PSYCHIATRIC REFERRAL IN THE AL-QASSIM REGION, SAUDI ARABIA:

THE ROLE OF GENERAL PRACTITIONERS

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PSYCHIATRISCHE VERWIJZINGEN IN DE AL-QUASSIM REGIO IN SAOUDI-ARABIË: DE ROL VAN HUISARTSEN

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Dedicated to my late parents- Ladley Begum and Abdul Jabbar who devoted everything to educate and uplift the life of their six children: Mr.Viqar Ali Qureshi, Mr. Mohd Ambar Qureshi, Prof. Saleem Akhtar, Dr. Naseem Akhtar Qureshi, Mrs. Razia Jabbar Abid and Mrs. Tauseef Jabbar Qasim.

CONTENTS

CHAPTER 1

GENERAL INTRODUCTION

The firm roots of this thesis are deeply grounded in an unexplored, nearly virgin area that is yet to be investigated extensively for realizing its full mental health care [MHC] potential. This area is the referral system and the psychiatric training programs for GPs in the Kingdom of Saudi Arabia [KSA]. The literature on both referral system and psychiatric training programs for GPs in the KSA is scanty. Despite the fact that most of psychiatric health consumers are primary health care [PHC] clients, most of the health related developments for training and improving the skills of physicians for identifying and appropriately treating psychiatric disorders have taken place at secondary and tertiary health delivery levels. Hence, one is likely to ask the question "do psychiatrically untrained GPs provide adequate psychiatric help to PHC patients with simple to complex psychiatric disorders?" Obviously, the answer is no and the paradox is that psychosocial problems and psychiatric disorders at PHC level are hidden but probably of great magnitude. Therefore, their precise incidence, etiologies, diversities and resulting harm and burden endured by the patients, families and healthcare delivery systems are not fully explored in Saudi Arabia as a whole, and Al-Qassim area in particular. Many mental patients with complex disorders need psychiatric consultation and hence psychiatric referrals. Evidently, many burning issues related to the concealed or secret psychiatric health problems are worse in rapidly developing countries as compared to the developed world.

1.1. Main Aims of this thesis

Two related central issues that this thesis addresses are (1) psychiatric referral system and (2) psychiatrically untrained GPs who are rarely identifying and hence very seldom referring mental patients for psychiatric consultation. Almost all GPs in the KSA

lack psychiatric skills, have unfavorable attitudes toward psychiatry and are also unskilled in referring psychiatric patients to secondary and tertiary care. Evidently, all Arabian Gulf countries including the KSA are facing a real health challenge in terms of primary care psychiatry, which is globally recognized as an important burgeoning field of psychiatry. These facts stimulated the author to take this project that aimed to integrate MHC into PHC through training of GPs and paramedical staff in clinical psychiatry and psychiatric referrals. There were hardly any psychiatric training programs for GPs about a decade ago. Accordingly, it was decided that the whole issue needs urgent attention and comprehensive research to address it in sufficient depth. Notably, our team is the first to conduct extensive research on psychiatric referrals and attitudes in the Arab world and also to train GPs in psychiatry in Al-Qassim area. Thus, there are two main aims of this thesis. The first aim is to undertake a number of investigations into the quality of the referral system in the KSA. The second aim is to try to improve the knowledge of clinical psychiatry and attitude against psychiatric patients of GPs.

1.2. Chapters of this thesis

After a comprehensive review of the literature (chapter 2), we explored different aspects of referral system and also the psychiatric training programs directed towards general practitioners for enhancing their psychiatric skills and changing their negative attitudes against psychiatry. This thesis consists of eight articles that have been published in various scientific journals and some of them were also presented as papers at national or international conferences. The first five chapters (i.e., chapters 3,4,5,6,7) examine comparatively various aspects of psychiatric referral letters that were originated from primary health care centers [PHCCs] and general hospitals [GHs]. Though the subject of these five chapters is the same, the objective of each paper is quite different. Chapter 3 deals in detail with the adequacy/inadequacy of noted data in both types [PHCCs versus GHs] of psychiatric referral letters. Chapter 4 examines the psychiatric symptomatology noted by physicians in both types of referrals. Chapter 5 describes psychiatric co-morbidity in PHC and GHs referrals. Chapter 6 highlights mental health specialists prescribing patterns of psychotropic drugs to these successfully referred patients as

compared to a large outpatient sample receiving psychotropic drug prescription. Chapter 7 analyses the data noted in psychiatric referral letters in order to assess their quality. The uniqueness of this paper is that it is of the first kind to use structural equation modeling [SEM] approach. The next three chapters cover a GPs psychiatric training project. Chapter 8 describes the planning phase of this health scheme, which is very ambitious and its objectives are still pursued. Chapter 9 deals with the curriculum development for GPs training in clinical psychiatry. Chapter 10 deals with the effectiveness of a psychiatric training program directed towards GPs for enhancing their knowledge and changing their unfavorable attitudes against psychiatry. The salient feature of this article includes the development of a Knowledge Test and an Attitude Questionnaire that are used in the effectiveness study. These 10 chapters are followed by a general discussion, implications of the studies, limitations of the approaches, future research, conclusions, summary, acknowledgements, curriculum vitae, and author's other publications.

Finally, in the eyes of western researchers and academics all the published papers comprising this thesis may not be too unrivaled. But at the national level they have invigorated the local researchers, health intellectuals, health educators and policy makers in order to fill physicians psychiatric knowledge gaps at the interface between psychiatric hospitals and primary health care and general hospitals together with streamlining of psychiatric process and referrals.

1.3. The Health Care System in Saudi Arabia

In order to place the studies in right perspective, we first give an overview of the general and mental health care system in the KSA.

1.3.1. Location and size of the Kingdom

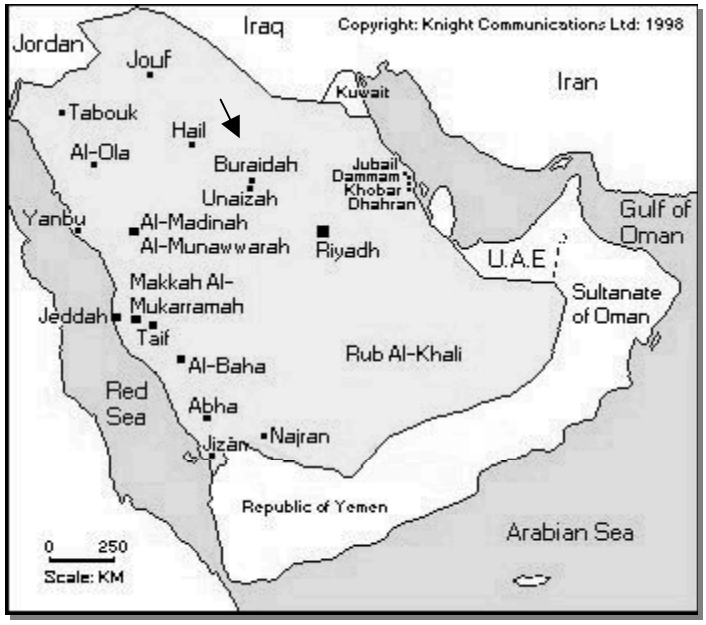
The Kingdom of Saudi Arabia [Figure 1] comprises about four-fifths of the Arabian Peninsula, a land mass constituting a distinct geographical entity, bordered on the west by the Red Sea, on the south by the Indian Ocean and on the east by the Arabian Gulf. The

area of the Kingdom is approximately 2,250,000 square kilometers (868,730 square miles). The KSA is bounded by Jordan, Iraq and Kuwait on the north, by the Gulf, Bahrain, Qatar and the United Arab Emirates on the east, by the Sultanate of Oman and Yemen on the south and by the Red Sea on the west. Located between Africa and mainland Asia, with long frontiers on the Red Sea and the Arabian Gulf and with the Suez Canal near to its northwest border, the Kingdom lies in a strategically important position.

1.3.2. Administrative regions of the Kingdom

The following are the 13 regions and the cities in which the administrative headquarters of each region are located: 1) Riyadh Region-Riyadh City, 2) Makkah Region-Holy City of Makkah, 3) Medina Region-Holy City of Medina, 4) Qassim Region-Buraidah City, 5) Eastern Region-Dammam City, 6) Asir Region-Abha City, 7) Tabouk Region-Tabouk City, 8) Hail Region-Hail City, 9) Northern Border Region-Arar City, 10) Jizan Region-Jizan City, 11) Najran Region-Najran City, 12) Al-Baha Region-Al-Baha City, and 13) Al-Jouf Region-Sikaka City. Each of these regions has a Regional Governor with the rank of Minister who is responsible to the Minister of the Interior. The structure of regional government and the composition of the regional governing bodies and regional councils is clear evidence of the Kingdom's determination to increase the involvement of the citizens in the government of Saudi Arabia while maintaining stability, security, and continuity.

Figure 1. Map of the Kingdom of Saudi Arabia



Note: Arrow indicates Buraidah, the capital of Al-Qassim region.

1.3.3. The Health Care Network

The approximate population of Saudi Arabia is 23 million people. Slightly more than half a million are non-Saudis. To meet all the health needs of Saudi citizens from preventive care through advanced surgery, the Kingdom has implemented a two-tier health service plan. The first tier is a network of PHCCs and clinics established throughout the country. The number of such facilities, which provide preventive, prenatal, emergency and basic health services rose from 591 in 1970 to 3,154 in 1992. At present the approximate total number of PHCCs and clinics in the Kingdom is more than 5,154. A fleet of mobile clinics that routinely visit the more remote villages, dispensing vaccines and also performing basic medical services supplement these centers. By reaching people throughout the country, these centers and clinics have contributed greatly to the improvement of health standards in the general public. They have been instrumental in reducing infant mortality rate in the Kingdom from 68 per 1,000 births in 1990 to less than 19 per 1,000 live births in 2003. Under five days, the mortality is less

than 30 per 1000 live birth. More than 94% of Saudi children are immunized against common diseases, and plans are now underway to inoculate all of them (100%). Further a network of advanced hospitals and specialized treatment facilities including Colleges of Medicine, Dentistry, Pharmacy, Applied Sciences and Health Sciences back these centers and clinics. Strategically placed in major urban and semi-urban areas throughout the country to be accessible to all, they constitute the second tier of the Saudi health plan. In 1970 there were 74 hospitals with 9039 beds in the KSA. By the end of 2003, those numbers had grown to more than 335 and 48,000, respectively. At present, there are approximately 101 private hospitals in the KSA and total pharmacies are more than 794.

1.3.4. Role of the Ministry of Health (MOH)

The MOH bears primary responsibility for the Kingdom's health care program. It operates 62 percent of the country's hospitals and 53 percent of its PHC clinics and centers. The majority of the remaining hospitals and clinics is belonging to the private sector. The functions of these facilities and the training of their staff are supervised and supported by the MOH. Other government agencies, such as the Ministries of Education and Defense, the National Guard and the Public Security Administration have their own hospitals and clinics. Under the Fifth Development Plan (1990-94), the MOH administered 1392 billion U.S. dollars for the health sector. The funds were used for the establishment of new facilities and improving the health care at existing ones. The KSA is committed to raise the quality of health service to its citizens. It is reflected in the fact that while the number of hospitals and PHC clinics and centers rose more than fivefold between 1970 and 2003, the number of physicians employed at these facilities rose more than 21-fold to 31,980. The nursing and technical staff grew more than 16-fold to 67,421 and 37,656, respectively. The qualitative improvement in the KSA health care is also evident by the number of specialized hospitals now operating in the Kingdom. By 2003, of the 194 hospitals falling under the responsibility of the MOH, more than 16 specialized in obstetrics and gynecology, seven in treating respiratory ailments, 16 in psychiatric care, four in drug abuse and addictions, two in eye diseases, one in contagious diseases and six with convalescent facilities. Now, almost all specialized hospitals in the

KSA have psychiatric clinics and inpatients facilities for mental patients. Furthermore, approximately 30% of general hospitals also have such facilities. By 2003, the total health manpower in the KSA includes 31,983 physicians, 3,673 dentists, 5,387 pharmacists, 67,421 nurses and 37,656 allied health personnel.

1.3.5. Mental Health Network and MOH

According to 2002-2003 census, there are 16 psychiatric health hospitals and among them Taif Mental Health Hospital is the oldest and the largest mental health institution in the KSA. Three psychiatric sections within the general hospitals also provide inpatient and outpatient psychiatric services to those suffering from psychiatric comorbid disorders. There are more than 40 psychiatric clinics established in different specialist and general hospitals, which offer only outpatient services. The patients requiring admission are immediately referred to the nearest psychiatric hospital. With special reference to addictions, there are three Al-Amal Hospitals, one is located in Jeddah, the second in Riyadh and the third in Dammam. They provide integrated inpatient and outpatient services to patients with drug addictions. Additionally, Al-Qassim Psychiatric Rehabilitation Center [APRC] based on similar ideology provides addictive services to patients with drug abuse and addictions. In total, there are 2,700 psychiatric beds distributed across sixteen hospitals in the KSA. In 2002/3, approximately more than 47,500 mental patients consulted psychiatric clinics and more than 11,000 patients received inpatient care. The total number of psychiatrists is about 270 and among them only 10% are Saudis. The other 90% psychiatrists mainly come from Arab world countries. Paramedical staff includes 1,500 psychiatric nurses, 245 clinical psychologists and 600 social workers. In addition, all universities and their regional branches have specialist hospitals with psychiatric division that provide inpatient and outpatient services. As regards MHC, private sector is also developing fast. Most private general hospitals and polyclinics in the KSA have psychiatric clinics mostly offering outpatient services. Overall, MHC system is not at par with the general and specialist hospital system in the KSA and there is a further need to expand considerably

mental health delivery systems. Health planners should also focus on the development of community mental health centers throughout the KSA.

1.3.6. Five-Year Plans

Further, Saudi planners by implementing several five-year plans (first [1970-75] through seventh [2000-2005]) in continuation have ensured that basic and advanced health services with better quality be easily accessible to every Saudi citizen [Table 1].

Table 1. Emphasis on health of the various national 5-year plans

Plan	Years	Health emphasis
First	1970-75	Preventive health services
Second	1975-80	Integration of preventive and curative care to provide comprehensive care
Third	1980-85	Improvement of medical standards , PHC and health centers to deliver basic services. PHC was mentioned for the first time
Fourth	1985-90	Balancing the growth of PHC services according to regional and special groups needs
Fifth	1990-95	Quality of health care mentioned for the first time
Sixth	1995-2000	Achievement of certain outcome criteria of health care like complete immunization coverage of children, increase of effectiveness of various curative and preventive health services
Seventh	2000-2005	To provide basic health services and opening of 250 primary health care centers

The seventh 5-year plan envisages that 29 new hospitals with a total of 4,630 beds and 250 PHCCs will be opened and construction of 71 hospitals with 8,300 beds would

be started during the plan. Each 5-year plan wise, MOH has spent approximately 40% of its budget on PHC services.

1.3.7. Al-Qassim Region

Al-Qassim region is situated in the central part of the KSA, approximately 325 kilometers away from Riyadh. It is bordered on the north by Hail, on the east and south by Riyadh and on the west by Al-Madina Al-Munnawarah regions. Its total estimated area is 127,350 square meters. The climate is generally hot and dry in summer and cold and rainy in winter. Al-Qassim is considered as one of the most important regions in the KSA in agriculture sector. It is famous for its agronomic products such as: vegetables, dates, livestock and poultry. Brucellosis is an endemic disease in this area. Consequently, all physicians but in particular GPs working in remote villages have an important role to increase the inhabitants' awareness to take an array of preventive measures against this infectious disease.

The population of Al-Qassim is approximately one million. The people are residing in more than 400 towns and villages. Important towns are Buraidah, Unaiza, Al-Rass, Al-Bukariyah, Al-Midnab, Riaydh Al-Khabra, Al-Badaya, Ayoun Al-Jawa, Al-Dariyah, Qussaiba and Uqlatasukur. Buraidah is the capital of Al-Qassim health province. The family is the basic unit of the community. Most families are joint or extended, which include parents, sons, daughters, grandparents, and grandsons. They all collectively share the same accommodation. The youngsters often respect and listen to the advice of the elderly head in the family. By and large, polygamy is very common in Saudi society, so the number of family members may rise up to 15 persons or even more. Women and grown-up girls observe strictly prudish (black veil) system and all people pray five times regularly in beautiful mosques. Overall, this society advocates generosity, real Samaritan, fulfillment of pledges, simplicity and family cohesion. These human qualities are merely based on the principles of oneness, which is highly observed and recommended by Prophet Mohammed [Peace Be Upon Him].

1.3.8. Health Care Network of Al-Qassim area

There are 17 GHs including one specialist hospital with tertiary care facilities. Besides, there is one 145-bed psychiatric hospital (Buraidah Mental Health Hospital-BMHH) and one 25-bed drug abuse center (APRC). Psychiatric patients with dual diagnosis are treated at both facilities. Four GHs have outpatient psychiatric clinics for the treatment of mental patients. There are 142 MOH PHCCs in the Al-Qassim area. Other public clinics include Ministry of Defense, Ministry of Interior, Ministry of education-schools and universities, and Ministry of Social Services. Private health sector includes a few hospitals and more than 25 polyclinics and only three private clinics provide outpatient MHC services. Patients with severe mental disorders requiring admission from these multiple sources are referred to BMHH. Likewise, patients with drug abuse problems are admitted in Al-Qassim Psychiatric Rehabilitation Center.

Notably, the studies presented in this thesis have been executed at Buraidah Mental Health Hospital, Al-Qassim region, Saudi Arabia.

CHAPTER 2

LITERATURE REVIEW

2.1. Search Method

In addition to manual exploration, a computerized search of the relevant literature from MEDLINE/PubMed, PsycINFO, and EMBASE up to February 2004 was conducted. First, the key word "referral letters" was used as a qualifier and combined with "psychiatric", "nonpsychiatric", "adequacy of information", "inadequacy of data", "psychiatric symptoms", "psychotropics prescribing", "psychiatric quality", "predictors", "psychiatric comorbidity", "physical comorbidity", "primary care", "general hospitals", "specialist hospitals", "consultation-liaison psychiatry" and "teaching hospitals". A second search used the key words "general practitioners", "family physicians" and "attitudes" as qualifiers and combined them with "psychiatric training", "medical education", "psychiatry", "mental disorders", and "stigma". The search yielded numerous peer-reviewed citations published over the past two and a half decades. We looked for empirical studies and review articles, which gave broad idea about psychiatric referral system at three health care levels, consultation process, primary care psychiatry, hospital psychiatry, importance of continuing psychiatric training for general practitioners, physicians, and allied medical staff, and attitudes and stigma against mental illnesses. In addition, all local relevant research involving psychiatric and nonpsychiatric referral system and GPs psychiatric training was critically reviewed.

2.2. Background of Referral System in Saudi Arabia

Having realized the tremendous significance of a universally accepted referral system, the health planners introduced it in Saudi Arabia in the year 1989 [1,2]. At the same time, numerous PHCCs were established in both rural and urban areas throughout this country. These two major steps were considered essential so that PHC services could be delivered equally to all citizens [2]. Further, the compact organization of health

services in rural areas was of considerable importance, as this sector of the population tends to underutilize or has restricted access to health services [2,3]. In the same vein, special strategies [3] were also highlighted so as to mobilize this particular population to use justifiably the PHC services. Additionally, each family was registered at PHCC located in the catchment area and also received a family health card for follow-up. This was the third major step taken by health planners in the KSA. These three crucial steps were taken to ensure delivery of health services at grass root level. Moreover, this health planning at national level was in accordance with the World Health Organization (WHO) slogan *health for all by the year 2000* raised by the Alma Ata Declaration, 1978 [4]. The objectives of the declaration, due to worldwide social inequality and other reasons, were not achieved. There is now a renewal of this slogan in an editorial titled “Health for all in the 21st century?”[5]. It remains highly speculative that whether or not all people worldwide would have complete health by the end of 21st century. Overall, primary health care services are well developed throughout the KSA, from where patients with unmanageable diseases by general practitioners [GPs] are finally referred to secondary level of health delivery systems.

2.3. Definition and Purpose of Referral System

There are mainly three levels of health delivery system, which are primary or community, secondary or general hospitals, and tertiary or specialist hospitals. At the first level, the primary care team functions as a filter and refers a variety of difficult and severely ill cases including psychiatric clients to secondary level [6]. The dynamic process of referring a patient begins because of certain realistic reasons including lack of resources, deficient skills of primary care team, patients' characteristics, and finally availability of skilled specialist or consultants at higher level to deal with unmanageable patients by GPs [7]. Hence, every clinically difficult case needs appropriate referral to secondary level. As a corollary, a referral system essentially incorporates three major interrelated and integrated components (1) the referring physician, (2) the patient or consultee, and (3) the referred consultant. Further, referring doctors have deficient skills, patients have diagnostic and therapeutic conundrum, and the consultants have additional

skills to understand such clients. The referral system, therefore, requires that the referring GPs should clearly specify the objectives of referral in the referral letter. Second, the patients should have good compliance and follow the instructions of the GPs. The consultant should interview the patient comprehensively and provide a clear feedback information to the referring physician. This whole exercise often ends in a successful referral system and also provides an important opportunity for mutual understanding, upgrading, and effective teaching of involved partners [2]. Moreover, adequate coordination and proper meaningful communication among the three components of referral system largely maximizes its efficiency. Further, the communication network among medical personnel may be improved possibly by incorporating developments in computer software for medical practice [8]. Alternatively, it would result in providing the best quality of health care services to patients [2,3] and at the same time health providers would feel extremely satisfied. Although the purpose of referring a patient could be manifold, the most pressing are diagnostic conundrum, investigations, therapeutic issues, follow-up, and finally personal requests. The referral system is one of the effective models for linking and integrating medical services among three levels for the best outcomes. It also subserves other functions including education and research and the delivery of the best cost-effective quality care to the health consumers.

In the light of continuing developments in the primary care psychiatry in the West, the pattern of referral system would likely change constantly. The GPs would be in a better position to provide psychosocial care to the health consumers [9]. In addition, in-housing referrals will ensure that only those patients who would benefit should be referred to higher level [10]. Consequently, appropriate options could be developed and considered for the management of minor psychosocial problems within the primary care settings [11]. Evidently, the role of GPs would selectively broaden.

2.4. Standards of Referral System

The standards and indicators of referrals from primary care to hospitals are closely related to and depend upon resources or structural foundations of PHCCs and secondary/tertiary health care systems. In the recent past, the researchers have described

them together with referral process and outcome in detail [12-16]. In particular relation to the referral procedure, the referring physician is expected to fill certain items in the referral letters. These items usually include serial number, the patient's age, sex, nationality, address, family health record number, the name of the PHCC, referred specialty and the referred hospital, date of referral, type of referral-urgent, immediate and elective, chief complaints with duration, present history, past and family history, physical and systemic examinations, social history, current treatment, provisional diagnosis, investigations, and reasons for referral. In addition, he should write his name with signature and put his and MOH stamps. A standard referral letter should also contain multiple items of feedback report, which should be completed by the consultant or the specialist. The MOH predesigned referral letter contains all the aforesaid points. On the other hand, the MOH referral letter does not have items related to patient's education, marital status, occupation, mental status examination and premorbid personality. Unlike psychiatric patients, these items have relatively less significance in medical patients who are referred to general hospitals. Notably, all PHCCs use this MOH referral protocol for referring patients to secondary level. Likewise, general hospitals and private health sector also use referral protocols with some modifications. Moreover, variations in the format of referral protocols are found worldwide. Although the MOH referral protocol is not validated, it is drafted after consulting multiple information sources. It is essential that the referral system indicators, procedures and guidelines should be used strictly by health providers so as to streamline the delivery of health services across all practice settings.

2.5. Indicators of Successful Referral System

Unlike other branches of medicine, referral systems in psychiatry are problematic and complex [14]. Psychiatric referral systems involve multiple factors related to three connected components, which include the patient, the general practitioner and the referred consultant. Further, the structural foundations of the practice setting also play an important role in an effective referral system. A successful referral system has some prerequisites. Each referring physician should develop a good therapeutic relationship with the patient. He should also discuss first the objectives of the referral with the patient.

In addition, there should be clarification of any related questions raised by the patient. This helps him or her to follow the instructions suggested by the referring physician. This will also help in minimizing the reported attrition rate of 15%-20% and improve compliance [15]. Each referring physician should also contact the referred consultant as well as the coordination office in the hospital. This important step will help in preparing coordination office workers to receive the patient. In turn, the referred consultant may ask the patient's most pertinent data from the physician and accordingly make up his mind to evaluate the patient. Furthermore, each physician should provide qualitative and quantitative information by duly filling the referral letters. Moreover, the completed referral letter should be legible. The writing of sufficient and appropriate information in the referral letter by the referring GPs subserves multiple purposes [16], which include easy diagnostic formulation, appropriate treatment prescriptions, research and teaching [2]. If these conditions are met, the referred consultant feels quite satisfied [17]. This, in turn, heralds a constant good professional relationship and cooperation with the referring physician and maintenance of a good referral network. This also lays an excellent foundation for continuing best quality follow-up care of the patient, which is one of the most fundamental objectives of health providers in the world. Furthermore, each referred patient should have minimum waiting or appointment period for consultation [18], which certainly enhances the success rate of the referral process. Like the referring physician, the referred consultant should also develop a good therapeutic alliance with the patient and evaluate him comprehensively [19]. Additionally, the consultant should provide very clear guidelines to the patient. The consultee should be notified simultaneously that his final treatment and follow-up would be at PHCCs. The clear written feedback from the consultant also helps the GPs to receive the patient for follow-up at their settings. This also ensures a strong linkage and collaboration between primary and secondary level of health services [20]. Moreover, the referring physician should carefully review the contents of feedback letters from the consultants. Notably, the consultants' feedback reports should be attached to the patient's file for future reference. The appropriate feedback response by the consultant has also several other advantages including best quality care of the patient, health education and teaching of involved partners. It also helps in conducting comparative research and promoting health at community level [2].

Notably, there are several identified destabilizing forces of a successful referral system. These are inappropriately written referrals, unstructured referral letters, delay in the feedback from the hospitals, deficient or inefficient hospital administration in terms of coordination offices, inadequate resources and logistic facilities both at the PHCCs and the hospitals. At national level, the concerned health authorities have taken some steps to rectify them [1]. Other factors weakening successful referral system are unreferred patients [21] who directly consult the physicians. Additionally, a proportion of 15%-20% of the referred patients did not comply [15]. Above all, all consultants did not give feedback responses to patients for follow-up [2]. Notably, a proportion of referring physicians do not completely fill the referral letters [22]. On the other hand, GPs were reported to have strong willingness to work with psychiatrists [23].

With special reference to local psychiatric patients, a great proportion of them come to psychiatric hospital for consultation without referral letters. Similarly, very few patients receive feedback responses from psychiatric specialists. This trend could be attributed to several reasons. First, there are no psychiatric facilities including psychiatrically trained doctors and nurses at PHCCs in Saudi Arabia. Second, psychotropic drugs for filling prescriptions are not available at PHCCs. Third, no staff trained in psychotherapy including counselling are present at PHCCs. Fourth, though contrary to referral system guidelines, the hospital administration allows patients without referrals to be evaluated and managed by psychiatric staff [22].

2.6. Linkage of PHC with MHC

Mental health care was linked with the PHC system for providing complete health including MHC for all people worldwide [24]. This resulted in changing the referral patterns of patients from primary care to psychiatry. This dynamic area of psychiatric referral is hardly studied here [22]. Further, there are numerous advantages of integrating PHC with MHC including better communication coupled with meaningful interpretations between providers and health systems [25]. The overall patient care including treatment and outcome also improves tremendously [26]. This further leads to partially meeting the

needs of clients with psychiatric disorders [27]. There is a vast literature on the assessment of needs, problems, and disablement of mental health consumers. As a corollary to need-led studies [27-30], certain crucial matters including nature of psychiatric disorders, marital relationship problems, stress of unemployment, high rates of unfavourable life events, and physical or sexual abuse were identified among psychiatric patients, which prevented respondents from seeking, engaging and benefiting from treatment. The health utilizers may also have other different needs compatible with their socioclinical profiles, which prompted development of need-led organizations for planning relevant services [30].

Furthermore, this marital relationship in terms of integration became of great importance because many patients with a variety of psychiatric disorders, subthreshold symptoms of mental disorders, unexplained somatic symptoms and comorbid disorders consult GPs for the treatment purpose [31-33]. Most primary care physicians recognize the patients with psychiatric disorders or psychosocial problems and treat them appropriately but with some limitations [34]. Notably, the recognition rate of psychiatric disorders and appropriateness of treatment may vary considerably across studies and may be attributed to study settings and GPs communication styles, diagnostic skills, and therapeutic abilities [35]. Nonetheless, GPs were found not to identify a proportion of cases with anxiety disorders, mood disorders, addictions, and somatization problems who remain untreated in primary care and general hospital settings [36]. This notion also applies to children whose psychological problems usually remain unidentified both by parents and physicians in primary care [37]. The post-natal depression that affects 10% to 15% of women after childbirth is another diagnostic conundrum, which should be identified as early as possible by GPs who may use a variety of relevant screening tools [38].

To add more diagnostic problems, somatic presentation in primary care and hospital settings is rather very common and reported incidence varies from 20% to 60%. The pure somatizers among them are 3% to 8% [39]. Most importantly, the patients with somatic complaints assessed by General Health Questionnaire [40] tend to have a psychosocial basis and, unlike theories about somatization, were not having an Axis-II diagnosis of dependent personality disorder. Somatizing patients as compared to

psychologizing clients were less concerned about underlying mental problems [41]. Medically unexplained physical symptoms referred to as “somatic symptoms” may occur as part of a range of psychiatric disorders not only in older people requiring geropsychiatry services [42], but also in young adults with diversified needs [43]. In related developments, researchers have proposed to remedicalize medically unexplained functional or somatization symptoms attributable to a functional disturbance of the nervous system and also called for integrating "psychiatric" treatments into general medical practice [44]. Further, Kroenke has identified sampling and measurement issues and emphasized on symptom-based research [45]. Notably, it is reported that in comparison to depressed patients presenting to psychiatric clinic, depressed medical patients' manifestations are more somatic, obscure and less psychologically focussed. In addition, depressed medical patients with equivalent level of depression relatively complain of a less number of symptoms [46]. Taken together, these particular patients even without comorbid physical disorders visit frequently PHC and GHs with overutilization of medical resources, which leads to higher economic costs [47]. They also develop substantial levels of suffering, impairment, and disabilities [48], social as well as occupational. Overall, these patterns could be attributed to a number of factors. First, GPs and allied personnel are not well trained in psychiatry for diagnosing somatized patients. Second, it could be due to less emphasis on psychiatric teaching during graduate medical courses. Third, psychiatric disorders are of complex nature. Notably, GPs are reported to demand more from community psychiatric services in carrying out their primary therapeutic role, especially in rural areas [49]. Finally, this could be due to the stigmatized view of psychiatry by society at large. Other sociocultural factors may also determine this pattern of diagnostic and treatment conundrum of psychiatric disorders at community level. Besides highlighting several other aspects, a dedicated team of researchers also identified the role of counsellors in offering counselling services to patients with anxiety, stress, and depression in general practice [50].

Besides linkage, researchers have further identified several other models that underlie the concept of integration [27, 51-53]. These models are based on several concepts, 1) structural-sharing facilities, 2) administrative-sharing administrative sources,

and 3) functional-complete integration of clinical services with staff jointly responsible for the patient welfare. Further, these models have a variety of underlying strategies, 1) referrals, 2) diversification, 3) enhancement, 4) mainstreaming, 5) liaisoning, and 6) collaboration. Besides, other models described in the literature are new practitioner models, independent carveouts, functionally integrated carveouts, extended care models, shared-risk model of capitation, shifted out-patient model-primarily provided by psychiatrists independent of primary and secondary care teams, the psychiatric community liaison model, the attached mental health professional model and the community mental health team model, Balint groups and education, intermittent psychiatric service provision model [52-54]. The overall emphasis of these useful models is to provide appropriate cost-effective mental health services to the clients. Moreover, the clients should have their needs fulfilled [27] and lead a better quality of life with better outcome in primary care settings-rural as well as urban communities. Notably, Selig went further to suggest that critical value orientation related to integration of MHC into PHC should be introduced during undergraduate health programs [55]. Some researchers have suggested a whole life model for integrating MHC into PHC for HIV-infected pregnant and nonpregnant women, which is a theoretically derived model for clinical care and outcome assessment [56]. Surprisingly, besides addressing some aspects of integration, managed care has largely served as a new barrier to effective collaboration and to meeting the MHC needs of patients [57]. Of course, this is not the scenario in Arabian Gulf countries and most of the developing nations where third party payment is not applied.

2.7. Predictors of Psychiatric Referrals to Secondary Level

By and large, the psychiatric services in PHC and GHs are not fully developed in rapidly developing countries. This is the basic reason that leads most of the clients to seek psychiatric consultation at secondary health level. Other determinants of referrals from primary care to higher health care system and within the hospitals are related to patients' perceptions of their own health, personal request, poor outcome, unclear diagnosis, somatic presentations in terms of somatoform disorders, comorbid physical conditions,

depression associated with suicidal ideas, acute anxiety disorder, high current symptoms ratings, serious psychotic mental disorders and other disabling conditions including organic brain disorders and mental retardation associated with severe multiple handicaps [58,59]. Further, the general hospital patients with an apparent incompetence in giving consent for medical procedures may be referred to psychiatric consultation [60]. Other revealed factors determining referrals to secondary level are patients' help-seeking behaviours and cognitive representations of mental ill-health, GPs skills to detect psychological disorders and their attitudes towards psychological problems and management, and finally service criteria for appropriate referral [61]. The health provider factors underlying referral practice are delayed admission, lack of communication with referring physicians and competence of the hospital [62]. Fund-holding general practices as compared to non-fund-holding practices refer more mental patients to mental health professionals including psychiatric nurses, psychologists, psychiatrists, and counsellors [63]. In a recent study, however, fund-holding GPs made little difference to increasing the efficiency and effectiveness of health care both in their own practices and at the primary-secondary interface [64], but waiting time for the first appointment with the specialist was reduced [65]. The on-site presence of mental health professionals inconsistently determine the referral of patients to secondary care [66].

Besides subserving an array of functions [67], psychiatric symptomatology determines the referral process of mental patients to higher level [68]. Moreover, the pattern and severity of psychiatric symptoms may vary both in terms of health delivery systems [69] and medical co-morbidity [70,71]. For instance, the patients referred from PHC as compared to GHs may differ in severity and presentation of symptoms. In addition, physicians and public unfavourable attitudes coupled with misconceptions and myths against mental disorders and a lack of screening psychometric scales at PHC are other predictors of psychiatric referrals [72,73]. Furthermore the determinants of psychiatric referrals, also applicable to paediatric settings [74], are related to patients' demographic variables including male gender, higher socioeconomic status, low level of education, failed marriages, unemployment and stressful life events. Links with the mental health institutions further determine the rate of psychiatric referrals [61]. The patients' religious affiliations, social networks and social group may also determine

psychiatric referrals. For instance, the perception of mental illness by the traditional faith healers has a definite influence both on psychiatric referrals [75] and appropriate management of psychiatric disorders.

As there are a variety of predictors of psychiatric referrals from primary care to higher health level, hence the rate of referrals varies considerably [76]. According to this study, population morbidity and factors including team and prescribing patterns in the mental health services explain a substantial part of the variation in the use of health services. Kessel probably was one of the first to look at the issue of referral patterns. He reported that 10% of patients in general practice are referred to psychiatrists [77]. The current rate of referrals to psychiatry ranges from 5% to 50% [78]. This variability could primarily be attributed to a variety of factors including population morbidity, study settings, patterns of drug prescriptions, competency of physicians, and provision of MHC services [76,78]. The timing of referrals of patients for psychiatric consultation also varies. This is in accordance to high social vulnerability coupled with late referrals and severe level of psychiatric dysfunction associated with early referrals [78].

