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Research Article

KNOWLEDGE, ATTITUDE, AND PRACTICE OF PRIMARY HEALTH CARE PHYSICIANS: A SURVEY TO EXPLORE REFERRAL, SATISFACTION, AND THE PERCEIVED OBSTACLES IN PROVIDING CARE TO CHILDREN AND ADOLESCENTS WITH MENTAL HEALTH PROBLEMS IN PRIMARY CARE

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ABSTRACT
Objective was to explore the knowledge, attitude, practice of primary healthcare physicians toward child and adolescent mental health services. The study was conducted specifically in the Department of Family and Community Medicine at Riyadh / Saudi Arabia. Cross sectional survey through self administered questionnaire distributed to 168 primary healthcare physicians and data were collected over a period of 8 weeks from distribution. All received data were entered and analysed using Epi-Info 6.04 and SPSS 14.0 statistical software packages, where statistical tests were used. Of 168 questionnaires initially distributed and a reminder that was sent two weeks later, 135 physicians returned a completed questionnaire, a response rate of 80.4%. 78 (58%) of respondent were not trained for mental health problems during their career compared to 57 (42%) that did receive training. 108 (80%), strongly disagreed that the mental health services for child and adolescent should not be available in primary health care centres. 65.9% of the participants strongly disagreed about the time that is currently sufficient to provide counseling for children and adolescents with mental health problems. 70.4 % strongly agreed about the need for special skills to discuss mental health issues with affected patients and their families. 56.3% strongly agreed that they felt more comfortable treating physical illness than emotional disorders. 20.7%) reported that they were highly confident in diagnosing patients with mental health disorders. 44.4% reported low confidence toward providing pharmacological treatment to children or adolescents with mental health disorders. It was clear from this study that physicians working within primary care setting have indicated that child and adolescent mental health is an important service that should be available in primary health care setting. However; training for mental health disorders is very important in carrying out such service for children and adolescents to improve the clinical management and skills for health care providers that help to offer good service for affected clients.

Keywords: *Mental, Children, Adolescents, Satisfaction, Referral*

INTRODUCTION

Primary Health Care and Mental Health

Mental health services are an essential element of the health care services, the promotion of mental health, diagnosis, and treatment of mental illness at the level of individual and community are an integral component of general practice (American Academy of Family Physicians, 1999).

WHO (1990) proposed linking mental health care with Primary Health Care systems in order to provide psychosocial health for all people worldwide.

Children and young adults represent a substantial proportion of society. For instance, in United Kingdom 25% of the total population are children and adolescents (Bailey and Williams, 2005), and in Saudi

Arabia, 32% of the population is under 15 years of age (Department of Statistics, Ministry of Health, 2009).

In children and adolescents, any disturbance in term of imbalance between physical, social, spiritual and emotional aspects of life with the absence of coping mechanism will lead to mental health problems which in turn might present in the picture of physical complaints or behavioural and emotional changes (Maughan, 2004).

Worldwide, the prevalence of clinically significant mental health disorders in children is about 7% (Anderson *et al.,* 1987) and this rate is higher in socially disadvantaged and densely populated urban areas. An increase in prevalence is also seen after puberty; 3% - 4% (Tonge, 1998).

Mental disorders vary in prevalence between genders; some are more common in males than in females and some vice versa. Disorders such as hyperactivity, tics and nocturnal enuresis have a tendency to be more common among males. On the other hand, anorexia nervosa, bulimia nervosa and depression are more common in girls (Goodman and Scott, 1997), where antisocial behaviour has been observed to be more among boys more than girls; ratio of about two or three times.

The picture in Saudi Arabia is similar to other parts of the world; in the south-western area of Saudi Arabia, a study of 1552 adolescents (boys and girls) reported that the overall prevalence of mental health problems was 15.5% (Mahfouz *et al.,* 2009). The most frequent mental problems were phobic anxiety (17.3%), interpersonal sensitivity (14.7%), which refers to appropriateness of perception and or accuracy, judgment, and responses that human has with respect to one another, and obsessive compulsive (14.5%). The prevalence of depression among boys in secondary schools has been found to be more than one-third (38.2%), while 48.9% had anxiety and 35.5% had stress (Al-Gelban, 2006).

There were many obstacles for mental health services recognised by health care providers as lack of training and limited consultation time (Goldfracht *et al.,* 2007; Weitzman and Leventhal, 2006; Bathgate *et al.,* 2001; Falloon *et al.,* 1996). If these obstacles were not corrected, good outcomes for patients with mental health problems (health status improvement) may not be achieved.

To overcome the difficulties that general practitioners face in detecting, diagnosing, treating and managing patients with mental health problems, different approaches have been developed to strengthen their role at both health care service and general practitioners level. In some healthcare settings, including Australia, many general practice networks have direct contact with the child psychiatrist via telephone or e-mail to provide the general practitioners with appropriate action or advice. In other countries, such as USA, UK, mental health services depend on nurse practitioners with advanced training and certification in child and adolescent psychiatry to overcome for the shortage of frontline child and adolescent psychiatrists and improve access to mental health care for children (Kaye *et al.,* 2009).

In USA, some healthcare providers are advocating for the shifted out-patient clinic, where psychiatrists or psychologists operate clinics within primary care and provide individualized treatments to children and adolescents with mental health problems presenting in primary health care centres (Garralda, 2001).

For such services, the majority reported potential usefulness and clinical improvements and high satisfaction by having an advantage of de-stigmatizing and at the same time the attendance to seek medical advice for mental health issues in primary health care centres is enhanced (Garralda, 2001; Finney *et al.,* 1991).

Skills may also be disseminated via consultation-liaison. Primary care physicians and psychiatric staffs jointly see selected patients with mental health problems or to have regular discussion about specific issues in relation to patients' problems.

The aim is to reduce referrals of mild mental health disorders and improve general practitioners' skills in the detection and management of mental illness (Warner *et al.,* 1993; Carr and Donovan, 1993), In addition to the psychiatric training of primary health care staff, consultation–liaison also includes the supervision of daily case groups and quality management meetings; lecturing on selected topics; offering tutorials in research techniques; presentation of literature reviews; holding case conferences; and streamlining liaison meetings requested by general hospital specialists and consultants (Lloyd and Mayou, 2003; Bernard *et al.,* 1999).

