonal or individual level, interpersonal level, organizational level, community level and public policy level, so majority of participants totally agree in providing holistic approach in dealing with covid 19 patient and consider all treatment aspects because the disease have physiological, social, psychological and economic impacts but they give special consideration in treating medical effects of the patients.

### **Self-Protection and Self-Care**

For self-protection and self-care, all physicians were aware about the importance of protection of their self, colleagues and patients, they applied all personal protective procedures including hand wash and sensitive, social distance, and sensitization is increasing, depends on patient case. For example, we use surgical mask with patient who don't have a respiratory problem and with coworkers, use gloves, and Sensitization of instruments

### **Discussion**

Our deepest interviews and focused group discussion explore insight primary healthcare system changes due to COVID 19 pandemic in the national guard primary care physicians at Western region of Saudi Arabia, these changes involved separating covid and non-covid patients.

Physicians opinions' related to workload, some mentioned that workload has increased because of easy access of telephone consults, while other mentioned that workload in the beginning of covid has decreased but now it's the same as before, other agree that virtual reduce the load but the responsibility increased.

For clinical decision-making during telephone consultation the physicians opinions were different, some mentioned that the clinical decision and depends upon health problem of the patient, weather acute or chronic problem, i.e. for the acute cases no changes, while for chronic cases it depend on the case and when was his/her last follow up, furthermore other physicians illustrated that patients specially new cases should not be treated virtually and clinical and physical examinations should be conducted before making final decision.

The media generally play a vital roles in increasing community awareness related to COVID-19 pandemic, at the ministry of health level all healthcare providers specially physicians have an essential role in providing health education to their patients, all participants totally agree the importance health education and providing comprehensive care or patient centered care, some

participants mentioned that they provide health education for their patients or families, while others support providing patient education but it's too difficult to conduct health education for patient or comprehensive care due to lack of enough time and shortage of staff. Regarding to community orientation and awareness all participants mentioned that the government of Saudi Arabia provide great efforts and succussed in minimizing the impacts and spread of COVID 19 in large scale, these efforts included using face mask, social distancing, providing test free, providing comprehensive care for COVID 19 patients and finally encouraging all people to get vaccine. The COVID-19 have many effects at all levels including intrapersonal or individual level, interpersonal level, organizational level, community level and public policy level, so majority of participants totally agree in providing holistic approach in dealing with covid 19 patient and consider all treatment aspects because the disease have physiological, social, psychological and economic impacts but they give special consideration in treating medical effects of the patients. For self-protection and self-care, all physicians were aware about the importance of protection their self, colleagues and patients, they applied all personal protective procedures including hand wash and sensitive, social distance, and sensitization is increasing , depends on patient case. For example, we use surgical mask with patient who don't have a respiratory problem and with coworkers, use gloves, and Sensitization of instruments.

### **Conclusion**

The use of telehealth technology is a twenty-first century approach that is both patient-centered and protects patients, physicians, as well as others. Telehealth is the delivery of health care services by health care professionals, where distance is a critical factor, through using information and communication technologies (ICT) for the exchange of valid and correct information.

There are various benefits in using technology of telehealth, especially in non-emergency / routine care and in cases where services do not require direct patient-provider interaction, such as providing psychological services. In addition, covering multiple sites with a tele-physician can address some of the challenges of the workforce. Telehealth can become a basic need for the general population, health care providers, and patients with COVID-19, especially when people are in quarantine, enabling patients in real time through contact with health care provider for advice on their health problems. Thus, the aim of this review was to identify and systematically review the role of telehealth services in preventing, diagnosing, treating, and controlling diseases during COVID-19 outbreak.

**Patient and public involvement:** No patients involved.

**Conflicts of interest:** The authors declare no conflict of interest.

**Ethical Consideration:** All ethical issues were considered during the study period and participants were informed about confidentiality and filled informed consent prior starting the study.

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