2.8. Primary Care Psychiatry and Referrals

Unlike western countries, all Arabian Gulf countries are facing many challenges as regards the development and delivering of mental health services at three levels, in particular community level. Although the estimated prevalence of psychiatric disorders in primary care as well as in GHs in these countries is high, there is as yet no adequate provision of providing mental health services to patients with psychiatric manifestations. Additionally, a proportion of primary care patients with psychiatric morbidity also suffers from physical disorders [71]. The primary care patients as mentioned earlier suffer from a wide variety of psychiatric disorders, subthreshold conditions, symptoms of neurotic proportion [68.5%], chronic conditions [55%] and social problems [7]. However, the most prominent psychiatric disorders are of depressive and anxiety types in primary care [79]. Other equally important disorders encountered in primary care are somatoform disorders, drug abuse problems, and other minor psychosocial problems. It is expected

that psychiatrically trained GPs and counsellors [50] should identify these patients and treat them appropriately at community level. GPs and allied personnel could manage most of these patients by psychotropic drugs combined with psychotherapies in primary care [79]. Hence, most of them do not require referral to secondary level. Moreover, primary care psychiatry is not specialist psychiatry in general practice [80]. However, there is no room for complacency because these psychiatric conditions (in particular minor depression often seen in primary care settings) could be persistently disabling [81]. Although cases suffering from severe form of chronic psychosis more often require specialist mental health services at secondary level [82], a minor proportion of them may be treated by the GPs [83]. Evidently, GPs have a limited role [84] in dealing with patients having major psychotic disorders. However, the utilization of services of employed community psychiatric nurses in dealing with chronically ill discharged patients to the community may fill this gap [85]. With the lack of primary care mental health services in Arabian Gulf countries, most of the identified patients with psychiatric morbidity are referred to secondary level [86]. Above all, about 45% of patients are reported to have hidden psychiatric morbidity [87]. Therefore, such patients are not referred and most likely to suffer from a variety of disabling somatic preoccupations.

What is most interesting is that not all patients with psychiatric disorders or comorbid diseases consult primary care clinics. Some of them directly visit either psychiatric hospitals, or psychiatric clinics in GHs or faith healers [75,88]. This certainly indicates that the projected prevalence of psychiatric disorders at PHC or in GHs would not reflect the true epidemiological dimensions of community psychiatric morbidity, which may remain fairly constant in the community [89]. Further, a proportion of the severely ill patients do not attend psychiatric outpatient clinics and likewise, the role of GPs is also limited in engaging non-attendees. This group of patients may benefit from cooperation between health and social service action rather than rigid guidelines concerning clinical responsibility [90]. In a study, although the benefits of Consultation-Liaison (C-L) psychiatry services in general practice are reported to be limited, the improvements in the quality of psychiatric care in general practice require a range of interrelated strategies including community C-L psychiatry services, GPs' psychiatric training and well-functioning links with public mental health services [68]. The studies

on C-L psychiatric services in primary care have found significant improvement in the detection of mental illness and application of mental health treatments by GPs, but surprisingly only a little change was found in patients' outcomes [91]. All patients with mental illness especially those of 19% requiring continuing care show lower satisfaction with PHC services [92]. Accordingly, the patients with severe chronic illness need prioritising referrals to a community mental health team [93]. Overall, all Arabian Gulf countries should develop primary care psychiatry in order to deliver mental health services to patients with psychiatric manifestations. This should have the top priority.

2.9. General Hospital Psychiatry and Referrals

There is a converging evidence that general as well as specialist hospital population-outpatients and inpatients-with or without medical diseases suffer from a variety of psychiatric disorders including depression (12.8% to 23%), generalized anxiety disorder (10.8%), alcohol-related (5%) and other psychoactive substance disorders, adjustment reactions (41%), schizophrenia (5%), organic psychiatric syndrome (37%), delirium, dementia, Axis-II personality disorders, delusional disorders, somatoforms disorder, anorexia nervosa, dermatitis artefacta, delusional hypochondriasis, V-Code psychosocial problems, sleep disorders and other conditions [94-98]. In addition, the common psychiatric disorders reported in a geriatric hospital population were affective disorder (27%), adjustment disorders (26%), generalized anxiety disorder, alcohol and drug abuse, and delirium and dementia (22%) [99]. Moreover, common child psychiatric disorders reported in hospital population were mental retardation, adjustment reaction, neurotic disorders, epilepsy and others [100]. Apart from treatment approaches and outcome research, the authors cautioned that the emotional and behavioural problems of children need to be addressed through proper means in paediatric settings [100,101]. Notably, PHC and GHs patients present with an array of physical symptoms, subthreshold mental conditions, mental conditions and comorbid disorders [7,71,79] that, to a greater extent, do not meet all diagnostic criteria for psychiatric disorders laid down in standard classifications of mental disorders. This epidemiological trend in primary care and general hospital psychiatry certainly calls for using modified versions of traditional

international classifications [102] and also streamlining of methods for diagnosing common psychiatric disorders in primary care [103].

Unlike epidemiological studies that had reported comorbidity of 20%-50%, approximately 69%-84% of general hospital population was found to have concurrent physical and psychiatric disorders [72]. However, the estimated prevalence of psychiatric morbidity in general hospital referred patients to psychiatric service was 30%-68% [98]. This discrepancy in psychiatric morbidity is attributed to study settings. However, the referral rate within the general and teaching hospital settings varies considerably in accordance to the referral sources and ranges between 0.7% to 20% [104,105]. Indeed, there are several common physical disorders that are known to comorbid with psychiatric manifestations or disorders and, moreover, almost all body systems are involved. Normal pregnant women were also reported to manifest psychiatric symptoms (43%), psychiatric disorders (35%) and they used psychiatric treatment (23%) [106].

The sociodemography of referred patients for psychiatric consultation as compared to nonreferred patients within the general hospitals does not significantly vary across studies. However, some studies found that unmarried, female patients with poor psychosocial functioning are more often referred to psychiatric consultations [58]. The common reasons for psychiatric consultations within the hospitals were depression and suicidal attempts, non-compliance to drugs and medical procedures, diagnostic difficulties and past psychiatric illness history, degree of dysfunctional behaviour, the lack of social supports, axis-II pathology, organic brain disorders with psychiatric manifestations, psychiatric consequences of medical and surgical conditions, psychiatric disorders presenting with physical symptoms, V code problems, no psychiatric disorders and others [107-109]. In a general hospital, most of the psychiatric consultations originated from medical services [110]. However, other departments including surgery, dermatology, neurology and including nephrology [107] also referred mental patients who were often prescribed pharmacotherapy together with psychological intervention. In specific terms, patients in GHs as compared to PHC more often have comorbid psychiatric disorders and simultaneously need psychiatric as well as medical intervention.

2.10. Implications of Psychiatric Comorbidity

The coexistence of psychiatric and medical disorders in individual patients have several implications. This essentially entails planning and organization of consultation-liaison services [111] in GHs, teaching hospitals, special centres and the PHC. The patients with comorbidity were reported to use excessive health resources and increased length of stay in the hospital [112], both associated with huge costs and financial burdens [113]. Such patients are further characterized by increased functional impairments in physical and emotional roles, complicated recovery, require special hospital staff, and treatment approaches [114-116]. Additionally, depression was reported to predict physical disability in older people who, besides daily physical exercises, require individually tailored programs for maintaining their functional abilities [117]. More essentially, psychiatric comorbidity calls for a close collaboration between psychiatry and all departments of general or teaching hospitals in order to provide integrated excellent quality care to the afflicted health consumers. The physically ill patients in particular with depression need careful evaluation and highly integrated treatment approaches including psychotherapy combined with psychotropics [116]. This approach would prevent high mortality associated with depression comorbid with medical diseases [118]. By all means, the physical symptoms and psychiatric complaints in such patients need careful understanding and treatment for both conditions [116], otherwise such patients are reported to have low level of functioning, bad prognosis and adverse outcome with poor perception of quality of life [72,116,119]. On symptom level, the admitted medical patients with chest pain were shown to have psychiatric disorders, which strongly affected the overall social outcome [120]. The researchers further expanded the notion that somatic symptoms with or without organic etiology herald social disability and psychiatric morbidity [121], the latter tends to increase sharply with the increasing number of organically explained somatic symptoms. Alternatively, physical health, both actual-morbid and perceived-poor, have adverse shared impact on treatment outcome of patients with psychiatric disorders such as panic disorder [122]. In special situations like disasters, victims with medical-surgical problems may get tremendous benefits from a consultation-liaison approach, which involves psychiatric triage by mental health

professionals [123]. Finally, the referral pattern changes from a mending and secondary view of psychiatric work to a collaborative and primary conceptual model [124].

2.11. Mechanisms Mediating Comorbidity Link

Often it has been emphasized that there exists an association between physical and psychiatric disorders [125]. Although the mechanisms mediating the link between medical and psychiatric disorders are not properly understood, there are several plausible explanations by which psychiatric diseases like depression may influence the course and outcome of medical diseases including cardiovascular and cerebrovascular diseases [118]. A variety of other somatic diseases including Parkinson's disease, epilepsy, multiple sclerosis, diabetes mellitus, cancer, arthritis and fibromyalgia, skin diseases and other medical disorders cause psychological distress (distress model) that manifests into mental disorders [118,125]. However, several other competing hypotheses have been proposed to account for patterns of comorbidity among psychiatric disorders [126]. *First*, the comorbid disorders are not distinct entities but could be the expression of phenotypic variability of the same disorder. *Second*, alternatively each of the comorbid disorders represents distinct and separate clinical entities that occur just concurrently. *Third*, the comorbid disorders share common vulnerabilities which include either genetic or psychosocial or both (diathesis model). For example, tremendous stress/distress associated with serious medical disorder in terms of cancer or stroke may evoke mood disturbances and depression [125]. The development of neoplasms may be etiologically related to stresses [stress model]. *Fourth*, the comorbid disorders represent a genetically distinct subtype within a heterogeneous disorder. *Fifth,* one syndrome is an early manifestation of the comorbid disorder. *Sixth*, the development of one syndrome increases the risk for manifesting the comorbid disorder. For example, the development of coronary heart disease temporally increases the risk for depression and anxiety disorders. By extension, these hypotheses might be applied to the model of comorbid physical and psychiatric disorders. In addition, psychiatric disorders might be the consequences of drugs that the patients use for the treatment of medical disorders. Furthermore, the common immunological factors may mediate the emergence of both

psychiatric disorders, most likely depression and physical diseases [127]. Researchers have found that traumatic grief as a psychiatric sequelae but not the stress associated with bereavement is of critical importance in determining which bereaved individuals will develop mental and physical morbidity [128]. Furthermore, the psychiatric disorder may be a maladaptive reactive response to fatal medical diseases. In summary, comorbidity pervasively affects research and clinical practice as a corollary of its influence on the epidemiology, phenomenology, etiology, diagnosis, treatment, prognosis, outcome and overall health care delivery.

2.12. Consultation-Liaison [C-L] Psychiatry and Referrals

Shaped by psychosomatic theory and psychoanalytical movement, the development of C-L psychiatry and other services in industrialized nations could be traced to early 1930s through 1950s. The dynamic principle underlying this epiphenomenon was psychiatry's move into the general hospitals and medical schools [129]. C-L psychiatry is a highly important model for collaborating psychiatry with medical and surgical services in the community, i.e., community C-L psychiatry, in general hospitals, i.e., general hospital C-L psychiatry and in teaching hospitals, i.e., teaching hospital C-L psychiatry, which is accompanied by enhanced quality of patients' life in a reasonably cost-effective way [54,97]. C-L psychiatry encompasses inpatient and outpatient clients at the three major sites. Principally, C-L psychiatry comprised of consultative process initiated by referring physician and consultee but was carried out further by consultant-liaison psychiatrist [CLP]. CLP establishes a dialogue with the referring physician and conducts an interview with the referred patient at a particular site. CLP informs the consultee the objectives of consultation, though this job should be done by the physician prior to referring him. During interview, CLP focuses mainly on the corroboration of history data and clarifies relevant questions. After comprehensive evaluation, CLP writes a consultation report for future reference and follow-up that helps in formulating the course and outcome. In accordance with the settings, consultation sites differ and so the commonly encountered psychiatric diagnoses and comorbidity. C-L psychiatric services may embrace either medical consultant model (single discipline) or community mental

health team approach, which is complex and multidisciplinary in nature [111,130]. Moreover, a CLP may take several other responsibilities including psychiatric training of physicians, somatic specialists, and nurses, supervision of daily group-cases, supervision of quality management meetings for improving the quality of psychiatric services, delivering lectures on selected interfacing topics, offering tutorials in research techniques, presentation of literature reviews, holding case conference, and finally liaisoning meetings requested by somatic specialists and consultants [131]. Following evaluation of the patient, CLP intervenes by either offering supportive therapy, behavior or cognitive therapy or pharmacotherapy [96]. The patient may be hospitalized or referred to psychiatric outpatient follow-up consultation and treatment [79]. Briefly, the CLP focuses primarily on quality of life of consumers and the adopted model reflects patient-oriented discipline.

2.13. Quality of Psychiatric Referrals

Like in any other branch of medicine [132], the numerous concepts and assessment procedures of quality assurance programs in psychiatry have been developed worldwide [133]. However, in general the concepts and the standards of quality assurance and management do not vary much across different medical specialities. Likewise, there are some studies, which identified several determinants of the quality of psychiatric referrals and services in the western world [16,21,134]. These revealed factors are mainly related to patients' socioclinical characteristics, referring doctors' qualities, settings' features, availability of good psychiatric services at referred psychiatric institutions, and proper communication between the doctor and the patient [14,135]. In general, the referring GPs conversant with the specialty, working experience and proper continuing training could further determine the quality of referrals including psychiatric referrals. The resources utilization rate, location-rural/urban-of primary care services, standard referral or proforma letters [136] and availability of psychiatric services there could also lead to good quality of referrals to higher level of health delivery systems.

Beyond these three interfacing components of referral process and communication, i.e., patient, referring doctors and qualities of settings, the qualitative and quantitative aspects of referral letters could also be correlated, as aforesaid, to a fourth important structural component in terms of excellent psychiatric and psychosocial services available within mental health hospitals to which the patients are referred [11]. Besides good teamwork, GPs' initial direct contact with the referred consultant was reported to have a good impact on the quality of referrals and consultation feedback response [136]. Notably, there may arise some conflicts during these interactive communications among health providers and consumers, which should be resolved by adopting ethical guidelines [137]. Some studies have reported that in addition to other market forces [138], the financial incentives offered by health authorities would also determine the quality of psychiatric referrals.

It is documented that writing a good quality of referrals has several implications on art of patient care including a good quality of feedback from the consultants [16]. The writing of meagre information in referring letters and feedback responses should be discouraged globally. This type of referral process needs proper quality monitoring in order to improve the quality of referrals [13]. The other suggested solution was that form letters-standardized and structured-rather than nonform letters could be the better option for providing more relevant information by the GPs [139] and hence good quality of referrals. Furthermore, establishing and maintaining good referral relationships and network among patients, GPs, and specialists was also considered important to their success including their places of medical practice. In summary, the excellent quality of referrals attributed to several causal components improves the consultants' decision making for enhancing the overall quality of delivery of mental health services to the patients. It further helps in the identification of sensitive indicators that help in writing good quality of psychiatric referrals and excellent feedback from the consultants. It can also help in comparative research related to the referral system.

2.14. Severity of Mental Illness and Quality of Referrals

A body of research has revealed a variety of socioclinical factors that contribute to the severity of psychiatric illness [140]. The revealed sociodemographic factors were the young age, male gender, single marital status, poor education, unemployment, and urban residential status [140,141]. The personality style and coping strategies, traumatic events, the characteristics of early symptoms and signs were considered indicators of distress, mental illness, relapse and referrals, functional disability and deteriorating outcome course trajectories among health consumers [58,142-144]. In addition, Axis-II diagnosis, cognitive deficits and disturbance, comorbid physical diseases, Axis-I psychiatric disorders in particular substance use disorders that is dual diagnosis, past psychiatric history and previous psychiatric hospitalization, ways of seeking treatments, and other factors also reported to influence the severity of mental disorders [140,144-146]. Certain psychiatric diagnoses [144] themselves reflect the severity domain.

Moreover, some sociocultural factors may also determine the severity of the mental illness and consequent behaviour, which are reported to be socially disadvantaged group, lack of social group and social network, lack of social skills and lower level of social functioning, disturbed families, patients' perception of the illness, ethnicity and race, lack of religious affiliations and attitudes and others [142,147,148]. The genetic factors may also determine the severity of the mental illness, as shown in animal [149] and human studies [150].

A good knowledge and rigorous assessment of the severity of the mental illness by using standardized measures and its categorization into mild, moderate and severe and/or neurotic versus psychotic proportions has considerable clinical significance and several other implications. Besides having reciprocal relationships with some of its determinants, the severity of mental illness, interalia, guides clinicians to adopt an appropriate management plan, disposition and care including appropriate prescription of medications and psychotherapies [151].

The severity of mental illness further decisively predicts its early identification by general practitioners [141]. It also predicts poor drug compliance and missed appointments, poor prognosis and outcome, and limited role of social and vocational

rehabilitation programs. However, in one study the severity of illness did not predict the compliance with the referral [152]. The researchers further found that the patients with severe mental illness in terms of psychoses repeatedly utilize emergency room services and other mental health resources with a heavy economic burden, usually associated with their longer index admission, overstay in the hospital and future rapid relapses [153,154]. Additionally, such patients were at higher risk for developing physical comorbidity and mortality [155]. Most importantly, the researchers have demonstrated that severely ill patients come across a variety of barriers to receiving mental health services that need proper reorganization so as to remove these obstacles [140].

2. 15. Psychiatric Referrals a Rich Source of Medical Diversities

Psychiatric referrals could be an important source of information that would be of great use in exploring many aspects of interfacing psychiatry in the following ways, 1) the noted data in the GPs'/physicians referrals from PHCCs/GHs can guide referred consultants about their psychiatric clinical skills, 2) the written feedback responses reflecting the skills of the consultants would be of immense benefit to the patients and the referring GPs/physicians, 3) as a corollary of this referral process, each partner would have enhanced knowledge plus the data could be used for comparative research regarding the referral protocols/letters, quality of referrals, and diagnostic and therapeutic skills and attitudes towards mental illness of involved health partners, 4) referrals could indicate the interfacing communication between referring doctors and the referred consultants, 5) referrals would be a good source of knowing vital data including referral rate, referral attrition rate, correct/wrong placement of patients, and the sociodemographic pattern of referred patients and prescribing habits of the referring physicians and the consultants, 6) referrals could be a good material for studying the pattern of psychiatric comorbidity and severity of mental disorders among health consumers of PHC, GHs and teaching hospitals, 7) most importantly research on referrals could help in organizing training programs tailored according to the identified needs of the involved partners working at different health delivery settings, 8) through referrals, the clients may have easy access to the appropriate services at higher health levels, 9) referrals may guide about good or poor

therapeutic relationship between the patient, the referring doctor and the consultant, 10) through referrals, the patient load could be distributed fairly among three levels of community, and 11) referral system could overall streamline and improve the delivery and the quality of health services to clients at all levels. There may be other benefits of proper referral system including good link with higher health delivery systems.

2.16. Studies on Nonpsychiatric and Psychiatric Referrals in the KSA

The obligatory referral system was introduced in the Kingdom of Saudi Arabia for the first time in the year 1989 [1]. This system with proper coordination among three of its components- patient, referring doctor and the referred consultant- ensured delivery of good quality health care services at three levels of community. It also provided opportunity for mutual understanding, upgrading, education, effective teaching of patients, referring general practitioners and the consultants [2]. There are 10 studies [1,2,156-163] in the KSA that have addressed several issues of referral system in primary care and general hospitals. These studies identified several difficulties including structural, procedural and technical problems associated with referral system. All these studies had taken into consideration only nonpsychiatric referrals and made more or less similar several recommendations including 1) the need to carry out comprehensive comparative studies in rural and urban PHCCs in regard to the referral system, 2) the need to improve communication between the primary care system and the secondary care system, especially in terms of a clearer indication by the specialist as to the required treatment of the patients on their return to the primary care team, this could be elaborated by giving examples of the areas where such improvements could be beneficial to the patients, 3) the need for additional training of the primary care team to be able to diagnose and deal with patients' complaints as a part of their in-service training, 4) making certain that the primary care team has the access to and knowledge of required diagnostic and treatment technology, depending on the recommendations of the specialists, and finally 5) the need for an educational programme for patients to inform them about their rights and obligations with respect to the expectations of the primary care team and the specialist [2]. In contrast to aforesaid studies of nonpsychiatric

referrals, to our knowledge, there are only two studies that have explored the diagnostic and sociodemographic characteristics of psychiatric patients referred by general practitioners to a primary health care psychiatric clinic [164,165]. Although these studies were prospective, they had several limitations including small sample sizes and exploration of only demographic and diagnostic parameters of referred patients. This prompted us to carry out further several related research on psychiatric referrals.

2.17. Psychiatric Morbidity Studies and GPs training in the KSA

Like in western countries, the magnitude of primary care psychiatric morbidity in Arabian Gulf countries was estimated to be 30% to 46% [87,164-170]. In a Jordanian study, Al-Jaddou reported 61% psychiatric morbidity among clinical patients [86]. The most common mental disorders identified in these studies were anxiety disorders, depressive disorders and somatoform disorders, an epidemiological trend consistent with western world. However, other mental disorders like substance use disorders, personality disorders, adjustment reactions, organic brain disorders common in western world were relatively uncommon in these studies. This findings could be attributed, *interalia*, to unique sociocultural dynamics of the rapidly developing countries. Most importantly, there is a big gap between projected primary care psychiatric morbidity and the provisions of delivery of mental health services at primary as well as secondary level. To fill this gap, an utmost priority was given to the psychiatric professional development both at PHC and secondary level. Therefore, GPs were trained in primary care psychiatry in recent past [171-173] in order to partially meet the psychosocial needs of primary care attendees with psychiatric morbidity. We also explored their attitudes towards psychiatry and the relevant literature was also reviewed extensively [171]. By and large, there is a huge database on continuing medical education and attitudes of public, medical students, physicians, and paramedical medical staff towards psychiatry in western world as compared to the rapidly developing countries [142, 171].

Subsequently, similar psychiatric training programs were adopted by and conducted in other regions of Saudi Arabia and more such programs to be conducted continuously in

future. Evidently, there is some progress in primary care psychiatry but a lot to be done in coming years including establishing some community mental health centres in Arabian Gulf countries. Unlike primary care psychiatry, general hospital psychiatry is slightly in better shape. For example, there are 16 GHs in Al-Qassim health province and three of them have psychiatric clinics (18.8%) run by consultant psychiatrists together with specialists and resident doctors. However, general hospitals have no admission facilities for psychiatric patients. Probably, the similar trends are obvious in other gulf countries. In light of this background the author suggests that priorities should be given in organizing and establishing primary care and general hospital psychiatric services in Gulf countries. This would tremendously help in providing complete health including mental and social health to all people.

Finally, this review of literature informs us that besides ensuring excellent clinical practice rapidly developing countries need to think more seriously about continuing medical education, training programs for professional development, streamlining referral system, developing psychiatric consultation-liaison services at three health delivery levels, and conducting related relevant research. Evidently, in this regard the industrialized world is far ahead of developing world. It is because of this simple reason we have carried out a number of studies on referral system, psychiatric training programs for general practitioners and their attitudes towards psychiatry. Notably, several specific components of this literature review are used in the introduction of subsequent chapters.

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CHAPTER 3

AN ANALYSIS OF PSYCHIATRIC REFERRALS, SAUDI ARABIA[1]

Abstract

Objective: The implementation of referral system in Saudi Arabia has resulted both in streamlining of and substantial improvement in the delivery of health services at all levels. This research seeks to study the adequacy of information in the psychiatric referral letters that were originated from primary health care centres [PHCCs] and general hospitals [GHs] to a regional mental health hospital facility. **Settings:** Buraidah Mental Health Hospital**,** Al-Qassim health province. **Method:** The sample is comprised of randomly selected 540 photocopied psychiatric referrals [PHCCs=402, GHs=138] of patients who were referred for psychiatric consultation. **Results:** The analysis of data showed that the noted age and gender of referred patients were not significantly associated with two main sources of referral. Although PHCCs letters were quantitatively deficient in clinical information, the completeness of letters between the two referral sources did not differ significantly. GH referrals as compared to primary care referrals revealed statistically significant clinical findings and physical comorbid conditions. A proportion of diagnoses noted in overall GH referrals as compared to PHCC referrals was significantly matching with final diagnoses made by referred psychiatrists. **Conclusion:** Overall, psychiatric referrals both from PHCCs and GHs need further improvements in

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quantity and quality of data notation in referral letters. Moreover, general practitioners [GPs] including GH physicians need a condensed course on clinical psychiatry in general but psychiatric referral system in particular. **Keywords:** Psychiatric referral letters, primary health care centres, general hospitals, clinical psychiatry, training, psychiatric referral system.

Introduction

Mental health care was linked with primary health care system for providing complete health for all people worldwide [1]. Moreover, the integration of primary care and behavioural health care also results in better communication between providers and systems, leading to improved patient care [2]. Furthermore, this relationship became of overriding importance because most (approximately 15%-85%) patients with a variety of psychological disorders, subthreshold conditions, somatic symptoms and comorbid disorders consult general practitioners for the purpose of treatment [3-8]. Most primary care physicians recognize their patients with psychological disorders and treat them [8]. But the recognition rate of psychological disorders and appropriateness of treatment may vary considerably across studies and may be attributed to study settings. Nonetheless, a proportion of cases with anxiety, depression, addictions, and somatization are not yet recognized and so remain untreated in primary care and hospital settings as well [9]. To add more diagnostic problems, somatic presentation in primary care and hospital settings is rather very common and reported incidence varies from 20% to 60% while pure somatizers among them constituted 3% to 8% [10,11]. Taken together, these patients visit frequently primary care and general hospitals with overutilization of medical resources incurring higher economic cost [12]. They also develop substantial levels of suffering, impairment, and disabilities [13], social as well as occupational.

In order to avoid these adverse outcomes, these patients need early referrals to a mental health hospital. The main determinants of psychiatric referrals include patients' perceptions of his own mental ill-health, comorbid physical conditions, suicidal patients, high current symptoms ratings, serious psychotic mental disorders and other disabling

conditions, physicians and public attitudes, misconceptions, and myths against mental disorders, and a lack of screening psychometric scales at primary care clinics [8,14-17]. Other factors determining referrals are the ability of GPs to detect psychological disorders, GPs' attitudes towards psychological problems and their management, and service criteria for appropriate referral [18]. The provider factors relating to health providers determining referral practice are delay of admission, communication with referring physician, and competence of the hospital [19]. Additional determinants of referral rate are the sociodemographic variables including male gender, higher socioeconomic status, low level of education, single/separated/divorced status, and finally unemployment. Link with the mental health institutions further determines the rate of psychiatric referral [18]. The patients' religious affiliations, social networks and social group may also determine psychiatric referrals. For instance, the perception of mental illness by the traditional/religious faith healers has some influence on psychiatric referral [20]. Kessel was one of the firsts to look at the issue of referral patterns who reported that 10% of patients in general practice are referred to psychiatrists [21]. The current rate of referrals from primary care to psychiatry ranges from 5% to 30%.

Notably, the obligatory referral system was introduced in Saudi Arabia in the year 1989 [22]. This system with proper coordination among three of its components ensures delivery of good quality health care services at three levels of community. It also provides opportunity for mutual understanding, upgrading, education, and effective teaching of patients, referring general practitioners and consultants and/or specialists [23]. There are eight other studies [the list of these references is available with the first author] in Saudi Arabia that have addressed several issues of referral system in primary care. These studies have identified standards and assessment indicators of referral system. All these studies had taken into consideration only nonpsychiatric referrals. In contrast, our study explores psychiatric referrals. We hypothesize that PHCC psychiatric referrals as compared to GH referrals will have deficient recorded data. Therefore, the main objective of this study is to answer this question by analyzing psychiatric referrals originating both from PHCCs and GHs.

Method and Material

Background of referral system in Saudi Arabia

Having realized the tremendous significance of referral system, the health planners introduced referral system in Saudi Arabia in the year 1989 [22,23]. At the same time throughout Saudi Arabia many PHCCs were established in both rural and urban areas in order to provide health care services to all citizens [23]. The compact organization of health services in rural areas is of considerable importance, as this sector of population tends to underutilize or has restricted access to health services [23,24]. Further special strategies [24] were also highlighted so as to mobilize this particular population to use justifiably the PHC services. Additionally, each family was registered at PHCC located in the catchment area and also received a family health card for follow-up.

Following implementation of the referral system, it was deemed that the referral system guidelines would be used strictly throughout Saudi Arabia. No patient except with potential emergencies will be received at secondary or tertiary levels. Each referred patient would have clear feedback response from specialists/consultants for follow-up and continuing management at PHCCs. On the contrary, we found that some medical patients continued to consult physicians without referrals, some referred patients did not comply and all consultants did not give feedback responses to the patients [23]. With special reference to psychiatric patients, an impressive proportion of them come to psychiatric hospital for consultation without psychiatric referral letters. Similarly, very few mental patients receive feedback responses from psychiatric specialists. This is because of several known reasons. First, there are no psychiatric facilities including psychiatrically trained doctors and nurses available at PHCCs in Saudi Arabia. Second, psychotropic drugs for filling prescriptions are not available at PHCCs. Third, no staff trained in psychotherapy/counselling are present at PHCCs. Fourth, though contrary to referral system guidelines, the hospital administration allows patients without psychiatric referrals to be evaluated and managed by psychiatric staff. Finally, no general hospital in Al-Qassim region except Buraidah Mental Health Hospital has any in-patient admission facilities for mental patients. However, there are only three psychiatric outpatient clinics in these general hospitals in this region.

Like in western countries, the percentage of primary care psychiatric morbidity in Arabian Gulf countries is 30% to 40% [25,26,27]. Therefore, our team trained PHC physicians in primary care psychiatry in order to meet partially the psychological demand of PHC attendees [28,29]. It is expressed that the emerging observations, findings and recommendations of this study should be interpreted in the light of this background of referral system in Saudi Arabia.

Sample

The sample, collected randomly over a period of one year [January 1999 to January 2000] is comprised of 540 psychiatric referral letters of patients who were referred to psychiatric hospital for consultation. First, in a systematic random fashion we selected 10 sections from 30 racks [1:3, 33%] of psychiatric record centre where outpatient files are kept. Each section contains approximately 110-125 files. Then, we retrieved one by one all files [n=1110] kept in these 10 sections. The files containing referral forms were separated. The appended referral letters to these files were either photocopied or the written information on them was immediately transferred to the empty standard MOH referral form. Some files had original referral forms plus its duplicate photocopy; the latter was detached and used for the same purpose. During data collection period, the first author also reviewed some patients in outpatient clinics and again those files having referral letters were separated and these referral letters were also photocopied. Identifying the name of the patient ensured that no referral letter was included twice during computer data entry. Both the first diagnosis of and prescribed treatment for the patient by the referred psychiatrists in the mental health hospital were the additional information taken from each file and again immediately noted on the photocopied referral forms. In this fashion, we collected 540 referral letters [PHCC=402, GH=138].

These PHC referral forms were from eight different sources, 1) Ministry of Health PHCCs, 2) PHC units in schools, 3) PHC units in universities, 4) PHC units in defence institutions, 5) National Guard PHC units, 6) PHC units in Ministry of Interior, 7) private clinics, and finally 8) primary care units outside Al-Qassim region. GH referrals were from 1) general hospitals, 2) specialist hospital, 3) psychiatric hospitals outside Al-Qassim region and 4) psychiatric clinics based in general hospitals. The referring

specialties were 1) internal medicine, 2) emergency medicine, 3) neurology, 4) dermatology, 5) gastroenterology, 6) psychiatry, 7) neurosurgery, and finally 8) paediatric.

Method

The recorded information on referral letters by referring general practitioners /resident doctors/specialists/consultants was the only material used for this research. Like GHs referral forms completed by physicians, a physician is expected to write the following information in the Ministry of Health standard referral letter; 1) serial number, 2) date of referral, 3) nationality, 4) age of the patient, 5) gender of the patient, 6) address, 7) name of the PHCC, 8) name of the patient, 9) family registration number, 10) referred hospital, 11) referred specialty, 12) type of referral- urgent, elective, and emergency, 13) complaints with duration, 14) present/past history, 15) physical examination, 16) systemic examination, 17) investigation, 18) treatment given, 19) reasons for referral, 20) name of the referring doctors, 21) signature of referring doctors and stamp, 22) possible diagnosis, and finally 23) the feedback information is provided by the referred specialists. Notably, neither the Ministry of Health referral letters nor general hospital referral forms are validated. During detailed analysis of each letter, we looked for additional data not mentioned in MOH referral forms but recorded by the referring doctors such as 24) mental status findings. We also recorded the psychiatric diagnoses made by the general practitioners/somatic specialists (item 25) [referral diagnosis] and the referred psychiatrists (item 26) [final diagnosis] by screening each file of the patient. Additionally, we also recorded (item 27) from these files psychotropic drugs prescribed to each patient by the evaluating psychiatrists.

From the perspective of data notation in referral letters, we also assessed the interrater agreement by randomly picking 50 psychiatric referrals, 15 from GHs and 35 from PHCCs. Two assessors independently rated the noted information as detailed above. Then, we identified the items of disagreement/conflicts such as mental status examination and physical findings which were resolved by discussion. Finally, an interrater agreement rate of 98% was reached.

Scoring system and data analysis

We designed a score of 10 for comparing the completeness of referrals of patients referred from PHCCs and GHs. First, we excluded two items from the aforesaid 22 items that is signature of doctor and date of referral from the scoring system, because physicians tend to note these two items in almost all referral letters. The mental status examination (item 24) was also not included because it consists of multiple components. The item 25 about referral diagnosis was also not included for computing the score because it primarily reflects the concept of accuracy rather than adequacy. Further, we also did not consider the data regarding items 26 and 27, which were mainly collected from patients' records rather than referral forms. In addition, attending psychiatrists do not write feedback reports (item 23) because almost all referred mental patients are finally followed at mental health hospital level.

Thus, we were left with 20 items. From quantitative perspective, we scored 0 for item not noted while 1/2 for noted item in the referral letters. As a result, the score of each referral letter ranged from 0 to 10. Broadly speaking, those items of the highest possible standard could be categorized into administrative data like serial number, date of referral, name of the PHC, and family registration number and socioclinical data for instance type of gender, age of the patient, and history of illness. A properly completed referral letter provides a crucial link between GPs and the specialists. In addition, each item has equal but divergent importance, some have administrative significance while others have clinical significance. Additionally, these items were not used in this study as predictors or indicators of some outcome or endpoint. Therefore, we decided to give the same weight to each item. Besides using frequency distribution analysis, one way analysis of variance [ANOVA], chi square and other tests were used for analyzing certain parameters including age, gender, score of completeness and its effects on types of sources of PHCC and GH referrals and different specialties in GH referrals, history of present illness, investigation, clinical examination, diagnosis, mental status examination and physical conditions. P value of 0.05 or less was considered statistically significant. SPSS 7.5 for Windows was used for data analysis.

Results

Out of 540 psychiatric referrals, 138 patients [25.6%] were referred from various general hospitals while 402 patients [74.4%] were referred from different primary health care centres. The distribution of men and women in general hospital referrals was 74 (53.6%) and 64 (46.4%). In PHCC referrals, there were 198 men (49.3%) and 204 women (50.7%). The mean age of patients referred from GHs and PHCCs was 31.53±18.13 and 30.32± 18.68, respectively. Table 1 shows frequency distribution of some data that was recorded both in PHCC and GH psychiatric referrals.