Different approaches have been tried with general practitioners to increase and improve their recognition of mental health problems in children and adolescents. Bernard *et al.,* (1999) developed a teaching package for primary care professionals designed to improve abilities in detection, assessment and management of mental health problems in children and adolescents. The study found that 61 general practitioners demonstrated positive changes in self-perceived competence, increased knowledge and increased recognition of adolescent psychiatric disorder.

Simple and easy short/concise questionnaires may also be used to screen children and young people for behaviour problems and depression, especially those who are frequent attendees to PHC centres and present with somatic symptoms (Scott *et al.,* 1990).

To lessen the impact mental health disorders and avoid associated morbidity and mortality, the main concern should be prevention and promotion in the field of mental health. Preventive and promotional strategies can be used by clinicians to target individual patients, and by public health programme planners to target large population groups. Within the spectrum of mental health interventions, prevention and promotion have become realistic and evidence based, supported by a fast growing body of knowledge from fields as ramified as developmental psychopathology, psychobiology, prevention, and health promotion sciences (WHO, 2002).

Prevention and promotion programmes have also been shown to result in considerable economic savings to society (Rutz *et al.,* 1992). Integrating prevention and promotion programmes for mental health within overall public health strategies will help to avoid deaths reduce the stigma attached to the persons with mental disorders and improve the social and economic environment.

There are 2037 primary health care centres in Saudi Arabia (Department of Statistics, Ministry of Health, 2009). Primary health care centres are located in certain areas, where they can be accessible to much of the population (compounds, neighbourhoods).

Unlike industrialized countries as United Kingdom, where child and adolescent mental health (CAMH) services is well organized (Kurtz, 2005) and patients with mental health problems were able to reach CAMH services (Hodgson and Woodcock, 2006).

In Saudi Arabia, there are particular challenges in the development and delivery of mental health services at community/primary health care level since no CAMH services available. Instead, general practitioners see all patients and manage them in primary health care centres, including those with mild mental health problems (all age groups).

Those who need more specialist care are referred to secondary healthcare level, to psychiatry departments (Sigell and Leiper, 2004; Al-Amri *et al.,* 1997). Not all patients with mental health problems consult primary health care centres; many visit private psychiatric hospitals, psychiatric clinics or faith healers (Qureshi *et al.,* 1998).

Physicians working in the Primary Health Care centres are from different backgrounds, Saudi, non-Saudi (Arabic nationalities, and non-Arabic ones), in addition, non all of them are family physicians board qualified. Therefore, the care given to patients is not uniform, and among these patients are children and adolescent with mental health issues.

Currently, the number of patients seen at Primary health care centres is increasing over time. For example, at one of the Primary health care centres in Riyadh area/ Saudi Arabia, the consultation time is limited to 10 – 15 minutes per patient, and the waiting time for patients to be seen by psychiatrist in the hospital is long, 6 to 12 months. The overall objective of the study is to explore the knowledge, attitude, practice of primary healthcare physicians towards child and adolescents mental health services, effect of healthcare providers language, different physicians' post and qualifications on carrying child and adolescent mental health services, current referral, satisfaction with psychiatry department and the perceived obstacles in providing care to children and adolescents with mental health problems in primary care setting.

The main aims of this study are:

1. Explore the knowledge, attitude, practice of primary healthcare physicians toward child and adolescent mental health services.

2. To know the current referral situation and satisfaction level with psychiatry department.
3. To assess advantages / obstacles in providing child and adolescent mental health services.
4. To evaluate the difference if any for different language (Arabic, non - Arabic), job post or title, and for different physicians' qualifications on carrying child and adolescent mental health services.

MATERIALS AND METHODS

Methodology

Family and Community Medicine Department at is one of the biggest medical departments in the hospital and it provides medical services to employees and their families through many distributed primary health care centres in different areas in Riyadh/ Saudi Arabia. Direct access to special clinics like psychiatry unit is not accessible unless patients are seen in Primary health care centres where evaluation, assessment and treatment is offered, then referral to the psychiatry unit in the hospital is done if required.

Setting

The study was conducted specifically in the Department of Family and Community Medicine at Riyadh / Saudi Arabia. Currently and due to unavailability of CAMH services, children and adolescents with mental health problems are dealt within primary health care centres. Healthcare services at these primary health care centres are run by General Practitioners. Patients that need more advanced care are referred to psychiatry department in the central hospital.

Sample

The survey was conducted in March – April 2011. Participants' recruitment was based on the tailored design method (Dillman, 2007) to enhance potential response rate for the survey. The study is a Census of all primary health care physicians working in the department of Family and Community Medicine excluding the training residents (because they are not allowed to see patients alone).

The number of general practitioners working in the department during the survey was 168 general practitioners. General practitioners working in those primary health care centres were of different background with different nationalities but all of them spoke English. Some were Arabic speakers and others were non-Arabic speakers where they have to have interpreters during consultation with any patient encountered.

The effective sample size was calculated based on 5% significance level and 95% power level. A minimum sample of 118 primary health care physicians is required (Whitley, Ball, 2002). 168 primary health care physicians have been included in the study as advised by the statistician to adjust for 20% drop out rate.

Questionnaire and Study Design

The information sought in the survey includes five domains. These domains include (A) demographic data, (B) primary health care physicians' confidence in working with children, adolescents with mental health issues, (C) physicians' views towards mental health/illness, (D) mental health referrals, and (E) primary health care physician's views towards benefits and obstacles of mental health services in primary health care centers.

Demographic data about gender, job title, nationality, qualifications, years of experience, and previous mental health training were collected. The second domain is related to primary health care physician's role in working with children, adolescents and families with mental health issues and it consists of 8 items that elicit how confident is the primary health care physician in relation to mental health issues. For example; elicit mental health information as part of a family/medical history and Provide counselling related to mental health issues.

The answer options varies from 1 (low confidence) to 5 (high confidence).

The third domain contains 8 items and is related to primary health care physicians' views towards mental health issues. The answers of these 8 items range from 1 (Strongly Disagree) to 5 (Strongly Agree).

