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Public Attitude towards Mental Illness and Mental Health Services in Riyadh, Saudi Arabia

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Abstract
Background: Stigma associated with mental illness prevents many mentally ill people and their caregivers from seeking help and receiving adequate treatment. People may refuse to seek help from mental health professionals for fear of social reaction and may try to hide the illness, which lead to inaccurate statistical presentation of the real problem in addition to poor health outcomes. **Aim:** The aim of the current research study was to investigate the attitude of general Saudi population toward mental illness and persons with mental illnesses and explore general Saudi population' attitude toward mental health services available in Saudi Arabia. **Methods:** A descriptive corelation cross sectional research design was utilized on a sample of 3464 saudi adults recruited from different public areas and voluntarily accept to participate in the study. Data was collected using a survey questionnair consisted of sociodemographic data sheet, questions concerning personal experience with persons with mental illnesses, Attitudes towards mental Illness Scale (Shokeer, 2002) and attitude towards the mental health services questionnair. An explanation about the purpose and the nature of the study was offered for each individual potential participant. Subjects were assured about the confidentiality of the collected data and that it will be only used by the researcher for the purpose of the current study. Data were analyzed using SPSS version 22.0. **Results:** More than one third of the participants (36.9%) had a family member diagnosed with mental illness while around two thirds (62.2%) knew any person diagnosed with mental illness other than a family member. 36.5 percent of the participants agreed that they can speak with any person with mental illness and can go in a picnic with people with mental illnesses, 43.5% don't feel afraid when dealing with persons with mental illnesses, 41.4% don't refuse to sit with a person with mental illness. More than three quarters of the participants agreed that Saudi government must increase governmental fund spent on mental health hospitals as well as community mental health services, on the other hand only 18.7% agreed that Saudi community has enough mental health services. age of the participants, level of education, having a family member diagnosed with mental illness and knowing any person diagnosed with mental illness were significantly correlated with the attitude towards mental illness and persons with mental illnesses scale score ($p = 0.000$). **Conclusion:** Despite the limited empirical evidence the present study infers that one third of the participants have an indecisive attitude toward mental illness and persons with mental illness. This makes it clear that there is still a way to go in accomplishing a positive attitude toward mental illness.
Keywords: Public, attitude, mental illness, mental health services, Riyadh, Saudi Arabia

Background

The World Health Organization (WHO) defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". Mental health is seen to be more than the absence of mental illness. It is a positive sense of wellbeing whereby individuals recognize their abilities, work productively and fruitfully, are able to cope with the normal life stressors, and make a contribution to their communities (WHO, 2014).

Mental health and well-being is a critical issue to the quality of life of individuals and the productivity of communities (WHO, 2014). Understanding and definition of mental illness vary greatly across different communities and cultures which in turn influence society's response to people with mental health problems. In developing countries, recent reports suggest that mental health services often are limited to only custodial care despite distinctive improvements in the standards of health care (Okasha & Karam, 1998). Studies in Saudi Arabia have revealed that 18% of adults have minor mental morbidity. Rates were higher among the young (15 – 29 years, 23%), divorced people and widows (more than 40%). Suicides have been estimated to occur at a rate of 1.1/100 000 population per year, and to be most common among men, people aged 30 to 39 years, and immigrants (Elfawal, 1999 and Khathami, 2001). In Saudi Arabia prior to 1983, mental health care was provided in one hospital only in Taif where the service was not accessable to all Saudi citizens, this often resulted in

delays in seeking care and problems of discharge into the community. Since 1983, a shift occurred in the form of setting up of smaller sized (20 – 120 beds) hospitals all over the country along with outpatient clinics. The next phase is to further integrate mental health services with primary health care (WHO, EMRO, 2001)

Now a days de-institutionalization has become a prevalent global mental health policy. Hannigan (1999) and Song, Chang, Shin, Lin, & Yang (2005) mentioned that the success of de-institutionalization depends basically on a number of key conditions including: an environment that allows the mentally ill person to experience all the rights of citizenship as other individuals do, the establishment of a comprehensive community support system, and the acceptance and non-discrimination in the local community.