Table 1. Distribution of some recorded parameters in PHCC and GH referrals

Variables[a]	PHCCs N=402(%)	GHs N=138(%)
1. Serial Number	224 (55.7)	48 (34.8)
2. Date	393 (97.8)	131 (94.9)
3. Nationality*	388 (96.5)	125 (90.4)
4. Name of PHCC/GH	397 (98.8)	136 (98.6)
5. Family registration number	331 (82.4)	79 (57.2)
6. Age	380(94.5)	133 (96.4)
7. Referred specialty**	352(87.6)	131(94.9)
8. Referred hospital**	394 (98.0)	128 (92.8)
9. Complaints	395 (98.3)	----------
10. Duration	215 (53.5)	88 (63.8)
11. Treatments	096 (23.9)	66 (47.8)
12. Reasons for referrals	383 (95.3)	113 (81.9)
13. Doctor's name	366 (91.0)	137 (99.3)
14. Doctor's signature	388 (96.5)	137 (99.3)
15. Doctor's diagnosis	222 (55.7)	116 (84.1)
16. Psychiatric Hosp. diagnosis***	401 (99.8)	134 (97.1)
17. Psychiatric Hosp. treatment***	396 (98.6)	130 (94.2)
18. MOH /GH stamp	400 (99.5)	131 (94.9)

19. Type of referrals ****	073 (18.2)	40 (29.0)

Some variables are shown in Table 2[a], Most of them Saudi*, Psychiatry**, from referral letters and psychiatric files***, type of referral not recorded and/or marked were considered as elective in this study**** Items 1, 2, 4, 5, 7, 8, 13, 14 & 18 relate to general administrative information.

It was observed that the general information in terms of administrative data was missing relatively more from GH referrals. On the other hand, the more specific data in terms of socioclinical information was not fully recorded in PHCC referrals. However, based on statistically designed score of 10, a t-test analysis found no significant differences as regards the completeness of referrals from the two sources [GH score, n=138, mean ± sd=7.58±1.4, PHCC score, n=402, mean±sd=7.50 ±1.57, P=0.88, n.s].

Nonetheless, the important socioclinical information was poorly recorded in PHCC referrals [Table 2 next page].

Table 2. Some socioclinical parameters of patients referred from PHCCs and GHs

Parameters	PHCCs N=402 (%)		GHs N=138 (%)		P value
	Mean	SD	Mean	SD	
Age	30.32	18.68	31.54	18.14	0.43
Sex	Male	Female	Male	Female	
	198 (49.3)	204 (50.7)	74 (53.6)	64 (46.4)	0.51
	Recorded		Recorded		
H/O the illness	136 (33.8)		121 (87.7)		0.00
Clinical Exam.	342 (85.1)		107 (77.5)		0.05
Investigation	38 (9.5)		80 (58.0)		0.00
MSE	10 (2.5)		24 (17.4)		0.00
Physical Dis.	69 (17.2)		53 (38.4)		0.00

H/O=history of, MSE=Mental State Examination

No statistical differences were observed when we compared age and sex of patients referred from PHCCs and GHs. However, a comparison of most important individual clinical variables such as history of present illness, investigations, clinical examination, mental status examination, and physical comorbid disorders between the two types of referrals revealed statistically significant differences [Table 2].

There were eight different primary care clinics and eight different specialties within four types of hospitals that referred the patients for psychiatric consultation. The details of these different sources of referrals are given earlier. When we compared the score of completeness across eight different types of PHCCs using ANOVA, the score was high (8±.99) for national guards clinics and low (4.5±.83) for university based clinic units

(p=0.001). However, the score of completeness did not differ across four different hospitals or eight different specialties within these hospitals (p=0.376, n.s.).

Regarding proportion of patients with the same diagnosis (referral and final), no significant difference was observed across different types of PHCC (p=0.297, n.s.), or different types of general hospitals (p=0.115, n.s.). However, this was not the case when the proportion of patients with same diagnosis was compared across different specialties, as 64.5% referred patient from psychiatric clinic had the same diagnosis as the final compared to 35% in Emergency medicine referrals and 42% in internal medicine referrals (p=0.035). General hospital referrals as a whole had a higher proportion of same diagnosis, 45.7% compared to 24.9% in PHCCs referrals (p=0.001).

Discussion

This study presented a comparative analysis of PHCC and GH psychiatric referrals. In general, these psychiatric referrals were deficient quantitatively as well as qualitatively. Although all items of referral letters are important, an arbitrary categorization into general data in terms of administrative information and specific data in terms of socioclinical information found that unlike PHCC referrals, GH referrals significantly revealed more specific data such as history of present illness, investigations, mental status findings, comorbid physical disorders but at the same time lacked more general information. The local researcher [23], who studied descriptively non-psychiatric referrals, projected more or less similar findings. However, in another research [30] the sample selection bias could have inflated the high percentage [71%] of poor quality of primary care non-psychiatric referrals. In a Spanish study of psychiatric referrals, 10% of them lacked minimal necessary information [31]. In a British study of elderly referrals, significantly less information was available to community mental health team when the referral was by letter than by telephone [32]. This trend could be attributed to a variety of factors including time constraints, types of referrals, case load, relative lack of psychiatric training and skills, physicians' attitude and lack of proper communication between mental health staff and general practitioners and hospital clinicians. The implication of this finding is that besides continuing primary care psychiatry training of related professionals

and development of psychiatric consultation-liaison services, both PHCC and GH referrals need further improvement in providing quantitative and qualitative information that had been related to the psychiatrists' level of satisfaction [33].

The only two-recorded sociodemographic variables in terms of age and gender of referred patient did not find any significant association with GH and PHCC referrals. In a British study, the patients referred from general hospitals were older than GP referrals [<0.05] while no significant difference was found between the two genders [34]. Some descriptive studies of psychiatric referral [35] found women to be overrepresented while others [36,37] found the reverse epidemiological trend that could be attributed to sampling characteristics and study settings and design. Other sociodemographic factors that are reported to affect the referral process are higher social class, urban background, being single, divorced/ separated and unemployed [34-37].

This research further found that GPs working at certain clinics tend to significantly note data while referring the patients to secondary level. This could be explained by multiple factors including the availability of comprehensive referral forms and characteristics of settings in particular the work load. In hospital settings, a proportion of the psychiatric diagnoses noted in referrals originating from psychiatric clinics were found to be significantly compatible with psychiatrists' diagnoses. Furthermore, our study also found that a proportion of diagnosis entertained in GH referrals as a whole was significantly matching with psychiatrists' final diagnosis. Alternatively, clinicians working in general hospitals including psychiatric clinics of general hospitals have comparatively fairly good psychiatric diagnostic skills. This could be attributed mainly to their frequent exposures to training programs. In a Spanish study, diagnostic accuracy of GPs was 61% much higher than found here, however GPs as compared to primary care physicians specialized in family medicine reported less data regarding psychopathological symptoms [36]. Furthermore, the concordance between GPs and the research diagnosis is low to moderate. It is generally believed that the GPs do not recognize up to 50% of patients with psychological disorders [8]. Moreover, Pini et al reported that physicians diagnosed depression comorbid with anxiety in 84.6% of cases in primary care [5]. In rapidly developing Gulf countries, in general the recognition rate

of psychological disorders in primary care and general hospitals by GPs and physicians is comparatively low [25-29], as also revealed in this research.

Limitations

This research has some caveats, 1) no method was used to calculate the sample size of this study. Although selection of the sample was random, the referrals do not represent consecutive series of referred patients. It would have been better to have a control group of self-referred patients for comparison and building models, 2) although the MOH referral letters were purported to be standardized, no standard measurement tools were used to assess the contents of referral letters completed by referring GPs and physicians, 3) the tentative results and conclusion of this study should not be generalized, because the sample is not representative of the population in question, 4) the report of this study may have some ethical implications in particular the GPs may make objections against the findings of this study. Notably, the GPs are the major referrers of psychiatric patients and have relatively excessive work load at PHCCs, so in light of this, the findings of this research could be justified and are of great relevance to general practice. However, the initial results of this study could be the eye openers for health planners who should make appropriate training, manpower management and service-oriented developmental programs to overcome several barriers active at primary care in particular relation to mental health services [38], and finally 5) in view of the tremendous literature from west on the topic in question, this research may appear not to be original. However, the design of this study is by all means original. Moreover, there is scanty literature on psychiatric referral system from Arabian Gulf countries [39]. For instance we do not know what proportion of primary care patients are referred to psychiatric hospital/clinics for consultation. We also do not know attrition rate of psychiatric referral and so on. From all these perspectives, there is a further need to conduct researches on psychiatric referral system in Arabian Gulf countries as a whole.

Conclusion

The psychiatric referrals both from PHCCs and GHs need further improvement in data recording by GPs and physicians. Appropriate quality assurance programs may assist to achieve this goal. Additionally, they also need condensed psychiatric training courses to enhancing their diagnostic and psychotropic prescribing skills. There is a further need to developing community and general hospital psychiatric consultation-liaison services.

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CHAPTER 4

PSYCHIATRIC REFERRALS IN PRIMARY CARE AND GENERAL HOSPITALS IN QASSIM REGION, SAUDI ARABIA[2]

Abstract

Objective: From different perspectives, psychiatric symptoms have special significance in psychiatry. This study comparatively describes the psychopathological symptoms as noted in primary care (402) and general hospital (138) referrals. **Method:** Five hundred and forty psychiatric referrals, retrieved randomly, were reviewed extensively for collecting relevant data. **Results**: Both hospital and primary care referrals were observed to have a variety of psychological and somatic symptoms of variable frequencies, which were suggestive of several psychopathological domains. Functional psychotic (19.5% versus 10%), mood (27.5% versus 23%) and psychosomatic (7% versus 2%) symptoms were significantly more often noted in hospital referrals as compared to primary care referrals, while the later were observed to have significantly more somatic (34.5% versus 22.5%) and neurological (8% versus 4%) symptoms. Only a small proportion of primary care referrals (8%) have symptoms of childhood psychiatric disorders. **Conclusion:** Psychiatric symptomatology differs in primary care and general hospital referrals. Both the general practitioners and clinicians are expected to record psychiatric symptoms in a comprehensive manner. Hence, they need condensed training courses on psychiatric symptomatology.

Keywords: Psychiatric referrals, psychopathological symptoms, psychiatry training.

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Introduction

Although unaided by confirmatory laboratory tests, psychiatric symptomatology essentially provides a variety of insightful windows, primarily on the functions of the human brain. Moreover, a systematic evaluation and examination of symptoms and signs as revealed by the psychiatric patients guides clinicians in the formulation of epidemiological, etiological, phenomenological, diagnostic, therapeutic, prognostic, outcome and research trajectories of mental disorders [1-10]. The psychiatric symptoms also subserve a variety of other functions including determining onset and relapse of a disease, noncompliance by the patient [11], differentiation between organic and functional psychopathologies [12,13] and further helps in the construction of natural history of the illness [14]. Furthermore, the significance of clinical phenomenology is reflected in a variety of researches including quality of life [15], life-events [16] and various drug trials. Notably, psychiatric symptomatology is the chief architect of almost all the rating scales used in psychiatry. Similarly, psychiatric symptoms and signs are the basic building blocks of international classifications of mental disorders. Besides highlighting seriousness and general distress [17,18], the psychiatric symptoms also influence health care utilization [19]. The symptom pattern shown by patients may also reveal the social and cultural dynamics of a society [20-22] and guide the patients to seek medical and non-medical help [21,23]. Often the symptoms and signs, extremely crippling to the patients [24], are genuine but rarely may be false [25]. The physical symptoms, though less superior than psychological symptoms in detecting common mental disorder [26], may help in identifying certain mental illnesses [27]. From all these perspectives, mental health providers must have an in-depth understanding of psychiatric symptomatology. Finally, psychiatric symptomatology also determines the referral process of mental patients to a higher health level [28,29]. Moreover, the pattern and severity of psychiatric symptoms may vary in accordance with the level of health delivery systems [30] and medical co-morbidity [31,32]. For instance, the patients referred from primary care as compared to general hospitals may differ in severity of

symptoms and their presentation. This research investigates comparatively the symptom pattern noted in psychiatric referrals from primary care centres and general hospitals.

Methods

We have described in chapter 2 [33] the method of random selection of the sample, which is comprised of 540 psychiatric referrals (PHC=402, GHs=138). We reviewed these referrals extensively for collecting the relevant data including the symptoms/complaints as noted by general practitioners and hospital clinicians. Initially, from a symptom perspective we categorized psychiatric referrals into two categories, 1) referrals with less than four recorded symptoms, and 2) referrals with more than four recorded symptoms. Then, once again we reviewed extensively these referrals and entered in the computer all noted complaints/symptoms and signs in accordance with a symptom checklist. This checklist was prepared after reviewing several standardized scales including the Brief Psychiatric Rating Scale [34], Hamilton Rating Scale for Depression [35], Present State Examination [36], and Mini-Mental State [37] and major classificatory systems that is Diagnostic and Statistical Manual of Mental Disorders, 4th version (DSM-IV) and International Classification of Diseases, 10th version (ICD-10) [38,39]. We have used these scales in our previous research [40,41,42,43]. While compiling the 48-symptom checklist, the chief symptoms and signs derived from these scales and also consistent with each preconceived psychopathological domain, the details of which are given below, were noted. The clinical experience of authors and extensive review of these psychiatric referrals further guided in the selection of psychopathological domains and their associated symptoms/signs. Notably, general practitioners and physicians used the English language in completing almost all the psychiatric referrals. Therefore, translation from English to Arabic and vice-versa was not attempted at this juncture. As only the first author has assessed and rated all those psychiatric referrals in line with this checklist, it was not possible to assess the interrater reliability. Although we have not ventured to assess the construct/predictive validity of the symptom checklist, we feel that it has reasonable utility in rating symptoms and signs noted by general practitioners and physicians in those psychiatric referrals. This 48-symptom checklist

may require further advancement and expansion along with these psychometric evaluations in future studies on psychiatric symptomatology in which patients will be recruited for comprehensive assessment. The symptoms were categorized into several domains. In the organic domain, the symptoms were memory disturbance/forgetfulness, disorientation to time, place and person, seeing objects/visual hallucinations, and repeated irrelevant shouting. The functional psychotic domain symptoms were suspiciousness/delusions, hearing voices/auditory hallucinations, irrelevant/vague thinking, and negative features. The mood domain symptoms were sadness/depression, elation/mania, suicidal ideation, delusions of grandiosity, and hyperactivity/retardation. The anxiety domain symptoms were anxiety/panic, phobia, obsession/compulsion and acute stress. The somatic symptom domain included conversion, somatization, hypochondriacal and pains. The neurological domain constituted of altered consciousness/confusion, tonic/clonic convulsion, tongue bite/incontinence and fall/injury. This symptom domain was considered because our hospital was offering services to patients with seizures. The services were discontinued about one year ago. Additional symptom domains were related to grief/history of recent death, drug abuse, psychosomatic disorders, psychotropic adverse reactions, and adjustment problems. Under other symptom domains, we included a variety of symptoms/signs that are aggression/assaultiveness, minor psychological disturbance/abnormality, restlessness/irritability/crying spells, impotence, insomnia, hypersomnia, catatonic retardation, social isolation, sleep-walking, mental retardation, nail-biting, school phobia, enuresis, encopresis, stuttering, stammering, attention-deficit hyperactivity symptoms, and finally hair pulling. The first author reviewed all these referrals in order to collect noted signs and symptoms from present and past histories, physical and systemic examinations and mental status findings, which were matched with the diagnoses made by the general practitioners, clinicians, and psychiatrists.

Like in chapter 3, we also repeated interrater assessment procedure by randomly selecting 50 referrals (GH=15, PHCC=35). The two raters independently identified multiple items of conflicts which were resolved by discussion and ultimately we reached an interrater agreement of 94%. We used SPSS 7.5 Windows program for analyzing the

data. We used frequency distribution, the chi-squared test and Fisher′s Exact test and a *P* value of 0.05 or less was considered significant.

Results

Sixty-eight general hospital referrals (68/138, 49%) as compared to 298 primary care referrals (298/402, 74%) have less than four recorded symptoms. Hence, about twice the number of general hospital referrals (51%) as compared to primary care referrals (26%) had more than 4 recorded symptoms which was statistically significant ($\chi 2=29.06$, d.f.=1, $P<0.001$). It has been reported that two key symptoms (panic and depressed mood) supplemented by five other symptoms facilitated the identification of majority of anxiety and depressive disorders in the medical population [3]. Notably, patients scoring high in psychiatric symptomatology tend to utilize more general health services and prescribed drugs than those with low levels of psychiatric symptoms and dysfunctions [19]. In a related development, patients with sub-threshold psychiatric symptoms, symptoms not meeting the full criteria for a DSM-IV Axis 1 disorder, need further broad psychiatric assessment [24]. The pattern of symptoms in primary care and hospitals are shown in Table 1.

Table 1. Frequency distribution of different symptom domains in primary care and hospital referrals

Symptoms	Primary Care		Hospitals	
	n	(%)	n	(%)
Organic	24	(6)	8	(6)
Psychotic	39	(10)	27	(19.5)
Mood	93	(23)	38	(27.5)
Anxiety	121	(30)	42	(30)
Somatic	139	(34.5)	31	(22.5)
Psychosomatic	9	(2)	10	(7)
Neurological	31	(8)	6	(4)
Diagnosis as symptom	33	(8)	17	(12)

$\chi 2$=23.42, d.f = 7, P = <0.001

The functional psychotic, mood and psychosomatic symptoms were significantly more often observed in hospital referrals as compared to primary care referrals. Similarly, the diagnosis noted as symptom was significantly more often noted in hospital referrals. While somatic and neurological symptoms were comparatively significantly more often reported among primary care referrals. Organic and anxiety symptoms were equally distributed between two sources of referrals. Less frequently noted symptoms between primary care and hospital referrals are shown in Table 2.

Table 2. Less frequently observed symptoms domain in primary care and hospital referrals

Symptoms	Primary care		Hospitals	
	n	(%)	n	(%)
Drug-abuse	4	(1.0)	5	(3.5)
Grief	4	(1.0)	1	(1.0)
Adjustment	1	(0.2)	2	(1.0)
Drug reaction	1	(0.2)	7	(5.0)

$\chi 2 = 5.98$, d.f = 3, $P = <0.112$, n.s. (unpooled data),

$\chi 2 = 16.35$, d.f = 1, $P = <0.001$, significant (pooled data)

When these symptoms were pooled, a significant proportion of hospital referrals was observed to have them. Table 3 shows frequency distribution of other "general" symptoms as noted in primary care and hospital referrals. Aggressive spells, agitation and sleep disturbances were more often noted in hospital referrals while minor psychological disturbances and lack of social relationships were more common among primary care referrals. When three groups of symptoms after proper pooling (aggression, psychological disturbances and restlessness), (insomnia and sleep walking) and (retardation and social isolation) were analysed by chi square test, no significant differences were observed ($P>0.05$). However, Fisher exact test revealed that aggression was more in GH referred patients and psychological disturbances were more in PHC referred consultees.

Table 3. Other general symptoms observed in primary care and hospitals

Symptoms	Primary Care		Hospitals	
	n	(%)	n	(%)
Aggression/assaultiveness	2	(0.5)	21	(15)
Psychological disturbance	33	(8)	6	(4)
Restlessness/irritability	21	(5)	19	(14)
Insomnia/hypersomnia	131	(33)	72	(52)
Retardation/catatonia	2	(0.5)	1	(1)
Social isolation	9	(2)	2	(1)
Sleep walking	3	(1)	1	(1)

$\chi 2 = 4.47$, d.f = 2, $P = <0.11$ (pooled data), Fisher exact test, $P=<0.001$ for aggression being more in GHs, $P=<0.002$ for psychological disturbances more common in PHC.

Table 4 shows distribution of psychiatric symptoms noted either in primary care or hospital referrals. The psychological problems most commonly encountered among children were noted only among primary care referrals.

Table 4. Other symptom domains observed only either in primary care or hospital referrals

Symptoms	Primary Care		Hospitals	
	n	(%)	n	(%)
Mental subnormality	14	(3.5)	--	(--)
Enuresis	13	(3)	--	(--)
Speech	2	(0.5)	--	(--)
Nail-biting	1	(0.2)	--	(--)
School phobia	2	(0.5)	--	(--)
ADHD	1	(0.2)	--	(--)
Trichotillomania	--	(--)	1	(1)

ADHD - attention deficit hyperactivity disorder

Discussion

This study comparatively explored psychiatric symptomatology in primary care and hospital referrals and found a pattern of psychiatric symptoms that could be grouped into most frequent and less frequent symptoms compatible with major predefined domains. Furthermore, in addition to general symptoms pattern, this study also found symptoms that were present only in either of the primary care or hospital referrals. The symptoms of different psychoses, depressions and psychosomatic disorders were found to be noted more often among hospital referrals when compared with primary care referrals, which is partially consistent with other researchers [1] who reported pain (47%) and depression (40%) to be the most common diagnoses. Like hospital referrals, the severity of psychiatric symptoms is reported to be higher in psychiatric outpatient clients than the general practice patients [30]. This expected finding suggests that major psychiatric disorders and psychosomatic disorders are usually mushroomed in general hospitals. This could be attributed to the comorbid physical disorders associated with severe psychiatric

symptomatology [31] and patients with such complex comorbid disorders usually seek medical rather than psychological help. Likewise, one study found a high current symptom rating that was related to medical help-seeking [23]. Moreover, the severity of psychopathology during hospitalization also indicates poor outcome [10]. Psychiatric interventions addressing common psychiatric conditions like disabling depression [5] and panic [9] improve the quality of patients with or without changing their medical status [15]. We suggest that all the general hospitals and primary care centres with no psychiatric facilities should refer immediately those patients with severe psychopathologies to the psychiatric hospitals in order to begin early psychiatric intervention. On the other hand, in addition to neurological/epileptic symptoms, somatic symptoms suggestive of general psychic distress [8,17,18] in a variety of minor/major psychological disorders such as conversion, somatization, hypochondriacal and pain disorders were revealed significantly more among primary care referrals when compared with hospital referrals. This finding, similar to some studies [13,26] but incongruous with other researchers [44], is suggestive that the patients with neurotic psychopathologies usually first consult their general practitioners and family physicians that might be attributed to social stigma attached to mental disorders. Moreover, sociocultural background contributes to the neurotic symptom manifestations that have a different focus for clients in different sociocultural settings [22]. According to some researchers [20] neurotic symptom constellations are culture-bound. At the sociodemographic level, the reporting of physical/somatic symptoms whether or not associated with psychiatric co-morbidity is influenced by gender, for example women report 50% more physical symptoms than men, followed by education [7]. Besides hospital clinics and primary care centres, patients with mood (37.5%), psychotic (11%) and anxiety (20%) disorders also present with somatic symptoms in emergency services [4]. Like psychological symptoms, somatic symptoms (84%) are reported to interfere with patients' routine activities and led them to take medications or visit a physician [27], often with poor compliance [11]. Therefore, physicians should alert themselves while assessing patients with somatic symptoms in particular unexplained somatic symptoms that most likely indicate hidden psychiatric syndromes. The pooled symptoms related to drug abuse, grief, adjustment and adverse-drug reactions were significantly noted in hospital referrals,

which possibly suggest the differential diagnostic skills of physicians and general practitioners. Or the patients with these disorders are usually coupled with either severe psychological or physical complications that guide the patients as well as their relatives to seek emergency medical help including hospitalization often offered by the general hospitals rather than the primary care centres. Consistent with our study, researchers have reported depression, adjustment reactions with depressive and anxious mood, panic disorder, generalized anxiety disorder in the patients admitted to general medical wards [14].

The general symptoms/signs including excitement, agitation, and sleep disturbances most commonly associated with psychotic disorders were significantly more often noted in hospital referrals as compared to primary care referrals. This finding further lends support to our aforesaid observation that psychotic disorders or more serious psychological problems, or both, are usually encountered in hospitals. Conversely, minor psychological disturbances and restricted social behavior mainly associated with marital disharmonies, family and occupational problems and social phobias were significantly noted more often in primary care referrals. Overall, all these revelations support robustly the notion that most severe psychiatric disorders are often referred from general hospitals as compared to primary care. It is further reported that only 5% of patients consulting general practitioners have psychotic mental illnesses that require referrals to a higher health level.

Finally, symptoms suggestive of mental subnormality, enuresis and encopresis, speech disorders, nail-biting, school phobia and attention deficit hyperactivity disorders were exclusively noted in primary care referrals. In a study of the paediatric population, certain symptoms like school refusal, enuresis, mental subnormality and others were significantly more in low socioeconomic groups, while nail-biting and food related symptoms were more common in high socioeconomic groups [2]. The finding of our research raised some relevant questions. Are these childhood disorders mostly referred to paediatricians within the general hospital? Are these childhood disorders only managed by paediatricians without being referred to psychiatric hospitals? Are general practitioners enforced by way of non-availability of drugs or lack of management skills to refer such patients to the psychiatrists? Does the prevalence of these disorders differ

across these two sources of referrals? By and large, there is no epidemiological data on child psychiatric disorders in Saudi Arabia. Similarly, there are no provisions for child psychiatric services in psychiatric hospitals as well as in general hospitals. Therefore, we suggest that child psychiatric clinics should be opened in psychiatric and general hospitals. By all means, child psychiatry warrants proper planning, development and research in rapidly developing Arabian Gulf countries as a whole [45].

In conclusion, despite some limitations of this research, the psychiatric symptomatology differs in certain aspects between primary care and general hospitals. The resident doctors and general practitioners need continuing training courses on psychiatric symptomatology in order to enhance their understanding of psychiatric symptoms and signs so that they can note them down properly and comprehensively while referring a mental patient to a higher health level.

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CHAPTER 5

PSYCHIATRIC CO-MORBIDITY IN PRIMARY CARE AND HOSPITAL REFERRALS, SAUDI ARABIA[3]

Abstract

Psychiatric and physical morbidities among patients referred from primary health care centres (PHC) centres and general hospitals (GH) in Al-Qassim region were compared. Thus, 540 psychiatric referrals (GH = 138, PHC = 402) were selected randomly. Fifteen GH patients but no PHC patients were referred for admission. Psychiatrists made more diagnoses of dementia, affective and anxiety disorders, mixed anxiety-depression and somatoform disorders than GH doctors and general practitioners (GPs). GH physicians made significantly more diagnoses of acute psychoses and somatoform disorders than GPs. Physical morbidity was noted in 38.4% and 17.2% of GH and PHC referrals respectively.

Introduction

The co-occurrence of psychiatric and physical disorders reported among primary care and hospital patients has implications that are etiological, diagnostic, therapeutic, prognostic, economic, planning and research [1-7]. In the context of psychiatric co-morbidity among primary care and hospital patients, a variety of psychiatric disorders are reported to coexist with cardiovascular, gastrointestinal, neurological, respiratory and endocrine disorders. The identification of psychiatric disorders and medical illnesses among medical and psychiatric patients is essential for the delivery of integrated

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treatments in a cost-effective manner. Patients with psychiatric disorders and patients with physical diseases are at higher risk of developing physical diseases [8] and psychiatric disorders [9] respectively, if left untreated. Although this relation is complex, each disorder complicates the other. Chronic co-persistence, for instance, is associated with increased length of stay in the hospital and with psychological, social, and physical disability [10-12].

Unlike Western countries where primary health care (PHC) psychiatry and general hospital (GH) psychiatry are fairly well developed, many Arab countries face challenges in developing and delivering mental health services, in particular, at the community level. Although the projected prevalence of psychiatric disorders in PHC centres and GHs in these countries is high (>60%), there is as yet no adequate provision for delivering mental health services to patients with psychiatric manifestations. Therefore, most patients with identified psychiatric morbidities (47%) are referred to secondary-level care [13]. Nonetheless, approximately 45% of patients are reported to have hidden psychiatric morbidities and are not referred [14].

Psychiatric referrals are important to the study of psychiatric and physical morbidity in PHC centres and GHs. The patients are usually referred by the general practitioners (GPs) and clinicians who evaluate them. Although some of these patients remain psychologically undiagnosed or the diagnoses are not noted in their referral letters, psychiatrists evaluate each patient and make a diagnosis with treatment recommendations. The current study comparatively analysed psychiatric referrals in order to project the pattern of psychiatric co-morbidity identified by psychiatrists, clinicians and GPs.

Method

The referral system, the random selection of the 540 referral letters and the method of collection of psychiatric diagnoses and treatments recommended by the psychiatrists are described in chapter 3 [15]. The referral system was introduced to Saudi Arabia in 1989. After its introduction, it was decided that the referral system guidelines were to be strictly followed throughout Saudi Arabia. Nevertheless, many patients still come to

psychiatric hospitals for consultation without referral letters. This trend is attributed to four causes.

- Psychiatric facilities and personnel, including psychologically trained doctors and nurses are not available at PHC centres.
- Psychotropic drugs for filling prescriptions are not available at PHC centres.
- There are no staff trained in psychotherapy or counselling at PHC centers.
- Although contrary to referral system guidelines, hospital administration allows patients without referrals to be evaluated and managed by psychiatric staff.

In our study, 540 referral letters that were randomly collected from January 1999 to January 2000. First, we selected randomly 10 sections of the 30 racks of the psychiatric record centre in which outpatient files were kept. Each section contained approximately 110-125 files. Then, we removed all files (1110) and the files containing referral forms were retained. The appended referral letters in these files were either photocopied or the written information was transferred to standard ministry of Health referral forms. Some files had original referral form plus a duplicate photocopy, which we detached. During the data collection period, the first author also met with patients in outpatient clinics and those files with referral letters were also photocopied. Patient' name was used to ensure that no referral letter was included twice. Both the first diagnosis of and the prescribed treatments for the patient by the psychiatrist were taken from each file and simultaneously noted on the photocopied referral forms.

A standard ministry of health referral letter contains items such as, date, nationality of the patient, name of PHC centre, age, referred specialty and hospital, complaints, duration of complaints, treatments, reason for and type of referral, doctor's name, and diagnosis. The Hospital referral forms also contain more or less similar points.

We calculated the frequency distribution of nationality, types of referrals, reasons for referrals and duration of illness. Types of referral were divided into elective (i.e. ordinary) or urgent (i.e. requiring immediate medical/psychiatric help including special treatments for saving life). Because almost all patients were referred, type of referral was

not recorded in many letters. Therefore, we considered referrals that did not have "urgent" written or marked on the referral letters as “ordinary”. Reasons for referring a patient for specialist mental health care as noted in referral letters by referring doctors, which were mostly overlapping, were categorized into six types: overall management and care; diagnostic and treatment; evaluation, diagnosis and treatment; investigation, treatment and follow-up; admission; and personal request. Most referrals had overlapping reasons. We categorized duration of psychiatric illness as either less than six months or more than six months. We also reviewed each patient’s file in order to record diagnoses and drug treatments prescribed by the psychiatrists.

Upon presentation, patients in our study usually followed procedure to diagnosis. Outpatient files were opened for all new patients consulting Buraidah Mental Health Hospital, whether with or without a referral letter. The psychiatric specialist determined procedure following a circumscribed interview, which guided psychiatric decision-making, i.e., whether the consultee is a case of psychiatric disorder. After this, the patient was seen by the social worker in order to collect social data. Then the resident doctor conducted both physical and systemic examinations of the patient. Thereafter, the resident doctor consulted with the psychiatrist about the patient in order to plan management including diagnosis, treatment and follow-up. Any diagnostically difficult patients were discussed in the psychiatric consensus meeting at the hospital. As the hospital officially uses the International Classification of Mental Diseases (ICD-10), if the psychiatric specialist had knowledge of DSM-IIIR and DSM-IV classifications they were used. Under certain circumstances, the clinical psychologist also evaluated some new patients. Mostly, the diagnoses made by the psychiatrists were robustly precise.

During previous training programmes conducted in Al-Qassim region [16,17], some of the GPs and GH doctors were trained in clinical psychiatry including a brief discussion on ICD-10. Therefore, diagnostic labelling of referred patients partially coincided with ICD-10 classification of mental diseases. As in previous research papers, we calculated the interrater agreement between two raters who separately reviewed 50 referral letters together with 50 respective mental health hospital records mainly for the purpose of physical and psychiatric diagnosis made by GPs, GH doctors, and psychiatrists (GH=15, PHCC=35). The identified incomprehensive diagnostic items were

discussed thoroughly and an ideal interrater agreement of 94% was achieved. The data were analyzed with frequency distributions. In addition, the chi-squared analysis was used for categorical parameters. A *P*-value equal or less than 0.05 was considered significant. We used *SPSS* 7.5 for data analysis.

Results

More non-Saudis were referred for psychiatric management from GHs than from PHC centres ($\chi 2 = 14.34$, $P < 0.001$) (Table 1).

Table-1. Socioclinical features of referred patients

Socioclinical features	GH (n=138)		PHC Centres (n=402)		$\chi 2$	d.f.	p
	No.	%	No.	%			
Nationality							
Saudi	113	81.9	380	94.5			
Non-Saudi	12	8.7	8	2.0	14.34	2	<0.001
Unrecorded			13	9.4	14	3.5	
Types of referrals							
Elective	106	76.8	392	97.5			
Urgent	32	23.2	10	2.5	58.52	1	<0.001
Reasons for referrals							
Overall management & care	24	17.4	126	31.3			

Diagnosis and treatment	21	15.2	15	3.7			
Evaluation, diagnosis and treatment.	48	34.8	228	56.7			
Psychological investigation, treatment and follow-up	26	18.8	28	7.0)	56.61	3	<0.001
Admission			15	10.9	0	-	
Personal request			0	-	1	0.2	
Unrecorded			4	2.9	4	1.0	
Duration of illness (months) [a]							
<6	40	28.99	114	28.33			
>6	48	34.78	101	25.12	1.43	1	0.23

GH = general hospital, PHC = primary health care, [a]recorded in referrals (GHs=88, PHCC=215)

A statistically significant higher proportion of patients with urgent psychiatric problems came from GHs compared to PHCCs (23.2% versus 2.5%) whereas more PHC patients were referred on an elective basis ($\chi 2 = 58.52$, $P < 0.001$]. 'Overall management and care' and 'Evaluation, diagnosis and treatment' were significant reasons noted in referrals from primary care as compared to the reasons mentioned in GHs referrals. On the other hand, 'Diagnosis and treatment', 'Psychological investigation and follow-up' were more often mentioned reasons in GH referrals as compared to PHCC referrals ($\chi 2 = 53.61$, $P < 0.001$]. Admission as a reason was noted in 15 GH referrals (10.9%). One patient from primary health care (0.2%) was referred on personal request. Duration of illness when arbitrarily divided into two categories, i.e. less than or more than 6 months, did not differentiate between the two sources of referrals ($\chi 2 = 1.43$, $P = 0.23$). However, when we divided duration into three categories, i.e. 3 months or less, 4-6 months or more

than 6 months, a statistically significant higher proportion of patients whose illness was of less than 3 months duration were referred from GHs ($\chi 2 = 15.93$, $P < 0.001$].

Psychiatrists and GH doctors did not note diagnoses in 4 of 138 (2.9%) and 22 of 138 (15.9%) referrals respectively (Table 2).