The fourth one contains 7 items and it is related to primary health care physicians to have their views towards referral for mental health disorders to psychiatry department. These item either an open ended questions as if the general practitioner has referred any child or adolescent with mental health problem to psychiatry department, or multiple choice questions as those about reasons behind referral if any, number

of referrals over a certain period of time, and questions about type of the referred cases. The last domain contains 5 items and is related to primary health care physicians to have their views towards benefits and limitations of mental health services at primary health care centres and their views toward implementation of such service in the primary health care centres.

Data Analysis

Some of the questionnaires were distributed manually, either by secretaries working all over the primary health care centres and some through the hospital mail to all study members. Participants were informed through the questionnaire about the purpose of the study by an attached letter in the front page of the survey and that their participation is voluntary.

The data was collected over a period of eight weeks from distribution, either by the same secretaries or through the hospital mail and will be checked manually by the statistician for completeness. A follow up reminder was sent to all participants (physicians) every two weeks during the survey period as it shown by the tailored design method (Dillman, 2007).

With the help from the clinical statistician, all received data were entered and analysed using Epi-Info 6.04 and SPSS 14.0 statistical software packages, where statistical tests were used.

Ethical Approval

An official ethical approval permitting data collection from physicians was sought and granted from the Ethical Committee of the Hospital after submission of a proposal for the study. This survey was anonymous, and participation was voluntary.

RESULTS AND DISCUSSION

Results

Response Rate and Sample Characteristics

Of 168 questionnaires initially distributed and a reminder that was sent two weeks later, 135 physicians returned a completed questionnaire, a response rate of 80.4%, which is high. It might have been higher, but some of the staff were on annual leave, sick leave, maternity leave, or long study leave (n=25, doctors, 14.9%).

Of the survey respondents, 72 (53%) were female and 63 (46%) were male. The majority of physicians were Saudi Arabian, 87 (64%) compared to 48 (36%) were non Saudi. Most physicians, 100 out of 135 were Arabic speakers (88%) (Table 1).

The largest proportion of physicians 51(38%) that worked in the primary health care centres were registrars. Consultants accounted for 30 % of survey respondents and the remainders were senior house officers (SHO) or senior registrars.

Approximately, a third of the primary care physicians were qualified family physicians through Saudi Board qualification in family medicine specialty and they were thirty five physicians (33%). Other participants had western qualification such as MRCGP, sixty three physicians (26%). Others had Arab Board qualifications in family medicine specialty or other qualifications. Some of the staff may have combined qualifications.

The majority of primary health care physicians, 78 (58%) were not trained for mental health problems during their career compared to 57 (42%) that did receive training.

Of survey respondents, the majority of the staff had between 1 and 5 years' experience 59 (43%). Twenty four physicians (18 %) had more than 15 years of experience as primary health care physicians.

Physicians' Views toward Mental Health Issues

Most participants, 108 (80%), strongly disagreed that the mental health services for child and adolescent should not be available in primary health care centres.

Eighty nine (65.9%) of the participants strongly disagreed about the time that is currently sufficient to provide counseling for children and adolescents with mental health problems, while only minority, five physicians (3.7%) were in strong agreement. Ninety five primary health care physicians (70.4 %) strongly agreed about the need for special skills to discuss mental health issues with affected patients and their families.

There were thirty one physicians (23%) who were neutral about the difficulty to deal with children, adolescents with mental health issues and their families while about sixty two physicians (45.9%) reported that they agreed about this issue. There were 56 (41.5%) primary health care physicians who agreed they were frustrated when exploring mental health problems issues.

Forty participants (29.6%) reported that they disagreed about that children and adolescents with mental health problems should be referred to a psychiatry department, while in the other hand, sixteen physicians (11.9 %) strongly agreed that they needed to refer such conditions to psychiatry department.

Out of 135 physicians, forty nine (36.3%) strongly disagreed that they could not make a difference to patients with mental health disorders. Most of the participants, 76 (56.3%) strongly agreed that they felt more comfortable treating physical illness than emotional disorders (Figure 1).

Table 1: Physician's socio-demographic characteristics of survey responders

Demographic data	Number
Gender	
Male	63
Female	72
Nationality	
Saudi	87
Non-Saudi	48
Language	
Arabic	119
Non-Arabic	16
Job title	
SHO	22
Registrar	51
Senior Registrar	22
Consultant	40
Qualification	
MBBS	35
Saudi Board	45
Arab Board	9
MRCGP	36
Others	10
Training of mental health disorder	
Yes	57
No	78
Years of experience	
1-5	59
6-10	29
11-15	23
>15	24

