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NEEDS ASSESSMENT FOR DEVELOPING A DOCTORATE OF CLINICAL PSYCHOLOGY PROGRAM IN SAUDI ARABIA

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ABSTRACT

Title: Needs Assessment for Developing a Doctorate of Clinical Psychology Program in Saudi Arabia Introduction: There are a number of challenges in Saudi Arabia regarding developing higher health standards and particularly psychological services. There are challenges in existing psychological training, but also a significant lack of learning from Western standards in psychological work both academically and clinically. Objectives: This study has two primary aims: (1) to examine the attitude of local practicing physicians (who are working with psychologists) towards the current psychologists' work and towards establishing a Doctorate of Clinical Psychology program; and (2) to explore the needs for such a program to have culturally relevant content and competencies to meet local needs and enhance general professional competencies. Methods and Participants: The sample of participants consisted of 73 (54 male [74%] and, 19 female [26%]) practicing physicians in Saudi Arabia. Participants ranged from 29 to 59 years of age (M = 38.18 years, SD = 6.94 years), with an average of 5.86 years (*SD* = 1.37) of clinical experience. All participants completed the questionnaire used in this study. The main tool (the questionnaire and interview) was developed for this study after reviewing the literature, local needs and policies, and asking input from a small sample of clinicians. Results: Belief in the importance of developing a Doctorate of Clinical Psychology program was strong. It was also found to be significantly, positively correlated with the belief that the psychologists should work as part of a multidisciplinary team in particular with family medicine, neurosurgery, neurology, psychiatry, and pediatric($r = .415$; $p \leq 0.01$). Conclusions: There is a real need to conduct a needs assessment for developing a Doctorate Clinical psychology program in Saudi Arabia to contribute and enhance the healthcare for a good quality of patient, as indicated by the view of local practicing physicians. The study provides high recommendations to develop a curriculum of the global standards in Saudi Arabia which is the need of hour.

1.1 INTRODUCTION

Clinical psychology (CP) is a professional science that combines science, theory, and clinical knowledge with the aims of understanding the nature of mental illness and dysfunctions (e.g., anxiety, stress, disorders) resulting from it and of trying to alleviate and overcome suffering caused by mental illness through examination, diagnosis, and treatment. Clinical psychology is the integration between the theory and clinical practice, which leads to an understanding of the formulation of problems. The framework of clinical psychology is based on the concept of areas of dysfunction that clients experience, with the goal of practice or treatment being to help clients decrease their distress (Plante, 2005).

A clinical psychologist is a non-medical doctor who specializes in the study of the mind and human behavior. Clinical psychologists deal with a wide range of mental and physical health problems including addiction, anxiety, depression, learning difficulties, and relationship issues. The clinical psychologist is typically trained to conduct counseling and research, and may perform diagnosis as well as offering psychotherapy. Clinical psychologists may undertake a clinical assessment to investigate a clients' situation. There are a variety of methods available to a trained clinical psychologist,

including psychometric tests, interviews, and direct observation of behavior. Assessment may lead to advice, counseling, or therapy (Singla, et al., 2014). The aim of psychotherapy or counseling is helping patients who have mental illnesses to fit better in their family and society at large with the goal of the patients leading better lives. In addition, a clinical psychologist may serve his/her academic interests as well by teaching in universities.

There is an observed increase in global demand for clinical psychologists, which may be understood by considering the range of activities performed by individuals trained in this specialization. These tasks include psychotherapy (84%), diagnostic tests (74%), teaching (50%), clinical supervision (62%), research and writing (47%), consultation and administration (52%) (Khan, 2008).

Overall, most the clinical psychology program requirements include:

1. Bachelor's degree from an accredited institution
2. Completion of a supervised clinical experience or one-year internship
3. Passing a written examination

Currently, the Kingdom of Saudi Arabia (KSA) has very few qualified and only two local courses teaching post-graduate clinical psychology with no western accreditation to validate their authenticity and quality. However, such programs could be developed and implemented in various KSA universities.

The present study thus aimed to examine the local attitudes of practicing physicians (family medicine, neurosurgery, neurology, psychiatry, and pediatrics) regarding the need for and development of clinical psychology programs. Specifically, the goal was to determine attitudes towards having clinicians with training and specialization parallel to that of the Western Doctorate in Psychology (Psy.D) model. Information gathered through the current study can inform the process at this critical stage of developing programs. It is hoped that the study will shed some light on the actual needs in Saudi culture and an understanding from those working in the field so as to contribute evidence-based recommendations to the lively, on-going discussion about the need to develop clinical psychology programs in Saudi Arabia.

2.1 LITERATURE REVIEWS

In many developed countries, clinical psychology, an independent science and profession, is the backbone of mental health science. The medical professions of clinical psychology are recognized and important to mental health, governed by a number of international rules, laws, and standards.

The history of the clinical psychology is traced back to times of World War I and II (Sarason, 2002), that had major influences on its growth and directions, wherein the war soldiers seek psychology help along with other health care providers. Since then, the role of clinical psychologyhas been recognized in public health, both as a science and as a profession, in relation with the mental health. The National Institute of Medical Health (NIMH), identifies clinical psychology, psychiatry, nursing, and social work as the four disciplines that are essential for addressing the national mental health needs (Schull 2010). These four disciplines are included in NIMH's applied and training programs, so that there is an assurance of the available pool of mental health service providers.

Although clinical psychology overlaps with other mental health professions, there are instances that separate it from other mental health professions. (Roger & Stone, 2016). For example, people like social workers focus on various case studies over a particular period, but do not have the extensive competent training and research methods required to guide and counsel a patient (Plante, 2011). Clinical psychologist thus is very much related to a person who is providing counseling psychology as both receive similar training. On the contrary although a counseling psychologist focuses on guidance and advice, a clinical psychologist's main concern is the disturbances in the mental health and takes a more experimental and scientific approach to treatment (Roger & Stone, 2016).