Table 2. Psychiatric diagnoses by GH and PHC referrals

Diagnosis	GH referrals (n = 138)				PHC referrals (n = 402)			
	Psychiatrist diagnosis[a]		Doctors diagnosis[a,b]		Psychiatrist diagnosis[c]		GP diagnosis[b,c]	
	No.	%	No.	%	No.	%	No.	%
Dementia	13	9.4	2	1.4	20	5.0	4	1.0
Schizophrenic disorder	25	18.1	21	15.2	62	15.4	19	4.7
Acute psychosis	7	5.1	7	5.1	8	2.0	6	1.5
Mood Disorders	34	24.6	23	16.7	118	29.4	66	16.4
Anxiety disorder	19	13.8	18	13.0	70	17.4	47	11.7
Anxiety-depression	7	5.1	6	4.3	26	6.5	9	2.2
Somatoform disorders	14	10.2	11	8.0	22	5.2	7	1.7
Seizure disorder	6	4.3	5	3.6	18	4.5	15	3.7
Childhood disorders	1	0.7	0	-	30	7.5	17	4.2
Psychosomatic disorders	0	-	4	2.9	13	3.2	3	0.7
Miscellaneous	8	5.9	19	13.8	14	3.5	29	7.2

Diagnoses missing	4	2.9	22	15.9	1	0.2	180	44.8

[a]Psychiatrists made more diagnoses of dementia and affective disorders than GH doctors but the difference was not statistically significant ($\chi 2 = 12.798$, $P < 0.05$).

[b]GH clinicians made more diagnoses of acute psychosis, schizophrenic disorders, anxiety depression and somatoform disorders than GPs ($\chi 2 = 18.885$, $P < 0.01$).

[c]Psychiatrists made more diagnoses of dementia, schizophrenic disorders, mood disorders, anxiety disorders, anxiety-depression and somatoform disorders than GPs ($\chi 2 = 33.674$, $P < 0.001$).

GH = general hospital, PHC = primary health care, GP = general practitioners.

Among PHC referrals, psychiatrists and GPs did not note diagnoses in 1 of 402 (0.2%) and 180 of 402 (44.8%) referrals respectively. The pattern of psychiatric diagnosis by referral indicated that GH clinicians made more diagnoses of acute psychotic disorders, schizophrenic disorders, mixed anxiety-depression, and somatoform disorders than GPs ($\chi 2 = 18.89$, $P < 0.01$]. Although statistically insignificant, psychiatrists made more diagnoses of dementia and affective disorders than clinicians ($\chi 2 = 12.79$, $P > 0.05$). Psychiatrists made significantly more diagnoses of dementia, schizophrenic disorders, mood disorders, anxiety disorders, mixed anxiety-depression and somatoform disorders than GPs ($\chi 2 = 33.67$, $P < 0.001$].

Among GH referrals, psychiatrists diagnosed only 1 case with a childhood disorder (0.7%) whereas GH doctors did not note any childhood problems. This trend may be barely any child from general hospitals is referred for psychiatric consultation. As regards psychosomatic disorders, psychiatrists made no diagnosis of such problems but GH clinicians noted these disorders in 4 referral letters (2.9%). Among PHCCs referrals, psychiatrists diagnosed childhood and psychosomatic disorders in 30 (7.5%) and 13 (3.2%) referred patients respectively, whereas GPs noted these respectively in 17 (4.2%) and 3 (0.7%) referred patients.

The diagnoses of physical disorders (122 of 540 patients, 22.6%) were noted in 53 GH referrals (38.4%) and in only 69 PHC referrals (17.2%) [Table 3].

Table 3. Physical diagnoses for GH and PHC referrals.

Diagnoses	GH (n = 138)		PHC (n = 402)	
	No.	%	No.	%
Diabetes mellitus	10	7.3	15	3.7
Hypertension	2	1.4	15	3.7
Gastrointestinal disorder	12	8.7	4	1.0
Neurological diseases	10	7.3	23	5.7
Respiratory diseases	7	5.1	3	0.7
Miscellaneous	12	8.7	9	2.2
Total	53	38.4	69	17.2

GH = general hospital, PHC = primary health care.

Hypertension was more common among PHC referrals, whereas diabetes mellitus, gastrointestinal disorders and respiratory disorders were more common among GH referrals.

Discussion

This study comparatively analysed socioclinical parameters and patterns of psychiatric and physical morbidity noted in psychiatric referrals from PHC centres and GHs. Although most of the referred patients from both GHs and PHC centres were Saudis, among non-Saudis surprisingly more were referred from GHs than PHC centres.

Most of these non-Saudis were suffering from acute behavioural changes upon receiving bad news from home or from tremendous collective stresses associated with psychiatric morbidity [18,19]. A carefully designed study to assess the psychological and physical health of the expatriate community in Saudi Arabia might be useful. With the rapid establishment of private medical services, non-Saudis have restricted access to medical services in public GHs and PHC centres. However, they do have relatively good access to emergency medical services in those settings. Similarly, non-Saudis have full access to psychiatric services available in psychiatric hospitals and to psychiatric clinics based in GHs as private psychiatric services are not yet fully developed in Saudi Arabia.

We found that the more serious referrals were more commonly GH referrals than PHC referrals. Furthermore, most acute referrals (27 of 88, 36.7% versus 50 of 215, 23.3%) ($P < 0.001$) were from GHs, which also referred 10.9% of patients for admission purposes. This might suggest that GHs rather than PHC centres deal with more acute or serious psychiatric conditions, i.e. acute organic/functional psychotic conditions, acute depressive and anxiety disorders, grief reactions, and adjustment disorders. The severity of psychiatric disorders has been reported to be high among inpatient admissions in other reports [20]. In contrast, primary care referrals categorized as urgent did not in fact differ in severity of illness from those with ordinary referral [21]. Because of this, we emphasize that all GHs should develop psychiatric consultation liaison services. PHC also needs a step-wise approach for the establishment of mental health centres in order to provide proper mental health services to patients.

More than one reason or overlapping reasons for referring patients were given for most referrals from both PHC centres and GHs. Reasons included evaluation, investigations, diagnosis, treatment and follow-up, because no mental health delivery systems are available at PHC centres or in most GHs. This differs from our previous research in which we found distinct but not overlapping reasons among non-psychiatric referral [22].

Personal requests for psychiatric referral in this study (0.2%) were very low compared with our previous study (4.9%) (22). This could be attributed to the social stigma attached to psychiatric disorders, specialty and hospitals [16]. The clinical

relevance of this might be that in the absence of psychologically trained staff in the hospitals and primary care, psychiatric patients are referred for multiple reasons. This necessitates the assessing mental health professionals performing comprehensive evaluation including diagnostic formulation, treatment plan and follow-up care for each referred patient.

As in other research [23], we found that acute organic brain conditions, acute psychoses, schizophrenic disorders and somatoform disorders were more common among GH referrals than among PHC referrals. Furthermore, consistent with another study of psychiatric morbidity among GH inpatients [24], affective and anxiety disorders and somatoform disorders followed by dementia were the most common disorders found among GH referred patients. According to some researchers, these diagnoses determine referrals to psychiatric hospitals [25]. In contrast, affective disorders, anxiety disorders, schizophrenic disorders and mixed anxiety-depression followed by somatoform disorders were the common psychopathologies found among PHC referrals. Hence, psychiatric diagnoses by referrals from primary care and hospitals were primarily in agreement. More or less similar patterns of psychiatric disorders in primary care have been reported in other studies [26]. Furthermore, despite somatisation being the most common psychiatric phenomenon in primary care, GP recognition rate of somatoform disorders has previously been found to be low [27], which is in agreement with our findings. The identification and proper management of psychiatric disorders among GH and PHC patients is important as it prevents the development of physical and psychological disabilities associated with role impairment and reduces the length of hospital stay in a cost-effective way.

Finally, a variety of childhood disorders, including mental subnormality, enuresis and encopresis, speech disorders, nail-biting, school phobia and attention deficit hyperactivity disorders, were exclusively noted among PHC referrals. This finding raised some questions. Are these childhood disorders mostly referred to paediatricians within the GHs themselves? Are these childhood disorders only managed by paediatricians without being referred to psychiatric hospitals? Are GPs forced by way of non-availability of drugs or lack of management skills to refer such patients to psychiatrists? Does the prevalence of these disorders differ between these two sources of referral? By

and large, there is no epidemiological data on childhood psychiatric disorders in Saudi Arabia. Similarly, there are no specific provisions for child psychiatric services in psychiatric hospitals or in general hospitals. Therefore, we suggest that child psychiatric clinics should be opened in psychiatric and general hospitals. Child psychiatry warrants proper planning, development and research in Arab countries such as ours.

Concurrent physical morbidity was more common among GH referrals than among PHC referrals, a finding consistent with another study [23]. Hypertension was more common among PHC referrals, whereas diabetes mellitus, gastrointestinal and respiratory disorders were more common among GH referrals. Unlike our two previous studies of psychiatric inpatients [28] and elderly outpatients [29], this study found a lower rate of physical morbidity (122 of 540 patients, 22.6%) [30, 31]. This inconsistency might be attributed both to psychiatric inpatients who tend to have higher rate of physical diseases and age. It has been reported that the prevalence of physical morbidity increases with increasing age [32]. However, the most frequently observed physical diseases in those studies [28, 29] were similar to the present study. Notably, diabetes, hypertension and other cardiovascular illnesses were co-morbid with depression [33], which was the most common disorder in the present study.

Although we did not screen outpatient files of these referred patients for noted physical disorders, it has been documented that psychiatrists do not recognize and/or underdiagnose [32] the physical disorders among psychiatric populations [34]. The clinical implication of revealing physical morbidity in psychiatric patients is that psychiatrists should always assess the physical condition of referred patients. Accordingly, a consultation from a medical staff should always be sought. We further suggest that establishing a psychiatry-medical unit in a psychiatric hospital will circumvent many of the problems faced while coordinating medical-liaison services. It should be noted that the presence of physical illnesses, such as circulatory and respiratory conditions, among elderly psychiatric inpatients with dementia is associated with increased mortality [6]. Overall, psychiatric patients with physical co-morbidity certainly require higher medical care in proper settings. This could be offered by a multidisciplinary team of professionals which includes medical and psychiatric consultants.

In light of the findings of our study and other reviewed studies, we suggest that GH and PHC psychiatry should be further developed in Saudi Arabia.

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CHAPTER 6

PSYCHOTROPIC DRUG PRESCRIPTIONS IN PRIMARY CARE AND GENERAL HOSPITALS, IN SAUDI ARABIA[4]

Abstract

Objective: Primary care and general hospital patients with diagnosed psychiatric disorders need appropriate psychotropic drugs and psychotherapeutic intervention in order to prevent chronic disabilities**,** so that they can have better quality of life. The present study compares psychotropic drug prescriptions by psychiatrists to primary care [n=402] and general hospital [n=138] patients referred to Buraidah Mental Health hospital. The collected data from these two sources were also compared with the previous published data on psychotropic drug prescribing for psychiatric outpatients [n=18265]. **Method:** Five hundred and forty psychiatric referrals together with outpatient files, retrieved randomly, were reviewed extensively for collecting relevant data on psychotropic drugs prescribing. **Results**: Several antipsychotics and anticholinergics were prescribed significantly more often to general hospital referred patients while antidepressants and anticonvulsants were prescribed significantly more often to primary care patients. However, the prescribed dosages of these psychotropics were not significantly varied between general hospital and primary care referred patients. Multiple psychotropic drugs were prescribed significantly more often to hospital patients as compared to primary care patients who received relatively less non-psychotropic intervention. On the other hand, antipsychotics, antidepressants and benzodiazepines were prescribed significantly more often to hospitals and primary care referred patients as compared to psychiatric hospital outpatients who received significantly more prescriptions for anticonvulsants and anticholinergics. **Conclusion:** The pattern of

[4] Qureshi NA, Al-Habeeb TA, Al-Ghamdy YS, Magzoub MMA, Schmidt HG. Saudi Pharmaceutical J 2001; 9: 193-200.

prescription of psychotropics differs between primary health care and general hospital referred patients. The general practitioners and physicians need training in psychotropic drugs in order to prepare them competently to prescribe such drugs to patients presenting to them with a spectrum of psychological disorders. This will definitely reduce patient load on psychiatric hospitals. **Keywords:** psychiatric referrals, primary health care, general hospitals, psychotropics, psychiatry training.

Introduction

The psychological disorders are reported in primary care [1] and general hospital populations [2-4]. These patients require proper assessment both for diagnostic and therapeutic purposes. Therefore, either mental health delivery systems at these settings should be available or the patients should be referred immediately to the psychiatric hospitals in order to plan early intervention and prescription of appropriate psychotropic drugs or nonpharmacological therapies. From the perspective of writing a correct drug prescription, the prescriber must have adequate diagnostic and psychopharmacological skills. This whole exercise is determined by a variety of factors including the educational background and working settings of the prescribing doctor, experience in the specialty, doctor and patient relationship and the sociocultural aspect [5]. Notably, incorrect drug prescriptions are associated with some difficulties including drug interactions and polypharmacy [6], high doses of antipsychotics, the use of multiple antipsychotics and their divided doses [7], misuse, abuse and dependence, in particular on benzodiazepines and stimulants [8-10] and over-and under-treatment of mental disorders [11]. The most commonly identified errors of psychotropic drugs prescribing are incorrect prescription on pharmacological grounds, unnecessarily prolonged regular treatment, incorrect dosage, and polypharmacy with drugs of similar pharmacological action [12]. In particular, psychotropic drug prescriptions need special caution because these powerful medications are associated with various adverse effects [13] and often used by the patients for committing suicide.

The elderly physically ill patients with psychological disorders who are reported to receive the largest proportion of the psychotropic medication prescriptions [14] are

relatively more prone to develop several complications [15]. On the other extreme of age, despite the absence of rational protocols [16], paediatricians and family physicians are reported to use safely the specific serotonin reuptake inhibitors [SSRI] in children and adolescents who present with depression and other diagnosis [17]. Special guidelines should be taken into consideration while prescribing psychotropic drugs to pregnant women with mood disorders [18] and patients with manifestations of HIV [19] and cancer [20]. Furthermore, general practitioners, family physicians and mental health professionals should be aware of patients' over-the-counter use of psychotropic drugs especially anxiolytics before writing a psychotropic drug prescription [21] in order to avoid potentially dangerous synergistic effects.

The pharmacoepidemiology of psychotropic medications varies considerably across studies [22,23]. Unlike in the general population [22], in primary health care the most commonly prescribed drugs were benzodiazepines (24%) followed by antidepressants (8%), neuroleptics (2%) and other psychotropics (10%) [24]. General practitioners were reported to prescribe anxiolytics more frequently without providing diagnosis while psychiatrists prescribe more frequently antidepressants and at the same time provide diagnosis of the patient [25] and this prescribing pharmacoepidemiological trend is now changing [10,26]. However, the variance in psychotropic drugs prescription could be attributed to age, education, residential status, unemployment, income, marital status, gender of the patient, the characteristics of the prescribing physicians, physical and psychiatric morbidity, social disability, culture, settings and availability of alternative therapies, drug regulations and medication reviews [19,20, 23, 27-35].

Notably, the cost of psychotropic drug prescriptions worldwide is phenomenally high. Therefore, each drug prescription should be written in a scientifically correct manner in order to cut down unnecessary costs associated with inappropriate drug prescribing. Moreover, 30-60% noncompliance by patients to psychotropic drugs [36] guides that each patient must be counselled at each visit to adhere to the prescribed drugs to get the maximum therapeutic benefits. Overall, mental health professionals and other specialty physicians alike need medical education programs at all levels that must target prescribing psychotropic agents that include older as well as newer generations of psychopharmacological agents [33,37].

In Arabian Gulf countries, the pharmacoepidemiological data especially on prescribing psychotropic drugs [38] as against nonpsychotropic drugs prescribing [39,40,41,42,43] is meagre. Therefore, this study analyses comparatively the pattern of psychotropic drugs prescribed by psychiatrists to referred patients from primary health care and hospitals. Thus, the pattern of psychotropic medication prescriptions will not reflect the prescribing habits of general practitioners and general hospital clinicians. However, definite extrapolations from these prescriptive patterns of psychotropic medications could be applied to primary care and hospital psychiatric practice.

Method

Sample

The random selection of 540 psychiatric referrals [primary care=402, hospitals=138] has been described in detail in chapter 3 [44]. In brief, referral system was introduced in Saudi Arabia in the year 1989. Following this major step, it was deemed that the referral system guidelines would be used strictly throughout the Kingdom of Saudi Arabia. Nevertheless, impressively many patients come to psychiatric hospital for consultation without referral letters. This trend could be attributed to multiple factors including no psychiatric facilities such as psychologically trained doctors and nurses are not available at primary care, psychotropic drugs for filling prescriptions are not available at primary care, and finally no staff trained in psychotherapy or counselling are present at primary care. Although contrary to referral system guidelines, the hospital administration allowed patients without referral letters to be evaluated and managed by psychiatric staff.

The sample was comprised of 540 referral letters, which were randomly collected over a period of one year [January 1999 to January 2000]. First, we selected randomly 10 sections of 30 racks of psychiatric record centre in which outpatient files were kept. Each section contained approximately 110-125 files. Then, we took out one by one all files [n=1110]. The files containing referral forms were separated. The appended referral letters to these files were either photocopied or the written information was transferred to the standard Ministry of Health [MOH] referral forms. Some files had original referral forms plus duplicate photocopy, which were detached and used for the same purpose.

During data collection period, the first author [NAQ] also reviewed patients in out-patient clinics and again those files having referral letters were separated on daily basis and these referral letters were also photocopied. By identifying the name of the patient, it was ensured that no referral letter is included twice during data entry. Both the first diagnosis of and the prescribed treatments for the patient by the psychiatrists were the additional information taken from each file and at the same time noted on the photocopied referral forms. These referral letters were the substrate for information that was entered in the computer. A standard MOH referral letter contains the following points; 1) serial number, 2)date, 3)nationality, 4) name of primary health care centres, 5)family registration number, 6) age, 7) referred specialty, 8) referred hospital, 9) complaints, 10) duration, 11) treatments, 12) reasons for referrals, 13) doctor's name, 14) doctors signature, 16) diagnosis, 17) treatment, 18) MOH/General Hospital stamp and 19) type of referrals and others. The Hospital referrals also contain more or less similar points.

Under General Health Directorate, there are nine general and maternity hospitals including one specialist hospital. In addition, there are seven other small hospitals under Primary Health Care [PHC] administration. Further, besides private clinics and primary care clinics affiliated to other ministries, there are 140 MOH primary health are centres [PHCCs] in Al-Qassim region. Among them, only one specialist hospital and two general hospitals have psychiatric outpatient clinics, which offer only outpatient services.

Procedure

For the purpose of this study, we coded into the computer psychotropic drugs prescribed by the psychiatrists working in Buraidah Mental Health Hospital that has 100-bed capacity and offers in- and out-patients services. The psychotropic medications were categorized into, 1) antipsychotics, 2) antidepressants, 3) anxiolytics, 4) anticonvulsant, 5) anticholinergics, and 6) miscellaneous. In addition, we also entered in the computer the dosages of each prescribed medication. We also calculated the interrater agreement between two raters by randomly selecting medical record files of 50 patients , which were separately reviewed by two raters for collecting prescribed psychotropic drugs and their dosages and an interrater agreement of 97% was observed.

Previously, we reported [44] that 306 (76.1%) of primary care and 72 (52.2%) of hospital psychiatric referrals were not having any information about any type of treatment including psychiatric and nonpsychiatric. Moreover, the overall available information regarding drug prescriptions-psychotropic as well as nonpsychotropic-from these two sources in particular primary health care referrals [n=85(21%)] was extremely poor, inadequate and pharmacologically wrong. The psychotropic drug prescribing information in hospital referrals originating from nonpsychiatric clinics [n=21(15%)] was also of poor quality. Therefore, in this study we were not interested what treatments general practitioners and physicians noted in those referrals but we investigated psychiatric treatments prescribed by the psychiatrists to those referred patients. The two main sources of information were psychiatric files and referral forms. We also compared the so collected data with our previous published data on psychotropic medications prescribed to psychiatric outpatient population [38].

Data Analysis

The relevant collected data from referrals and files of patients [n=540] were entered in the computer. Besides frequency distribution, chi square test was used for analyzing the categorical parameters. The p value of 0.05 or less was considered significant. We used Statistical Package for Social Sciences [SPSS] 7.5 for Windows for data analysis.

Results

The distribution of prescribed antipsychotic, antidepressant, benzodiazepine, anticholinergic and anticonvulsant medications is shown in Table 1.

Table 1. A comparison of psychotropic drug prescriptions to general hospital and primary care referred patients

Medications[a]	Hospital referrals		Primary care referrals	
	N[b]	%[d]	N[c]	%[d]
Antipsychotics	102	74	242	60
Antidepressants	66	48	248	62
Benzodiazepines	9	7	26	7
Anticholinergics	39	28	69	17
Anticonvulsants	9	7	34	8

$\chi 2=12.356$, d.f=4, p=<0.01

[a]Some prescriptions noted to have more than one medication

[b]total n=138, [c]total n=402, [d] rounded to the most whole number

The dosages of prescribed psychotropics are shown in Table 2. Several antipsychotics and anticholinergics were significantly prescribed more often to general hospital referred patients as compared to primary care referred clients [p<0.01], the later filled more prescriptions of antidepressants and anticonvulsants [p<0.01]. However, benzodiazepines were equally prescribed to both types of referred

Table 2. Distribution of doses and psychotropic medications prescribed to general hospital and primary care referred patients

Medications	General Hospitals		Primary health care		
	N	%[a]	N	%[a]	χ2 analysis
Antipsychotics					
Trifluoperazine					
<5mg	10	7	57	14	
5mg to >15mg	9	7	28	7	χ2 = .85,
Total	19	14	85	21	d.f = 1, p > .05
Haloperidol					
<5mg	4	3	11	3	
5mg to >15mg	21	15	21	5	χ2 = 1.588
Total	25	18	32	8	d.f = 1, p >.05
Chlorpromazine					
<100mg	9	7	13	3	
100 to 300mg	17	12	18	5	χ2 = .085
Total	26	19	31	8	d.f = 1, p > .05
Thioridazine					
<100mg	21	15	67	17	
100 to 300mg	6	4	14	4	χ2 = .082
Total	27	20	81	20	d.f = 1, p > .05
Antidepressants					
Imipramine					
<25mg	8	6	22	6	
25mg to >75mg	9	7	41	10	χ2 = .043
Total	17	12	63	16	d.f = 1, p > .05
Amitriptyline					
<25mg	13	9	50	12	
25 to >75mg	31	23	95	24	χ2 = .181
Total	44	32	145	36	d.f = 1, p > .05
Benzodiazepines					
Diazepam					
<4mg	3	2	5	1	

5 to 10mg	4	3	12	3	$\chi 2 = .025$
Total	7	5	17	4	d.f = 1, p > .05
Clonazepam					
1 to 2mg	2	1	6	2	$\chi 2 = .138$, d.f = 1, p > .05
Anticholinergics					
Trihexyphenidyl					
<4mg	4	3	11	3	
5 to 10mg	6	4	20	5	$\chi 2 = .014$
Total	10	7	31	8	d.f = 1, p > .05
Benztropine					
<1mg	5	4	5	1	
1 to 4mg	19	14	31	8	$\chi 2 = .125$
Total	24	17	36	9	d.f = 1, p > .05
Promethazine					
25 to 50mg	5	6	2	1	$\chi 2 = 5.59$, d.f = 1, p < .05*
Anticonvulsants					
Carbamazepine					
200 to 800mg	6	4	21	5	$\chi 2 = .033$, d.f = 1, p > .05
Dilantin sodium					
300 to 600mg	2	1	9	2	$\chi 2 = .047$, d.f = 1, p > .05
Phenobarbitone					
50 to 100mg	1	1	4	1	$\chi 2 = .052$, d.f = 1, p > .05

*significant.

[a]-rounded to the most small number.

patients. With exception to promethazine [p<0.05], no significant differences as regards prescribed dosages of these psychotropics were observed between primary care and hospital referred patients [p>0.05]. When we compared the prescribed psychotropic drugs among psychiatric outpatients, referred general hospital and primary care patients [Table 3], we observed that antipsychotics and antidepressants were significantly more often dispensed to hospital and primary care referred patients [p<0.05]. In addition, benzodiazepines were significantly less prescribed to psychiatric outpatients [p<0.05]

whereas anticonvulsant and anticholinergics were dispensed significantly less to primary care referred patients [p<0.05].

Table 3. A comparison of psychotropic drug prescriptions to psychiatric outpatients and general hospital and primary care referred patients.

Medications[a]	Psychiatric outpatients		Hospital referrals		Primary care referrals	
	N[b]	%[d]	N[c]	%[d]	N[e]	%[d]
Antipsychotics	6054	33	102	74	242	60
Antidepressants	4232	23	66	48	248	62
Benzodiazepines	620	3	9	7	26	7
Anticholinergics	4018	22	39	28	69	17
Anticonvulsants	2360	13	9	7	34	8

$\chi 2 = 155.65$, d.f = 4, p = <0.002.

[a-] Some prescriptions noted to have more than one medication

[b]-total n=18265, [c]-total n=138, [d]-rounded to the most whole number, [e]-total n=402

Other uncommonly prescribed antipsychotic medications to patients referred from primary health care and hospitals were sulpiride [n = 3 (0.7%) versus n = 2 (1.4%), dosages = <50mg to 300mg daily], risperidone [nil versus n = 1 (0.7%), dosages = 1-4mg daily] and perphenazine [n = 1 (0.2%) versus nil, dosages = 4 to 8mg daily]. As expected, long-acting antipsychotics, i.e. fluphenazine decanoate 25mg/2wkly [n = 6 (1.4%) versus n = 1 (0.7%)], haloperidol decanoate [n = 3 (0.7%) versus nil] and flupenthixol [nil versus n = 1 (0.7%)] were rarely prescribed. Likewise, other uncommonly prescribed antidepressants to primary care and hospital patients were clomipramine [n = 20 (5%) versus n = 2 (1.4%), dosages = 10mg to 75mg daily], moclobemide [n = 3 (0.7%) versus n = 1 (0.7%), dosages = 100mg to 300mg daily], maprotyline [n = 12 (3%) versus n = 2 (1.4%), dosages = 25-75mg daily], sertraline [n = 1 (0.2%) versus n = 1 (0.7%), dosages = 50-100mg daily], trazodone [n = 4 (1%) versus n = nil, dosages = 50-100mg daily].

Other prescribed drugs were propranolol [n = 17 (4.2%) versus n = 5 (3.6%), dosages = 10-30mg daily], triazolam [n = 3 (0.7%) versus nil, dosages = 0.5-1mg daily], vitamins [n = 32 (7.96%) versus n = 14 (10.2%)], and peracetam [n = 2 (0.5%) versus nil].

Multiple drugs were prescribed significantly more to hospital referred patients as compared to primary care referred patients who also received relatively less psychotherapeutic intervention ($p<0.05$) [Table 4].

Table 4. Mode of drug prescription.

Number of drugs	Hospital referrals		Primary care referrals	
	N	%[a]	N	%[a]
1 drug	53	38	188	47
2 drugs	40	29	129	32
3 drugs	32	23	62	15
No drugs	13	9	23	6

$\chi 2 = 7.59$, d.f = 3, $p = <0.05$.

[a]-Rounded to the nearest whole number.

Discussion

This study describes comparatively the psychotropic medications prescribing by psychiatrists to patients who were referred from primary health care and general hospitals. As a corollary, despite some limitations of this research, several important findings emerged. As expected and also supported partially by others [7,23,24,33], different typical antipsychotics and anticholinergics were more dispensed to hospital referred patients while primary care patients received more prescriptions of antidepressants and anticonvulsants. This prescribing pattern is in accordance with the psychiatric disorders revealed in these two settings [45]. We found more psychotic

disorders in general hospitals than in the primary care, where there were relatively more minor psychiatric morbidity in the form of anxiety and depressive disorders. In addition, the prescribing of anticholinergics in psychiatric clinical practice is mostly linked with antipsychotic drugs that cause acute extrapyramidal manifestations. Previously, we have discussed the pros and cons of prescribing anticholinergic drugs in psychiatric patients [46]. The significant prescription of anticonvulsants to primary care referred patients as compared to general hospital patients is understandable in terms of services for patients with seizure disorders that were earlier available in our hospital. This prescribing trend is likely to change in the future as we now no more offer any services for epileptic patients. However, we are aware that some anticonvulsants are used as mood stabilizers in psychiatric population particularly affective disorders.

The equal distribution of benzodiazepines prescriptions to both types of patients is not in line with most of the international studies [9,12,13,23,27,32], which revealed the most frequent use of benzodiazepines and hypnotics (20%) in general and psychiatric practice. A variety of reasons including temporary residents, female gender, old age and psychic and somatic morbidity were offered for frequent prescribing of benzodiazepines. Unlike these studies, females constituted half of the sample [n = 268 (50%)] in our study. Moreover, it was found that the prescription of psychotropic drugs was inversely proportional to the increasing age of patients [>55years, n = 63 (11.7%)]. In another study, primary care physicians were reported to prescribe anxiolytic more frequently while psychiatrists prescribed antidepressants most often [25]. Our above finding could be attributed to Ministry of Health's strict regulation and surveillance regarding benzodiazepines prescriptions. By and large, the epidemiological trend of overprescribing of benzodiazepines is criticized by researchers, especially in view of its potential for misuse, abuse and dependence [8,11] and as a corollary anxiolytic prescribing is on the decrease [10]. Overall, the revealed pattern of psychotropic drugs prescribing varied significantly with our previous research finding [38] that could be attributed to the sample size and its other characteristics. Alternatively, the pattern of psychotropic drugs prescribing changes over a period of time [7,10].

The pharmacoepidemiology of psychotropic medications prescribing is dynamically changing worldwide due to tremendous neuropsychopharmacological

advances, third party involvement, strict regulations, medical reviews and availability of treatment guidelines and protocols [32-35]. However, we feel that the introduction of atypical antipsychotics, specific serotonin reuptake inhibitors, mood stabilizers, reversible monoamine oxidase inhibitors, and newer hypnotics with better clinical and adverse effect profiles and tolerability [17,33,34] appears to have the maximum effect on the changing pattern of psychotropic drugs prescriptions. Unlike other studies [33], the present study found rare prescriptions of newer generation of psychotropic drugs that could be explained merely by non-availability of such medications in our setting. This trend is certainly likely to change in the very near future.

Surprisingly, with the exception to promethazine, the pattern of psychotropic drugs dosage prescription did not vary between two types of referred patients. This trend could be explained by initial minimal doses of neuroleptics, antidepressants, anticholinergics and benzodiazepines that are usually prescribed to new patients referred from primary health care and general hospitals. Alternatively, it could be due to the fact that we have taken into consideration only the first prescribed doses to these patients who might have divergent escalation of doses in subsequent visits. This aspect needs further exploration.

The present study also found that monotherapy was the significant mode of practice in primary care as compared to general hospital referred patients who were prescribed significantly 3 or more drugs. Like our previous research [38] and also other studies [6,28,35] have reported polypharmacy as the predominant mode of prescribing psychotropic drugs in psychiatric patients mostly with psychoses. In addition to potentially dangerous drug interactions [6], polypharmacy most frequently practiced in elderly [35,28] has some other disadvantages [38] including confusion, falling down and fractures. The implication of this finding is that the polypharmacy should be discouraged and could be curtailed to some extent as illustrated by medical reviews promoting programs [35]. Additional implication is that comprehensive protocols covering prescribing details for individual drugs should be developed not only for paediatric [16] but also adult and elderly populations as well. Our study found that the non-pharmacological measures were taken significantly more in hospital rather than primary care referred patients. Certainly, the role of psychological therapies in the treatment of psychiatric disorders is well established and a greater proportion of minor psychological

problems in particular in primary care settings could be treated by psychological means such as counselling, advice, reassurance, problem-solving and other simple psychosocial techniques.

In conclusion, the pattern of psychotropic drug prescribing but not their doses differs in certain aspects between primary health care and general hospital referred patients. This study also suggests that the polypharmacy should be used very judiciously and individual psychotropic drug prescribing protocols should be developed for paediatric, adult and elderly population. Primary health care and general hospital physicians need training in psychopharmacological drugs and psychosocial therapies so that they can prescribe judiciously one of these therapeutic modalities to patients presenting with psychological manifestations. We recommend that initially the psychotropic drug prescribing by these personnel should be monitored and reviewed by quality monitoring team comprising of qualified health personnel.

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CHAPTER 7

QUALITY OF PSYCHIATRIC REFERRAL LETTERS IN SAUDI ARABIA: A STRUCTURAL EQUATION MODELING APPROACH[5]

Abstract

Objective: This study seeks to model proposed causal relationships between the quality of psychiatric referral letters, and its indicators, linked to the features of the referred patient, referring physician, and practice setting. **Settings**: Buraidah Mental Health Hospital, Saudi Arabia. **Method**: Data regarding 18 independent variables underlying 3 latent constructs and one dependent variable represented by quality of psychiatric referral letter score (outcome) was derived from patient files, physician training records, and 540 psychiatric referrals. Structural equation modeling was used to analyze this data for examining proposed causal relationships between the quality of psychiatric referral letters, and its potential predictors. **Results**: The structural equation modeling analysis revealed a reasonably good fit of the proposed model to the data based on various fit indices. The tested model explained 67% of the variance in the quality of psychiatric referral letters. The referring physician characteristics and features of the referral setting were highly significant indicators of quality of psychiatric referral letters, which in turn was negatively predicted by patient features including severity of the mental illness. **Conclusion**: Despite some caveats, the quality of psychiatric referral letters is accurately predicted by three latent constructs represented by referring physician skills, nature of the setting, and patient socioclinical features.

Keywords: Psychiatric referral, structural equation modeling, quality of psychiatric referral.

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Introduction

Primarily, the referral system consists of three interrelated and integrated components: referring primary care physicians, patient, and the referred consultant. Therefore, the characteristics such as doctor-doctor effective communication, meaningful communication between patient and doctor, clinical competency of the doctors, correct diagnosis, treatment and its effectiveness and also other features related to referred patient, referring physician, practice setting, and referred consultant tend to predict referral and possibly, quality and success of psychiatric referral letters (PRL's) [1-6]. Further, an effective telenetwork for liaison among health providers and consumers also contributes positively both to the quality of referral and comprehensive feedback from referred consultants [7]. Notably, the mental illness severity, itself determined by patient profile, psychiatric comorbidities, genetic and sociocultural factors, [8-11] could also contribute both to the quality and types of referrals. Generally, a good quality referral written by a referring physician after a thorough discussion with the patient and the referred consultant, is coupled with good compliance, precise diagnosis and effective therapy, teaching and research, and global improvement of health services [3,6,12-15]. Unlike in developing countries, there is a huge Western database on, and remarkable advancements, in other aspects of referral system and liaison psychiatry coupled with the best quality care to the clients [16-21]. However, to our knowledge, there is no study to date that has used structural equation modeling (SEM) for predicting the quality of psychiatric referral letters (PRL's) based on its completeness as measured by information provided or not provided on the PRLs, which is the main goal of the present research. However, this study has not addressed doctor-patient-consultant communication and effectiveness of the treatment, which also have a definite impact on referral process.

To that end, in addition to noting the qualities both of referring doctors and the practice setting, we reviewed referral letters of 540 patients referred to Buraidah Mental

Health Hospital (BMHH), Buraidah, Kingdom of Saudi Arabia (KSA), and classified them into primary health care centre (PHCC=402) and general hospital (GH=138) referrals. The authors proposed a causal model of quality indicators of PRLs and analyzed the data by SEM techniques. Notably, we did not consider self-referred patients, i.e., patients without referral letters and so no letters on file for such patients as our specific objective was to elucidate indicators of quality of PRLs by measuring the completeness of information on referral letters. However, a study aimed at the factors determining referrals to secondary-tertiary care should also include self-referred patients as a control group.