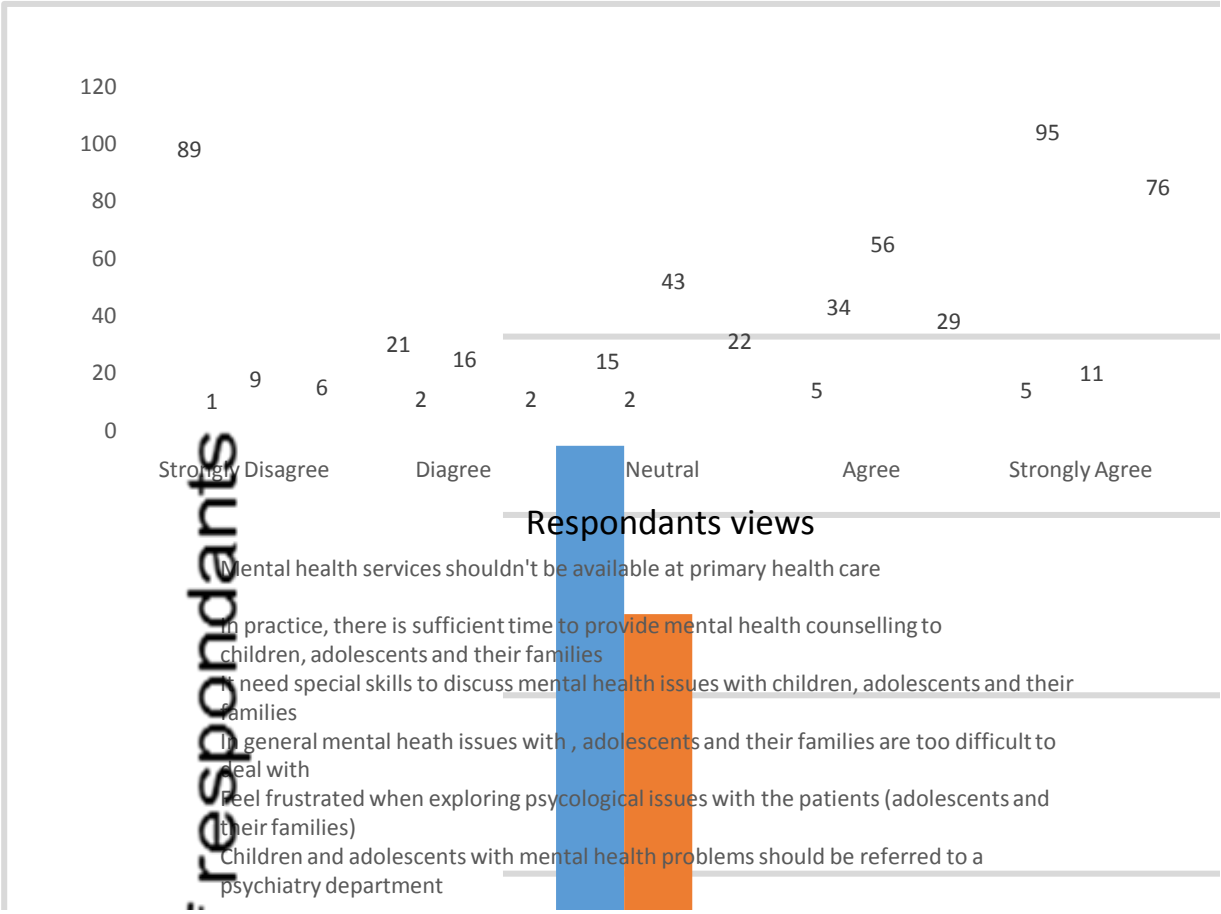

Figure 1: Physician's views toward mental health / illness

Physicians' Confidence in Dealing with Child and Adolescent Mental Health Issues

In this part of questionnaire, the physicians were asked to provide their level of confidence toward dealing with child and adolescent mental health issues (Figure 2).

In relation to the ability of physician to elicit the mental health information as part of history, it was shown that the majority of participants had high confidence, 47 physicians (38.8%) while only eight physicians (5.9%) showed low confidence.

Twenty eight (20.7%) reported that they were highly confident in diagnosing patients with mental health disorders while the same number of physicians were neutral.

The ability of physician to discuss child's mental health issues with parents or family showed that fifty three physicians (39.3%) were confident, and on the other hand, fourteen physicians (10.4%) had low confidence.

Sixty physicians (44.4%) reported low confidence toward providing pharmacological treatment to children or adolescents with mental health disorders. And quite number of physicians, sixty five (48%) showed that they have the ability to assess suicidal and homicidal risk in patients they encountered with.

Some of the differences between demographic characteristics (male versus female, Saudi versus non-Saudi, Arabic language versus non Arabic language, etc) had significant relationship with the participants' level of confidence toward working with children, adolescents, and their families with mental health issues (Table 2).

Table 2: Elicit mental health information as part of a family /medical history; distributed according to physician's socio-demographic characteristics

Characteristics	Very Low confidence		Low confidence		Neutral		High Confidence		Very high Confidence		P-value*
	No	%	No	%	No	%	No	%	No	%	
Gender											
Male	2	3.2	3	4.8	14	22.2	32	50.8	12	19.0	0.434
Female	7	9.7	7	9.9	11	15.5	22	31.0	25	35.2	
Nationality											
Saudi	6	7.0	6	7.0	18	20.9	27	31.4	29	33.7	0.411
Non-Saudi	1	2.1	6	12.5	6	12.5	17	35.4	18	37.5	
Language											
Arabic	7	5.9	11	9.3	22	18.6	35	29.7	43	36.4	0.292
Non-Arabic	0	0.0	1	6.3	2	12.5	9	56.3	4	25.0	
Job Title											
SHO	6	27.3	6	27.3	7	31.8	3	13.6	0	0.0	< 0.001
Registrar	1	2.0	5	10.0	11	22.0	20	40.0	13	26.0	
Senior Registrar	0	0.0	1	4.5	3	13.6	9	40.9	9	40.9	
Consultant	0	0.0	0	0.0	3	7.5	12	30.0	25	62.5	
Qualification											
MBBS	7	20.0	9	25.7	9	25.7	9	25.7	1	2.9	< 0.001
Saudi Board	0	0.0	0	0.0	8	18.2	14	31.8	22	50.0	
Arab Board	0	0.0	0	0.0	1	11.1	5	55.6	3	33.3	
MRCGP	0	0.0	2	5.6	5	13.9	14	38.9	15	41.7	
Others	0	0.0	1	10.0	1	10.0	2	20.0	6	60.0	
Training of mental health disorder											
Yes	0	0.0	1	1.8	6	10.7	19	33.9	30	53.6	< 0.001
No	7	9.0	11	14.1	18	23.1	25	32.1	17	21.8	
Years of experience											
1 – 5	6	10.3	6	10.3	13	22.4	18	31.0	15	25.9	0.022
6 – 10	1	3.4	5	17.2	6	20.7	10	34.5	7	24.1	
11 – 15	0	0.0	1	4.3	4	17.4	9	39.1	9	39.1	
>15	0	0.0	0	0.0	1	4.2	7	29.2	16	66.7	

(*) Statistically significant at $p < 0.01$

Physicians' Views towards Mental Health Referrals

The objective of this part of questionnaire was to evaluate the current situation for the referral of children and adolescents with mental health problems seen in primary health care centres (in Family and Community Medicine Department) to psychiatry department.

When physicians were asked about their views towards referral for mental health issues to psychiatry department, a significant number of physicians; more than hundred (75.6%) referred patients (children/adolescents) to the psychiatry department, (Figure 4). It was shown that years of experience for physicians play a major role in referral; (P 0.006). The majority (72) of primary health care physicians (53%) reported that they referred one to five patients during the past year; and it was noticeable that among those physicians, Arabic speakers, eighty seven physicians (73.1%) were more likely to refer patients to psychiatry department, and there was no significant differences between the other group (non-Arabic); p- value 0.153.