As per the United States (US) Bureau of Labor Statistics, jobs for clinical, counseling, and school psychologists are projected to grow by 11% from 2012 to 2022 that would lead to 16,400 new employment opportunities (U.S. Bureau of Labor Statistics, n.d.).However, the ratio of clinical psychologists to citizens varies across the developed world, including 1:19,444 in Canada, 1:40,885 in Australia, 1:80,250 in the US, and 1:86,667 in Japan (Grote & Novitski, 2016). In general, the density of clinical neuropsychologists in the European Union (EU) appears to be higher as compared to the US, however, this may be due to the fact that training standards and regimen for a clinical neuropsychologist are more comprehensive in the US than in the EU (Hannay, 1998; Sperling et al., 2017). Clinical psychology programs must be accredited by institutions holding them to high standards, for instance, programs in the US are credentialed by the American Board of Professional Psychology.

2.2 Clinical psychology programs in the US

In the US, the number of licensed clinical psychologists increased from 20,000 to 63,000 between 1974 and 1990, and has doubled over the last 10 years. An estimated 188,428 psychologists possess licenses in the US in the year 2015 (American Psychological Association, 2015) with approximately 33.9 psychologists are licensed per 100,000 people in the US (APA, 2014).

A bachelor's degree in psychology is where the students start learning the nuisances and fundamentals of

psychology. This further leads to a master's degree in psychology followed by doctorate. During master's the students are supervised and trained under a person holding doctoral degree. Further, doctoral programs require applicants to have a master's degree in psychology. Others enter doctoral programs with only a bachelor's degree and work directly on a doctorate. In most states, the independent practice of psychology requires a doctoral degree and a state license.

In addition to this for people willing to practice as a psychologist in clinical, counseling or school psychology, a one-year internship as part of the doctoral study in the area of practice is required. A doctorate in psychology in most of the states requires five to seven years for completion while, some institutions require their students to complete their doctoral studies within 10 years of admission to the institution. Similar to Europe, the students are required to undergo a comprehensive exam, prepare and defend a dissertation (APA, 2014). Most importantly, the universities and schools providing the various programs in psychology are assessed by the Examination for Professional Practice in Psychology (EPPP) scores, which is a measure of clinical training, and used as an index of program quality (Social Psychology Network, 1996-2019).

2.3 Clinical psychology in Canada

The requirements for being registered, licensed, certified or chartered as a psychologist providing psychological services varies from province-to-province in Canada. However, obtaining a degree in clinical psychology in quite similar to that in the US, although, Canadian Psychology Association considers completing the doctorate degree as the best opportunity for the getting number of employment opportunities. Additionally, employment opportunities also exists for the students with master's degree (e.g., M.Sc., M.A., M.Ed) wherein individuals can become chartered psychologists or college professors with a master's degree in some provinces in Canada like Alberta, Saskatchewan.

For obtaining a master' students are required to take courses in research methods and in statistics, should complete a major project that includes performing and writing a research thesis or a major literature review/critique followed by defending the project in front of a committee, similar to the courses in the USA or in Europe. A master's degree program provides the students a number of opportunities of training in various applied settings like schools, industry, mental health institutions and government hospitals. On successful completion of their degree program the students can work as child welfare workers, school counsellors or administrators, testing and assessment psychologists, or therapists. After completing their master's degree students are eligible for entry into doctoral programs of study.

Ph.D. in psychology takes approximately five to eight years post receiving a bachelor's degree. While it takes additional four to six years for a doctoral (Ph.D., Psy.D.) degree after completing the master's degree that usually takes two to three years to complete. For obtaining the Ph.D. students are required to do research in clinical or experimental psychology, or a Psy.D. As part of the curriculum the students need to perform original research, and write and defend their dissertation. Also, on completing the Ph.D., students who wish to practice psychology by providing psychological services to clients, they need to perform at least one additional year of internship while receiving supervision suggesting that a Ph.D. program in clinical psychology requires research and practitioner expertise (Canadian Psychologist Association, 1939-2019).

2.4 Clinical Psychology Program in Europe/UK

In a survey conducted in the EU, the estimated number of clinical neuropsychologists among all 30 participating countries was found to be 13,367, which work out to be one clinical psychology practitioner per 53,494 people (Hokkanen, et al., 2019). Presently, there is one practitioner of clinical psychology per 53,494 inhabitants in the European region, which is quite low, but is higher as compared to the US region. However, this number is not based on official national statistics and could vary as per the definitions of a clinical neuropsychologist. In the European psychiatric certificate system, to become a clinical psychologist requires first completing academic education in psychology for five or more years, followed by a one-year practical training (practicum). The standards for evaluating the academic education and professional training of psychologists across the European countries are laid by the European Federation of Psychologists' Associations (EFPA). Although a master's degree is the most common academic degree, higher training in clinical psychology is required in several countries. For example, in the UK, clinical psychologists undertake a Doctor of Clinical Psychology (D. Clin. Psych.) through which the practitioner is required to meet highly competitive standards within structured training (Cheshire & Pilgrim, 2004). Specialist education in clinical neuropsychology is typically understood as training after the completion of a master's degree. In the UK and Ireland, a doctoral degree (which can be completed only after a bachelor's degree followed by a three-year course of graduate-level study in clinical psychology) is the prerequisite. In Norway, the basic psychology education also takes six years, at the end of which one may claim the title of Psychologist and become authorized to practice within the health care system and to enter specialist education. In addition, research experience has been considered an integral part of specialist education in many programs, both in Europe and US (Hannay, 1998; Hessen et al., 2018).

2.5 Clinical psychology in other countries

The clinical psychology model as followed in the US is currently being embedded or is being practiced in many

countries of the eastern world including the Malay Archipelago region that includes Australia and South-East Asia, covering Singapore, Malaysia, Indonesia and Philippines without being taken into consideration of the Western norms or behaviours (Geerlings, Thompson & Lundberg, 2014).

In Australia, clinical psychology developed as an academic subject called 'mental philosophy' inthe 1890s by the British, today is being offered at 30 universities at the post graduate level. The first professional clinical psychology doctorate program was established in the 1990s. The course curriculum is standardised in duration, methods and the quality is checked by the Australian Psychology Accreditation Council. Similar to the US the programmes contain coursework, research andinternship that suggest as scientist-practitioner model (Geerlings, Thompson & Lundberg, 2014).