Method

Study setting

Buraidah Mental Health Hospital with a 150-bed capacity provides in and outpatient services to the one million population of Al-Qassim province, which has 142 PHCCs of Ministry of Health (MOH), 38 private clinics and 14 health units of other ministries. All PHCCs are supposed to use a referral letter provided by Ministry of Health (MOH). This referral letter is meant to note patient's information on 23 variables. Ten GHs, including three with psychiatric clinics that deliver integrated mental services to outpatients, also use a more or less similar referral format. In addition, several health units of other ministries, university and school health units [seven types of health units other than MOH], private clinics, and seven small GHs use dissimilar referral letters containing 10 to 15 items only. Some ministries have now changed this practice by copying MOH referral letters or developing their own detailed referral forms. It is wise to note that though MOH referral letters should not be modified at least across different PHCCs, certain items in particular history, duration of symptoms, systemic examination, diagnosis, treatment and administrative were excluded (or included) from MOH referral letters across 17 general hospitals and 8 primary health units. This modification in referral letters is attributable to regional health administration. Generally, a multidisciplinary team of mental health professionals evaluates referred and self-referred patients to reliably record data in their files. In addition to offering a diagnosis, consultant psychiatrists recommend an integrated management plan. Moreover, difficult to diagnose

and manage cases are discussed in weekly psychiatric consensus meeting. Furthermore, each referral letter is conventionally attached to the file of the referred patient. Admitted patients have an additional inpatient file.

Referral system in the KSA

Aside from establishing a primary health care system, the health authorities officially implemented an obligatory referral system in KSA in the year 1989, for delivering better quality services to all the people who should strictly follow referral guidelines. Despite this, many patients without PRLs, i.e., unreferred clients visit psychiatric hospitals for consultation. Once a referral letter is made by the referring GP, it is given to the patient who delivers it at the time of first appointment at BMHH. Notably, PRLs are not sent directly by the referring provider to BMHH. So, this study took into account only "successful referrals" that is only those where the patient actually followed up on the provider's recommendation to seek psychiatric consultation/treatment. Notably, there is a relative lack of psychiatrically trained PHC personnel in KSA, but now this trend is slowly changing. Unlike in the Western world [22], psychotropic drugs are also not available at PHCCs and community mental health centres are yet to be established in all health provinces of the KSA. In Arabian Gulf countries, hospital somatic physicians now can prescribe traditional tricyclics/selective serotonin reuptake inhibitors and typical/atypical antipsychotics to the patients with diagnosed psychiatric disorders.

Psychiatric training of general practitioners (GPs)

To partially bridge this gap, our team introduced special programs to train GPs in clinical psychiatry and the referral process in order to integrate mental health into primary care [23-26]. Briefly speaking, the psychiatric consultants intensively trained batches of 15-20 GPs selected from PHCCs. One week interactive course included several lectures, workshops, and clinical case demonstrations. Analysis of the data [GPs=112] showed that 87.5% were males with a mean age of 35.27±3.79 and all were

expatriates, 14.3% with higher degrees. We also trained 77 PHC staff, 50% of them GPs [n=38] and the rest female nurses [n=36] and midwives (n=3) [24-26]. Thus, the trained GPs [n=150/220] represented about 68% of the total general practitioners. Albeit these educational courses may not be at par with western standards, the effectiveness of such programs was reflected in increased referrals from PHCCs to GHs and BMHH plus a promising report by two neutral western trained evaluators. Moreover, other regions of the KSA have also adopted our training programs, which are now of national importance. Although we have studied GP' attitudes to mental illnesses [23], Saudi community perceptions are yet to be explored. Notably, all citizens including non-Saudis working in public sectors receive free health services including referrals to higher health care. But, non-Saudis working in private sectors have slightly restricted access to health services as private clinics and hospitals are expensive and possibly many non-Saudis can not bear the costs of treatment.

Model variables- Sample

The sample included 540 referral letters which we collected randomly over one year from January 1999 to January 2000. First, we selected randomly 10 sections of the 30 racks of the psychiatric record centre in which outpatient files were organized and distributed according to number. Each section contained 110-125 files and there were 3664 total outpatient files. Then, we screened all randomly selected files, i.e.,1110 out of 3664 and only those containing referral forms (n=540) were retained. Hence, approximately 50% of patients without PRLs visit BMHH for consultation. The appended referral letters to these files were photocopied. Patient's name was used to ensure that no referral letter was included twice.

Socioclinical variables of patients [See Table 1]

The authors expanded the sociodemographic and clinical database of each referred patient (n=540) after reviewing outpatient files and PRLs. We obtained information on

patient age, gender, nationality, education, marital status, occupation, and finally psychiatric diagnosis and transmitted this to each patient's respective referral letter. Additionally, we also noted physical disorders, clinical complaints, classified psychiatric illnesses into psychotic, nonpsychotic, and depression types, and further defined the severity of psychotic or nonpsychotic proportions based on delusions, hallucinations, disorganized thinking, abnormal affect, and comorbid physical disability. Thus, we measured 10 variables underlying socioclinical latent construct.

Table 1. Input variables in SEM technique

Variables	No.	%
A) Socioclinical patient variables		
1. Age (range=1-110 years)*		
2. Gender-women/men	268/272	49.6/50.4
3. Nationality-Saudis/non-Saudis	516/24	95.6/04.4
4. Education-illiterate/literate	171/369	31.7/68.3
5. Marital status-married/single	365/175	67.6/32.4
6. Occupation-employed/unemployed	156/384	28.9/71.1
7. Physical disorders-present/absent	123/417	22.8/77.2
8. Clinical complaints-<4/>4	366/174	67.8/32.2
9. Types of mental illness-		
-psychotic	132	24.4
-nonpsychotic	241	44.6
-depression	167	30.9
10. Severity of mental illness->severe/<severe	158/382	29.3/70.7

B) Referring setting

11. Residence-rural/urban	306/234	56.7/43.3
12. Setting types-GH/PHCC	138/402	25.6/74.4
13. Psychiatric service-available/unavailable	33/507	6.1/93.9
14. Referral letter types-standard/nonstandard	488/52	90.4/9.6

C) Referring doctors' variables

15. Gender-women/men	64/476	11.9/88.1
16. Professional qualification-MBBS/+MD	472/68	87.4/12.6
17. Duration of practice-<10 yrs/>10yrs	353/187	65.4/34.6
18. Psychiatric training-yes/no	143/397	26.5/73.5

*Mean ± sd = 30.63 ± 18.54

Referring setting

The authors categorized dichotomously, referring settings into rural versus urban, GHs versus PHCCs, and psychiatric service available versus unavailable. We presumed MOH referral letter with 23 items to be a standard referral letter. Against this background, the referral letters arising from different primary care units and general hospitals, containing 50% items of MOH referral were arbitrarily considered of good standard and the rest were ranked as nonstandard. Notably, the noted information on referral letters by the referring physicians was not the yardstick for this arbitration. Furthermore, the evaluation of the noted information on these referral letters by the referring physicians is a separate issue and has been dealt only in the next section of

PRLs as an outcome variable of interest. Thus, this variable (standard versus nonstandard referral letter) is an evaluation of the form itself rather than the noted information. Most importantly, not the items but the data provided or not provided by the referring physicians/GPs on the 23 or less items of referral letters has only contributed to the quality score. Thus, we measured four variables (residence-rural/urban, setting types-GHs/PHCCs, psychiatric services-available/ unavailable, referral letter types-standard/nonstandard) underpinning referring setting latent construct [Table 1].

Referring doctor characteristics

The qualities of the referring doctor has a major impact on the quality of referral. We presumed that physicians, both in GHs and GH psychiatric clinics, have more exposure to psychiatric training and teaching as compared to the GPs. We noted referring physician gender, professional qualification, duration of practice, and any psychiatric training. The source of this data was telephone contact, referral letters, and sociodemographic questionnaires used during training courses. Therefore, we have four measured variables underlying referring doctor latent construct.

All the 18 independent input variables [Table 1] were used (severity of the mental illness dependent parameter too), most of them binomial, for generating a causal model.

PRLs as Outcome Variable of Interest- [n=540]

All PRLs were not similar to the MOH referral form [Appendix 1], which contains the following items 1) serial number, 2) family registration number, 3) name and address of the PHCC/GH, 4) date, 5) name, 6) gender, 7) age, 8) nationality, 9) referred hospital, 10) referred specialty, 11) type of referral, 12) complaints (with duration), 13) history, 14) physical examination, 15) systemic examination, 16) investigation, 17) treatment, 18) reasons for referral, 19) referring doctor name, 20) referring doctor signature, 21) MOH and doctor stamp, 22) diagnosis, and 23) feedback [Table 2]. These administrative (family registration number) and clinical (symptoms) items are means of an effective link

between health providers and users. Hence, all items have equal significance. Therefore, we scored each item, except feedback, as 0 (information not provided) or 1 (information provided).

Table 2. Number and percentage of items that scored 0 or 1 on PRLs

1. Serial number	272(50.2)
2. Family registration number	410(75.9)
3. Name and address of the PHCC/GH	533(98.7)
4. Date of referral	524(97.0)
5. Patient name	540(100)
6. Patient gender	540(100)
7. Patient age	513(95.0)
8. Nationality	513(95.0)
9. Referred hospital-BMHH	522(96.7)
10. Referred specialty-psychiatry	483(89.4)
11. Type of referral-urgent/elective/emergency	113(20.9)
12. Complaints with duration	533(98.7)
13. History-present/past	257(47.6)
14. Physical examination	255(47.2)
15. Systemic examination	194(35.9)
16. Investigation	118(21.9)
17. Treatments	162(30.0)
18. Reasons for referral	496(91.9)
19. Referring doctor name	503(93.2)
20. Referring doctor signature	525(97.2)

21. MOH/doctor stamp	531(98.3)
22. Diagnosis	338(62.6)
23. Feedback*	----------

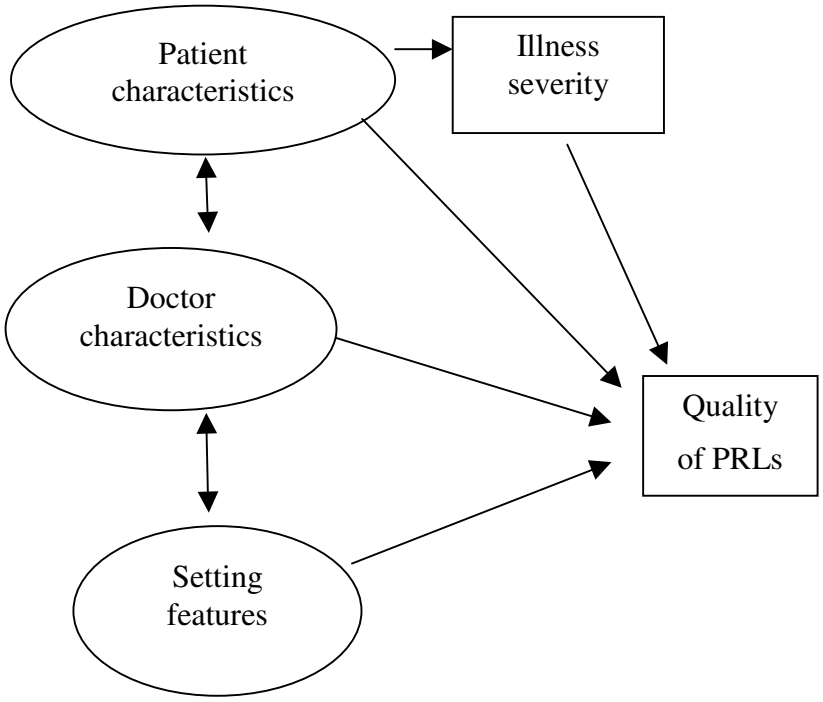
*Not considered

An extra score of 1 was given for legible writing, significant information, specific purpose of referral, and correct diagnosis. Significant information included short history, systemic (or mental status) examination findings, and psychiatric/nonpsychiatric treatments and if two of them were noted by physicians, only then an additional score of 1 was given. Furthermore, the physicians'/GPs' noted psychiatric diagnosis was matched with the diagnosis entertained by the specialist/consultant who interviewed the patient in BMHH and noted each patient's diagnosis in respective psychiatric file. Notably, the percentage of PRLs with correct noted diagnosis that is similar to psychiatrists' diagnosis was 30.2% (GHs-45.7%, 63/138 and PHCCs-24.9%, 100/402) [27]. Each letter was assessed for scoring in a reliable manner, which was confirmed by an independent rater who similarly assessed 50 referral letters (GH=15, PHCC=35). The interrater agreement rate was 96%. The total quality score [range = 0 to 26] of each PRLs was the dependent variable for SEM. The minimum and maximum quality scores were 6 (.2%) and 23 (2%) and its mean with standard deviation was 14.66 ± 3.19. Higher score (>12) based only on noted data arbitrarily reflected good quality of PRLs, though this categorization is irrelevant specifically to SEM analysis.

Proposed causal model of PRLs

This is the first study that tested a causal model of PRLs (Figure 1) represented by 18 input variables underlying 3 latent constructs which, are known to influence the quality of PRLs.

Figure 1. Proposed causal model of Psychiatric Referral Letters*.



*Measured variables are not shown.

This model hypothesized that there might be direct or indirect causal relationships between input variables, mediating variable, and the quality of PRLs. Further, there might also exist interrelationships among latent constructs. Accordingly, an increase in the magnitude of one of the variables may hypothetically cause an increase (or decrease) in the magnitude of the other variables. For instance, this model predicts that an improvement in the variables of doctor characteristics, all other things being equal, may improve the quality of PRLs. Likewise, the role of the other two input variables may be interpreted. The mental illness severity was hypothesized to be a mediating variable between the three latent constructs and the quality of PRLs.

Statistical analysis

Utilizing the AMOS program [28], SEM techniques were applied for analyzing covariance and multivariate data. Our research team associates have used this statistical procedure in other studies on problem-based learning and medical education [29,30]. In the present study, we combined path analysis with latent-factor models to formalize available information on potential indicators and to evaluate their adequacy for predicting the quality of PRLs. The causal hypotheses were expressed as a set of structural equations, de facto multiple regression functions. The sample covariance matrix was used as input and a maximum likelihood solution sought. Notably, SEM uses a variety of techniques for providing several statistics, which indicate the fit of the model to the data. These statistics include chi-square statistic, chi-square divided by degrees of freedom (df), several fit indices including the Bentler-Bonnet non-normed fit index (NNFI), normed fit index (NFI), and comparative fit index (CFI), and standardized root mean squared residuals (SRMR), and root mean square error of approximation (RMSEA). The larger the probability ($p>0.05$) associated with the chi-square, the better the fit of the model to the data. A chi-square/df ratio should be <5.0. Further, SRMR should be <0.05. Each fit index is derived by comparing the predicted covariation in the hypothesized model to the null model and ideally should be 1.0/or >0.9 indicating a good to excellent fit of the model to the data. The RMSEA, a population-based index and consequently, insensitive to sample size, is considered good (<0.10) and very good (<0.05). Item significance is based on the critical ratio (CR), which is the parameter estimate divided by an estimate of the standard error. A CR>2 in absolute value is considered significant.

Results

Parameter Estimates

In addition to descriptive statistics [Tables 1&2], Table 3 shows the correlation matrix of measured variables in the SEM analysis. There are some high negative

correlations between quality of PRLs and psychiatric training, severity of the mental illness, and standard referral letter. These negative correlations reflect that no psychiatric training, very severe mental illness, and referral letters containing too many items may predict poor quality of PRLs. Other negative correlations could be similarly interpreted.

Table 3. Correlation matrix of variables included in the causal model of quality of PRLs.

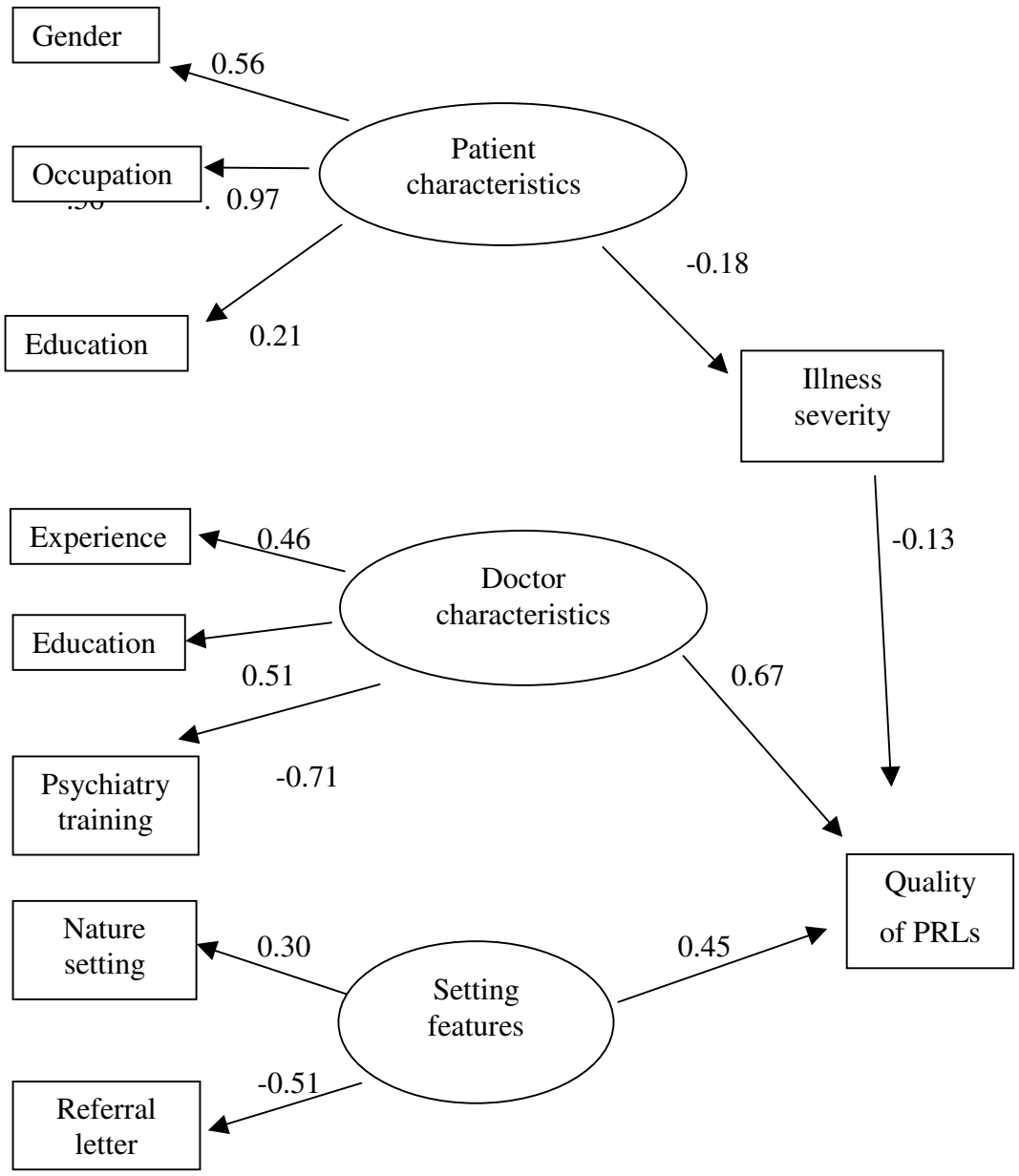
Variable	1	2	3	4	5	6	7	8	9	10	11
1.Quality of Referrals	__										
2. Age	.164	__									
3. Sex	.067	.183	__								
4. Education	- .007	.403	0 .154	__							
5. Occupation	.072	.095	.543	.200	__						
6. Health settings	.086	.102	.113	.037	.135	__					
7. Doctor experience	.288	.098	.095	.052	.077	- .086	__				
8. Doctor education	.402	- .023	- .042	- .108	.033	- .062	.170	__			
9. Psychiatric training	- .477	- .029	- .076	.024	- .095	.085	- .384	- .341	__		
10. Illness severity	- .207	- .258	- .070	.011	- .176	- .053	.006	- .112	0 .121	__	
11. Referral letter	- .281	- .160	- .115	- .012	- .021	- .153	- .076	- .050	.073	.055	__

PRs-psychiatric referrals.

Model Fitting [Figure 2]

Structural equation modeling was used to test proposed model of quality of PRLs. The resulting chi-square was equal to 85.24, based on df=33, chi-square/df ratio=2.58, $p<0.001$, which indicated that this model does not adequately represent the data. Therefore, we included the CFI (normal 1 or >0.90) analysis that overcame the problems of chi-square sensitivity to large sample size and detection of discrepancies between the data and the model. Moreover, the CFI also considers attributes of the unrestricted model relative to the model under test.

Figure 2: Path estimates of the Best-Fitting Model of quality of PRLs[a].



[a] Arrows represent path coefficients, latent variables are depicted in ovals, and observed variables are depicted in rectangles. All variables have estimated residual variance that is not depicted in the figure. PRLs- psychiatric referrals letters, Psych- psychiatric.

For the model retested, goodness-of-fit indices were RMSEA=<0. 05, SRMR=<0.05, and CFI=0.93, which suggested that it represented a reasonable first approximation of the structures representing the data. In Figure 2, arrows represent significant path coefficients ($p<0.05$), which indicate the strength of the causal relationships among latent constructs, mental illness severity, and the quality of PRs. Other insignificant variables were trimmed by the SEM procedures.

Review of the findings of the model

The competence of doctor reflected by more clinical experience and postgraduate qualification, tends to predict the good quality of PRLs. However, psychiatric training did have an indirect significant effect on quality of PRLs that is likely to be attributable to a wide gap between psychiatric training of doctors and the time of the present study. Moreover, the training courses were irregular with long interruptions and the trained doctors were not given any psychiatric clinical role, which might have dulled their skills over time. Alternatively, lack of psychiatric training predicted poor quality of PRLs. As revealed, the good quality of PRLs may also depend on the setting, particularly hospitals. Although the mere presence of referral letters did not directly affect the quality of PRLs, writing complete data in referral forms depends on several other factors including patient cooperation, doctor-patient meaningful communication, patient load, time, physicians motivation, personality, and psychiatric skills. Another explanation is that a referral letter with more (or may be too less) items predicted poor quality of PRLs. Although it is counter-intuitive, GPs prefer a one-page referral letter containing less items that they tend to complete fully [2]. Conversely, more tedious referral letters may often be left uncompleted by GPs due to lack of sufficient time caused by patients overload. Albeit the sociodemographics of the patient, particularly male gender, unemployment, and illiteracy directly predicted severity of the illness, this had no positive impact on the quality of PRLs. Alternatively, mild illness of the patient may predict good quality referral. However, it is clarified that quality of PRLs is partly a judgement of the quality/completeness of the referral letter itself, in addition to both the correct, significant information and the diagnosis but without treatment effectiveness. In summary, although

qualities of referring physician and setting significantly predicted good quality referrals, the patient profile, including illness severity, was found to have low impact on the quality of PRLs.

Discussion

The current study was designed to frame and understand the potential causal indicators of quality of PRLs. The finding from this study, consistent with other studies [1-5], highlighted the causal influence of the competence of doctors on the good quality of PRLs. The data is important as health planners and managers should retain competent doctors, or recruit doctors with additional specialist degrees, which, in turn, enhances the quality of PRLs. Good quality PRLs may also indicate good efficiency and success of the referral system, possibly coupled with improved healthcare services, though this study did not directly address these related issues of clinical relevance. Although psychiatric training parsimoniously contributed to the quality of PRLs, it would be worthwhile to note that educators must regularly train referring physicians in liaison psychiatry and the referral system [16,18,21]. According to another significant finding, physicians in a hospital setting were found to write a good quality referral, possibly attributable to their higher qualification, more psychiatric experience, and frequent psychiatric training. Surprisingly, the referral letter itself predicted poor quality of PRLs, which may suggest, among others, the letter being too tedious. In turn, the more specific the referral letter is, the better would be the quality of referrals. Notably, definition of referral letter (standard vs. nonstandard) and its validity and quantity of information (>30% or more) provided by the referring GPs/physicians may shed more light on the quality of PRLs. Therefore, the health authorities must ensure that there is a competent health team for writing adequate data in the referral letter. According to only some research [2], the referral letter should be of one page, containing specific items as this has a major impact on the efficiency of the referral process.

The causal influence of the sociodemographics of the referred patients, and the severity of the mental illness on referral quality is more limited, albeit significant.

However, other studies [1-5,7] found that, interalia, sociodemographics of the patient are potential predictors of quality of PRLs. According to these findings, serious mental illness predicted poor quality of referrals. For example, seriously ill patients may have temporarily knocked out skills for establishing significant communication with the referring doctors who would feel at a loss to gather complete information, leading to poor quality of PRLs. Alternatively, mildly sick patients might offer detailed data to physicians for writing good quality referrals. The implication is that irrespective of patient profile including illness severity, the referring clinician should collect important data, not only from the patient but also key relatives for writing a good quality referral for effective consultation. Although, illness severity has multiple implications [8], the present study adds to the literature that it may also have a substantial indirect effect on the quality of PRLs. Notably, our tested model explained 67% of the variance in predicting the quality of PRLs. Without patient features and illness severity, the accounted variance was 61%. Hence, these results reflect an acceptable level of predictability.

Methodological Limitations

Several limitations of the current study should be noted. The fact that retrospective data is involved is reason to be careful in interpreting the results. Although the referring doctors assessed referred patients, our results are based on the combined data of what they recorded plus our own interpretation of this data. This was necessary as certain sociodemographic variables, the clinical profile of the referred patients and qualities both of referring doctors, and the setting are reported to affect the quality of PRLs. Further, we have not used any standardized scales for evaluating the noted contents of PRLs. Moreover, it is reiterated that the referral letters were not validated. However, the health authorities drafted the referral letter after consulting many sources. The assessment and scoring of referral letters could be biased. There are many other potential indicators such as validity of noted information, doctor-patient communication, doctor-doctor communication, and treatment success of quality of PRLs, which we could not include in our study due its retrospective design. Unless there are cross-cultural comparisons with

studies that would use SEM for predicting quality of PRLs, these findings should not be generalized globally. Despite all these pitfalls, the strength of this study is that it describes research on a very interesting and critical topic interfacing psychiatric hospitals and GHs/PHCCs and it also applies a sophisticated and interesting methodological approach in terms of structural equation modeling.

Conclusion

This study identified the most important direct and indirect indicators of quality of PRLs, which are the possible attributes of referring physicians/GPs (experience, qualification and psychiatric training), practice settings (GHs/PHCCs and referral letters), and the referred patients (gender, occupation, education, and the severity of mental illness). The results of this study, and a body of reviewed research indicates that there are some other indicators of quality of PRLs together with the revealed predictors; these should be the focus for future research.

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Appendix 1

REFERRAL FORM

The Kingdom of Saudi Arabia

Ministry of Health

General Health Directorate,

Al-Qassim region

1. Serial Number……

2. Name of PHC/GH and address…… 3. Date of Referral……

4. Name of the patient……. 5. Nationality…….

6. Family Registration Number……. 7.Age…….

8. Sex 9. Referred Hospital……

10. Referred Specialty……

11. Type of referral*- a) Immediate b) Urgent c) Elective

12. Complaints (with duration),

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13. History**

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14. Clinical examination- Temp: Resp: B.P: Pulse:

15. Systemic examination***,

16. Investigation,

17. Diagnosis,

18. Treatment,

19. Reasons for referral,

20. Referring doctor name,

21. Referring doctor signature,

22. MOH/doctor stamp,

23. Feedback form#

In some referral forms items such as type of referral*, History**, systemic examination ***, diagnosis, treatment, and feedback form# were absent.

CHAPTER 8

INTEGRATION OF MENTAL HEALTH INTO PRIMARY CARE IN AL-QASSIM REGION, SAUDI ARABIA: PLANNING PHASE[6]

Abstract

This article describes the underlying concepts of planning phase of an innovative health project which aims at integrating mental health into primary care and also to enhance the psychiatric clinical skills of primary health care personnel in Al-Qassim region, in order to deliver the best quality mental health services to primary care clients, many of whom suffer from a variety of psychological disorders. For achieving the projects specific goals, it was deemed crucial to first evaluate trainees' pre-training knowledge, attitude, and practice about psychiatry. In addition, construction of a condensed 4-week psychiatric training course and designing of an appropriate curriculum by various consultants were other two cornerstones of this project. It is recommended that this pilot health project may be a suitable model for other regions of the Kingdom of Saudi Arabia.

Keywords: Health project, primary care, mental health, psychiatric training, integration

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Introduction

The World Health Organization (WHO) has defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". "Health for All by the year 2000" was the slogan raised by the Alma Ata Declaration, 1978 and mental health was considered an important component of primary health care because, as with physical diseases, many psychological problems and disorders are preventable.

It has been reported that approximately 30% to 40% of primary health care (PHC) patients present with some form of psychological problem of variable severity [1]. Almost one-third of them have purely psychiatric complaints [2]. In another study, it was found that about 15% of PHC patients suffer from current anxiety or depressive disorders [3]. Such disorders are associated with substantial disability and functional impairment [4], and chronicity or incomplete recovery [5], which result in higher health-care costs [6]. Moreover, a strong association has been found between psychiatric disorders and the use of general medical services [7] and certainly patients with chronic depressive illness overuse these services [8]. This happens because the symptoms of depression are often unrecognized, dismissed but not diagnosed and are left untreated by general practitioners (GPs) [9]. About 5% of PHC attendees with psychological disorders suffer from major psychotic disorders and are referred for psychiatric consultation [10].

For a variety of reasons, psychological symptoms are often accompanied and masked by somatic symptoms, a leading cause for misdiagnosis. It has been reported that roughly 30% of PHC patients [11] and 40% of general hospital patients [12] have somatic symptoms, while an epidemiological-based study found the prevalence of chronic somatization disorder to be between 0.38% and 4.4 % depending on the criteria for "caseness" [13]. Furthermore, it was shown that GPs tend to underdiagnose mental disorders and a substantial number of such cases (ranging from about 50% to 80%) are missed by them [13]. They also tend to use polypharmacy and inadequately prescribe various psychotropic drugs to these patients, which unnecessarily prolongs the treatment course [14]. Moreover, these medications are often associated with unwanted adverse effects, poor compliance and a greater risk of dependence, in particular benzodiazepines.

In order to avoid drug-related problems, psychological treatments, i.e. counselling [10, 15], cognitive therapy [16] and behavioural therapy [17] have been prescribed in PHC practice.

It should be stressed that as a result of tremendous advances in PHC psychiatry in industrialized countries, the epidemiological data are constantly changing. Most importantly, GPs act as the primary filter between the community and specialized medical care. Moreover, because of their special place and role in community care, they must have relevant and adequate skills in order to detect, manage, and prevent mental health problems. Unfortunately, GPs frequently lack the skills needed to deal with mental health problems [18] and more often they are unaware of the presence of psychosocial problems among PHC attendees. The clinical interviewing skills of the physicians (which can be improved by training) and their ability to identify emotional disorders are related [19]. These findings were supported by a recent study which concluded that PHC physicians should be trained in specific interviewing skills in order to improve their ability to identify mental disorders in their practices [20]. By and large, they appear to feel that the recognition, diagnosis and management of mental health problems are not their clinical responsibilities.

In contrast to the well developed and researched PHC psychiatry in industrialized countries, there are few reports from developing countries, and there are almost no provisions of delivering mental health services at primary health care centres. In a prospective study of new patients [n=96] referred by GPs to a psychiatric clinic based in a PHC setting, the authors found that neurotic disorders, including neurotic depression (38%), anxiety disorders (10%), and anxiety-depressive state (21%) were the commonest psychiatric disorders identified [21-23]. In Saudi Arabia, it has been observed that a large proportion of patients, i.e. about 47% presented with clinically significant psychiatric disorders [24-27]. Taken together, it is thought that the psychiatric problems at PHC centres are of considerable magnitude but they generally remain unidentified and untreated, and are associated with increased medical costs. Therefore, an innovative health project was planned in July 1995. Our paper highlights the steps taken in the planning phase of this project.

Rationale and justification of the project

1. In line with the WHO declaration, mental health was decisively considered to be an element of primary health care in Al-Qassim Region.

2. Al-Qassim region would be perceived as a pioneer among other regions in Saudi Arabia. Furthermore, the project would undoubtedly be of considerable benefit to other regions of Saudi Arabia. It was felt that this pilot project would help achieve several objectives related to primary care psychiatry. In general, there is a lack of awareness of psychiatry among PHC physicians in the country. In one related study it was revealed that the knowledge, attitude and skills of GPs in the field of psychiatry were insufficient [18]. It was also found that their psychiatric knowledge and interviewing skills of physicians increased when they were given 1-week extensive psychiatric training. Although their psychiatric skills were evaluated at the time of the study, the enhanced knowledge tended to persist on a long-term basis. Thus it was assumed that condensed psychiatric training of PHC physicians would enhance both their knowledge and their awareness of psychiatry.

3. The project would bring about recognition of the fact that prevention of a disease is much better than cure. Some psychiatric disorders are as preventable as physical illnesses. So early and timely detection of vulnerable groups of people and proper intervention and management will lead to a reduction in the development of full-blown psychiatric disorders and consequently chronic psychiatric problems in the community will be minimized.

4. The project would bring about recognition of the fact that psychological stresses are often presented as somatic complaints to the GPs at PHC centres. As mentioned earlier, this “somatic language” in the absence of organic pathology is the chief cause for misdiagnosis at PHC centres. At the PHC level, approximately 80% of acute and chronic psychiatric problems enmeshed in the “somatization web” are undetected and missed. The patients are in fact extensively investigated and treated as having physical diseases.

Some of them are merely dismissed and they live with these somatic preoccupations, which cause chronic disability and poor quality of life.

5. Health education and research at the PHC level would be promoted.

6. The delivery of mental health services at PHC centres would decentralize the mental health services, which are currently mainly available at hospital and research centre levels.

7. The project would "deprofessionalise" the delivery of mental health services.

8. Psychiatric training of PHC physicians and paramedical staff would be a cost-effective venture. It has been found that about 40% of PHC attendees showed psychiatric morbidity, and if they were detected and managed properly, the health care resources would be utilized proportionately and patients would gain tremendous satisfaction.

9. The project would be the most innovative of its kind as no other region in Saudi Arabia has conducted such a comprehensive psychiatric training programme in order to integrate mental health into PHC services.

Aims and objectives of the project

The primary aim of the project was to promote and integrate mental health into primary health care by training all physicians and paramedical staff, including all nurses, social workers, health educators and some administrators working at PHC centres in Al-Qassim Region. The training programme included a 4-week condensed course encompassing clinical as well as community psychiatry. To achieve these aims, the following objectives were set forth:

- to increase the awareness of the targeted groups (PHC physicians, nurses, health educators, administrators) of psychiatric problems;
- to improve the knowledge of the targeted groups of community psychiatry, which essentially deals with the preventive aspects of psychiatry and also the delivery of mental heath services at various community levels;

- to improve psychiatric clinical and interviewing skills of the targeted groups;
- to modify the attitudes of GPs and the health team at PHC centres toward psychiatry, mental patients and psychiatric hospitals;
- to improve the ability of GPs to manage the uncomplicated cases of psychological problems;
- to improve the ability of GPs to identify patients who require referrals to the secondary and tertiary psychiatric care facilities;
- to promote relevant research and training related to community psychiatry.

Target groups for training

The PHC team comprises physicians, nurses, social workers, health educators and selected administrators. This team screens PHC patients and also provides medical and administrative services to them. Therefore, the planners of this continuing project decided to give basic psychiatric training to all members of the PHC team affiliated to the various PHC centres of Al-Qassim Region.

Project strategy

The planners of the project divided it into four stages:

1 training of all PHC physicians;

II training of all nurses;

III training of all social workers, psychologists, health educators and selected administrators at PHC centres;

IV monitoring and evaluation.

Stages I to III will have specific curricula and training programmes designed according to the trainees' allocated tasks and jobs. Special training courses will be offered to male Saudi staff nurses. The language of instruction and communication for PHC GPs will be

English. Arabic-speaking nurses will have their training courses in Arabic and non-Arabic speaking nurses will have theirs in English.