Stigmatization and psychiatric labeling can be more devastating than the disorder itself and have negative impacts on patient's work status and income while positive public attitude towards persons with mental illness is linked to proper community care (Link, 1982, Kurihara, Kato, Sakamoto, Reverger & Kitamura, 2000). In addition to the condition of current medical services, public attitude towards persons with mental illness is influenced by many other factors including culture, religious belief and previous contact with people with mental illness (Lam, Chan, Chen, 1996; Angermeyer & Matschinger, 1997 & Roth, Antony, Kerr, & Downie 2000).

The existing literature is contradictory regarding attitudes towards people with mental illness and the support they obtain from the community residents. Community attitudes towards people with mental illness found to be correlated to some demograhic variables. Bhugra's review (1989) denoted that in general, younger people, people with higher levels of education and higher social class carry more favorable attitude towards people with mental illness. Males were found to have a greater tendency to desire social distance from the mentally ill person than their female counterparts, however in their study of collge students Cuomo and Ronacher (1998) did not find any gender difference.

Regarding the influnce of sociodemographic variables on attitudes, Wolff, Pathare, Craig and Leff (1996 a) compared their findings with Taylor and Dear's (1981) and Brockington, Hall, Levings and Murray's (1993), all these three studies used the Community attitudes towards mental illness (CAMI) scale to measure attituds towards the mentally ill. Across those three studies, age, education, occupation and social class were the common correlates. Wolff, Pathare, Craig and Leff (1996 b) and Hannigan (1999) found that lack of knowledge of mental illness was correlated with more controlling attitudes while Ng & Chan (2000) argued that knowledge might not be sufficient to change people's attitude as they found that students with knowledge about mental illness held more restrictive views on mental illness. Contact with the mentally ill is another very important variable, but the nature and quality of contact could be more important (Wolff, Pathare, Craig and Leff, 1996 c, and Ng & Chan, 2000). Direct contact, closeness to and acquaintance with the mentally ill usually contributed to more understanding and tolerant attitude (Hannigan, 1999 and Murray & Steffen, 1999)

Significance of the Study

It is well known in Saudi culture that large proportion of those who suffer from mental health problem will seek help first through religious healers known as Motawea, if they did not achieve recovery, later, they might seek professional help. Stigma associated with mental illness prevents many mentally ill people and their caregivers from seeking help and receiving adequate treatment. People may refuse to seek help from mental health professionals for fear of social reaction and may try to hide the illness, which lead to inaccurate statistical presentation of the real problem in addition to poor health outcomes.

Statistics from Saudi mental health hospitals (2007) show that there are approximately 5,700,902 (about 25 % of the total population) persons suffering from various mental health problem and receive treatment both inpatient and outpatient.

In accordance with the objectives of the Saudi national mental health program that was developed in 1989 and to encourage community participation in the development of mental health care services, community members should be first assessed for their perception and attitude towards persons with mental illness and mental health services available in their community and then appropriate interventions would be designed and implemented to help achieving this objective, so there is a need for research studies to address the identified dearth of research studies concerning how mental illness is perceived and how general population approach persons with mental illness in addition to how Saudi people accept mental health services available in their community.

Negative public attitudes are linked to increased sense of stress experienced by persons with mental illness that in turn reduce their quality of life (Song, Chang, Shin, Lin & Yang, 2005 and Quinn, 2007), thus, to ensure quality of life for persons with mental illness, there is a necessity of conducting more research studies on attitude towards mentally ill.

Empirical research is scarce concerning the relationship between public attitude toward people with mental illness and the degree of deinstitutionalization and social acceptence of a former mentally ill person. Finding from this study will help health care providers and policy maker to understand the current situation concerning puplic attiude toward mental illness and adress matters related to the deinstitutionalization issue.

Aim of the Study

The aim of this research study was two folded:

a) To investigate the attitude of general Saudi population toward mental illness and persons with mental illnesses.
b) To explore general Saudi population' attitude toward mental health services available in Saudi Arabia.

Specific Objectives

1. Assess Saudi adults attitude towards persons with mental illness.
2. Examine the relationship between different demographic variables such as gender, age, level of education and occupation and attitude towards mental illness.
3. Explore the relationship between personal experience with mental illness and attitude towards persons with mental illness.
4. Assess Saudi adults attitude towards available mental health services.
5. Identify causes of mental illness as perceived by saudi adults.
6. List most common mental illnesses as recognized by saudi adults.