Clinical psychology in Indonesia was first set-up by the Dutch during the colonial era in 1941, wherein the Dutch set-up the clinics and taught courses to teachers and medical students. The first doctorate program in Indonesia was established in the year 1957.Currently, there are approximately 47 universities that teach clinical psychology at various levels, and the higher education is accredited by the Indonesian Ministry of Education and Culture. However, there is a shortage of clinical psychologists that could be due to strict selection processes, limited available training places, demanding and costly study, and cultural norms (Geerlings, Thompson & Lundberg, 2014).

Despite being relying on western psychology initially, clinical psychology in Malaysia is different from that of Indonesia. The psychology courses in Malaysia were first started in the year 1974, preceded and facilitated by a conference on psychology and counseling organized by an American scholar Jerome Sattler. Post its separation from Singapore in 1968, psychology was adopted as an independent program. Currently psychology is being taught at 16 universities in Malaysia, 12 offering undergraduate courses and two offering postgraduate curriculum. There has been an increase in the number of clinical psychologist in Malaysia post the establishment of the Malaysian Psychological Association (called PSIMA) in 1988. In 2009, Malaysian Society of Clinical Psychology (MSCP) was established as a registration and regulatory body for clinical psychologists, wherein majority of members are locally trained and together with the National University of Malaysia and HELP University, the MSCP is currently working towards registration of clinical psychologists and accreditation of training programs (Geerlings, Thompson & Lundberg, 2014).

With a view to establish specialists in mental health care, courses in clinical psychology in India were started by the government of India in the year 1955 as a diploma course in medical psychology. Presently, the courses are available as master of philosophy (MPhil) in medical and social psychology. In addition, there is a MPhil in clinical psychology which is a 2-year course and the admission is on the basis of an entrance examination consisting of a written test, interview and practice, and a doctorate of psychology (PhD)which is a four year course and requires an MA or MSc degree in psychology (Virudhagirinathan & Karunanidhi, 2014).

Although psychology in China grew as with European psychology, in the 19th century, currently China has a range of unique cultural problems that requires indigenous approaches. Psychology developed as a scientific discipline post the establishment of the first psychological laboratory in Beijing (Peking) University in 1917. Chinese Psychological Society (CPS) was accepted by the International Union of Psychological Science in 1980, and issued its first ethic codes for psychological assessment in 1993. The Chinese Ergonomics Society was established in 1989. The first Department of Psychology was established at South-East University in 1920. Since then, psychology has made steady progress. By 2007, there were about 187 department of psychology in various universities, colleges across China, catering to four-year bachelor, two- to four-year master's, and doctorate programs. Graduates with psychological training are employed in schools, colleges, universities, hospitals and government departments, which makes psychology as an increasingly attractive discipline (The British Psychological Society, 2007).

In Thailand, the first course offering a master's degree in psychology was established in the year 1955, while courses at undergraduate level were offered from 1966. The psychological association of Thailand became active in the 1990s and since then they have been promoting publications in the field (de Silva, 2002).

In Philippines, a separate department of clinical psychology was established as early as 1926, and currently there are 139 universities and colleges offering undergraduate courses and six universities offering doctorate programs in psychology (de Silva, 2002).

2.6 Clinical psychology in Saudi Arabia

Saudi Arabia, a part of the Middle East North Africa (MENA) region, is a vast country with about 33 million inhabitants (21 million Saudis) and has experienced tremendous changes and progress over the last 50 years. In 1983, there was only one mental health hospital, Shehar Mental Hospital in Taif, serving the entire population of six million at that time. The World Health Organization (WHO) encouraged the linking of mental care with primary health centers (PHC) in 2000, wherein the PHC centers used to refer patients with mental problems to psychiatry clinics for evaluation. By 2006, KSA had a national mental health program. By the year 2000, 18 more psychiatric hospitals were built and specialized hospitals and treatment programs for substance (alcohol and drug) abuse were also

established, including Jeddah's Al-Amal Hospital (200 beds), Riyadh's Al-Amal Hospital (428 beds), and Dammam's Al-Amal Hospital (300 beds). In 2006, there were a total of 2,886 beds with an occupancy rate of 100% or higher throughout most of the year. The ratio was 1.25 psychiatric beds per 10,000 people, which is slightly lower than the world average (1.6), although quite a bit lower than in North and South America (3.3) or Europe (8.7). The number of qualified psychiatrists has also increased in KSA from 10-30 in 1983 to 205 in 2006 (0.9 psychiatrists per 100,000 people). Psychology as a course of university study in KSA also started more than 40 years ago. However, clinical psychology is limited in its progress. Other health services have advanced, incorporating information and advances from Western technologies as many local Saudis physicians trained in medicine abroad, yet clinical psychology training and care lag behind (Koenig, Al Zaben, Sehlo, Khalifa & Al Ahwal, 2013).

Although, the number of psychologists had increased to 0.8 per 100,000, which is less than in the Americas (2.7) or Europe (3.0), but double the world average (0.4), most psychologists do not have post-graduate degrees. The number of Saudi clinical psychologists licensed by the Saudi Commission for Health Specialties does not exceed 10, according to available statistics (Koenig, Al Zaben, Sehlo, Khalifa, Al Ahwal, Qureshi, & Al-Habeeb, 2014).

There is now a post-graduate clinical psychology program at the University of Tabuk, a masters in counseling at King Khaled University in Abha, and masters and Ph.D. programs in counseling at King Saud University in Riyadh.