Duration of the project

The total expected duration of the project is four years. This time limit is intended to cover the following stages:

I. Training of all PHC physicians within 1½ years. They will be divided into 10 groups for training purposes and each group will include approximately 25-30 GPs. The duration of each training course is expected to be four weeks. A period of one week between each course will be allotted for the preparation of the next training course. The training course will consist of a relevant and suitable curriculum designed by experts and consultants. The coverage of PHC centres by GPs in place of those under training, and other unforeseen events at the centres, will be properly managed.

II. Training of all PHC nursing staff within 1 year. All PHC nurses will be divided into 20 groups and each group will have 35-40 nurses. The duration of each course is expected to be 1 week. The relevant and appropriate curriculum will be designed for them.

III. Training of all PHC social workers and some administrators within 6 months.

Social workers, psychologists, health educators and administrators will be divided into 10 groups and each group will include 35-40 persons who will have an orientation course for three days and they will have a specific but simple curriculum designed by experts.

IV. Monitoring and evaluation which will last for one year. The simultaneous monitoring will bring about immediate changes and modifications in the curriculum or ways of delivering the messages to the trainees. This stage will include the design of special forms for course piloting, and initial, middle and summative evaluation. Follow-up evaluations will be carried out at multiple points within

a year of the end of the course, i.e. immediately after training, after 6 month and then at 1 year.

Place of training and budgeting of the project

The following places are proposed for this training project:

- King Fahad Specialist Hospital Auditorium
- Buraidah Mental Health Hospital
- Continuous Medical Education and Community Services Centre PHC, Buraidah
- PHC Training Centre, Unaizah
- PHC Training Centre, Al-Rass.

The budget is expected to cover the following items:

- manpower
- stationary equipment
- logistics.

These training centres are equipped with modern audiovisual aids and other facilities required for training.

Comment

The integration of mental health into PHC is a timely project which will de-emphasize and decentralize the mental health professional services. It will also substantially support the concept of community psychiatry and, as a consequence, that mental health services could be delivered at PHC centres. The psychological problems seen in patients at PHC centres are generally of the type that could be well managed at the centres by GP's who have received sufficient psychiatric training. Hence, this pilot

project has well defined underlying concepts with specific objectives and aims as well as target groups for psychiatric training .

The psychiatric training will provide the target groups with the basic clinical skills to: conduct a comprehensive interview; collect and analyse data; identify psychiatric symptoms and signs in order to recognize the psychiatric illness; formulate the case with the best possible diagnosis; manage the case at the PHC centre; and finally refer difficult cases to higher mental health institutions. This training will also underline the basic concepts of research needed at PHC centres.

The elected training techniques, including formal lectures by psychiatric consultants, demonstrations with extensive discussion of clinical cases, interactive workshops and role-playing will help achieve all the objectives. The training programme, supported by a scientifically designed curriculum, will put particular emphasis on the active participation of the target groups. The methods of designing an appropriate curriculum and the implementation and evaluation of the project will be described in subsequent papers. It is a continuing project so various aspects, such as a methods of delivering lectures and curriculum, are likely to be modified according to the feedback from the target groups.

Summary and conclusions

This pilot project indeed aims to fulfil an important commitment by the relevant authorities that mental health should be one of the components of the PHC services. The magnitude of mental morbidity among PHC clients is well documented and researched. If this proposed project succeeds in achieving its specific aims and objectives, Al-Qassim Region will be the pioneer in the promotion and integration of mental health into primary health care in Saudi Arabia.

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CHAPTER 9

INTEGRATION OF MENTAL HEALTH INTO PRIMARY CARE IN AL-QASSIM REGION, SAUDI ARABIA: CURRICULUM DEVELOPMENT II[7]

Abstract

This paper describes the skeleton of a curriculum meant for teaching basic clinical psychiatry for primary health care physicians and paramedical staff in order to integrating mental health into primary care. The development of an appropriate curriculum is a prerequisite for any innovative health project involving training programme. Moreover, the curriculum should conceptually have a comprehensive course framework and distinctive rationale and justification with aims and specific objectives, contents, teaching methods, proper assessment/evaluation, available resources, and a well defined time framework. It is recommended that the so developed curriculum may be used in the Kingdom of Saudi Arabia or elsewhere with appropriate modification.

Keywords: Curriculum development, integration, psychiatric training, primary health care, mental health.

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Introduction

The psychological problems encountered at primary health care (PHC) centres are of the type and number to justify the integration of mental health into PHC, not only in Al-Qassim region but also in other countries in the area. In order to do so it is necessary to train PHC physicians and other health-related personnel in primary care psychiatry [1]. This training course is expected to enhance their knowledge, interviewing skills and attitudes, which should result in proper prevention, detection, diagnosis, management and delivery of mental health services for PHC clients presenting with psychiatric problems, particularly minor psychological disorders such as anxiety and depressive disorders. It is also expected that mental health services will also be delivered at three levels: school, family and community. Therefore, a suitable curriculum was developed in order to fulfil the specific objectives and other components of the proposed educational and training programme [1]. The main concepts for developing this curriculum [Table 1] were chiefly derived from two curricula designed for masters degrees in health education [2] and community medicine [3].

Table 1. Components of the curriculum

Course framework
Course number
Duration
Title of the course
Coordinator
Rationale and justification
Aims
Specific objectives
Contents
Teaching methods
Problem-based tasks
Group discussions

Lectures and handouts
Seminars
Workshops
Self-learning
Field visits

Evaluation Process
Course evaluation
Participants' evaluation (during training and at the end)
*Verbal feedback
*Written feedback

Resources
Library
Staff
Teaching aids

Timetable
Date and time
Contents and activities
Supervisor
Neutral evaluators

*Modified from 3

Rationale and justification for curriculum development

To ensure the effectiveness of any training programme or degree course, the development of an appropriate curriculum is always warranted. Therefore, a relevant curriculum for psychiatric training was developed. Additionally, such a curriculum may itself act as an advisory instrument for the administrators, trainers and participants. Furthermore, it may also act as a basis for continuing medical education in primary care psychiatry, which is highly relevant to the needs of the population. In this context primary care psychiatry is not practised at PHC centres and therefore PHC clients with psychological disorders are often not recognized. Moreover, a scientifically developed

curriculum may help in planning, implementing, monitoring and evaluating the aforesaid project [1]. It was decided that the curriculum developed would be flexible and any justified modifications could be made in the course of time of training of target groups.

Curriculum conceptual framework

A team of researchers designed the curriculum in such a fashion that it would meet the general aims of the psychiatric training course, which include the integration of mental health care into PHC network through the training of the relevant target groups in Al-Qassim Region. The course participants will comprise physicians, nurses, social workers, psychologists, health educators and selected administrators working at PHC centres. The curriculum aims to enhance the psychiatric knowledge and various skills of the participants. Additionally, the participants will develop positive attitudes towards psychiatry, which may result in improvement in the detection rates and management of mental health problems related to primary care psychiatry. This curriculum will provide participants with the knowledge and skills for preventing mental illnesses at the community level. In addition to meeting the general aims, the designed curriculum will specifically provide the participants with relevant information regarding the contributions of social and behavioural sciences to the major concepts of primary care psychiatry. It will also acquaint them with the recent developments in the field of community psychiatry, including liaison-consultation psychiatry, counselling and the establishment of community mental health centres. In addition, the participants will gain a good grasp of the new concepts and approaches recommended in the World Health Organization's (WHO) policies and strategies for achieving health for all. The curriculum will also guide them to plan, implement and evaluate health education programmes, and interventional procedures by using appropriate methods relevant to primary care psychiatry.

The course structure and contents

The course construction is divided into four phases:

I. The course will provide the participants with an extensive introduction to the concepts of primary care psychiatry and the rationale of integrating mental health into PHC in Al-Qassim Region.

II. It will provide the trainees with adequate psychiatric knowledge, different skills and positive attitudes for dealing with the common mental health problems of the clients at the grassroots level. They will also have basic concepts of preventive psychiatry and develop skills for managing psychological disorders. In addition, the course will also give the trainees an idea of how to counsel the clients, and educate the families and the community in order to reduce mental health problems in the community. These two phases will mainly cover the theoretical concepts of primary care psychiatry and will take two weeks.

III. It will include clinical training for the trainees in the Buraidah Mental Health Hospital. The psychiatric clinical cases will be selected from the outpatient clinics and in-patient sections. The emphasis will be on the active participation by the trainees.

IV. The trained participants will also gain practical psychiatric experience at PHC centres; some of them are selected for training. These two phases will include practical demonstrations of the psychiatric cases most commonly seen in health centres and they will last for two weeks.

The course contents will be carefully selected so that the participants will be well equipped with the basic psychiatric knowledge and skills necessary to under-stand and implement primary care psychiatry at the PHC level. In light of this, the course will include the following topics:

- Introduction to primary care psychiatry with special emphasis on the preventive aspects of psychiatry;
- Rationale for integrating mental health into PHC in Al-Qassim Region;
- Psychiatric consultation techniques;
- Classification of mental disorders and psychopathology;

- Clinical approach to common psychological problems at PHC level; these problems include mood disorders, anxiety disorders, somatoform disorders, psychosomatic disorders and adjustment disorders;
- Common psychiatric disorders in children;
- Adolescent psychiatry;
- Geriatric psychiatry and secondary brain disorders;
- Substance use disorders;
- Psychiatric nursing;
- Brief psychotherapy;
- Counselling;
- Clinical pharmacology of psychotropic drugs;
- Functional, acute and chronic psychotic disorders;
- Referral system to mental health hospitals;
- Mental health educational programmes and prevention of psychiatric disorders;
- Research, teaching and learning methods.

During the course the participants will be trained in a variety of teaching and learning methods which will include:

- Group discussions
- Problem-solving techniques
- Skills workshops
- Background reading
- Clinical and practical training
- Library and individual work
- Field work

- Role play.

Evaluation process

The evaluation in this course will include both the participants and the course itself. The trainers will also modify their teaching styles depending on the feedback (oral and written) of both of trainees and the neutral senior evaluators. The progress of the participants will be assessed continuously during the training course, at the end and may be subsequently. Other aspects of the course will be evaluated by both the participants and trainers. The details of evaluation methods will be described in another report, which will include the implementation phase.

Comment

The development of the curriculum by a team of researchers is a prerequisite for the success of any training programme. It should be both scientifically sound and appropriately designed. It should have a distinctive rationale and justification with aims and specific objectives, comprehensive course contents, course structure, and a time framework. The curriculum should be flexible and any justified changes after its evaluation should be introduced at the proper time.

Conclusion

The designed curriculum appears to be conceptually appropriate. Thus, it is presumed that by the end of the course the participant's orientation, knowledge, skills and attitudes toward primary care psychiatry will have improved significantly. Moreover, the participants will have developed skills to prevent, detect and manage the psychological disorders of PHC clients. They will also be able to refer the complicated psychological cases to secondary mental health facilities at an appropriate juncture. In addition, participants will have developed skills for educating and training the PHC team

in the field of primary care psychiatry. Furthermore, they will be able to educate patients and their families, especially in the importance of the referral system, compliance, and the follow-up. Finally, the participants will help in decentralizing and deprofessionalising the delivery of mental health services.

The authors are preparing a detailed report on the implementation phase of this project.

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CHAPTER 10

EFFECTIVENESS OF A TRAINING PROGRAMME FOR GENERAL PRACTITIONERS DIRECTED AT THE ENHANCEMENT OF PSYCHIATRIC KNOWLEDGE AND CHANGE OF UNFAVORABLE ATTITUDES AGAINST PSYCHIATRY [8]

Abstract

Objective: General practitioners [GPs] often lack sufficient knowledge of psychiatric diagnoses and have unfavourable attitudes against mental illness. The aim of this intervention study is to assess the pre-and post-psychiatric training knowledge and attitudes of GPs. **Method**: The setting of this study was Buraidah Mental Health Hospital. The research design consisted of a pre- and post-test comparison of GPs responses [n=70] with a control group [n=40]. The instruments were a Knowledge Test and an Attitude Questionnaire. **Results**: There were no significant differences between intervention and control group in regard to several confounding sociodemographic variables but GPs age and duration of medical practice differed significantly in favor of control group. There were significant differences between knowledge of intervention and controls but no attitudinal changes were observed between them prior to psychiatric training. The impact of psychiatric training on knowledge of intervention group was highly significant whereas attitudes of intervention group were negatively changed as compared to control. **Conclusion**: Psychiatric training courses significantly enhance GPs' knowledge together with significant changes in attitudes that have vast psychiatric implications including destigmatisation, early diagnosis and better treatment of primary care patients with mental disorders.

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[8] Qureshi NA, Van der Molen HT, Schmidt HG, Al-Habeeb TA, Magzoub MMA (Submitted)

Keywords: Psychiatric training, general practitioners, knowledge, and attitudes

Introduction

Psychiatric training courses tend to affect positively GPs' knowledge in psychiatry. A large body of research suggests that they need continuing psychiatric training courses because they have invariably inadequate diagnostic, therapeutic and other skills in psychiatry. Therefore, they often unidentify and misdiagnose most of the mental patients attending primary health care [PHC] [1]. Indeed, insufficient psychiatric knowledge have multiple adverse effects on the delivery of mental health services to PHC attendees who suffer from a variety of psychiatric disorders, psychopathological subsyndromes, physical co-morbidities, and psychosocial problems [1-3]. Notably, as for GPs, medically unexplained symptoms or somatoform disorder, co-morbid physical diseases and social problems of mental patients pose mainly diagnostic and treatment difficulties at consultation [3,4]. Certainly, primary care psychiatry is a growing challenge to GPs, more in developing countries than in the industrialized world. They require specific psychiatric competencies for dealing with mental patients having complex psychosocial issues. Moreover, rural community clients with mental disorders are by and large underserved and have low access to specialized care [5] and these trends are likely to be more severe in rapidly developing countries.

As for the attitude of GPs, people with mental disorders are often characterized by negative stereotypes coupled with discriminatory behaviours across the world [6-9]. This attitudinal trend varies globally across cultures. However, intensive global decimalizing campaigns and specific attitudinal interventions are reported to effect favourable changes and improvement in the attitudes of medical students, health providers, consumers and public towards patients with mental illness [6-9]. Overall, the trained physicians with healthy attitudes develop strong therapeutic alliance with mental patients and, hence comprehensive interview, correct diagnosis, integrated treatment, regular follow-ups, good compliance and outcome, and reduced level of performance anxiety [6,10]. Furthermore, health consumers with positive attitudes towards psychiatry could easily accept psychiatric referrals and consultation, in case GPs encounter diagnostic and

management difficulties. Likewise, carers and public with unbiased attitudes towards psychiatric patients could serve them compassionately.

Notably, several factors including sociodemographic, i.e. age, sex and education, psychographic, i.e. personality dynamic, motivation, culture, and social systems and experiential, i.e. contacts with patients, specialists, and clerks could predict gain in GPs' knowledge and attitudes towards mental illness [11-16]. However, specifically tailored training programs are known to enhance not only their knowledge base but also improve their attitudes towards psychiatry [15,16]. Furthermore, it is deemed that if psychiatrically trained GPs are delegated specific clinical responsibilities, it could sustain or even enhance their knowledge in psychiatry and their attitudes towards psychiatric patients will improve considerably.

Research aims

This intervention study aims at (1) assessing general practitioners' pre- and post-training responses on a psychiatric Knowledge Test [KT] and an Attitude Questionnaire [AQ] and comparing them with a control group of GPs. It also explores (2) certain confounding factors, which may differ between intervention and control groups. We hypothesized that (1) a three-day psychiatric course will considerably enhance their knowledge and will also produce healthy changes in their attitudes towards psychiatry and (2) certain sociodemographic and experiential factors would not differ between the two groups. Like others researchers [17], the authors assessed trainees' attitudes and knowledge independently, because both of them are independent factors.

Material and method

Training course.

Seventy GPs working at different PHC centres in Al-Qassim region were included in this study. They were given a three-day condensed course in psychiatry covering several topics of PHC relevance including rationale of integration of mental health into psychiatry, somatoform disorders, anxiety disorders, mood disorders, substance use disorders, schizophrenia, attention deficit hyperactivity disorders, childhood enuresis, counselling, and finally referral system. Seven consultants who have long clinical experience in psychiatry and medical education adopted different teaching models [18,19] for imparting relevant information to the trainees who were encouraged to interact throughout the training course with the trainers. The trainees were allowed to interrupt the trainers for clarifying any murky information and they were also given ample time post-lecture for detailed open discussion. Each interactive lecture/session lasted for one to two hours. Above all, six clinical cases were presented to them for intensive discussion on the last day of the course.

In addition, three mini-workshops, each lasting thirty minutes, were organized for trainees' interactive participation and discussion on attitudes towards patients with mental illness, mental hospitals and mental health professionals. The deliberations were open and GPs were given ample opportunities to discuss with trainers even the attitudes included in the attitude questionnaire. As expected, GPs were most active throughout and took leading role in these attitudinal mini-workshops. A Training Manual including questionnaire is available from the authors upon request.

Control group

In addition, a control group of 40 GPs was recruited simultaneously. Like experimental group, they also were given pre- and post-KT and AQ but without psychiatric training intervention. The time gap between pre- and post-KT and AQ was also three days.

Instrument

The Al-Qassim Psychiatric Knowledge Test and Attitude Questionnaire has three sections:

(1) *Sociodemographic and experiential variables*. Section-1 contains 16 items, which are: (1) age, (2) gender, (3) marital status, (4) nationality, (5) M.B, B.S-which country, (6) post-graduate qualification, (7) psychiatric training, (8) duration of medical practice, (9) personal psychiatric problems, (10) family history of psychiatric problems, (11) confidence dealing with psychiatric problems, (12) contact with psychiatric patients, (13) number of patients seen within the past six months, (14) psychiatric help offered, (15) type of help offered and (16) willingness for psychiatric training.

(2*) Knowledge Test* (Section-2) consists of 50-multiple choice questions with four alternatives meant for tapping the knowledge of the trainees in six domains: organic and substance use disorders, schizophrenia, depression, anxiety, somatoform, and childhood disorder. Here are two examples "(1) atypical antipsychotics include all except one, a) clozapine, b) risperidone, c) olanzapine, d) haloperidol" and (2) "the treatment of depression include all the following except one, a) antidepressants, b) lithium, c) electroconvulsive therapy and d) diazepam". As in other recognized surveys [20,21], a clinical vignette was used for each domain, except for childhood disorder. Questions answered wrongly were scored 0 whereas questions answered correctly were scored 1. So the range of the scores on the KT is 0 to 50. Notably, in a pilot testing exercise that recruited 60 subjects (half of them were psychiatrically informed), the revealed reliability of KT was acceptably good (Cronbach's alpha, 0.84).

(3) The *Attitude Questionnaire* (Section-3) consists of 34 attitudinal sentences that explore the trainees' opinion in four main areas, which are mental hospitals, mental health professionals, mental patients and psychiatric disorders. Here are two examples "(1) you would like to move next door to a mental patient, a) strongly agree, b) agree, c) don't know, d) disagree, and e) strongly disagree" and "(2) the adverse portrayals of mental patients by media have also increased stigma, a) strongly agree, b) agree, c) don't know, d) disagree, and e) strongly disagree". Each attitude sentence had to be answered on a 5-point Likert-type scale: strongly agree (score=2), agree (score=1), don't know

(score=0), disagree (score=-1) and strongly disagree (score=-2). So, the range of score on the AQ is –68 to +68 that is higher score will reflect positive attitude. Each trainee was advised to make only one choice. This questionnaire was given to each trainee for completion pre- and post-psychiatric training. Notably, in a pilot testing exercise that recruited 60 subjects (half of them were psychiatrically informed), the revealed reliability of AQ was acceptably good (Cronbach's alpha, 0.76).

Statistical analysis

Several statistical tests including frequency distribution, descriptive, paired t-test, Chi square test, and analysis of variance [ANOVA] were used for analyzing the data.

Results

The trainees' and control group's mean ages (range 27-63 versus 30-63) were 40.79 and 45.70 with a standard deviation of 6.98 for each group. There were 17 female trainees (24.3%) while control group had 8 females (20%). Other sociodemographic and experiential variables are detailed in Table 1.

Table 1. Sociodemographic parameters of trainees [n=70] and control [n=40]

Sex		
-male	53 (75.7)	32 (80.0)
Marital status		
-married	68 (97.1)	40 (100.0)
-single	02 (09.2)	------
Nationality		
-nonSaudi	29 (41.4)	10 (25.0)
-Arabic-world	41 (58.6)	30 (75.0)
MBBS from		
-non-Arab world	26 (37.1)	10 (25.0)
-Arab world	44 (62.9)	30 (75.0)
Postgraduate qualification		

-diploma	21 (30.0)	05 (12.5)
-MS/MD	07 (10.0)	09 (22.5)
-other	05 (7.1)	01 (2.5)
-no	37 (52.9)	25 (62.5)
Psychiatric training		
-yes	16 (22.9)	09 (22.5)
-no	54 (77.1)	31 (77.5)
Medical practice		
-<5 years	05 (7.1)	01 (2.5)
-5-9 years	09 (12.9)	03 (7.5)
-10-14 years	15 (21.4)	04 (10.0)
->14 years	41 (58.6)	32 (80.0)
Personal psychiatric problem		
-yes	10 (14.3)	07 (17.5)
-no	60 (85.7)	33 (82.5)
Family psychiatric problem		
-yes	12 (17.1)	06 (15.0)
-no	58 (82.9)	34 (85.0)
Confidence dealing with psychiatric problems		
-not at all	03 (4.3)	02 (5.0)
-a little bit	23 (32.9)	12 (30.0)
-moderately	24 (34.3)	16 (40.0)
-quite a bit	11 (15.7)	07 (17.5)
-extremely	09 (12.9)	03 (7.5)
Contact with psychiatric patients		
-yes	51 (72.9)	30 (75.0)
-no	19 (27.1)	10 (25.0)
Number of psychiatric patients seen within the past 6 months		
-<24	49 (70.0)	26 (65.0)
-25 to 50 and more	02 (02.9)	05 (12.5)
-0	19 (27.1)	09 (22.5)
Psychiatric help offered		
-not at all	19 (27.1)	08 (20.0)
-a little	15 (21.4)	11 (27.5)
-some	24 (34.3)	15 (37.5)
-a lot	12 (17.1)	06 (15.0)
Type of help offered		

-counselling	24 (34.3)	11 (27.5)
-medications	02 (02.9)	--------
-family/friend support	09 (12.9)	06 (15.0)
-referral to psychiatric clinics	16 (22.9)	15 (37.5)
-don't know	19 (27.1)	08 (20.0)
Willingness for psychiatric training		
-strongly willing	36 (51.4)	21 (52.5)
-unwilling	01 (01.4)	02 (5.0)
-don't know	03 (04.3)	01 (2.5)
-willing	30 (42.9)	16 (40.0)

Univariate analysis of variance of continuous variables and Chi square test for categorical parameters revealed no significant sociodemographic differences between intervention and control groups ($p>0,05$) except age (40.79 ± 6.98 versus 45.7 ± 6.98) and duration of medical practice (3.31 ± 0.96 versus 3.68 ± 0.73) in favor of control group.

Pre- and post-training knowledge

Paired sample statistics, run for pre-and post-psychiatric training knowledge mean scores of intervention group revealed highly significant impact on knowledge ($t=-9.54$, $d.f=69$, $p<0.0001$, 95% Confidence interval=-14.37 to –9.39). However, there were no significant differences ($t=-0.17$, $d.f=39$, $p=0.89$, 95% Confidence interval=-1.96 to 1.66) between pre-and post-no training knowledge mean scores of control group.

Pre- and post-training attitudes

Table 2 shows the results of multivariate analysis of variance as regards pre-and post- test knowledge and attitudes of intervention and controls. There were significant differences between knowledge of intervention and controls but no attitudinal changes were observed between them prior to psychiatric training. The impact of psychiatric training on knowledge of intervention group was highly significant, whereas attitudes of the intervention group were –unexpectedly-- significantly negatively changed as compared to the control group.

Table 2 Analysis of variance results of psychiatric training on GPs knowledge and attitude

Group	Pretest		Post-test	
	Knowledge	Attitude	Knowledge	Attitude
	Mean±S.D.	Mean± S.D.	Mean± S.D.	Mean± S.D.
Intervention	27.64±8.6	2.7±7.2	39.5±8.21	0.99±8.5
Control	23.95±4.13	3.73±7.45	24.1±3.89	4.63±7.69
	df=1, F=6.5	df=1, F=0.5	df=1, F=124.8	df=1, F=4.99
	p=0.01, sig.	p=0.48, ns	p=0.0001, sig.	p=0.03, sig.

ns = nonsignificant, sig= significant.

Discussion

According to this intervention study, a three-day structured psychiatric training course was found to have further a significant impact on GPs psychiatric knowledge as compared to control, which is congruous with other national [15,22] and international studies [23-25]. Notably, pre-training knowledge of GPs in intervention group was significantly higher than control group, which could be attributed to programme coordinator's selection bias, i.e., most likely selecting GPs already having keen interest and good knowledge in psychiatry. In one study it was found that post-training immediate gain in knowledge and skills persists over time [26] and even may increase with time. On the contrary, King and colleagues found ineffectiveness of teaching GPs skills in brief cognitive behavior therapy to treat patients with depression after 6 months [27]. Overall, the trained GPs need regular psychiatric training in order to consolidate their knowledge together with further enhancing other core competencies including patient care, interpersonal and communication skills, practice-based learning and improvement, professionalism, and systems-based practice [23,28]. In our previous study exploring individual knowledge responses rather than sum of knowledge [29], the GPs answers to ten knowledge questions were not significantly affected by psychiatric training that could be due to their pre-training saturation of knowledge; correct pre-training responses

ranged from 41% to 89%. This finding supports the notion that probably training is unlikely to produce significant changes in trainees' individual knowledge domains if they already have sufficient baseline knowledge about a particular topic [30].

In contrast to tremendous enhancement in GPs knowledge in intervention group, GPs attitude changed negatively as compared to controls, which could be attributed to methods of delivering attitudinal messages and discussions during three mini-workshops and gain in psychiatric knowledge. This finding is partly consistent with our previous studies [16,29] in which only a few significant attitudinal changes were noticed more in negative than the positive stereotypes towards mental illness. For example, the attitude A8 changed negatively and thus, GPs endorsed the negative views that people not only avoid mixing mental patients but also distance themselves from mental health professionals [29], which could be changed by specific attitudinal programs [31]. Similarly, the attitude A14 also changed negatively which means that, like people in general, GPs' do not like to discuss their personal psychiatric issues with colleagues and friends [13]. Rephrasing of this attitudinal sentence such as "you would suggest psychiatric patients to discuss their drugs with friends" might have given a different outcome. Indeed, only some mental patients are less assertive and difficult to communicate [A22] but GPs responses significantly changed in reverse direction, thus perceiving them to have both good communication and assertiveness, a positive development but probably incorrect attitudinal shift [29]. According to some researchers, health providers themselves should have very good communication styles for engaging such patients for early identification of mental illness [2]. The mental health providers including GPs express more negative attitudes and discrimination than the public, which is attributed to their greater knowledge of mental disorders and greater contact with chronic patients. As for the outcome of mental disorders, GPs hold more negative views than the psychiatrists [32]. Conversely, only two attitudes A9 and A25 were positively changed [29], which suggested that the destigmatisation programs should target people who sustain prejudiced attitudes towards psychiatric patients and professionals [33]. Although GPs were encouraged to discuss attitudes throughout the course, a specifically tailored training program on attitudes could have made considerable positive changes in their opinions, as revealed by other researchers [31]. Evidently, attitude of medical

personnel including GPs and public towards psychiatry is known to be determined by a variety of factors [11-14,23] including gender [8,9,29,34], psychiatric knowledge [14], duration of medical practice and regular contact with mental patients [13,29] and longer psychiatric training courses [35]. The implications of attitudinal training courses directed towards multiple audiences would be to decrease stigma against psychiatric patients. Stigma against mental illnesses is global and has many devastating effects not only on patients with mental disorders but also their families.

In summary, the psychiatric training course enhanced GPs overall psychiatric knowledge but their attitudes were parsimoniously affected. The authors recommend that psychiatric training course with some additional specific lectures on attitudes should continue for improving GPs psychiatric knowledge and attitudes towards people with mental disorders.

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CHAPTER 11

GENERAL DISCUSSION

1.1 Introduction

According to this thesis, the two main aims related to referral system interfacing psychiatric hospital and general hospitals [GHs] and primary health care [PHC] and training of GPs in clinical psychiatry in order to integrate PHC into mental health care were effectively achieved. In addition, the formulated hypotheses underlying several, explored concepts in eight studies were also reasonably comprehended. This discussion will provide multiple stimulating insights into the significant findings of the studies together with their limitations, important implications and relevant conclusions.

11.1 Overview of the studies

Generally speaking, the notation of information in referral letters by referring physicians to referred consultants, a burning and widely debated topic varies globally. Study 1 (Chapter 3) examined the current state of art of this issue in Saudi Arabia [1] and, as regards psychiatric referrals in PHC and GHs to a mental health facility, this exploration is first of its kind. Notably, both GPs and GHs physicians were found to note down overall deficient data in the referral forms, though no strong differential effects were obvious between them. Furthermore, referral letters did not identify whether or not gender and age have any preferential impact on the referral process and related, reported findings across international studies are irreconcilable [2,3]. Other known sociodemographic factors may have more advantageous impetus on the referral system [4]. In fact, as expected and congruous with international trend [5], GH physicians more often noted clinical data, which included history of the mental illness, investigations, mental status findings and physical disorders excepting systemic findings as compared to PHC doctors, which could be attributed, interalia, to their better clinical skills and lesser

workload. Referral letters from a number of PHC settings distinguished that certain primary care clinics tend to report more data, which could be due to the availability of detailed referral formats. Psychiatric diagnostic accuracy is known to vary across health care practice settings such as primary care, general hospitals, specialist hospitals and academic, teaching institutions. Largely compatible with international data [6,7], this study found that GH physicians diagnoses were more harmonious with the referred consultants psychiatric diagnoses as compared to GPs diagnoses. Clinical wisdom suggests that the psychiatric diagnosis entertained at academic centres is more consistent and incomparably precise.

Study 2 (Chapter 4) addressed an important topic of symptom-based research by looking at symptoms noted in psychiatric referrals from PHC centres and GHs [8]. According to this research, general hospital referrals were noted to have more symptoms of psychosis, mood disorders, and psychosomatic diseases while general practitioners reported more symptoms of somatoform disorders and neurological diseases. This revealed symptom pattern, generally consistent with relevant literature from western world [9,10] suggests that general hospital patients suffer from more severe psychiatric problems as compared to primary care clients. This was made clear further because aggression/assaultiveness was noted more frequently in GH referrals. A relatively high rate of serious, chronic comorbid physical diseases among GH referred patients may contribute to the severity of mental disorders. Another finding of this research is that the child psychiatric disorders were noted only among PHC centre referrals, which could be attributed to the GPs very restricted, therapeutic knowledge in child psychiatry. On the contrary, children with psychiatric disorders in GHs may have been referred probably to paediatricians who tend to manage them satisfactorily. Notably, there are no provisions of formal child psychiatric services at three levels including general hospitals, psychiatric hospitals, and primary care in Saudi Arabia. This calls for developing relevant child psychiatric services.

Study 3 (Chapter 5) mainly focussed on physical and psychiatric morbidity among patients referred from PHC centres and GHs [11]. Comparable to many studies carried out worldwide [2,4,12], this research substantiated the fact that both acute mental conditions and physical diseases are more frequently reported among GH patients as

compared to PHC centre patients and hence their urgent referrals are coupled with a high rate of admission and inpatient care. Among GH and PHCC referred patients, the common diagnoses made by the referred psychiatrists were mood, anxiety, and schizophrenic disorders. Psychosomatic disorders and child psychiatric disorders were preferentially reported among PHC centre referred patients. On the other hand, dementia and some somatoform disorders were relatively common among GH population. The revealed pattern of psychiatric and physical morbidities among PHCC and GH referred patients suggests that the psychiatric consultation-liaison services should be developed in general hospitals as well as in community settings. Likewise, medical-liaison services should also be developed in psychiatric settings.

Study 4 (Chapter 6) described the pattern of psychotropic drug prescribing by psychiatrists to patients referred from PHCCs and GHs and also compared it with psychotropic drug prescribing again by mental health professionals to psychiatric outpatient population [13]. Consistent with international studies [14,15], the GH referred patients were frequently prescribed antipsychotics and anticholinergics, a trend similar to the prescriptions to psychiatric outpatients but unlike this, PHCC referred patients received more prescriptions of antidepressants and anticonvulsants, which is compatible to the pattern of mental disorders detected at these settings. Anxiety disorders, depression and some somatoform disorders are relatively more common at PHC level than at the GHs where psychotic disorders are more often found. The equal distribution of benzodiazepines prescriptions to PHC centre and GH population was dissimilar to a pharmacoepidemiological trend in international drug prescribing [14], which found the most frequent use of anxiolytics and hypnotics in general and psychiatric settings for a variety of reasons including an array of psychiatric problems. In general, the prescription of benzodiazepines is restricted in the KSA, which is mainly due to its potential misuse, abuse and dependence. The infrequent prescribing of atypical antipsychotics, selective serotonin re-uptake inhibitors, and reversible monoamine oxidase inhibitors, unlike international drug prescribing pattern [15], is attributed to the nonavailability of these medications, which have many clinical advantages over traditional psychotropics. This drug prescribing scenario has changed very rapidly in the KSA and other Gulf countries and now almost all second generation of antipsychotics, antidepressants, anxiolytics,

hypnotics and mood stabilizers are included in the MOH drug formulary and are also available in the market. The initial prescribing dosages of psychotropics except promethazine, which was more frequently administered parenterally (intramuscular route) to GH referred population did not distinguish between PHC and GH patients. However, a study on prescribing may discern relevant findings if last prescribing dosages to PHC and GH referred patients were taken into account. Like international pattern [16], monotherapy was predominate mode of prescribing in PHC referred patients as compared to GH patients who, like psychiatric patients more often were prescribed polytherapy (three or more psychotropic drugs), which have many disadvantages but only few clinical benefits in some resistant, chronic cases of psychoses. According to this study, psychotherapies were frequently given to GH referred patients as compared to PHC clients, which is an unexpected finding, because PHC patients usually suffer from minor mental disorders and more often need effective psychosocial and behavioural therapies. As a corollary to this study, the most interesting point to be raised is "will GPs and GH physicians prescribe psychotropics to their patients with mental disorders similar to mental health professionals prescribing as revealed in this research?" To answer this question, a properly designed study is necessary.

Notably, the referred psychiatrists but not the referring physicians prescribed psychotropics to the referred patients [13]. Could the referring physicians have prescribed the same psychiatric drugs in the same fashion? According to this study, the answer is unequivocally no. But certain extrapolations in terms of psychotropics prescribing by referred psychiatrists to GH and PHC referred population to psychiatric hospitals could be justified. Therefore, this study provided multiple insights into the pattern of psychotropic drug prescribing among these referred patients. It may further heuristically guide the health managers and training programmers in terms of what psychotropic drugs should be available at different referring settings and how training programs should be tailored to meet the needs of the referring physicians. The findings of this study should be compared with that of a future study, which should directly address the referring physicians' prescribing patterns of psychotropic drugs to mental patients visiting primary health care centres and general hospitals.