Those in registrar posts referred more patients compared to other posts, (72.5%) with no significant differences between other posts, p- value 0.02.

Primary health care physicians reported their views about the average time taken for their referred children / adolescents with mental health problems to be seen by the psychiatry department; for which the majority; sixty four (47%) said that it takes an average of five months or more; while only six physicians (4%) reported that the average time is less than one month.

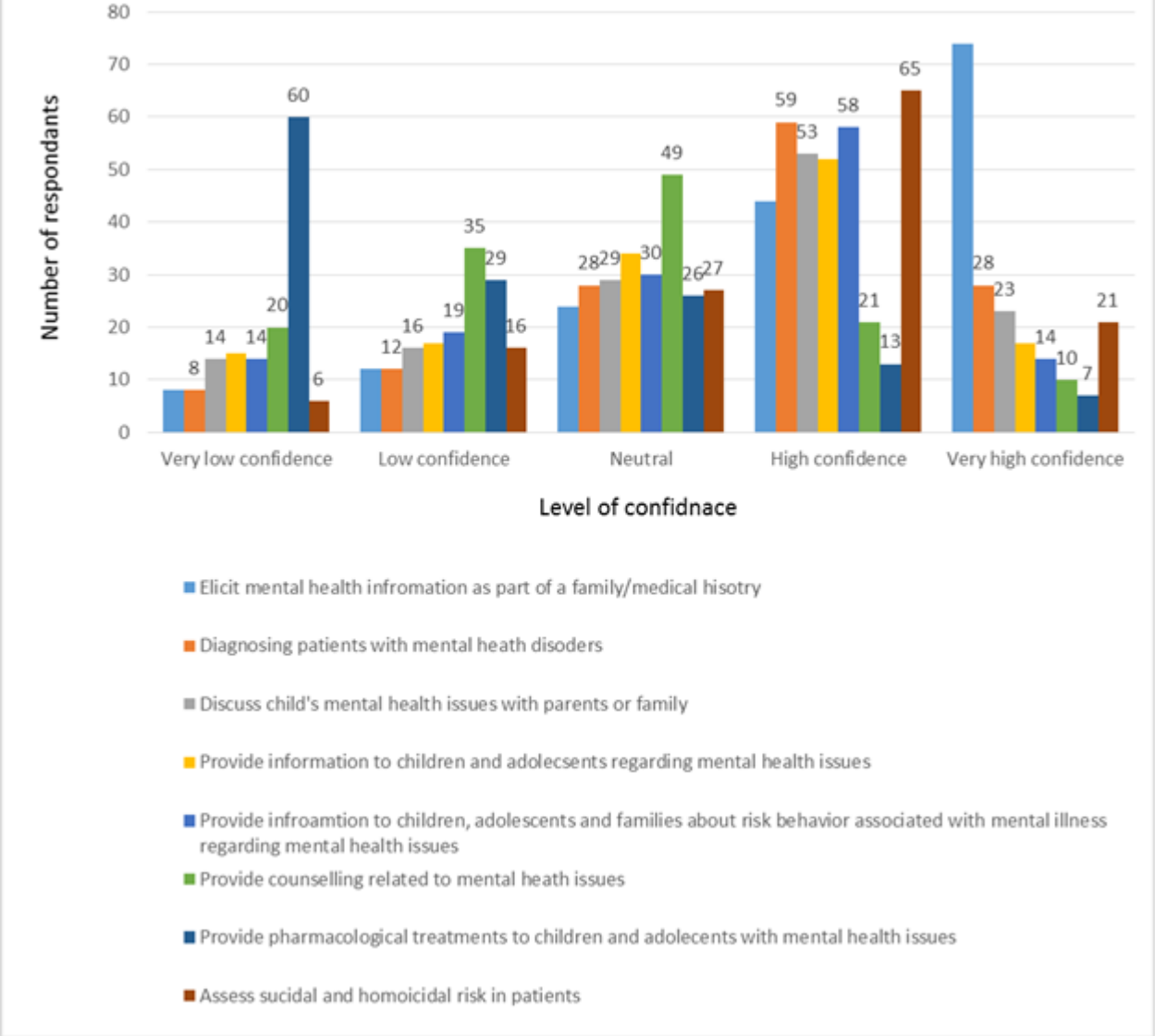

Figure 2: Role of primary health care physicians in working with children, adolescents with mental health issues and their families

Out of 135 physicians, eighty six (63%) reported that they never received any feedback from psychiatry department in relation to their referred patients, while a clear report with treatment and follow-up plan were reported only by three physicians (2%).

In relation to satisfaction / dissatisfaction with response time from psychiatry department, significant number of physicians; fifty eight (43%) were strongly dissatisfied, while forty three (31.9%) were neutral in their satisfaction (Table 3).

Referral of children and adolescents to psychiatry department was obviously noticed were 102 out of 135 physicians (75.6%) referred patients over the last year, however differences in physicians' characteristics did not show any statistical significance in relation to referral except for the physicians' years of experience.

Regarding the reasons for physicians' referral; the most common reason was for second opinion, even though, there was no significant differences between different demographic characteristics, while lack of knowledge/skills has a significant relationship with some of the physicians' demographic characteristics as the post title, qualifications, and training for mental health disorders.

There were no significant differences between different primary health care physicians with different characteristics and mental health disorders (depression, ADHD, etc).

Table 3: Physicians' views toward mental health referral

Question Items	Description	No.
Have you ever refer child or adolescence to psychiatry department of mental health disorder?	Yes	102
	No	21
	Don't remember	12
Number of children and adolescence referred to department during last year	Never	22
	1 – 5	72
	6 – 10	22
	11 – 15	8
	16 and above	1
Reasons behind doctor referral to psychiatry department	For second opinion	71
	For other treatment modality	59
	Lack of enough time	54
	Lack of knowledge and skills	37
	Due to family request	35
	For emergency care	7
	Others	5
The most common presentation for patient that doctor referred to psychiatry department	Depression	75
	Anxiety	67
	ADHD	63
	Autism	14
	Others	11

Table 3: (continued)

Question Items	Description	No.
The average time that a patient referred for mental health services at psychiatry department had to wait by seen	Less than one month	6
	1-2 months	16
	3-4 months	30
	5 months and over	64
	I don't know	19
In general, the feedback by psychiatry department contained	Never received any feedback	86
	Never received a written report	39
	A clear report with treatment and follow-up plan	3
	A clear report with diagnostic assessment of the patient	1
	Others	5
During referral, how sissified with the response time form department	Strongly dissatisfied	58
	Dissatisfied	25
	Neutral	43
	Satisfied	8
	Strongly satisfied	1

Physicians' Views towards Benefits and Obstacles of Mental Health Services at Primary Health Care Centres

Primary health care physicians were asked to give their views in relation to benefits and obstacles of mental health services in primary health care centres. Most physicians, 131 (97%) perceived that having mental health services in primary health care centres would be beneficial. Ninety four physicians (69.6%)

were interested in becoming / being part of the mental health team while forty one (30.6%) were not (Table 4).