However, the health services and the nation in general are in great need for such discipline at the highest level that would provide more advanced training in clinical psychology to meet the significant and wide local needs in KSA. Any clinical psychology program with poor content or limited cultural competency will be a waste of resources and delay in professional progress. Although health services have been improved over the last 40 years and there are many quality services in regions of KSA with many staff and policies meeting Western standards in medicine, in clinical psychology significant limitations remain and many practical challenges are yet to be resolved. For example, setting up a course curriculum in psychology poses an enormous challenge of its own way. Although the course curriculum could be taken from an established university like from the US or from the EU and translated from English, there are cultural and regional differences that are difficult to adapt. For instance, it is important that examples used relate to the students' (and clients') life experiences and perspectives. In any European country or in the US, examples of social situations discussed may include going to the "cinema" on a date or a "meeting in a bar", which would be out of the question in the context of KSA, where cinemas are rare, alcohol is prohibited, and pre-marital encounters between men and women are rare. Not only will students be unable to imagine going on a date to the cinema, but the context will be irrelevant to their future clinical work with patients who also will not have their experiences. Furthermore, general theories like Darwin's theory of evolution could not be mentioned due to cultural and religious sensitivities (Erasmus magzine, n.d.).

To meet the country-wide need for qualified, highly trained, and culturally competent clinical psychologists, post-graduate programs should be developed within KSA. Therefore, it is natural to demand that the faculties of applied medical sciences in Saudi universities open a department of clinical psychology in their colleges for the existence of materials that need this specialization such as anatomy, physiology, chemistry, biology, etc., as well as possibly teaching them in English to facilitate access to additional training in the West.

2.7 Physicians' perspectives on the need for clinical psychology

As discussed above, there is no clinical psychology Ph.D. or Psy.D. program in Saudi Arabia. However, there is a critical need to establish such a program within the country of Saudi Arabia; mental illness and psychological experiences can only be fully understood within a culture, and so importing clinicians trained in the West or even Western curriculum is not appropriate. In addition, there are some challenges and obstacles that psychologists face in Saudi Arabia. For example, there is a debate in the Saudi Commission for Health Specialties (SCHS) about the criteria of licensure of the clinical psychologists in Saudi Arabia. Policy makers and planners in KSA national health services need to be aware of the need for clinical psychology training and treatment, and informed by scientific data and knowledge. The goal of the current study is to organize that information for universities and policy makers so that they can make educated, informed decisions regarding the future of clinical psychology training in Saudi Arabia.

METHODOLOGY

3.1 Methods

The study reported here utilized multiple methods to collect data in order to collect both quantitative data and allow participants the opportunity to share their own thoughts and ideas. Participants completed a questionnaire including information about demographics (e.g., their own age and specialty), quantitative ratings pertinent to clinical psychology care, and open-ended, qualitative responses. The complete questionnaire is presented in translated (English) form in Appendix A.

3.2 Sample

The participants were a convenience sample based on their availability. Participants were recruited through voluntary invitation upon consent. The study and the

questionnaires were approved by the IRB (Research Ethics Committee at Taif University).

3.3 Measures

The survey was designed to receive the responses in terms of both quantitative and qualitative. The first part of the data collection was quantitative. The second part of the questionnaire included various questions that were presented with qualitative results. The responses were bucketed under respondents from family medicine, neurology, neurosurgery, psychiatry and pediatric medicine. Throughout the study, the data were collected from 04/02/2018 to 06/09/2018.

3.4 Statistics

Descriptive statistics were used to present the distribution of the respondents and various responses to the qualitative questions. Further, to check the reliability among the various responses of the quantitative questions Cronbach's alpha was used as a measure of internal consistency.

RESULTS AND DISCUSSION

4.1 Sample characteristics

A total of 73 medical practitioners (respondents) participated in the survey, out of which majority (74%) were men. Additionally, the respondents were distributed across five domains of specialization: family medicine, neurology, neurosurgery, psychiatry, and pediatric medicine (see **Table 1**). The respondents, across all specializations, had an overall clinical experience of 5.86 years, and all had three years of experience (see Table 2). Ten participants (7 neurologist, 3 psychiatrists) reported having been trained in Canada, and four (all pediatricians) reported having been trained in the US. The remaining 59 respondents reported that they were trained in KSA. The majority (67, or 91.78%) reported working for government institutions, and the remaining six respondents (4 pediatricians, 2 psychiatrists) reported being in private practice.

Table 1: Distribution of specialty and gender in the sample.

	Gender		Total
Specialty	**Male (%)**	**Female (%)**	**n (%)**
Family Medicine	15 (20.5%)	1 (1.4%)	16 (21.9%)
Neurology	9 (12.3%)	7 (9.5%)	16 (21.9%)
Neurosurgery	11 (15.0%)	0 (0.0%)	11 (15.0%)
Psychiatry	12 (16.4%)	3 (4.1%)	15 (20.5%)
Pediatric Medicine	7 (9.5%)	8 (11.0%)	15 (20.5%)
Total	**54 (74.0%)**	**19 (26.0%)**	**73 (100.0%)**

Table 2 Distribution of participants/specialty by years of experience.

	Years of experience						
	3	**4**	**5**	**6**	**7**		
Specialty	**Number of participants**					**Number of years experience**	**Total n**
Family Medicine	0	8	2	1	5	5.19	**16**
Neurology	0	2	0	4	10	6.38	**16**
Neurosurgery	0	6	0	0	5	5.36	**11**
Psychiatry	1	3	0	1	10	6.07	**15**
Pediatric	0	2	2	2	9	6.20	**15**
Total	**1**	**21**	**4**	**8**	**39**	5.86	**73**

Below, the results of the remaining portions of the questionnaire are presented. First the quantitative results are presented, and then the qualitative results are presented. The questionnaire itself, as shown in Appendix A, does not divide the items in this way.

4.2 Part 1: Quantitative results

4.2.1 Contact and collaboration with psychologists

Particularly given how uncommon licensed clinical psychologists are in KSA, one necessary consideration when surveying physicians about their perspectives on clinical psychology is how much experience the physicians have with clinical psychology and psychologists in general. To better understand how much physicians have contact with and collaborate with psychologists, a series of Yes/No questions were asked. These items and responses are presented in **Table 3**, below. Answers indicated that the majority of respondents refer patients for psychological services (item 6) and believe there is a role for clinical psychology in patient care (item 9), but the respondents may not have extensive experience with psychologists since only 41 of 73 respondents (56.16%) were aware that there are specialties within psychology. Nonetheless,

the vast majority (66, or 90.41%) went so far as to endorse a model of care in which clinical psychologists is more important, such as in Western models of care (item 11).