Subjects and Methods

Study Design

A descriptive cross - sectional research design was used to conduct this study. "The purpose of a descriptive correlational design is to examine the relationships that exist in a situation" (Burns &Grove, 1997, p.259). The use of this type of design helps to identify many interrelationships in a specific situation within a short period of time (Polit & Hungler, 1999 and Burns & Grove, 2003). From the methodological viewpoint, this study focused on exploring the different relationships that exist among Saudi people's attitude toward mentally ill and selected antecedent and demographic variables. Antecedent variables include past and current personal experiences with a person with a mental health problem. The demographic variables included: age, gender, marital status, education and occupation of the participants.

Setting

This study took place at different community settings in Riyadh city covering and representing the five regions of Riyadh city (north, south, east, west and center), Kingdom of Saudi Arabia. Settings included: Shopping Malls, Mosques, Saudi Employees of different randomly selected hospitals, out patient clinic/ laboratory office Saudi attendants and their relatives at different hospitals, Saudi teachers and college students who were randomly selected from the above mentioned public areas of Riyadh.

Subjects

A quota sample of 3464 Saudi adults with a sample points selected by a random location methodology was selected for the purpose of this study. Subjects were recruited from different Saudi community settings in Riyadh city. To ensure representativeness of the sample, a list of all malls, mosques, colleges, and hospitals in all the five regions of Riyadh city was created. Names was then written separately in small pieces of paper and put into different containers that are categorized and labled as Malls, Mosques, Hospitals, and Colleges. Two names were blindly selected from each container to ensure randomization. Participants were selected from each location using convenience sampling technique. Data collectors who understand about the study purposes and perviously trained on data collection approached the potential participants at the proposed settings and explained the study. Upon consenting, interview took place when and wherever convenient for the participant. Avaliable subjects were included in the study until the desired sample size was reached.

Exclusion Criteria: Non – saudi, minors (under 18 years) and Subjects with a possitive history of mental illness

Data Collection Tools

Data was collected using the following instruments:

Sociodemographic Data Sheet

Designed by the researcher and included a range of demographic variables like gender, age, marital status, education (Koran, Elementary, Preparatory, Secondary, College, Master, Doctorate), and occupation (professional, clerical, labor, and other).

Personal Experience with a Person with Mental Illness

Contact with the mentally ill was measured using eight questions concerning the past, current and future experiences with a mentally ill person. Participants were asked if they are currently or have ever: lived with, worked with, had a neighbor or a close friend with a mental health problem to assess their past experience. In addition participants were asked if in their future they would be willing to live with, work with, have a close friend or live next to a neighbor who is experiencing mental health problem. Each question was rated as Yes/ No.

Attitude towards the Mental Illness

Attitude toward mental illness was measured using Attitudes towards mental Illness Scale (Shokeer, 2002). The scale has been used widely in the arabic culture (saudi Arabia and Egypt). The questionnaire included a number of statements about mental illness. They covered a wide range of issues from attitudes towards people with mental illness, to opinions on services for people with mental health problems. The scale consists of sixteen statements that represent attitudes towards mental illness. Eight statements were formulated to express positive attitudes towards mental illness and the other eight convey negative attitudes. Each statement was scored with 2 "agree" or 1 " neutral" and zero "disagree", negative statements scoring was reversed. The total possible score ranges beween zero and 32 with higher scores indicating more possitive attitudes.

The scale test – retest reliability ranged between 0.87 - 0.91, the content validity was assessed by group of experts in psychiatry from different nationalities and found to be 80 % - 100 %, while the criterion related validity of the scale was found to be 0.67. Cronbach's Alpha reliability test was calculated in the current study and found to be 0.76.

Attitude towards the Mental Health Services

Attitude toward mental health services was measured using seven statements representing attitudes towards mental health services in the Saudi community. participants was asked if they agree or disagree with each statement. The statements were driven from the Community Attitudes towards the Mentally Ill (CAMI) scale developed by Taylor, Dear and Hall (1979). The questionnaire included a number of statements related to opinions on services for people with mental health problems.