Participants perceived a range of benefits from providing mental health services in primary health care centres and majority, one hundred seventeen (87.3%) out of 135 physicians have said that decreasing the patients stigmatization was the major benefit. On the other hand, one hundred fourteen physicians (85.1%) said that the improvement of access to patients is very beneficial.

One hundred physicians (74%) said that the major obstacle in having mental health services in primary health care centres was lack of appropriate training, where 93 (68.9%) and 92 (68%) physicians reported that increased burden on general practitioners and lack of knowledge/confidence have been recognised as an obstacles respectively.

When primary health care physicians were asked to report their views in relation to what else could be needed to conduct mental health services in primary health care centres, most of the participants, 108 (80.6%) thought of having liaison with psychiatry department, where physicians from the psychiatry department can run child and adolescent mental health services in the primary care setting.

Table 4: Physicians' views toward mental health services at primary health care centres

Respondents views toward mental health service in PHC centres	Description	Number
Do you think there would be benefit of having mental health service in PHC centre?	Yes	131
	No	4
Would you be interested in being involve in this	Yes	94
	No	41
Benefit of having heath service at PHC centre	Decrease patients stigmatisation	117
	Improved access to patients	114
	Increase patients satisfaction	85
	Increased GPs confidence	54
	Reduced load to outpatients services	43
	Decrease services cost	32
	Don't Know	1
	Others	5
Obstacles of having mental health service at PHC centres	Lack of appropriate training	100
	Lack of knowledge and confidence	93
	Increase burden of services on GPs	93
	Lack of confidence of patients in GPs	47
	Inappropriate PHC setting	37
	Others	9
Doctor needs in setting up the mental health services	Liaison with psychiatry	108
	Supervision	77
	Multidisciplinary working	69

Discussion

Providing child and adolescent mental health services in primary health care setting has shown to be beneficial in improving health care services and meeting the needs of patients and their families (Lefebvre *et al.*, 2000). It may also reduce the number of referrals to secondary care; reduce the pitfalls created by general practitioners, such as low prescribing dose for mental health problems (Kelleher *et al.*, 2006).

The majority of physicians in this survey reported that such services in primary health care centres should be available and would be beneficial, (108) 80%, and (131) 97.8% respectively. This is similar to Paula (2009) where the participants thought that primary care could be beneficial and be the source for patients to seek medical advice for mental health services, even though less number of physicians would like to be

involved in such service (94) 70.1%. A further study highlighted the need to develop effective intervention for child and adolescent mental health services in primary care settings (Tareen *et al.,* 2008). The reason behind this could be due to lack of training for mental health disorders in their career, where (78) physicians, 57.8% had no training for such service. It may also be due to the increased burden on the general practitioners (93) 68.9%.

The usual time allocated for patients seen in general practice is 10 to 15 minutes. However, this survey revealed that most physicians reported that they strongly disagreed or disagreed (110) 81.5% with the statement that in general practice, there is sufficient time to provide mental health services to children, adolescents and their families. This result is similar to Cloutier *et al.,* (2010) who found that 72.8% of respondents that have reported their views toward such issue and to Goldfracht *et al.*, study (2007) where 85% of participants stated that lack of time was a factor that interferes with the care of mental health problems in primary care practice. Furthermore, Stephen *et al.,* (1998) reported that where majority of GPs give patients with psychological problems a longer consultation time, and also in a Falloon et al study (1996) where 79% of general practitioners considered that they have insufficient time to manage patient with mental health problems. These findings is could be due to the fact that the nature of mental health problems has certain characteristics in term of long detailed history and mental state examination that is difficult to obtain in short consultation time, in addition to the time needed to have good observation for the patients.

In the previous study by Cloutier *et al.,* (2010) 37.4% of participants strongly disagreed or disagreed with the statement that mental health issues with young people and their families are too difficult to address. In this study, the results are opposite - the majority of physicians reported that they strongly agreed or agreed in relation to the same issue (84) 62.2%. The findings of this study were similar to Goldfracht *et al.,* (2007) where (43.3%) of primary health care physicians reported difficulty in dealing with people with mental health problems and to Aoun (1997) who reported that general practitioners had difficulty in managing adolescents with mental health problems. In another study by Steele *et al.,* (2010) found that general practitioners were having difficulty with patients presented with mild psychological symptoms while those with severe symptoms were easily identified. In this study, it has been shown that there is significant effect of the physicians' years of experience on this issue; were the difficulty is getting less as the physician get more experience in general practice (p- value < 0.001).

The possible cause for such views could be explained by the fact that the majority of physicians had no training for mental health disorders (78) physicians, 57.8% and lack of skills that general practitioners should have to achieve good consultation with patients with mental health issues. In this study, the participants (129) 95.6% reported that they strongly agreed or agreed with the statement that mental health issues need special skills, However, this study have shown no significant effect of socio-demographic variables on the issue of having special skills to discuss mental health issues. This is similar to Goldfracht *et al.,* study (2007) where primary care participants (68.5%) agreed that they have to have tools and skills to manage mental health problems. In other study by Alexander and Fraser (2008) found that even though that the general practitioners can manage some of mental health disorders, skills in diagnosis and management children and adolescents with mental health problems are needed. In eastern province, Saudi Arabia, primary health care centres provide mental health services after running training program for primary health care physicians and the results of such training, physicians' knowledge and management of mental health disorders have dramatically improved (WHO). Many other studies showed that trained clinicians for communication skills, pharmacological prescription, and clinical diagnosis for child and adolescent mental health patients have better management outcomes for their patients when compared to other non trained clinicians (Wissow *et al.,* 2011; Mansouri *et al.,* 2009; Henderson *et al.,* 2005; Qureshi *et al.,* 2001; Mohit *et al.,* 1999; Qureshi *et al.,* 1999).