Table 3: Experience working with psychologists.

Item text	Yes (%)	No (%)
6. Do you refer to psychological services?	65 (89.04%)	8 (10.96%)
7. Do you refer for psychological assessment?	61 (83.56%)	12 (16.44%)
8. Do you refer for psychotherapy?	54 (73.97%)	19 (26.03%)
9. Do you think there is a role for clinical psychologist for family support or work?	70 (95.89%)	3 (4.11%)
10. Are you aware of different types of specialty in psychology?	41 (56.16%)	32 (43.84%)
11. Do you like a model of services where clinical psychologist input is higher like the Western standard (services in the West?)	66 (90.41%)	7 (9.59%)

To assess simple frequency with which respondents work with psychologists, item 12 asked, "How often do you work closely with psychologists (Daily; Weekly; Monthly)?" All 73 respondents answered, with 16 indicating daily, 9 weekly, and 48 monthly works with psychologists.

In order to determine how satisfied respondents are with the results when they refer patients to psychologists, a couple quantitative questions were asked. First, item 15 asked, "How do you evaluate the outcome of your referral?" Participants were able to respond with answers of "poor", "good", or "very good". Answered varied, with 33 (45.21%) indicating "poor", 27 (36.99%) "good", and only 13 (17.81%) "very good".

4.2.2 The value of the role of a clinical psychologist

Participants were asked in items 19 to 24 of the questionnaire to rate various aspects of the importance of the clinical psychologist's role as a part of the care team, in diagnoses, and in treatment. The mean rates for each of these items are presented below in Table 4. Each item was rated using a Likert scale that ranged from 1 (NOT important at all) to 9 (Very important).

The majority of respondents gave results indicating that they view the clinical psychologist's role as important, from a mean rating of 7.42 for diagnosing patients (item 19) to 8.30 with regards to importance for patients' quality of life (item 21). Participants also had particularly strong agreement on item 21, with answers ranging only from the middle the top of the scale (5 to 9) and a small standard deviation.

Table 4: The value of clinical psychologist's role.

Item text	Mean(*SD*)	range
19. How important is a clinical psychologist for the diagnoses?	7.42 (*1.73*)	1-9
20. How important is a clinical psychologist for the treatment?	7.71 (*1.29*)	4-9
21. How important is the role of the clinical psychologist for quality of life of patients and family?	8.30 (*0.94)*	5-9
22. How important is the role of clinical psychologist for the cost effectiveness of the services?	7.89 (*1.36*)	3-9
23. How important are the clinical psychology services for the efficacy of the health services in general?	7.85 (*1.10*)	5-9

These results were also captured in participants' responses to a single item, item 24, which asked, "Do you recommend to have clinical psychologist in the team of your services?" Participants responded to this item using a nine-point Likert scale with the anchors (1) "Would definitely NOT recommend" and (9) "Would definitely recommend". The mean participant response was 8.71, with a standard deviation of .59 and a range of 6 to 9.

Despite frequent referrals and relatively frequent collaboration with psychologists, the physician participants' overall satisfaction with psychological services was low. Item 1 of the questionnaire asked participants to indicate their satisfaction with current psychological services using a five-point scale ranging from (1) "Very dissatisfied" to (5) "Very satisfied". Participant responses were distributed with 15 "Very dissatisfied", 29 "Dissatisfied", 14 "Neither", 15 "Satisfied", and 0 "Very satisfied". Taken on average, participants were below neither satisfied nor unsatisfied (mean score = 2.40).

Item 2 asked participants to indicate agreement with the following statement, "Overall, the quality of the services provided by the clinical psychologist has been high." Participants responded using a Likert scale ranging from (1) "Strongly disagree" to (5) "Strongly agree", and their scores averaged 2.47. Responses were such that 14 participants indicated "Strongly disagree", 26 "Disagree", 20 "Neither" or neutral, 11 "Agree", and 2 "Strongly agree".

Participants were in favor of the development of a clinical psychologist doctoral program in KSA, as indicated by responses to item 25, which translated to, "Overall, do you recommend development of a Doctoral clinical psychology program (D. Clin. Psychology) in

Saudi Arabia?" Again, participants were given a nine-item Likert scale to indicate their responses, and the scale ranged from (1) "Would definitely NOT recommend" to (9) "Would definitely recommend". The mean response was 8.63 (*SD* = 0.94; range = 5-9).

The answers of the various questions asked were further validated by the person correlations. For example, there was a high correlation between the overall high quality of the services provided by the clinical psychologist and the satisfaction of the current psychological services (r = 0.336); recommendation to develop a Doctorate Clinical psychology program in Saudi Arabia and whether the respondents would prefer a model where clinical psychologist input is higher like the Western standard correlation coefficient r= -0.621); and lastly the association of clinical psychologists in multi-disciplinary team and whether the respondents work closely with psychologists (r = 0.415; see **Table 5**).

4.3 Part 2: Qualitative results

The second form of data collected through this questionnaire was qualitative, including participants' responses to a variety of questions that were presented together with the quantitative items. Below, responses are divided by physician specialty to allow for comparison across specialty of practicing physician.

Table 5: Correlations between the various questions asked with the respondents.

		2.Overall, the quality of the services provided by the clinical psychologist has been high	**25. Overall, do you recommend to develop a Doctorate Clinical psychology program (D. Clin. Psychology) in Saudi Arabia?**	**Clinical psychologists in multi-disciplinary team (MDT)**	**The value of clinical psychologist role**
1.Your satisfaction of the current psychological services		**.336****	.068	-.036-	-.110
9.Do you think there is a role for clinical psychologist for family support or work?		-.026-	.008	.178	-.011
11.Do you like a model of services where clinical psychologist input is higher like the Western standard (services in the West?)		.166	**-.621****	-.148-	.047
12.Do you work closely (daily/weekly/monthly) with psychologists		**.270***	.086	**.415****	-.065
15.How do you evaluate the outcome of your referral?		.076	.071	.007	.029

N = 73. **. Correlation is significant at $p \leq 0.01$ (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 6: Problems with psychological services.