Study 5 (Chapter 7) specifically identified possible predictors of quality of psychiatric referrals in Saudi Arabia [17]. According to this study, the competence of referring doctors had positive impact on the quality of psychiatric referral letters (PRLs), which is congruous with international studies [18,19]. Notably, no psychiatric training to GPs contributed negatively to the quality of PRLs. Therefore referring general practitioners need regular training in liaison psychiatry and the referral system. Conversely, physicians in a hospital setting were found to write a good quality referral, which is possibly attributed to their higher qualification, more psychiatric experience, and frequent psychiatric training exposures. Surprisingly, the length of referral letter predicted poor quality of PRLs, which may suggest, among other factors lack of skilled staff at the referring setting or the letter being too tedious. However, the health authorities must ensure that there is a competent health team for writing adequate data in the referral letter. The format of referral letter containing specific items may have a major impact on the efficiency of the referral process. Further, the influence of the sociodemographics of the referred patients, and the severity of the mental illness on referral quality was more limited, albeit significant, which is partly consistent with other reports [20,21]. According to these findings, serious mental illness negatively contributed to the quality of referrals. Unlike seriously ill patients, mildly sick patients might offer detailed data to physicians for writing good quality referrals. The implication is that irrespective of patient profile including mental illness severity, the referring clinician should collect important data, not only from the patient but also key relatives for writing a good quality referral for effective consultation. Although mental illness severity has multiple implications, the present study added to the literature that it may also have a substantial indirect effect on the quality of PRLs. Notably, in view of the model explained variance, the results reflected an acceptable level of predictability.

In the beginning of year 1996, our research team reviewed the relevant literature and identified many psychiatric problems that GPs and possibly general hospital physicians tend to face in their clinical practice; difficulty in developing therapeutic rapport with mental patients and how to conduct interview with them in an effective, meaningful way; difficulty in detecting psychiatric disorders among PHC attendees; qualitatively and quantitively improper writing of referral letters for psychiatric

consultations; lack of psychiatric knowledge and their unfavourable attitudes towards psychiatry; and lack of psychiatric understanding how to manage psychiatric patients by drugs and adjunctive psychosocial therapies. Therefore, our research team planned a project of "integration of mental health into primary care", i.e., study 6 (Chapter 8) and also developed a suitable curriculum, i.e., study 7 (Chapter 9) for training mainly general practitioners and allied staff in clinical psychiatry in order to solve some of those perceived problems [22,23]. Meanwhile, we carried out aforesaid five studies on referral system, an important copula between psychiatric hospitals and primary care and general hospitals.

This health project has a well-defined rationale and justification, specific aims and objectives, target training groups and strategies. Although the total expected duration of the project was four years, our training team of experts is still continuing with this project due to unavoidable problems. Ultimately, this project will enhance GPs psychiatric knowledge and their awareness of psychiatry. The nursing personnel, social workers, psychologists and some administrators at PHCCs will be trained more or less in similar fashion in future. Thus, the primary care team would be in a reasonably better position to deliver mental health services to PHC patients with minor psychosocial problems. In addition, this team may also identify difficult and complex psychiatric cases and thereafter refer them properly for psychiatric consultation.

Since the time of project planning coupled with suitable curriculum with specific objectives, conceptual framework, and course structure and contents, which is a prerequisite for the success of any training programme, a number of psychiatric courses for training mainly GPs have been conducted over eight years and its preliminary findings have been highlighted [24]. In particular, study 8 (Chapter 10) addressed the effectiveness of such training programmes for GPs directed at the enhancement of psychiatric knowledge and change of unfavourable attitudes against psychiatry. By assessing their pre-and post-training knowledge and attitudes through a reliable Knowledge Test and an Attitude Questionnaire [available with the author upon request] and comparing with a no intervention control group, this study revealed that the psychiatric training had a discernible impact on GPs psychiatric knowledge, which is congruous with other national [24,25,26] and international studies [27]. However,

attitudes of intervention group also changed significantly but negatively as compared to control group. There were no significant differences between socioclinical variables of intervention group and controls except age and duration of GPs practice in favour of controls. Older age with longer duration of clinical practice may affect psychiatric knowledge and attitude in controls. However, several factors such as the type of psychiatric help offered by the GPs and their clinical experience [25] and gender [28,29] are known to predict gain in psychiatric knowledge and changes in GPs attitudes [30,31]. By and large, our team hopes that changes in attitudes and enhanced knowledge after psychiatric training courses will have multiple important implications including destigmatisation of mental patients and mental illnesses, early and correct identification of mental disorder at practice settings, delivery of better mental health care services, and referral of difficult cases to secondary and tertiary health care levels. Finally, this team of researchers presume that these simple studies will continue to stimulate local researchers in Arabian Gulf countries to further advance the underlying concepts of referral system and psychiatric training to physicians and other medical staff, which would help them to address effectively the interface between psychiatry and primary care psychiatry and general hospital psychiatry.

11.2 Limitations

This thesis mainly consists of five papers on psychiatric referral system [1,8,11,13,17] and three papers on integration of mental health care into primary health care and general practitioners' psychiatric training programs [22,23,25]. These naturalistic but retrospective studies have some caveats, which could be categorized into specific and general limitations. Although the selection of the sample of referral system was random [1], these did not represent consecutive series of referred and self-referred patients, which might have possibly guided researchers about the temporal developments in the referral process, including comparable socioclinical parameters of consultees. The MOH and general hospital referral letters were more or less uniform, no standard measurement tools were used to assess the contents of referral letters completed by referring GPs and physicians. Likewise even though the medical charts of the referred

patients were relatively complete, none of the referring clinicians including referred psychiatrists used structured psychiatric instruments for diagnostic and clinical data derivation (Chapter 3).

Although the authors compiled a 48-symptom checklist from standardized scales for assessing the symptoms noted in the referral letters [8], the construct validity of this checklist was not examined. However, the authors tend to expand this checklist by including more psychopathological symptoms for interviewing patients on face-to-face basis and, thereafter, they will examine its construct validity in future research. Nevertheless, the nonvalidated symptoms-checklist was of great utility in assessing only the noted symptoms in the referral letters (Chapter 4).

Although the present researchers used the psychiatric and physical diagnoses made by the referred consultants and referring physicians and GPs [11], the reliability and validity of these diagnoses could be questioned because none of them used standardized diagnostic scales. The authors feel that validated structured instruments should be used in future studies in order to make both reliable diagnosis and collection of data and hence solid reliable conclusions (Chapter 5). Psychotropic drug prescribing to referred patients by referred psychiatrists may not reflect the prescribing habits of GPs and general hospital physicians. Hence, the findings of this study need to be compared with a future study that looks into the patterns of psychotropic drug prescribing both by GPs and GH doctors (Chapter 6). Overall in these studies, we have not used sophisticated tests for data analysis, simply because our main focus as also supported by others [32,33] was on descriptive rather than detailed analytical presentation of data.

Although the referred patients were assessed by referring GPs and GH doctors, only the results of quality of psychiatric referrals study [17] were based on the combined data in terms of what they recorded in the referral letters plus further expansion of data. This was considered necessary as certain demographic and clinical parameters of the referred patients were reported to causally influence the quality of psychiatric referrals. Yet the authors suggest that they could not tap all the factors, in particular the detailed clinical parameters of the referred patients and effectiveness of communication between referring clinicians and referred patients and the referred consultants. This may explain some of the

revealed negative correlations between patients clinical characteristics and the outcome represented by the quality of psychiatric referrals. Future studies should take into account the detailed socioclinical parameters of the patients in SEM techniques. The assessment of outcome in terms of quality of psychiatric referrals was purely based on arbitrary grounds, because as such no suitable assessment tool is available to perform this job. The authors also suggest that characteristics related to a fourth component in terms of availability of excellent services in the referred mental health institutions managed by psychiatric consultants should be taken into account for future research on quality of psychiatric referrals. This study [17], an outgrowth of our research on psychiatric referrals is original. Most importantly, the quality of psychiatric referrals is a relatively new area of research, so the results of this particular research should be viewed as preliminary and needs replication studies in future (Chapter 7).

Our project entitled “integration of mental health care into primary health care” is very ostentatious and our training team is still pursuing its objectives [22,23,24]. Psychiatric training of GPs revealed tremendous enhancement in their overall knowledge and moreover their attitudes were not positively affected when compared with a control group. Despite, the authors suggest that tremendous changes in their unfavourable attitudes against psychiatry probably require a full training course specifically tailored for this purpose. Mini-workshops as conducted in this study were therefore partly limited in changing GPs all negative stereotypes against psychiatry (Chapters 8-10).

In general, the results and conclusions of these studies are not representative for the whole population in question, therefore, generalizations should be avoided particularly in relation to the non-referred patients who may come from many sources including community-nonclinical settings. For example, many patients first consult religious faith healers without attending to either primary care or general hospitals, but attend directly without referrals to psychiatric hospitals. Some researchers may cast doubt about the replication of these studies, however, to the authors’ opinion this is not difficult.

11.3. Future Research Implications

There are only a few studies that have explored sociodemographic and diagnostic pattern of primary care and general hospital referred patients. Such studies have recruited only a small number of patients. Hence, psychiatric referral systems are a very rich fertile ground for research in Arab World as a whole. This statement further underscores the importance of referral system studies in rapidly developing countries because a review of the relevant world literature contrastingly found tremendous data from developed countries. The authors have already emphasized and identified collectively areas for future research on referral system when they demonstrated earlier its richness as a reliable source of information for a variety of investigations. However, in the light of the current study, the authors suggest some other investigations to be conducted in future.

Although the authors have studied the age and gender of referred patients from two main sources [1], other sociodemographic parameters should be explored in order to find out their influence on psychiatric referral process. Therefore, the authors have designed a referral protocol [available with the author upon request] for exclusive use in referring psychiatric patients to higher health level and this referral format includes aforesaid variables. Further, they suggest a similar study for their 48-symptoms checklist [8] after its proper expansion and advancement. A comparative natural research involving the diagnostic and therapeutic skills of GPs, GH physicians and psychiatrists should be conducted and psychiatric referrals should again be the material for such in-depth exploration [11]. Here, appropriate diagnostic interview schedules and other relevant assessment scales including severity evaluation tools should be used so that all major diagnostic categories including organic and functional psychoses, mood and anxiety disorders, somatoform disorders, substance use disorders, personality disorders, childhood disorders and others could be identified and grouped into several dimensions of clinical severity. Similarly, such research could throw light on the pattern of psychiatric and physical morbidity of patients referred from primary care and general hospitals [11].

In Saudi Arabia, the referral rate, attrition problem and the level of communication between referring doctors, patients and the consultant are not explored, therefore,

properly designed studies are needed to find out such important and vital issues of referral system. In two studies [8,11], the authors found that childhood psychiatric problems were noted in only primary care referrals but not in GH referrals. As a corollary, they raised several related questions. They suggested that the future studies should explore child psychiatric problems in the primary care, hospitals and community. This would be consonant with the international medical community that showed serious concerns regarding the priorities of children's mental health around the globe. Consequently, the mental health services for children would probably be in place.

In addition to what authors have suggested earlier [13], the follow-up studies should explore the escalation of psychotropic doses among referred patients over a period of time. Similarly, the psychopharmacoepidemiological studies should be conducted on continuous basis in order to know the temporal changing patterns of prescribing of psychotropics among referred as well as nonreferred psychiatric patients. Such studies would also be of great help to inform medical community about the pattern of psychotropics including prescriptions of newer generations of drugs. Finally, the other known parameters possibly predicting the quality of psychiatric referrals [17] should be the material for future studies using structural equation modeling approach.

Last but not least, the need-led psychiatric training programs [22-25] for targeted groups of physicians should be continuing, so that their overall knowledge, attitude and practice of psychiatry could be enhanced. As a corollary, they could deliver good quality of psychiatric services to primary care and general hospital clients with mental problems. Further, they could identify the most difficult cases who might need referral to psychiatric specialist care. Whether or not gained psychiatric knowledge by GPs is sustained should be explored by relevant follow-up studies. However, the psychiatric training programs may need to be modified to be more interactive. Recently, some researchers have found interactive training, i.e., problem-oriented and case-based learning to be effective in detection and management skills for schizophrenic outpatient treatment by general practitioners [34].

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Introduction

The saying "slow and steady wins the race" rightly applies to the slow but sustained successful development of mental health care delivery systems in the KSA. With special reference to the referral system and the psychiatric training programs for GPs, the pertinent literature in the KSA is largely meagre. Despite the fact that most of psychiatric health consumers are PHC clients with multiple, psychosocial problems and mental disorders, most of the health related developments for training and improving the skills of physicians for identifying and appropriately treating psychiatric disorders have taken place at secondary and tertiary health delivery levels. Many PHC patients with simple mental problems need early identification and management by GPs and a small proportion of them with complex disorders need psychiatric consultation and hence psychiatric referrals. Almost all GPs in the KSA lack psychiatric skills, have unfavourable attitudes toward psychiatry and are also unskilled in referring properly psychiatric patients to higher health care level. Evidently, all Arabian Gulf countries including the KSA are facing a real health challenge in terms of developing primary care psychiatry, which is globally recognized as an important burgeoning field of psychiatry. These facts stimulated the author to take this project that aimed to integrate MHC into PHC through training of GPs and paramedical staff in clinical psychiatry and psychiatric referrals. Moreover, there were hardly any psychiatric training programs for GPs about a decade ago. Notably, our team is the first to conduct extensive research on psychiatric referrals and GPs' attitudes towards psychiatry in the Arab world and also to train GPs in psychiatry in Al-Qassim area, which is situated in the central part of the KSA, approximately 325 kilometres away from Riyadh. Notably, the studies presented in this thesis have been executed at Buraidah Mental Health Hospital, Al-Qassim region, Saudi Arabia. There are two main aims of this thesis. The first aim is to undertake a number of investigations into the quality of the referral system in the KSA. The second aim is to try to improve the knowledge of clinical psychiatry and attitude against psychiatric patients of GPs.

Literature Review

In accordance with the WHO slogan "health for all by the year 2000" raised by the Alma Ata Declaration, 1978, the health planners implemented three major health projects, i.e., introduction of referral system, establishment of numerous PHCCs throughout this country and registration of each family at PHCC located in the catchment area for developing and ensuring delivery of basic health services at grass root level in the KSA. A referral system incorporates three major integrated components (1) the referring physician, (2) the patient, and (3) the referred consultant. Its efficiency and success is largely maximized by proper coordination and meaningful communication among these components. Although the purpose of referring a patient could be manifolds, the most pressing are diagnostic, investigations, therapeutic and follow-up. Though the standard referral system is one of the effective models for linking and integrating cost-effective medical services at three levels for the best outcomes, it also subserves education and research functions.

The linkage of mental health care [MHC] with the PHC worldwide has not only changed the referral patterns of patients from PHC to psychiatry but also served many patients with a variety of psychiatric disorders and co-morbidities. GPs are reported to have the variable rate of precise diagnosis and treatment of patients with somatoform disorders who tend to overutilise medical resources coupled with higher economic costs and also develop substantial disabilities. Besides linkage, other useful models of health integration were also developed for providing psychiatric services to the clients together with their needs fulfilled. Various factors such as undeveloped mental services, sociodemographic variables, stigma, culture and psychiatric symptoms determine the referral of mental patients from PHC to MHC system. Moreover, links with the MHC also determine the rate of psychiatric referrals, which ranges from 5% to 50%.

Unlike western countries, all Gulf countries are facing many challenges as regards the development and delivering of integrated MHC services at three levels, in particular community level, despite the estimated prevalence of psychiatric disorders in these countries is >60%. With the lack of MHC in PHC and GH settings, most of the identified

patients with psychiatric co-morbidity are referred to secondary care and, moreover, about 45% of mental patients with disabling symptoms remain unrecognized. Hence, the improvement in the quality of psychiatric care in PHC requires community C-L psychiatry, GPs' psychiatric training and well-functioning links with public MHC systems. Overall, these countries must prioritize the development of PHC psychiatry in order to deliver MHC services to patients with psychiatric manifestations. Reportedly, the hospital population-outpatients and inpatients suffers from diverse psychiatric and co-morbid disorders, which, to a greater extent, do not meet all diagnostic criteria laid down in major classifications of mental disorders. This certainly calls for using modified versions of international classifications and also streamlining of methods for diagnosing common psychiatric disorders in PHC. In specific terms, GH patients as compared to PHC clients more often have co-morbid psychiatric disorders and simultaneously need psychiatric as well as medical intervention. Notably, psychiatric diseases may influence reciprocally the outcome of medical diseases and moreover co-morbidity pervasively affects research and overall clinical practice.

The determinants of the quality of psychiatric referrals are mainly related to patients', referring doctors' and settings' features, referred psychiatric institutions, and meaningful communication among them. Indeed, writing a good quality of referrals has several implications on art of patient care and also helps in comparative research. Furthermore, various biopsychosocial factors contribute to the severity of psychiatric illness, which, interalia, also impact quality of psychiatric referrals. Indeed, severely ill patients come across a variety of barriers to receiving MHC services that need proper reorganization so as to remove these obstacles.

In the KSA, there is relatively scanty data on referral system and all 10 studies had explored nonpsychiatric referrals. The other two studies coupled with several limitations have explored the socioclinical characteristics of psychiatric patients referred by GPs to a PHC psychiatric clinic. The magnitude of primary care psychiatric morbidity in Arabian Gulf countries was estimated to be 30% to 46%. The revealed pattern of mental disorders was also consistent with western world where certain disorders were common as compared to these studies, attributable, interalia, to their unique sociocultural dynamics. Most importantly, there is a big gap between projected PHC psychiatric morbidity and

the provisions of delivery of MHC services. To fill this gap, GPs were trained psychiatrically in recent past for partially meeting needs of PHC mental attendees together with assessing their attitudes towards psychiatry. As a result, a little progress in PHC psychiatry is made and a lot to be done in coming years. On the whole, GH psychiatry is in better shape in Gulf countries. The author suggests that priorities should be given in further establishing PHC and GH psychiatry for providing physical, mental and social health to all people.

Certainly, this review of literature informs us that besides ensuring excellent clinical practice rapidly developing countries need to think more seriously about continuing medical education, training programs for professional development, streamlining referral system, developing psychiatric C-L services at three health levels, and conducting relevant research. Evidently, in this regard the industrialized world is far ahead of developing world. It is because of this simple reason we have carried out a number of studies on referral system, psychiatric training programs for GPs and their attitudes towards psychiatry.

Eight Studies

In common, the first five studies (Chapters 3-7) examine comparatively various aspects of psychiatric referral letters that were originated from PHCCs and GHs. Although the methodological section of these five chapters is the same, the objective of each paper is quite different. The other three studies describe: the planning phase of integration of MHC into PHC; curriculum development for GPs training; and the effectiveness of psychiatric training programmes directed towards GPs for enhancing their psychiatric knowledge and changing their unfavourable attitudes against psychiatry.

Study 1 (Chapter 3)

This study deals in detail with the adequacy of noted data in both types of psychiatric referral letters. No statistical differences were observed when we compared

age and sex of patients referred from PHCCs and GHs. Likewise, we found no significant differences as regards the completeness of referrals from the two sources. However, a comparison of most important individual clinical variables between the two types of referrals revealed statistically significant differences. Further a comparison of the score of completeness across eight different types of PHCCs using ANOVA revealed high scores for national guards clinics, but low for university based clinic units. However, the score of completeness did not differ across four different hospitals or eight different specialties within these hospitals. Regarding proportion of patients with the same diagnosis (referral and final), no significant difference was observed both across different types of PHCCs and GHs. However, when the proportion of patients with same diagnosis was compared across different GH specialties, patient referred from psychiatric clinic more often had the same diagnosis as the final diagnosis. GH referrals as a whole had a higher proportion of same diagnosis as compared to PHCC referrals. In general, these psychiatric referrals were deficient quantitatively as well as qualitatively and more often data notation in referral letters varies globally. This finding suggests that there should be further improvement in providing complete information in terms of sociodemographic data and clinical parameters by referring GPs/physicians in psychiatric referral letters, which has multiple implications including psychiatrists' level of satisfaction and impact on referral process. In Gulf countries, GPs and physicians' recognition rate of psychiatric disorders in PHC and GHs is low. Further, psychiatric diagnostic accuracy was found to vary across several practice settings, which could be enhanced by repeated exposures of referring physicians to psychiatric training.

Study 2 (Chapter 4)

This study examines the psychiatric symptomatology noted by physicians in both types of referrals. From a symptom perspective we categorized psychiatric referrals into two categories, 1) referrals with less than four recorded symptoms, and 2) referrals with more than four recorded symptoms and also prepared a 48-symptom checklist for systematically ascertaining the noted symptoms and signs in referral letters. The symptoms/signs were categorized into several domains. In addition, the diagnoses made

by the GPs, GH clinicians, and referred psychiatrists were also noted. About twice the number of GH referrals as compared to PHC referrals had more than four recorded symptoms. The functional psychotic, mood and psychosomatic symptoms were frequently observed in GH referrals as compared to PHC referrals. Somatic and neurological symptoms were more often reported among PHC referrals. Aggressive spells, agitation and sleep disturbances were more often noted in GH referrals while minor psychological disturbances and lack of social relationships were more common among PHC referrals. The psychological problems most commonly encountered among children were noted only among PHC referrals. This study revealed that major psychiatric disorders and psychosomatic disorders symbolic of greater severity are usually mushroomed in GHs, which have several meanings including physical co-morbidity, high admission rates, high economic costs, overuse of medical services and poor outcome. Hence, all the GHs and PHCCs with no psychiatric facilities should refer immediately those patients with severe psychopathologies to the psychiatric hospitals in order to begin early psychiatric intervention. Conversely, somatic symptoms suggestive of general psychic distress in minor psychological disorders were revealed more frequently among PHC referred patients. This finding suggests that the patients with neurotic psychopathologies usually first consult their GPs who should have adequate psychiatric skills to treat such patients. Moreover, the revealed pattern of excitement, agitation, and sleep disturbances most commonly associated with psychotic disorders were more frequently noted in GH referrals as compared to PHC referrals, which also supported symptoms divergence across GHs and PHCCs. Only 5% of patients consulting GPs have psychotic mental illnesses, which require referrals to a higher health level. Like psychological symptoms, somatic symptoms are reported to interfere with patients' routine activities and led them to take medications or visit a physician. Therefore, physicians should alert themselves while assessing patients with unexplained somatic symptoms that most likely indicate hidden psychiatric syndromes. The symptoms of drug abuse, grief, adjustment and adverse-drug reactions were more often noted in GH referrals than in PHC referrals.

Finally, symptoms suggestive of child psychiatric disorders were exclusively noted in PHC referrals. Probably the prevalence of these disorders differs across PHC and GHs.

By and large, there is neither precise epidemiological data on child psychiatric disorders nor formal provisions for child psychiatric services in the KSA. Therefore, we suggest that child psychiatric clinics should be opened in psychiatric and general hospitals. By all means, child psychiatry warrants proper planning, development and research in Arabian Gulf countries as a whole.

Study 3 (Chapter 5)

This study examines psychiatric co-morbidity in PHC and GH referrals. Besides abstracting relevant data from these referrals, the author also reviewed each patient's file for noting the physical and psychiatric diagnoses reliably made by the psychiatrists. More non-Saudis with acute behavioural disorders were referred for psychiatric management from GHs than from PHC centres. Patients with urgent psychiatric problems requiring hospitalization were more from GHs whereas more PHC patients were referred on an elective basis. Both settings revealed overlapping reasons for referring patients. Acute mental illnesses were referred more from GHs as compared to PHCCs. GH clinicians, GPs and psychiatrists differentially made diagnoses of several mental disorders among referred patients at practice settings and likewise they made diagnoses of child psychiatric disorders. Notably, both GPs' recognition rate of somatoform disorders and management skills of childhood disorders was low. The diagnoses of physical disorders were noted more in GH than the PHC referrals. Hypertension and diabetes mellitus was more common among PHC and GH referrals, respectively. The clinical implication of revealing physical morbidity in psychiatric patients is that psychiatrists should always assess the physical condition of referred patients. Accordingly, a consultation from a medical staff should always be sought. We further suggest that establishing a psychiatry-medical unit in a psychiatric hospital will circumvent many of the problems faced while coordinating medical-liaison services. Overall, psychiatric patients with physical co-morbidity certainly require higher medical care in proper settings, often offered by a multidisciplinary team of professionals.

Study 4 (Chapter 6)

This study describes the psychiatrists' prescribing to patients referred from PHCCs and GHs. We discriminated between five categories of psychotropics with their dosages prescribed by the psychiatrists of Buraidah Mental Health Hospital. Drug information from PHCCs and GHs was extremely poor, inadequate and pharmacologically wrong. Therefore, we were not interested what treatments GPs and physicians noted in those referrals. The two main sources of information were psychiatric files and referral forms. We also compared the so collected data with our previous published data on psychotropic medications prescribed to psychiatric outpatients.

Several antipsychotics and anticholinergics were prescribed more often to GH referred patients than to PHC clients, the latter received more prescriptions of antidepressants and anticonvulsants, the latter drugs are also used as mood stabilizers in affective disorders. Benzodiazepines, equally but inconsistently prescribed to GH and PHC clients, were less often prescribed to psychiatric outpatients and their overprescribing is criticized for causing addiction and hence anxiolytics prescribing is on the decrease. Only promethazine dosages were prescribed more to GH patients. Antipsychotics and antidepressants were more often dispensed to GH and PHC referred patients than to psychiatric outpatients. Polytherapy was more common among GH than PHC referred patients who also received relatively less psychotherapeutic intervention. Notably, the revealed pattern of psychotropics was in accordance with the psychiatric disorders prevalent in practice settings. The prescribing of anticholinergics is mostly linked with antipsychotics that cause acute extrapyramidals. The pattern of almost all psychotropics dosage prescription did not vary between two types of referred patients, which could be due to the consideration of only first doses in this study. Notably, psychotropics prescribing changes over a period of time due to multiple reasons including tremendous neuropsychopharmacological advances, treatment guidelines and protocols and others. Polypharmacy, the predominant prescribing mode in psychoses, has more disadvantages than benefits and hence should be discouraged. We suggest that comprehensive prescribing protocols for individual drugs should be developed for paediatric, adult and elderly populations and the majority of PHC patients with minor psychiatric problems could be treated by a variety of psychosocial therapies.

Study 5 (Chapter 7)

This study seeks to model proposed causal relationships between the quality of PRLs, and its indicators, linked to the features of the referred patient, referring physician, and practice setting. Data regarding 18 independent input variables underlying those three latent constructs and one dependent variable represented by quality of PRL score was derived from patient files, physician training records, and 540 psychiatric referrals. SEM was used to analyze this data for examining proposed causal relationships between the quality of PRLs, and its potential predictors. The predictors were: 10 socioclinical patient variables, 4 referring physicians variables and 4 referring setting variables. All the input variables were used for generating a causal model in which severity of the mental illness was a dependent as well as a mediating parameter. The analysis of the data revealed a reasonably good fit of the proposed model to the data based on various fit indices. Notably, our tested model explained 67% of the variance in predicting the quality of PRLs. The referring physician characteristics, i.e. frequent psychiatric training, more clinical experience and postgraduate qualification and features of the referral setting in particular hospital were highly significant indicators of quality of PRLs, which in turn was negatively predicted by patient features including severity of the mental illness, lack of psychiatric training of referring physicians, and referral letter items. As good quality of PRLs indicate good efficiency and success of the referral system coupled with improved health care services, educators must regularly train referring physicians in liaison psychiatry and the referral system in order to write proper PRLs. Likewise, irrespective of patient' illness severity, the referring clinician should collect important data, not only from the patient but also from key relatives for writing a good quality referral for effective consultation. The present study adds to the literature that illness severity may have a substantial indirect effect on the quality of PRLs.

Study 6 (Chapter 8)

This article describes the underlying concepts including rationale and justifications of planning phase of an innovative, timely health project which aims at integrating MHC into PHC and also to enhance the psychiatric skills of PHC personnel in Al-Qassim region, in order to deliver the best quality MHC services to PHC clients, many of whom suffer from a variety of psychosocial problems and simple mental disorders. The preconceived aims and specific objectives of this project could be achieved only by training PHC staff both in primary care psychiatry and referral system, because they are the first filters of PHC clients with mental disorders and they are known to have deficient knowledge in psychiatry and also unfavourable attitudes against psychiatry. Notably, it was considered crucial to evaluate trainees' pre-and post-psychiatric training knowledge, attitude, and practice in order to assess the effectiveness of psychiatric training programmes, which would provide the target groups with the basic clinical skills to: conduct a comprehensive interview; collect and analyse research data; identify psychiatric symptoms and signs in order to recognize the psychiatric illness; formulate the case with the best possible diagnosis and management; and finally refer difficult cases to higher mental health institutions. Besides de-emphasizing and decentralizing the MHC services, this project will also support the concept of community psychiatry and, as a consequence, that MHC services could be delivered at PHC centres where the psychological problems are generally of the type that could be well managed by psychiatrically trained GPs.

Study 7 (Chapter 9)

This paper describes the skeleton of a curriculum meant for teaching basic clinical psychiatry for PHC physicians and paramedical staff in order to integrating MHC into PHC. The development of an appropriate curriculum is a prerequisite for any innovative health project involving training programme. Moreover, the curriculum should conceptually have a comprehensive course framework and distinctive rationale and justifications with aims and specific objectives, contents, teaching methods, proper evaluation, available resources, and a well defined time framework. It should be both

scientifically sound and appropriately designed. The curriculum should be flexible and any justified changes after its evaluation should be introduced at the proper time. This psychiatric curriculum for GPs training in clinical psychiatry and referral system may be used in the KSA or elsewhere with appropriate modifications.

Study 8 (Chapter 10)

Study 8 deals with the effectiveness of a psychiatric training program directed towards GPs for enhancing their knowledge and changing their unfavourable attitudes against psychiatry. GPs often lack sufficient knowledge of psychiatric diagnoses and therapeutics and have unfavourable attitudes against mental illness. The aim of this intervention study is to assess the pre-and post-psychiatric training knowledge and attitudes of GPs and compare it with a control group of GPs who were also assessed similarly. The instruments were a Knowledge Test and an Attitude Questionnaire. The reliabilities of these assessment tools, which were developed and pilot-tested by recruiting an appropriate sample of two groups, were acceptably good as evidenced by Cronbach's alpha values. The psychiatric training had a discernible impact on GPs' knowledge as compared to controls. However, GPs attitudes in intervention group were changed negatively. There were no significant sociodemographic differences between intervention and controls except GPs in latter group were of older age with a long duration of clinical practice, which may impact their knowledge and attitudes. However, three mini-workshops meant for changing GPs unfavourable attitudes against psychiatry were in fact insufficient to subserve this independent function and, therefore supplemental specific courses targeting mainly GPs' negative stereotypes are warranted in future training programmes.

(ملخص)

مقدمة:

ومن يسير بتؤدة وبثبات يربح السباق "هذه المقولة تنطبق بصدق على النمو" البطئ والمتزايد النجاح في نظام تقديم الرعاية الصحية في مجال الصحة النفسية بالمملكة العربية السعودية. بالرجوع إلى نظام الإحالة وبرامج التدريب في مجال الطب النفسي للأطباء الممارسين فإن الأبحاث وثيقة الصلة بهذا الموضوع في المملكة العربية السعودية ضئيلة للغاية. فبالرغم من أنه في الحقيقة معظم المحتاجين للرعاية الصحية في مجال الطب النفسي هم من مراجعي المراكز الصحية الأولية والذين يعانون من مشاكل نفسية واجتماعية متعددة أو أمراض عقلية فإن التطور في مجال التدريب وتحسين مهارات الأطباء في تحديد وعلاج الاضطرابات النفسية بطريقة سليمة كان على المستوى الثاني والثالث من مستويات تقديم الخدمة الصحية.

فالعديد من مراجعي المراكز الصحية الأولية والذين يعانون من مشاكل نفسية بسيطة يحتاجون إلى اكتشاف وعلاج مبكر بواسطة الأطباء الممارسين ونسبة ضئيلة منهم والتي تعاني من اضطرابات نفسية معقدة يحتاجون إلى استشارات نفسية عن طريق الإحالة النفسية. معظم الأطباء الممارسين بالمملكة العربية السعودية تنقصهم المهارة في مجال الطب النفسي بالإضافة إلى أن نظرتهم وتوجههم ومفهومهم عن الطب النفسي تعيق إلى المستويات غير سليمة وتنقصهم المهارة أيضاً في الإحالات النفسية بطريقة سليمة إلى المستويات الصحية الأعلى. ومن الثابت أن كل بلدان الخليج العربي وتشمل المملكة العربية السعودية تواجه تحدي حقيقي في مجال تطوير الرعاية الصحية الأولية في مجال الطب النفسي. والذي يعتبر بنظرة شاملة أحد البرامج التي تنمو سريعاً في مجال الطب النفسي. هذه الحقائق شجعت الباحث للمضي قدماً في هذا المشروع الذي يهدف إلى دمج الصحة النفسية في الرعاية الصحية الأولية من خلال تدريب الأطباء الممارسين وبقية الطاقم الطبي في مجال الطب النفسي إلكترونياً ونظم الإحالة النفسية. هذا بالإضافة إلى أنه بالكاد توجد أي برامج للتدريب في مجال الطب النفسي للأطباء الممارسين خلال الحقبة الماضية.

ومن الجدير بالذكر أن فريق البحث لدينا هو أول من قام ببحث واسع في مجال الإحالات النفسية ونظرة وتوجه الأطباء الممارسين للطب النفسي في العالم العربي بالإضافة إلى تدريب الأطباء الممارسين في مجال الطب النفسي في منطقة القصيم والتي تقع في وسط المملكة العربية السعودية على بعد 325 كيلومتر تقريباً من الرياض. ومن الجدير بالذكر أيضاً أن الدراسات التي قدمت في هذا البحث تم تنفيذها بمستشفى الصحة النفسية ببريدة بمنطقة القصيم بالمملكة العربية السعودية. وهناك هدفين أساسيين لهذا البحث. الهدف الأول هو عمل عدة أبحاث في تطبيع نظام الإحالة النفسية بالمملكة العربية السعودية. الهدف الثاني هو محاولة تحسين المعلومات في مجال الطب النفسي والنظرة والتوجه للمرضى النفسيين لدى الأطباء الممارسين.

مراجعة لما نشر

تمشياً مع شعار منظمة الصحة العالمية "الصحة للجميع بحلول عام 2000" والذي تم رفع من خلال وثيقة 1987، فقد قام واضعي الخطط الصحية بترسيخ ثلاث مشاريع صحية رئيسية وهي إدخال نظام التحويلات، اعتماد العديد من مراكز الصحة الأولية في ربوع هذا البلد وتسجيل كل أسرة في المركز الصحي التابع لها بالمنطقة وذلك بغرض تطوير وضمان تقديم خدمات الصحية الأساسية في منابعها في المملكة العربية السعودية. ويشمل نظام الإحالة ثلاثة أجزاء متكاملة:

1. الطبيب الذي يقوم بالإحالة.
2. المريض.
3. الاستشاري الذي يستقبل الإحالة.

نجاح الإحالة يعتمد بصفة كبيرة على التنسيق السليم والتواصل المستمر بين هذه الأجزاء. بالرغم من أن الغرض من إحالة أي مريض قد يكون له أسباب عديدة إلا أن أكثرها أهمية هو التشخيص وإجراء الأبحاث والعلاج والمتابعة.

مما تقدم فإن نظام الإحالة المثالي هو واحد من أكثر النماذج فعالية في الموازنة بين خفض تكلفة الخدمات الصحية والحصول على أفضل النتائج ويخدم أيضاً الجوانب التعليمية والبحثية.

فالصلة بين الرعاية الصحية النفسية والرعاية الصحية الأولية على مستوى العالم لم تغير فقط نماذج الإحالة للمرضى من المراكز الصحية الأولية إلى المستشفيات النفسية ولكن أيضاً تخدم الكثير من المرضى الذين يعانون من مختلف الاضطرابات

النفسية. وقد سجل أن الأطباء الممارسين لديهم أكبر نسبة محددة التشخيص والعلاج من مرضى الاضطرابات شبه الجسدية والذين اعتادوا على استنزاف الخدمات الصحية ذات التكلفة العالية بالإضافة إلى الإعاقات التي تنتج عن ذلك. وهناك صلة فرعية أخرى نتجت من هذا التكامل الصحي المفيد لتطوير تقديم خدمة الصحية النفسية للمنتفعين مع تلبية إحتياجاتهم على الوجه الأمثل. هناك عوامل عديدة مثل عدم تطوير الخدمات الصحية النفسية ، الاختلافات الديموغرافية والاجتماعية والإحساس بالعار من المرض النفسي ، وكذلك بقية العوامل البيئية والنفسية التي تتحكم في الإحالة للمرضى النفسيين من المراكز الصحية الأولية إلى مستشفيات الصحة النفسية والعيادات النفسية هذا بالإضافة إلى عوامل تحددها مراكز الصحة النفسية ذاتها وتتحكم في نسبة الإحالات النفسية والتي تتراوح من 5 إلى 50%.