Participants in Cloutier *et al.,* study (2010) and in Goldfracht *et al.,* study (2007) reported that they have referred patients with mental health problems to either specialized hospital with mental health services (93.3%), or to community mental health services (70.6%) and to psychiatric clinics (47.7%) respectively. In this study, community mental health services were not available and instead, participants (102) 75.6%

were referred patients to psychiatry department in the hospital. In this study, there was no significant relationship between different socio-demographic characteristics and the referral, except for the physicians' years of experience; were the referral is less among the physicians with more experience in general practice (p- value 0.006), although referral is less among those with training for mental health disorders 42 physicians (73.7%) versus 60 physicians (76.9%) with no training, the relationship was not significant; p- value 0.84.

In this survey, majority of physicians (64) 47.4% stated that the average time that the patient would wait to be seen by the specialist in the psychiatry department was 5 months and over, compared to an average of 3 months or more for patients in Cloutier *et al.*, study (2010) who were referred to mental health services at the hospital.

The longer waiting time in setting could be due to many factors that could be related to primary care or psychiatry department setting. In relation to primary health care setting; it could be due to many referrals by general practitioners which overload the psychiatry department where there was 71 physicians (52.6%), 59 (43.7%), 54 (40%), and 37 (27.4%) referred patients to psychiatry department for either second opinion, other treatment modality, due to lack of enough time, and due to lack of knowledge and skills respectively.

Rushton *et al.*, (2002) showed that general practitioners referred children with mental health problems to specialists either due to patients' condition or severity, lack of services in primary care or due to family request. There was a lack of significant relationship between some of the socio-demographic characteristics (gender, nationality, and language) and the reasons for referrals such as referral for second opinion. Factors that relate to the psychiatry department could be due it being a small setting that has low capacity to afford the current load, compared to the Cloutier study where physicians could refer patients to different mental health services (hospital, community, private). It may also be due to a lack of specialized services for children and adolescent with mental health problems within the psychiatry department, i.e. resources are scarce (Williams *et al.*, 2005).

Recommendations

1. First step is to raise awareness among health care providers about mental health services for children and adolescents through making workshop, symposium.
2. Before establishing child mental health services in primary health care centres, arrangement for liaison with psychiatry department in the hospital through an agreed method as having clinic in the primary health care centre, or to have direct telephone line for consultation with psychiatry physician could be tried.
3. Improve clinical management and skills by having regular symposiums, workshops, lectures, role play by an expert people in the field of child and adolescent mental health for primary health care providers.
4. Training of primary health care physicians for mental health problems.
5. Send primary care physicians to have scholarship training in child and adolescent mental health in UK, USA and other countries where such service is well established
6. Increase and disseminate the awareness of the importance of such service among decision makers to have their support.
7. Reinforce to improve medical undergraduate teaching and postgraduate training for child and adolescents mental health issues.

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REFERENCES

Al-Amri AH *et al.*, (1997). A descriptive study of referral letters in three rural primary health care centers in Al-Qassim region, Kingdom of Saudi Arabia. *International Journal of Health Education* **35** 87–90.

Alexander C and Fraser J (2008). General practitioners' management of patients with mental health conditions: the views of general practitioners working in rural north-western New South Wales. *The Australian Journal of Rural Health* **16**(6) 363-9.

Al-Gelban KS (2006). Depression, anxiety and stress among Saudi adolescent school boys. *Journal of the Royal Society of Health* **126** 1–5.

American Academy of Family Physicians (1999). *Mental Health, Physician Responsibility*. AAFP Reference Manual, Leawood, KS: AAFP.

Anderson JC, Williams S and McGee R *et al.*, (1987). DSM-III disorders in pre-adolescent children. *Archives of General Psychiatry* **44** 69-76.

Aoun S (1997). General practitioners' needs and perceptions in rural mental health care. *The Australian Journal of Rural Health* **5**(2) 80-6.

Bailey S and Williams R (2005). Forensic mental health services for children and adolescents. In: *Child and Adolescent Mental Health Services: Strategy, Planning, Delivery, and Evaluation*, edited by Williams R and Kerfoot M (Oxford, Oxford University Press) 270 -297.

Bathgate D, Bermingham B, Curtis D and Romans S (2001). The views of Otago urban and rural general practitioners on mental health services. *The New Zealand Medical Journal* **114**(1134) 289-91.

Bernard P, Garralda E, Hughes T and Tylee A (1999). Evaluation of a teaching package in adolescent psychiatry for general practitioner registrars. *Education for General Practitioners* **10** 21–28.

Carr VJ and Donovan P (1992). Psychiatry in general practice. A pilot scheme using the liaison-attachment model. *The Medical Journal of Australia* **156**(6) 379-82.

Cloutier P *et al.*, (2010). Child and Youth Mental Health Service Referrals: Physicians' Knowledge of Mental Health Services and Perceptions of a Centralized Intake Model. *Healthcare Policy* **5**(3) 144–161.

Department of Statistics, Ministry of Health (MOH) (2009). *Statistics year book*, [e-book]. Saudi Arabia: MOH, Available: *http://www.moh.gov.sa/statistics/indi_phc.html*, Accessed 17 May 2010.

Dillman DA (2007). *Mail and Internet Surveys*, 2nd edition (USA: John Wiley & Sons).

Fallon IR, Ng B, Bensemann C and Kydd RR (1996). The role of general practitioners in mental health care: a survey of needs and problems. *The New Zealand Medical Journal* **109**(1015) 34-6.

Finney JW, Riley AW and Cataldo MF (1991). Psychology in primary health care: effects of brief targeted therapy on children's medical care utilization. *Journal of Pediatric Psychology* **16**(4) 447-61.

Garralda E (2001). Child and adolescent psychiatry in general practice. *The Australian and New Zealand Journal of Psychiatry* **35**(3) 308-14.