Specialty	**Item 3.** What is or was the problem of the services provided by the clinical psychologist?
Family medicine	• Psychotherapy • Most of them seems to be not qualify • Under service • The problem with the awareness of people about psychological services and their false bad perception • Not utilized properly • There is no psychologist in my area • They just drug the patient without psychological treat. So once patient stops drugs, he is back to same problem or lifelong medicine. Psychologists I saw are not offering the service as should be
Neurology	• Bad communication • Not up to the standard • Short clinic time • Not available • Long waiting time • We don't have access to the service at our hospital • Limited resources, over worked, high waiting time
Neurosurgery	• Unavailability of psychologist • Poor follow up
Psychiatry	• Paper work services. • The service needs close appointment, more focus on personalize the treatment for the patients, and on top of that there is a strong need for more training and increase the number of Psychologists • Low trust due low qualification • Inadequate training and shortage no. of clinical psychologists • Unsatisfactory • Incompetency • Poor training • Few qualified • Locally trained need more clinical training. • Only few numbers qualified • Not well trained/ theoretically oriented
Pediatric medicine	• Number of clinics • Small no of clinics clinicians • Shortage in the number of the clinic and psychologist. no available psychological clinic for the employee • Limited resources, over worked, high waiting time • Not always available • Lack of basic intention guide line • Most clinical psychologist are not medical base • Limited resources, over worked, high waiting time

Table 7: Ideas of how to improve psychological services.

Specialty	**Item 4.** What would you suggest to improve or solve or help the situation?
Family medicine	• Proper team of serious psychologists to social workers with not over crowded clinics with remote appointments. • Assessment for the clinic work and patients if they benefit or not. If not why? • Training by expert • Bring a qualified psychologist to help the patients and community • Education, and systematic actions • Increase awareness about psychological problems and availability of psychologist services • More clinic and advance training • Awareness and show the services • More number with quality to accommodate the customers • Meeting with psychologist before and after referral
Neurology	• Promote the specialty • Manpower • Give the patient more time to speak • Create local training programs • Disseminate the service in referral hospital
Neurosurgery	• Better follow up • Increase the education to the psychologists and have a strong supervision • Increase number of psychologists
Psychiatry	• More clinical training/ courses • Clinical training • Establish a good training program serve the need • More qualifications and training • Improve the clinical training in English only • Improve training • Training, facilities • Boosting toward scholarships and initiating local training programs with high standards • Increase the number of the well qualified psychologists • More clinical approach. • Encourage the group therapy which offer more contact with the therapist • Increase Number of graduation student
Pediatric medicine	• More manpower, more specialized clinicians, child vs. adult, school vs. clinic based, testing and so on • They should be a branch from medical application science • More staff and place • Increased the doctors • Developing a Doctorate Clinical psychology program • Increase staff and implement training programs to improve their skills • Better qualifications • Increase the number of psychologists • Specialized psychological building or center • More manpower, more Specialized clinicians, child vs. adult, school vs. clinic based, testing and so on

Table 8: When do physicians refer to psychologists in KSA.

Specialty	**Item 5.** When do you refer to psychologist?
Family medicine	• When patient needs help other than medicine • Mostly for cognitive behavioral therapy • Mild cases of depression, anxiety disorders • If there is a primary psychiatrist, and good follow up, and when it is available in primary healthcare • In cases of child abuse or neglect, suspected cases of autism and ADHD. Cases drug or sexual abuse, patients whom under stresses affecting their lifestyle • Major depression usually • Mild case anxiety. Depression. Family problem • Psychotherapy for a psychiatric patient and sometimes for IQ or personality assessment
Neurology	• Non-organic problems • Depression anxiety • For assessment of cognitive function and management of psychogenic non-epileptic or psychogenic movement or conversion of factitious • Psychogenic neurological disorders • If any suspicion of functional illness, or problems
Neurosurgery	• Psychotic and depressed patients • When I see a patient problems affecting their daily life or will affect depends on the degree of suffering based on assessment and sessions • For awake craniotomy or before surgery assessment
Psychiatry	• IQ assessment/ behavioral problems/ depression/ anxiety/ OCD • For behavioral intervention, cognitive behavioral therapy CBT • Non-pharmacological interventions, testing • When needed for assessment • When indicated • Assessment, psychotherapy • listed in NICE guidelines for psychotherapy support, severe depression, OCD, any disorder and any patient with high admission rate • If the patient fit for therapy • Personality assessment, IQ, Suicidal risk • Almost in all patients with psychiatric illnesses, mainly depression and anxiety disorders • Assessment and psychotherapy treatment
Pediatric medicine	• IQ Testing, CBT, • When it is needed • Abnormal behavior • Family conflict. Some mental disorders • Learning and intellectual disabilities and IQ assessment • Behavioral changes or IQ assessment • All pre-surgical, all behavioral problems and intellectual disability with delayed development. • As needed • IQ Testing, CBT,

Table 9: Barriers to psychological referral.

Specialty	**Item 13.** What prevents you from referral for clinical psychologist?
Family medicine	• If the service is not available or will take long time • The role and effectiveness is not clear and there is no policy • Cultural respect • Un awareness exactly cases need to be referred • Unavailable • Not available • Patient refused

Neurology	• Negative feedback • Availability • Lack of experience with them • Not available • Lack of qualified personnel and avoid overwhelming existed one • We don't have access to the service at our hospital • Lack of experience with them
Neurosurgery	• No problems at all • Difficult to contact • Not qualified and not serious in offering the services
Psychiatry	• Patient refusal • Patient request • Low qualification and number of psychologists • Severe illness, lake of well-trained psychologist • No expected improvement • Incompetence • Poor training • Lack of feedback and respond • Long waiting list
Pediatric medicine	• Availability of indications • Unavailability • No availability • Not availability (theoretically) • Clinical judgment • Not availability (theoretically)

Table 10: Facilitators of psychological referrals.