وعلى عكس البلدان الغربية فكل بلدان الخليج العربي تواجه تحديات عدة على سبيل المثال تطوير وتقديم خدمات الصحية النفسية المتكاملة على الثلاث مستويات وبالتحديد على المستوى البيئي لا سيما وأن معدل إنتشار الأمراض النفسية في هذه البلدان يزيد عن 60%.

مع إنخفاض مستوى خدمة الصحية النفسية في مراكز الرعاية الأولية وفي المستشفيات العامة فإن معظم المرضى الذين يعانون من مشاكل نفسية بالإضافة إلى مشاكلهم العضوية يتم إحالتهم إلى المستوى الثاني هذا بالإضافة إلى أكثر من 45% من المرضى العقليين ذوي الأعراض المعوقة لا يتم تشخيصهم. وبالتالي فإن تحسين نوعية الرعاية الصحية النفسية في المراكز الصحية الأولية يتطلب تدريب الأطباء الممارسين على الاستشارات النفسية والتدريب النفسي اللازم لدعم ارتباطهم ببرامج الصحة النفسية الأخرى. وفوق كل ذلك فإن هذه البلدان يجب أن تضع الأولوية لتطوير الخدمات النفسية على مستوى الرعاية الصحية الأولية لضمان تقديم خدمة اللازمة للمرضى النفسيين الذين يراجعون وحدات الرعاية الصحية الأولية. وكما أن نشر كثير من مراجعي العيادات الخارجية والمرضى بالأقسام الداخلية بالمستشفيات يعانون من أعراض نفسية واضطرابات نفسية مشتركة مع الاضطرابات العضوية لديهم والتي إلى حد كبير لا تتوافق مع الأعراض الموجودة في التصنيفات الدولية للأمراض النفسية وبالتالي فإن الحاجة تقتضي تنقيح هذه التصنيفات بصورة مبسطة لتشخيص الاضطرابات النفسية الشائعة لدى مرضى الرعاية الصحية الأولية.

ةياعرلا ىضرمب ةنراقملاب ةماعلا تايفشتسملا ىضرم نإف ةددحم تارابعبو ةيوضعلا ضارعألا عم ةكرتشم ةيسفن ضارعأ نم نوناعي ام ًابلاغ ةيلوألا ةيحصلا نأ ركذلاب ريدجلا نمو .يسفنو يندب لخدت ىلإ تقولا سفن يف نوجاتحيو ةيسفنلا نإف يلاتلابو يوضعلا ىضرملا نسحت ىلع ةيسكع ةروصب رثؤت دق ةيسفنلا ضارمألا هذه ضارعألا ةكرتشملا رثؤت يف جئاتن ثاحبألا ةسرامملاو ةيكينيلكإلا ةفصب ةماع.

موقي يذلا بيبطلاو ضيرملاب ةيساسأ ةقالع اهل ةيسفنلا تالاحإلا ةيعون تاددحم نإ بابلإاو ةلاحإلا فورظلاو ةطيحملا زكرملاو يبطلا يسفنلا يذلا لبقتسي ةلاحإلا ةجردو طابترالا ةياعرلا ةجرد يف ةحضاو ةروصب رثؤت ةدِّيج ةيعون تاذ ةلاحإ ةباتك نأ ديكأتلابو .مهنيب يتلا ياقلي اهاقلي ضيرملا كلذك كلذ تسعاد يف ثاحبألا ةنراقملا .ةفاضإلاب ىلإ فلتخم لماوعلا ةيعون ىلع رثؤت كلذك يسفنلا ضرملا ةدش ةجرد ددحت يتلا ةيعامتجالاو ةيجولويبلا نم ريثكب نورمي ةديدش ةلعب نيباصملا ىضرملا نإف ديكأتلابو .ةيسفنلا ةلاحإلا ةداعإ ىلإ جاتحي ام اذهو ةمزاللا ةيحصلا ةيسفنلا ةمدخلا يقلت نم اونكمتي ىتح قئاوعلا تابقعلا هذه ةلازإل ةيسفنلا ةمدخلا ميدقت ماظن ةلكيه.

لكو ةلاحإلا ماظن نع ةياغلل ةليئض تامولعم كانه ةيدوعسلا ةيبرعلا ةكلمملا يف نيتساردلا .ةيسفن ريغ تالاحإ يف ثحبت تناك ةكلمملاب تيرجأ يتلا تاسارد رشعلا ةيعامتجالا تافصلا ثحبت تناك يحاون ةدع يف ةددحملا تاساردلا نم امهو نييرخألا يف نيسرامملا ءابطألا قيرط نع مهتلاحإ متي نيذلا نييسفنلا ىضرملل ةيكينيلكإلاو وحدات الرعاية الصحية الأولية إلى العيادات النفسية.

جيلخلا نادلب يف ةيلوألا ةيحصلا ةياعرلا ىضرم يف ةيسفنلا تالاحلا لدعم يبرعلا مت ةيايق ام نيب 30% ىلإ 46%.

ثيح يبرغلا ملاعلا عم ًاضيأ ةيشمتم ةيسفنلا تابارطضالل ةقباسلا ةبسنلا ةيفاقثلاو ةيعامتجالا عفاودلا ىلإ ًاعوجر تاساردلا هذهب ةنراقم تابارطضالا ضعب رشتنت ةيدرفلا ةدوجوملا عمتجملاب.

يعجارم ىدل ةدوجوملا ةيسفنلا تابارطضالا نيب ةريبك ةوه دجوت هنأ مهملا ئشلاو بيردت مت غارفلا اذه ألملو .ةمدقملا ةيسفنلا ةحصلا تامدخ نيبو ةيلوألا ةيحصلا ةياعرلا سايق عم يسفنلا بطلا يف ًايئزج ًابيردت بيرقلا يضاملا يف نيسرامملا ءابطألا

توجههم ونظرتهم تجاه الطب النفسي. وكانت النتيجة حدوث تحسن ضئيل في الرعاية النفسية بالمراكز الصحية الأولية ويجب بذل المزيد من الجهد في السنوات القادمة.

بصفة عامة فإن الطب النفسي بالمستشفيات العامة كان شكله أفضل في بلدان الخليج. ويقترح الباحث أن الأولوية يجب أن تعطى للمراكز الصحية الأولية والمستشفيات العامة لتقديم الخدمة النفسية والطبية والاجتماعية على المستوى الصحي لجميع الناس.

في الواقع هذه المراجعة لما نشر تخبرنا أنه بجانب ضمان أفضل ممارسة إكلينيكية فإن الدول التي تمنح بسرعة تحتاج إلى أن تفكر بصورة جادة في استمرارية التعليم الطبي ، والبرامج التدريبية ، وجعل نظام التحويلات أكثر إنسيابية وبساطة وتطوير نظام الاستشارات النفسية على المستويات الصحية الثلاث مع الإستمرار في الأبحاث اللازمة. علماً بأن الدول المتقدمة قد قطعت شوطاً كبيراً في هذا المجال وتخطت الدول النامية بمراحل. ولهذه الأسباب فقد قمنا بمجموعة من الدراسات على نظام الإحالة وبرامج التدريب النفسية للأطباء الممارسين وتوجهاتهم ونظرتهم للطب النفسي.

ثمان دراسات

بصفة عامة ، الدراسات الخمس الأولى (من الفصل الثالث حتى الفصل السابع) تفحص بالمقارنة مختلف نوعيات الإحالات النفسية التي تصدر من المراكز الصحية الأولية والمستشفيات العامة. بالرغم من أن طريقة العمل في هذه الخمس فصول متشابهة وكان الهدف من كل ورقة مختلف تماماً. الثلاث دراسات الأخرى تصف مرحلة الإعداد لمنهج الصحة النفسية بالرعاية الصحية الأولية وتطور مراحل التدريب بالنسبة للأطباء الممارسين ومدى فعالية برامج التدريب النفسية للأطباء الممارسين لتحسين معلوماتهم النفسية وتعديل نظرتهم السلبية تجاه الطب النفسي.

الدراسة الأولى (الفصل الثالث)

هذه الدراسة تتعامل مع مدى كفاية المعلومات المدونة في كل النوعيتين لأوراق الإحالات النفسية. لم يلاحظ وجود أي اختلاف ذا أهمية إحصائية عندما تمت مقارنة أعمار وجنس المرضى المحولين من مراكز الرعاية الصحية الأولية والمستشفيات العامة. وبالمثل لم نجد

أي اختلاف ذا أهمية في استكمال المعلومات بالإحالات من المصدرين. ولكن بالمقارنة بين معظم أهم الفروق الإكلينيكية في تلك الثلاث نوعيات من التحويلات وجدت اختلافات ذات أهمية إحصائية. والأهم من ذلك بمقارنة نتيجة استكمال الإحالة في ثمان أنواع من الإحالات من مراكز الرعاية الصحية الأولية باستخدام مقياس تحليل الاختلاف أثبتت وجود نتائج مرتفعة على عيادات الحرس الوطني ونتائج منخفضة للعيادات الجامعية. ومع ذلك نتيجة استكمال الإحالة لم تختلف في أي عبر مستشفيات مختلفة أو في الثلاث تخصصات داخل تلك المستشفيات وفيما يتعلق بنسبة المرضى ذوي التشخيص الواحد (بالإحالة والنهائي) لم يلاحظ وجود اختلاف ذو أهمية في مختلف نوعيات المراكز الصحية الأولية والمستشفيات العامة.

ولكن عند مقارنة نسبة المرضى ذوى نفس التشخيص خلال الاختصاصات المختلفة بالمستشفيات العامة وجد أن المرضى المحولين من العيادة النفسية غالباً ما يكون التشخيص بالإحالة هو نفس التشخيص النهائي.

إحالات المستشفيات العامة بصفة عامة بها نسبة من تطابق التشخيص إذا ما قورنت بإحالات الرعاية الصحية الأولية. وبصفة إن هذه الإحالات كانت غير مكتملة سواء من حيث الشكل أو المضمون وبصفة عامة غالباً ما تتباين المعلومات في الإحالات.

هذه الاكتشافات تقترح بذل المزيد من التحسينات في توفير معلومات كاملة بخصوص البيانات الأولية والقياسات الإكلينيكية بواسطة الأطباء الممارسين في أوراق الإحالات النفسية والتي تكون لها عادات على مستوى الرضا لدى الأطباء النفسيين مستقبلي التحويل وعملية الإحالة نفسها.

في بلدان الخليج المتوسطي الفرعي للأطباء الممارسين في الاضطرابات النفسية سواء بالمستشفيات العامة أو مراكز الرعاية الصحية الأولية منخفض. هذا بالإضافة إلى أن دقة التشخيص النفسي لديهم وجد أنها اختلفت بعد عدة جلسات تدريبية والتي يمكن تحسينها بتكرار تعرض الطبيب الذي يقوم بالإحالة للتدريب النفسي.

الدراسة الثانية (الفصل الرابع)

الدراسة تختبر الأعراض النفسية التي تسجل بواسطة الأطباء في تلك النوعيات من الإحالات. ومن ناحية الأعراض تم تصنيف الإحالات إلى صنفين:

1. إحالات احتوت على أقل من أربع أعراض.

2- إحالات احتوت على اكثر من اربع اعراض مسجله وذلك باستخدام قائمة مراجعة الأعراض ذات الثماني والأربعين عرض. هذا بالإضافة إلى أن التشخيص الذي وضع بواسطة الطبيب الممارس في مركز الرعاية الصحية والمستشفيات العامة والأطباء النفسيين مستقبلي التحويل قد تم تسجيله وقد كانت نسبة الإحالات التي احتوت على أربع أعراض مدونة من الأطباء بالمستشفيات العامة حوالي ضعف نسبة الأطباء الممارسين بمراكز الرعاية الصحية الأولية. وكانت الأعراض الذهانية الوظيفية ، الأعراض المجازية ، والأعراض النفس جسمية هي الأكثر ملاحظة بتحويلات المستشفيات العامة مقارنة بإحالات المراكز الصحية. الأعراض الجسمانية والعصبية كانت غالباً هي الأكثر في إحالات أطباء المراكز الصحية. نوبات العنف والهياج واضطرابات النوم كانت الأكثر تدويناً في إحالات المستشفيات العامة بينما أعراض الاضطرابات النفسية البسيطة وضعف العلاقات الاجتماعية كانت الأكثر في إحالات المراكز الصحية. هذه الدراسة أثبتت أن معظم الاضطرابات النفسية العظمى والاضطرابات النفسجسمية الشديدة كانت دائماً منتشرة في المستشفيات العامة والذي له معاني كثيرة تشمل الإصابات الجسمانية المشتركة وارتفاع نسبة الدخول والتكلفة الاقتصادية العالية واستنزاف الخدمات الطبية والنتائج المتدنية.

وبالتالي يجب أن تقوم المستشفيات العامة والمراكز الصحية التي ليس لديها خدمات للرعاية النفسية بإحالة هؤلاء المرضى ذوي الاضطرابات النفسية الشديدة إلى المستشفيات النفسية ضمان تدخل علاجي نفسي مبكر. وعلى العكس فإن الأعراض الجسمانية الناتجة عن الإعياء النفسي في عام الاضطرابات النفسية البسيطة كانت الأكثر في المرضى المحولين من المراكز الصحية. هذه الاكتشافات تظهر أن المرضى بالاضطرابات العصابية يستشيرون أولاً الأطباء الممارسين الذين يجب أن يكون لديهم القدر المناسب من المهارة في الطب النفسي لعلاج هؤلاء المرضى. هذا بالإضافة إلى أن أعراض الهياج واضطرابات النوم التي غالباً ما تصاحب الاضطرابات الذهانية كانت غالباً ما تذكر في إحالات المستشفيات العامة مقارنة بإحالات المراكز الصحية. فقط 5% من المرضى الذين يراجعون الأطباء الممارسين لديهم اضطرابات عقلية ذهانية مما يحتاج إلى إحالة للمستويات الصحية الأعلى. وكمثل الأعراض الذهانية فإن الأعراض الجسمانية تتعارض مع الأنشطة الروتينية اليومية وتدفع المرضى لأخذ علاج دوائي أو زيارة الطبيب.

لذلك يجب أن ينتبه الأطباء عند فحص مرضاهم لوجود أعراض جسمانية غير مفسرة ، الحداد ، والذي يرجع إلى اضطرابات نفسية مقنعة. أعراض سوء استعمال العقاقير اضطرابات التكيف والأعراض الجانبية للعقاقير غالباً ما تلاحظ في إحالات المستشفيات العامة عن إحالات المراكز الصحية.

وختاماً فإن أعراض الاضطرابات النفسية لدى الأطفال كانت محصورة في إحالات المراكز الصحية. وفي الأغلب أن معدل انتشار هذه الأمراض يختلف في المستشفيات العامة ومراكز الرعاية الصحية الأولية وبصفة عامة فإنه ال توجد معدلات محددة لانتشار الاضطرابات النفسية لدى الأطفال و الى حتى مراجعة للخدمات النفسية التي قدمت للأطفال بالمملكة السعودية في السابق. لذا نقترح أن تفتتح عيادات الطب النفسي للأطفال بالمستشفيات العامة ومستشفيات الصحة النفسية.

وبكل الوسائل فإن الطب النفسي لدى الأطفال يحتاج إلى تخطيط صحيح ، وتطوير مزيد من الأبحاث في بلدان الخليج العربي كلها.

الدراسة الثالثة (الفصل الخامس)

هذه الدراسة تختبر وجود الاضطرابات النفسية المصاحبة سواء في إحالات المراكز الصحية أو المستشفيات العامة. بجانب استنباط المعلومات ذات الأهمية من هذه الإحالات فقد قام الباحث بمراجعة ملف كل مريض للتدقيق في التشخيص النفسي والعضوي والذي تم بصورة سليمة بواسطة الطبيب النفسي.

عدد أكبر من غير السعوديين قد تم إحالتهم للعلاج النفسي من اضطرابات سلوكية حادة من المستشفيات العامة أكثر من المراكز الصحية. المرضى الذين يعانون من مشاكل نفسية حادة وبحاجة للتنويم كانوا أكثر إحالة من المستشفيات العامة وفي كلتا الحالتين هناك أسباب متشابكة لإحالة المرضى.

الاضطرابات النفسية الحادة كانت هي الأكثر إحالة من المستشفيات العامة عنها من المراكز الصحية. الأطباء بالمستشفيات العامة ، والأطباء الممارسين والأطباء النفسيين قد وضعوا تشخيصات تفريقية لمختلف الاضطرابات النفسية للمرضى المحولين وبنفس الطريقة تم عمل تشخيص للاضطرابات النفسية لدى الأطفال.

ومن الملاحظ أن مقدار معرفة الأطباء الممارسين بالاضطرابات شبه الجسدية ومهارات علاج الاضطرابات النفسية لدى الأطفال كانت منخفضة. تشخيص الاضطرابات العضوية لوحظ الكثير في إحالات المستشفيات العامة عنه في إحالات المراكز الصحية.

ارتفاع ضغط الدم والسكري كانت هي التشخيصات العضوية الأعلى سواء في تحويلات المستشفيات العامة أو المراكز الصحية. الأهمية الإكلينيكية في تحديد الاضطرابات العضوية من المرضى النفسيين تكمن في أن الطبيب النفسي يجب أن يقيس الحالة العضوية للمرضى المحولين إليه وبالتالي فاستشارات الفريق الطبي دائماً تكون واردة في الحسبان.

وذلك نقترح دائماً إنشاء وحدة للطب الباطني بالمستشفيات النفسية لمواجهة المشاكل عند التنسيق مع الأطباء الباطنيين. وبصفة عامة فإن المرضى النفسيين الذين يعانون من أمراض عضوية بالتأكيد يحتاجون إلى رعاية طبية من استشاريين متعددي الاختصاصات.

الدراسة الرابعة (الفصل السادس)

هذه الدراسة تصف العلاج الذي يكتبه الأطباء النفسيين للمرضى المحولين من المراكز الصحية والمستشفيات العامة. تم وضع خمسة أصناف للأدوية النفسية بجرعاتها تصف بواسطة الأطباء النفسيين بمستشفى الصحة النفسية بباريدة. المعلومات عن الأدوية التي تصرف للمرضى في المستشفيات والمراكز الصحية كانت قليلة للغاية وغير كافية ، وخوفاً من النواحي الصيدلانية ولذلك فنحن لا نهتم بالأدوية المدونة في إحالات هؤلاء الأطباء الممارسين. المصدرين الأساسيين للمعلومات هما ملف المريض النفسي قبل ونماذج الإحالة. وقمنا بمقارنة المعلومات التي تم جمعها بالمعلومات التي قمنا بنشرها سابقاً عن الأدوية النفسية التي تم وصفها للمرضى من مراجعي العيادات الخارجية. أدوية النفسية المتعددة من مضادات الذهان ومثبطات الكولين تم وصفها في الغالب للمرضى المحولين من المستشفيات العامة أكثر من المحالين من المراكز الصحية.

المرضى المحالين من المراكز الصحية غالباً ما يوصف لهم مضادات اكتئاب ومضادات القلق حيث أن مضادات الصرع تستخدم أيضاً كمثبتات للمزاج للاضطرابات الوجدانية.

البنزوديازبينات كانت تصرف بالتساوي تقريباً ولكن بطريقة غير سليمة لكل من المرضى العيادات الخارجية والمراكز الصحية وبصفة أقل لمرضى المستشفيات العامة وبالتالي فإن وصف هذه الأدوية من الإكثار من الإدمان وبالتالي فإن وصف

مثبطات القلق في تناقص. فقط جرعات علاج البروميثازين كانت أعلى لمرضى المستشفيات العامة. مضادات الذهان ومضادات الاكتئاب كانت الأكثر وصفاً للمرضى المحالين من المستشفيات العامة والمراكز الصحية عن المرضى النفسيين من مراجعي العيادة الخارجية بمستشفى الصحة النفسية. العلاجات المتعددة كانت هي الأكثر في إحالات المستشفيات العامة عنهما في إحالات المراكز الصحية الذين يأخذون أيضاً القدر الضئيل من العلاج النفسي. ومن الجدير بالذكر أن العلاجات الدوائية النفسية المذكورة كانت تتمشى مع الاضطرابات النفسية المنتشرة من الناحية العملية.

وصف المضادات الكولينية كان مرتبطاً بوصف مضادات الذهان التي تحدث أعراض جارهرمية. شكل كل جرعات الأدوية النفسية لم يختلف في كل الإحالات مما قد يكون بالوضع في الاعتبار لأول جرعة فقط. ومن الجدير بالذكر أيضاً أن الأدوية النفسية الموصوفة تتغير مع الوقت لأسباب عدة تشمل التطور الهائل في الأدوية النفسية وإرشادات العلاج وبروتوكولاته وأسباب أخرى. وصف الأدوية بصورة متعددة كما هو الواضح في علاجات الذهان له أعراض جانبية أكثر من فوائده ولذا يجب أن يتضاءل ويقل. لذا نقترح أن توضع البروتوكولات المستخفيضة للأدوية النفسية لعلاج الاضطرابات النفسية لدى الأطفال والبالغين والمسنين ومعظم المرضى المراجعين للمراكز الصحية والذين يعانون من مشاكل نفسية بسيطة يمكن علاجهم بنوعيات من العلاجات النفسية الاجتماعية.

الدراسة الخامسة (الفصل السابع)

هذه الدراسة تبحث في العلاقة السببية المقترحة بين نوعية رسائل الإحالات النفسية وأسبابها وارتباطها بخصائص المريض المحول والطبيب الذي يقوم بالإحالة والظروف المحيطة.

تم تجميع المعلومات الخاصة بثمانية عشر متغير مستقل تحت هذه الثلاث الأساسية مذكورة ومتغير واحد غير مستقل يتمثل في نوعية رسالة الإحالة النفسية تم استنباطها من ملف المريض وتقارير تدريب الطبيب وعدد 540 إحالة نفسية. باستخدام نموذج المعادلة الشكلي تم تحليل هذه المعلومات لاختبار العلاقة السببية بين نوعية رسالات الإحالة النفسية ومؤشرات ما يتحقق نتيجة للإحالة. هذه المؤشرات كانت عشر تغيرات اجتماعية وإكلينيكية في المريض ، 4 متغيرات في الطبيب الذي يقوم بالإحالة ، و4 متغيرات في الظروف المحيطة بالإحالة. كل المعطيات المتغيرة استخدمت لتوليد نموذج سببي حيث اعتبرت شدة الأمراض النفسية مقياس اعتمادي. تحليل المعلومات أثبت أن النموذج المقترح كان يتناسب مع المعلومات المعطاة بصورة منطقية. ومن الجدير

تالاحإلا تالاسر ةيعون عقوت يف فالتخالا نم 67% حضوأ ربتخملا جذومنلا نأ ركذلاب بطلا يف رمتسملا بيردتلا لثم ةلاحإلاب موقي يذلا بيبطلا صئاصخ .ةيسفنلا صخألابو ، ةلاحإلا ناكم تافصاومو ةيعماج قوف تالهؤم ، رثكأ ةيكينيلكإ ةربخ ، يسفنلا ىضرملا ةطساوب ةيبلس تارشؤم تطعأ ضيقنلا ىلع تالالد دجوي ثيح ىفشتسملا ىدل يسفنلا بطلا يف بيردتلا صقن ، يسفنلا ضرملا ةدش لمشت يتلاو نيلوحملا ةلاسرل ةديجلا ةيعونلا .ةلاحإلا ةلاسر يف ةدوجوملا غيصلاو ، ةلاحإلاب موقي يذلا بيبطلا تامدخلا يف نسحت عم ةلاحإلا ماظنل حاجنو ةيلاع ةءافك ىلإ ريشت ةيسفنلا ةلاحإلا ةلاحإلاب نوموقي نيذلا ءابطألا بيردت يبطلا ميلعتلاب نيمئاقلا ىلع بجيو .ةيحصلا ةيسفنلا ةلاحإ لئاسر ةباتكل ةلاحإلا ماظنو ةيسفنلا تاراشتسالا ىلع ةمظتنم ةروصب ةميلس.

يذلا بيبطلا ىلع بجي ضرملا ضارعأ ةدش نع رظنلا فرصبو رخآلا بناجلا ىلعو كلذو ًاضيأ نيبرقملا هلهأ نم لب ضيرملا نم طقف سيل ةماهلا تامولعملا عمج ةلاحإلاب موقي ةسارادلا .ةراشتسالل ةديج ةجيتن نمضت يكل ةيعونلا ةديج ةلاحإ ةلاسر ةباتك نامضل ةيعون ىلع رشابم ريغ ريثأت اهل نوكي دق ضرملا ةدش نأ ثحبلا ىلإ فيضت ةيلاحلا ةيسفنلا ةلاحإلا ةلاسر.

(نماثلا لصفلا) ةسداسلا ةسارلدا

دمألا ليوط عورشملا اذهل طيطختلا ةلحرم تارربم لمشت ميهافم ةدع فصي لاقملا تاراهملا نيسحت ًاضيأو ةيلوألا ةيحصلا ةياعرلا يف ةيسفنلا ةحصلا جمد ىلإ فدهي يذلاو تامدخ لضفأ ميدقت ضرغب ميصقلا ةقطنمب ةيحصلا زكارملا مقاط ىدل يسفنلا بطلا يف لكاشملا فلتخم نم مهنم نيريثكلا وكشي يذلاو ةيلوألا ةيحصلا ةياعرلا يعجارمل ةيحص ةطيسبلا ةيسفنلا تابارطضالاو ةيسفنلاو ةيعامتجالا.

دارفأ بيردتب طقف اهقيقحت نكمي عورشملا اذهل ةصاخلا فادهألاو قبسملا روصتلا ةافصملا مه مهنأل ةلاحإلا ماظنو ةيلوألا ةياعرلا يف يسفنلا بطلا ىلع ةيحصلا زكارملا مقاط يف روصق مهيدل نأ فورعمو ةيسفن ضارمأب نيباصملا ةيحصلا زكارملا يعجارمل ىلوألا ركذلاب ريدجلا نمو .يسفنلا بطلا اهاجت ةئطاخلا مهترظن ىلإ ةفاضإلاب ةيسفنلا تامولعملا تامولعملا ةيحان نم بيردتلا دعبو لبق نيبردتملا مييقت وهو يساسأ روحم كانه ناك هنأ حاجن ىدم سايق ضرغب يلمعلا بيردتلل مهباعيتسا ىدمو يسفنلا بطلل ةرظنلاو تاراهملاب ةفدهتسملا تاعومجملا دمي نأ نكمي يذلا يسفنلا بطلا جمارب يف بيردتلا ةيثحبلا تامولعملا ليلحتو عمجو ةضيفتسم ةلباقم لمعل ةيساسألا ةيكينيلكإلا

ةصيا غ ةيسفنلا ضارمألا فرعت مدع ضرغب ةيسفنلا تامالعلاو ضارعألا فرعتلاو
ةلاحلا بأفضل تشخيص وعالج متاح وفي ةيانلا إحالة الحالات الصعبة لمستوى أعلى من
مستويات الصحة النفسية. وبالإضافة إلى إلغاء مركزية الخدمات النفسية سوف يدعم هذه
المشروع مفهوم الطب النفسي البيئي والحاقًا يمكن للخدمات الصحية النفسية أن تقدم
بالمراكز الصحية حيث المشاكل النفسية بصفة عامة يمكن أن يتم التعامل معها بواسطة
الأطباء الممارسين المدربين.

الدراسة السابعة (الفصل التاسع)

هذه الورقة البحثية تصف الهيكل لنماذج التدريس للأساس الإكلينيكي للطب
النفسي لأطباء المراكز الصحية والاطاقم الطبي المساعد من أجل دمج الصحة النفسية
بالرعاية الصحية الأولية.

تطوير المنهج المناسب يعد مطلب أولي وأساسي لأي مشروع صحي مبدع يشمل
برنامج تدريبي. بالإضافة إلى أن هذا المنهج يجب أن يحتوي على مفاهيم مستفيضة
الشرح وتبريرات محددة وأهداف مخصصة ومحتوى طرق تدريس وتقييم سليم ومصادر
متاحة وإطار زمني محدد المعالم. ويجب أن يكون بأسلوب علمي ذو تصميم مناسب. ويجب أن
يكون المنهج من المرونة بحيث يضمن إجراء التعديلات بعد تقييمه في الوقت المناسب.
يمكن لهذا المنهج في الطب النفسي لتدريب الأطباء الممارسين على الطب النفسي
الإكلينيكي ونظام الإحالة أن يستخدم بالمملكة السعودية أو أي مكان آخر بعد إجراء
التعديلات المناسبة.

الدراسة الثامنة (الفصل العاشر)

الدراسة الثامنة تتعامل مع مدى نجاح برنامج التدريب النفسي الموجه للأطباء
الممارسين لتحسين معلوماتهم وتغيير نظرتهم وتوجههم الغير سليم ناحية الطب
النفسي. الأطباء الممارسين غالبًا ما يعانون من نقص في المعلومات العلمية في الطب
النفسي سواء في التشخيص أو الجانب العلاجي كما أن لديهم توجه خاطئ للأمراض
النفسية.

الغرض من هذه الدراسة قياس المعلومات النفسية قبل وبعد التدريب وتوجه الأطباء
الممارسين بالمقارنة بمجموعة أخرى تجريبية من الأطباء الممارسين يتم قياس ذلك لديهم
بطريقة مماثلة.

تم استخدام الأدوات التالية في هذه الدراسة. تم إنشاء استبانة خاصة بالدراسة بعد الاطلاع على الأدبيات والدراسات السابقة ذات العلاقة بموضوع الدراسة، وتكونت الاستبانة في صورتها الأولية من (٣٠) فقرة موزعة على ثلاثة مجالات رئيسة، وقد تم التحقق من صدق الاستبانة وثباتها باستخدام طريقة الاختبار وإعادة الاختبار (Test-Retest Method)، حيث تم تطبيقها على عينة استطلاعية من خارج عينة الدراسة الأصلية، وبفاصل زمني مقداره أسبوعان بين التطبيقين، وتم حساب معامل الارتباط بين نتائج التطبيقين باستخدام معامل ارتباط بيرسون، وقد بلغت قيمة معامل الثبات (٠.٨٧)، وهي قيمة تدل على درجة عالية من الثبات، مما يشير إلى أن الاستبانة تتمتع بدرجة جيدة من الاستقرار والاتساق في النتائج التي تقيسها.

لم يكن هناك اختلاف ذو دلالة إحصائية بين القيم المتوسطة في التقديرات الاجتماعية للمجموعتين في حين ادعى أن الأطباء الممارسين من المجموعة التجريبية كانت أعمارهم أكبر وخبرتهم الإكلينيكية أطول مما قد يكون لها أثر على معلوماتهم وتوجهاتهم. هذا بالرغم من أن عن تم عمل ثلاثة ورش عمل مصغرة لتغيير المفهوم والتوجه الخاطئ لدى الأطباء الممارسين تدورات الطب النفسي كانت في الحقيقة غير كافية لهذه الوظيفة الفرعية ولهذا يجب عمل جميع التكميلية تستهدف الأطباء الممارسين من حيث نظرتهم السلبية المتكررة وذلك في برامج التدريب المستقبلية.

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In the end, I apologize for those whose names may have been missed unintentionally.

Dr. Naseem Akhtar Qureshi, MD, IMAPA

Buraidah, March 2004

CURRICULUM VITAE

Naseem Akhtar Qureshi was born in a small village of 2500 population in Uttar Pradesh State, India, on first of January 1955 . His late parents -Mrs.Ladley Begum and Mr.Abdul Jabbar-sacrificed almost everything in educating their 6 children and, therefore, entire credit of this research must go to them. He passed High School examination with distinction and was awarded National Merit Scholarship, which he sustained till he completed M.B, B.S course. He graduated from King George's Medical College [KGMC], Lucknow University, in the year 1977. This college is one of the oldest and the finest medical institutions in India. Subsequently, he postgraduated in psychiatry in the Department of Psychiatry of the same institution in the year 1980. The department of psychiatry of KGMC is a WHO Collaborating Centre for Biological Researches. Following successful completion of a 3-year MD Psychiatry course, he joined the Department of Psychiatry, KGMC, as a Research Associate & Research Officer in the year 1981-1982 and conducted a psychotropic drug trial in clinical patients. Subsequently, he worked as a Senior Resident, Department of Psychiatry, Ram Manohar Lohia Hospital, New Delhi, in the early year 1983. Notably, he was appointed as a lecturer in the Department of Psychiatry, All India Institute of Medical Sciences, Banaras Hindu University, Banaras, in the month of September 1983. He did not join this very well known and the biggest Central-Government-run university in India, because soon after in the month of December 1983 he came to the Kingdom of Saudi Arabia. Since then, he has been working as a Psychiatric Specialist in Buraidah Mental Health Hospital, Al-Qassim region, Saudi Arabia. Later in the year 1995, he was appointed as the Medical Director of BMHH.

He has special interests in patient care, education and research. Besides Medical Director [A], he is the Director of Medical Education and Research Centre, BMHH. Besides actively supervising administrative and clinical work, he organizes the intra-mural and extra-mural educational and research activities of this hospital. He has published more than 70 research papers in national and international journals, which are indexed in Medline/PubMed and other databases. Since September 2003, he has also 12

eLetters published in the British Journal of Psychiatry Online. In addition, he has more than 120 rapid responses published in bmj.online plus 3 eletters in Spiked.central online debate initiated by Wellcome Trust. He is a liaison consultant for coordinating primary care and psychiatric health services, Al-Qassim region, Saudi Arabia. His main areas of research are drug abuse, primary care psychiatry, medical education and general practitioners' psychiatric training programs, general hospital psychiatry, referral system, consultation-liaison psychiatry, psychotropic drug complications, and sociocultural issues in psychiatry. Besides other memberships and subject of Marqui's Who's Who in the world, he is currently an international member of the American Psychiatric Association and life member of the Indian Psychiatric Society.

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The author additionally published 152 rapid responses in bmj.com online the website of the British Medical Journal.

1. A duly filled psychiatric referral letter from the general practitioners and general hospital physicians reduces the work of the psychiatric consultant substantially.
2. A battery of psychiatric symptoms revealed by referred mental patients provides insightful windows, which help patient, referring GP and referred consultant in making precise diagnosis and planning treatment together with plausible prognosis and outcome.
3. In Arabian Gulf countries, the availability and delivery of mental health care services including psychotropic drugs at PHC level are tremendously lacking and hence need prioritization by health authorities.
4. Patients referred from multiple sources for psychiatric consultation tend to have psychiatric co-morbidity and hence need comprehensive evaluation together with establishment of appropriate liaison services at three levels of health delivery systems.
5. Competency of the referring physicians, meaningful communication skills of the patients and the shorter standard psychiatric referral format predict positively the quality of psychiatric referral.
6. It is easier to enhance the knowledge of GPs on psychiatry than to change their unfavourable attitudes against psychiatry.
7. Neuropsychological investigations, besides being robust research tools, provide reasonably good diagnostic clues of psychiatric disorders.
8. Psychosocial therapies, derived from psychological and social theories, are of tremendous therapeutic values in the overall management of patients with minor to major psychiatric morbidities.
9. The diverse principles of psychology help sagaciously in understanding psychiatry to its full extent.
10. Psychology is the mother of psychiatry whereas neuroscience is its father.