Goldfracht M, Shalit C, Peled O and Levin D (2007). Attitudes of Israeli Primary Care Physicians towards Mental Health Care. *Israel Journal of Psychiatry & Related Sciences* **44**(3) 225–230.

Henderson DC, Mollica RF, Tor S, Lavelle J, Culhane MA and Hayden D (2005). Building primary care practitioners' attitudes and confidence in mental health skills in a post-conflict society: a Cambodian example. *The Journal of Nervous and Mental Disease* **193**(8) 551-9.

Hodgson N and Woodcock J (2006). Improving links between CAMHS and primary care. *Pediatric Nursing* **18**(8) 28-9.

Kaye L, Warner LA and Lewandowski CA *et al.*, (2009). The role of nurse practitioners in meeting the need for child and adolescent psychiatry services: a state-wide survey. *Journal of Psychosocial Nursing and Mental Health Services* **47** 34–40.

Kelleher KJ, Campo JV and Gardner WP (2006). Management of pediatric mental disorders in primary care: where are we now and where are we going?. *Current Opinion in Pediatrics* **18**(6) 649-53.

Kurtz Z (2005). Assessing need, mapping services, and setting priorities. In: *Child and Adolescent Mental Health Services: Strategy, Planning, Delivery, and Evaluation*, edited by Williams R and Kerfoot M (Oxford, Oxford University Press) 405 – 423.

Lefebvre J *et al.*, (2000). Unmet needs in the community: can existing services meet them? *Acta Psychiatrica Scandinavica* **102** 65–70.
Lloyd GG and Mayou RA (2003). Liaison psychiatry or psychological medicine. *British Journal of Psychiatry* 183 5–7.
Mahfouz AA, Al-Gelban KS, Al Amri H, Khan MY, Abdelmoneim I, Daffalla AA, Shaban H and Mohammed AA (2009). Adolescents' mental health in Abha city, southwestern Saudi Arabia. *International Journal of Psychiatry in Medicine* **39**(2) 169-77.
Mansouri M *et al.*, (2009). The change in attitude and knowledge of health care personnel and general population following trainings provided during integration of mental health in Primary Health Care in Iran: a systematic review. *International Journal of Mental Health Systems* 3-15.
Maughan B (2004). Childhood and Adolescent Mental Health: understanding the lifetime impacts. Office of Health Economics and the Mental Health Foundation, Available: http://www.library.nhs.uk/publichealth/ViewResource.aspx?resID=263059.
Mohit A, Saeed K, Shahmohammadi D, Bolhari J, Bina M, Gater R and Mubbashar M (1999). Mental health manpower development in Afghanistan: a report on a training course for primary health care physicians. *East Mediterranean Health Journal* **5**(2) 373-7.
Qureshi NA *et al.*, (1998). Traditional cautery among psychiatric patients in Saudi Arabia. *Transcultural Psychiatry* **35** 75–83.
Qureshi NA, Abdelgadir MH, Al-Ghamdy YS, Al-Haddad NB, Tawfik MH, Al-Amri AH and Farwana M (1999). Integration of mental health into primary care in Al-Qassim Region, Saudi Arabia: curriculum development II. *East Mediterranean Health Journal* **5**(2) 385-8.
Qureshi NA, Al-Ghamdy YS, Al-Haddad NS, Abdelgadir MH and Tawfik MH (2001). Integration of mental health care into primary care, Preliminary observations of continuing implementation phase. *Saudi Medical Journal* **22**(10) 899-906.
Rushton J, Bruckman D and Kelleher K (2002). Primary care referral of children with psychosocial problems. *Archives of Pediatrics and Adolescent Medicine* **156**(6) 592-98.
Rutz W *et al.*, (1992). Cost-benefit analysis of an educational program for general practitioners given by the Swedish Committee for Prevention and Treatment of Depression. *Acta Psychiatrica Scandinavica* **85** 457 - 464.
Scott Smith M, Mitchell J, McCauley EA and Calderon R (1990). Screening for anxiety and depression in an adolescent clinic. *Pediatrics* **85** 262–266.
Sigel P and Leiper R (2004). GP views of their management and referral of psychological problems: a qualitative study. *Psychology and Psychotherapy* **77** 279-95.
Steele MM, Lochrie AS and Roberts MC (2010). Physician identification and management of psychosocial problems in primary care. *Journal of Clinical Psychology in Medical Settings* **17**(2) 103-15.
Stephen M *et al.*, (1998). GPs' views on prioritisation of child and adolescent mental health problems. *Psychiatric Bulletin* **22** 484-486.
Tareen A, Mirza I, Mujtaba M, Chaudhry HR and Jenkins R (2008). Primary care treatment for child and adolescent neuropsychiatric conditions in remote rural Punjab, Pakistan - a cross-sectional survey. *Child Care Health Development* **34**(6) 801-5.
Tonge BJ (1998). Common child and adolescent psychiatric problems and their management in the community. *The Medical Journal of Australia* **168**(5) 241 – 8.
Warner RW, Gater R, Jackson MG and Goldberg DP (1993). Effects of a community mental health service on the practice and attitudes of general practitioners. *British Journal of General Practice* **43**(377) 507-11.
Weitzman CC and Leventhal JM (2006). Screening for behavioural health problems in primary care. *Current Opinion in Paediatrics* **18**(6) 641-8.
Whitley E and Ball J (2002). Statistics review 4: Sample size calculations. *Critical Care* **6** 335-341.
Williams J, Palmes G, Klinepeter K, Pulley A and Foy J (2005). Referral by Pediatricians of Children with Behavioral Health Disorders. *Clinical Pediatrics* **44**(4) 343–49.

Wissow L, Gadomski A, Roter D, Larson S, Lewis B and Brown J (2011). Aspects of mental health communication skills training that predict parent and child outcomes in pediatric primary care. *Patient Education and Counselling* **82**(2) 226 - 32.

World Health Organization (1990). *The introduction of a mental health component into primary health care*. Geneva.

World Health Organization (No Date). Integrated primary care for mental health in the Eastern Province. Available: http://www.who.int/mental_health/policy/services/SaudiArabia.pdf. Accessed at June 10 2011.

World Health Organization (2002). *Mental Health Policy and Service Guidance Package: Workplace Mental Health Policies and Programmes.* Geneva.