Specialty	**Item 14.** What make it easy for referral?
Family medicine	• Personal relation to psychologist l, knowing he likes certain referrals • Policy and procedure • High educated people • Available in our hospital • Availability, and eager to work • Not easy • Not easy enough for me
Neurology	• Better communication • Access • Better communication. • Non availability of the services • Knowledge of their work • Availability in all health care center • More psychologist around • Presence of the service in the facility • Availability of the service and rapid response • Knowledge of their work
Neurosurgery	• Always there is good rationale for them to assess • Enough number of qualified serious psychologist with proper system of referral
Psychiatry	• Easy process • Presence of psychology clinic in the facility • To be in same TEAM with collaboration • Mild illness, well-trained clinical psychologist • Improving outcome • When symptoms of psychological problem are clear • Clear results • If their performance improved

	• Communication • Good communication with us and clear feedback • Having more well trained clinical psychologist
Pediatric medicine	• The abnormality of behavior • Understanding the work of psychologists and how my patients will benefit from them • A form that you do with a check list of things that you provide and might help • Availability • Electronic system, team work, open channels of communication • Clear protocol and policy • Electronic • Electronic system, team work, open channels of communications

Table 11: What is needed from a referral.

Specialty	**Item 16.** What do you need from referral?
Family medicine	• Patient improvement • Positive & negative issues • Feedback • Psychotherapy and counseling, or to psychiatrist to diagnosis • Clear system and access • Direct Contact with the hospital • Feedback
Neurology	• Give the input and benefit • Continuing family support • Personality assessment, IQ, Suicidal risk, CBT • Feedback and clinical input • Care of patients • Feedback and discussion • Assessment. Or diagnosis. • Proper Assessment & management • Clarify our suspicion and if need psychotherapy • Care of patients
Neurosurgery	• Presurgery assessment • Assessment and management • The patient to get what he needs from a proper service
Psychiatry	• Psychotherapy, assessment • As part of management plan • Treatment psychotherapy • NICE guidelines • Psychotherapy • Need a follow up • Collaborative intervention • Work professionally • Team work • Either assessment or therapy • Help our clients • Psychometric assessment/ therapy
Pediatric medicine	• Assessment and plan • Patient Support. Answering my clinical Qs • Psychological support • Solutions • Precise answer, clear recommendations • Support patients • Assessment; IQ, ADHD, ASD, • Precise answer, clear recommendations

Table 12: KSA physicians' expectations of psychological referrals.

Specialty	**Item 17.** What is your expectation of referral to clinical psychologist?
Family medicine	• Patient improvement • Improve mid cases augment difficult case • Guide to manage patient • To improve psychological assessment and diagnosis • To be assessed and managed or referred to psychiatrist • Assessment and improvement of the patient
Neurology	• Better outcome • Help the family • Better understanding of patients. • Clinical input • Disease improvement • Proper assessment and guidance • Proper assessment & management • Find a solution that can help our diagnosis or management • Find a solution that can help our diagnosis or management • Disease improvement
Neurosurgery	• They always answer the referral for me • Assessment and management • A better life style for the patient with clearer mind
Psychiatry	• Psychotherapy and assessment • To work on intra-psychological and interpersonal conflict, cognition errors. • Patients improve • Severe illness, poor impulse control, BPD • Having a patient who can live his/her life normally • Assessment then to suggest and apply psychological intervention • Mentioned above • Patient get the appropriate intervention • Basic improvement and good follow up • Improvement of the patient
Pediatric medicine	• Diagnosis and treatment • Patient Support. Answering my clinical Qs • Psychological support • Solving the problems • Help in diagnosis and prognosis • Severity of the problem • Help in diagnosis and prognosis

Table 13: KSA physicians' preference for clinical psychologist qualifications.

Specialty	**Item 18.** What do you think the qualification of clinical psychologist must be?
Family medicine	• Clinical training with supervision for the service he provides • Bachelor • Master degree • PhD
Neurology	• Master or board • PhD • Master or PhD • Master clinical psychology • Clinically trained • We need all qualifications at this stage
Neurosurgery	• Evidence based and clinical experience

Psychiatry	• Passing internship program • Doctorate clinical psychologist. • Decorate with a good experience in developed center • Patients exposure and strong theory part within postgraduate program. • Masters with at least 2 years clinical training under direct supervision • Master and above • Self-trust, hard work on cases, discuss the cases with other experts within the field besides high qualification (e.g. Master or Psy.D.) • Clinical Fellow degree • PhD • PhD or equivalent • Minimum of master • Master or PhD
Pediatric medicine	• High degree (Master and above) • At least PhD • Masters and PhD also continues updating of their knowledge • Minimum master • At least master degree • PhD • Masters and PhD also continues updating of their knowledge

Table 14: Distribution of responses about the qualification.

	Total
Qualification	**n (%)**
Psy.D.	32 (43.8%)
PhD	21 (28.8%)
Master	10 (13.7%)
Clinical training with supervision	9 (12.3%)
Bachelor	1 (1.4%)
Total	**73 (100.0%)**

4.4 DISCUSSION

The present study was conducted to examine the perception of practicing physicians in Kingdom of Saudi Arabia and thus gather an understanding about the need of professional courses in clinical psychology particularly a doctorate. Through our work, we wanted the heath policy makers to be aware of the growing importance of clinical psychologists, the role they play in improving the quality of life of the patients by understanding their problems and concerns and their importance in treating various mental and physical health problems.

Our work was conducted in the form of a questionnaire survey asking comprehensive quantitative and qualitative questions from the medical practitioners to obtain evidence-based recommendations.

As observed from the survey response, majority of the respondents were men, which is reflective of the gender distribution of the work force in Saudi Arabia, where in women constitutes about 20-25% of the total labor force (Babay, 2004). Nonetheless, the respondents in the survey were across all specializations including the physicians from family medicine, neurology, neurosurgery, psychiatry and pediatric medicine, indicated the perceptions of the medical community at large. Furthermore, the mean experience of the respondents was 5.86 years that talks about the experience and expertise of the respondents in their respective fields, which was indeed required to know the needs of clinical psychologist in the health services in Saudi Arabia. Additionally, responses from the practicing physicians in this survey further validate the general perception regarding the role of a psychologist in the country based on their clinical experience. As observed from the responses from the survey, the respondents highly appreciated the psychologists' role and viewed them as integral part of the health care services. Additionally, the study also examined the importance of specific role of a psychologist in delivering mental health services. The survey respondents indicated that they indeed refer their patients to a psychologist if they find that their patient is having some neurological disorder or may need a cognitive behavioral therapy, and thus need a professional help apart from the medicines. Majority of the respondents in the survey suggested that they rated the importance of diagnosis by a clinical psychologist as very high and many of them rated the treatment by a clinical

psychologist as of particular importance. On the contrary, the respondents also indicated that if they learnt that the clinical psychologist is inadequately trained or if the patient is apprehensive to attend such sessions, they prefer not to take the services of clinical psychologists.

One of the new concepts to evaluate the efficacy of a treatment is by linking it with the impact the treatment is making on the individual's the quality of life (QoL). A good quality of life refers to the degree of an individual's health in general, and how comfortable an individual is capable of in enjoying life's various events (Castelnuovo, 2017). A clinical psychologist has this specific role of improving QoL by coaching, mentoring and motivating the patients to lead a happy life. In line with this, the respondents in the study also viewed the needs of a clinical psychologist as highly relevant for improving patients' QoL with majority of the respondents rating the importance of a clinical psychologist as very important in improving QoL of the patients. In addition, the practicing physicians' in Saudi Arabia were of the opinion that would prefer a model wherein the input of the clinical psychologist is somewhat higher in treating patients, which is suggestive of the fact how high the physicians rate the services of a clinical psychologist in the disease management.

There is evidence supporting that clinical psychology in addition to primary medical care could be pivotal in improving the cost of the health care system, overall (van Mens, Lokkerbol, Janssen, van Orden, Kloos & Tiemens, 2018). This is because evidence-based psychological therapies have played a significant role in the treatment of patient with many chronic illnesses including chronic pain management and various mental disorders, positively improving patients' QoL. The responses as observed in the present survey also echoed the similar perception, wherein the respondents were of the opinion that a clinical psychologist has an effective role in reducing cost in health services delivery.

Although the physicians in the Saudi Arabia valued the services of a clinical psychologist, majority of them were not satisfied with the services of the existing clinical psychologist. While referring to a clinical psychologist the physicians expected that a clinical psychologist should guide to manage patient leading to better understanding of patients and thus better prognosis. However, many of the respondents suggested that the existing psychologists are marred by a number of factors that is limiting their optimal utilization. As per the respondents many of the psychologist do not seems to qualify for the role they are working. Some of them are either less qualified or are poorly trained, incompetent and thus are not able to make a proper diagnosis. Some of the respondents also suggested that the clinical psychologists are clearly less in numbers or not available most of the time and thus their services could be taken as and when required.

This clearly indicates the gap in what is expected in the services and what is currently being delivered. This is primarily one of the reasons that majority of the responding medical practitioners were of the opinion that a doctorate program in clinical psychology is required so that this large gap between the expectation and the reality could be narrowed down. In addition to this, the respondents suggested that a proper team of serious psychologist should be set up, which should not be over-crowed, even at the remote appointments. These teams of psychologists should be given training by experts and the awareness about the psychological problems should be increased so that the psychologist services could be taken as and when required. Clinical training along with the supervision during the patient diagnosis and treatment could really make a huge impact in patient wellness.

The strength of the study is that it forms a nice base for need assessments in clinical psychology program and put forward a solid base for conducting this work. The study, its methods and questionnaires are nicely conceptualized, organized, and well written. The weakness of the thesis may be sampling methods for data collection or sampling strategies. A complete description of institutions which were surveyed for data collection would provide more robust results. The relevance of the survey results in context with the role of clinical psychologists would play an important role in data presentations. The study provides high recommendations to develop a Doctorate Clinical psychology program (D. Clin. Psychology) in Saudi Arabia which is the need of hour.

Another important point is that the patients also should not feel apprehensive to take their services. This may happen in case the patient cannot differentiate between psychological intervention and mental disorders and thinks he/she is being pushed into one.

5.1 CONCLUSION AND FUTURE WORKS

The present study was conducted to assess the needs for developing a doctorate program in clinical psychology program in Saudi Arabia. The results of the present study suggested that the practicing physicians in Saudi Arabia are of the opinion of establishing a Doctorate of Clinical Psychology program that should have culturally relevant content and competencies to meet local needs that could eventually enhance the general professional competencies.

For developing the doctorate program in clinical psychology, cues could be taken from the well-established programs in the Western countries by carefully adapting the curriculum as per the religious beliefs and practices of the region with the help of local experts already practicing in the field. This would lead to a program that would be a perfect amalgamation of competent curriculum and regional practices.

Although, we tried to make our survey very comprehensive by including physicians across the

specializations, our results are limited in terms of the number of participants in the study. More such work in various territories, preferably in numerous big hospitals of Saudi Arabia, could further help in validating the results of the present study. This would further help in knowing the "pain" of the practicing physicians while treating patients requiring psychological help and possibly, ways to address the same. Such studies will help the policy makers in understanding need of a clinical psychologist in the medical practice and possibly would give a direction in designing a comprehensive curriculum to the concerned universities.

A well sought out curriculum in the clinical psychology and that too as highest degree could certainly help in bettering the existing medical practices, wherein a person with doctorate in clinical psychology could help in diagnosing mental ailments, and that could lead to a better treatment regimen, based on structured psychotherapy, leading to better QoL for the patient and reduced health care costs.

Some more studies with large sample size and from the different institutions are warranted to draw more robust results. The data collection from a wide level survey would further enhance the validity of the results of this study and will serve as a base for the future work. This will enable the development of an effective curriculum matching the global standards. The territorial psychological practices will also be blended with global standards to enhance the acceptability of the curriculum.

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