Other Measures

In addition to the above measures participants were assessed for their knowledge related to the causes and types of different mental illnesses.

All the survey pakage was in Arabic language which is the official tongue language for Saudi citizens.

Data Management and Analysis Plan

According to Burns & Grove (2014) quantitative data analysis consists of several stages including: preparation of the data for analysis, description of the sample, testing the reliability of measurements, exploratory analysis of the data, confirmatory analysis guided by the research hypotheses, questions, or objectives and post hoc analysis.

Collected data was coded, validated, cleaned and missing data was controlled before analysis. Analysis was done using Statistical Package for the Social Science (SPSS) version 22.0. Frequencies and cross tabulation procedures was conducted to describe the sample. Appropriate statistical test such as t-test, ANOVA, Chi-square, and Pearson Product Moment Correlation was conducted to determine relationships that exist between selected demographic variables (age, gender, education, marital status, and occupation) and participants' attitude towards mental illness. Data was presented in different formats including tables and graphs.

Ethical Considerations

An IRB Approval to conduct the study was obtained from Institutional Review Board (IRB) Committee, Biomedical Ethics Section at National Guard Health Affairs. Before the actual data collection process was instituted, written approvals from appropriate authorities at the proposed data collection settings were obtained. Because of the nature of the study which covers a culturally sensitive topic and the cultural constraints in the Saudi community, no written informed consent was required. Instead oral consent was obtained. Voluntary participation was ensured after detailed explanation of the study. Right to withdraw from the study was explained. No identifying information such as names or addresses were collected (numbers and codes were used instead). Participants were ensured that data collected will be used only for the research purposes and all data was kept locked and confidential with access only for the research team. Researcher and IRB committee contact information were provided to participants for further information regarding the study.

Results

Data were collected from various public settings with the aim to assess the Saudi public attitudes towards mental illness and mental health services in Riyadh, Saudi Arabia. The sample consisted of 3464 Saudi adults. 1957 (56.5%) were male and 1507 (43.5%) were female. Participants' age ranged from 18 to 80 years with a mean age of 29.73 year (SD $\pm$ 9.359). Majority of the study participants were single (1917, 49.6%) followed by married 1555 (44.9%), 117 (3.4%) were divorced and only 73 (2.1%) were widowed. With regard to participants education, a good portion of the participants 1483 (42.8%) held a bachelor degree and 1009 (29.1%) had a high school education. Almost one third of the participants 1019 (29.4%) were students, 964 (27.8%) were doing office work and 300 (8.7%) were doing technical work.

Participants were residing in the five areas of the city as following; 982 (28.3%) lived in east, 874 (25.2%) north, 589 (17.0%) west, 520 (15%) city center and 499 (14.4%) were living in city south.

Participants were recruited from different public areas including: shopping malls 1769 (51.1%), 549

(15.8%) public hospitals, 476 (13.7%) university settings, 356 (10.3%) high schools and 71 (2%) of the participants were recruited from mosques.

Table 1: Sociodemographic Data of the Participants (n = 3464)

Variable	Frequency (N)	Percent (%)
Gender		
Male	1957	56.5
Female	1507	43.5
Marital Status		
Single	1719	49.6
Married	1555	44.9
Divorced	117	3.4
Widowed	73	2.1
Education		
Quran Karim	24	0.7
Elementary education	115	3.3
Secondary education	214	6.2
High school	1009	29.1
Diploma degree	411	11.9
Bachelor degree	1483	42.8
Master degree	176	5.1
PhD or equivalent	32	0.9
Occupation		
Technecal work	300	8.7
Office	964	27.8
Manual	88	2.5
Student	1019	29.4
Own bussiness	176	5.1
Housewife	281	8.1
Others	591	17.1
Military	33	1.0
Unemployed	12	0.3
Location of residence		
North	874	25.2
West	589	17.0
East	982	28.3
South	499	14.4
Center	520	15.0
Location of data collection		
Shopping malls	1769	51.1
Mousque	71	2.0
High school	356	10.3
University setting	476	13.7
Public hospitals	549	15.8
Others	243	7.0

Table 2: Personal Experience with People with a Diagnoses of Mental Illnesses (n = 3464)

Personal Experience	Frequency (N)	Percent (%)
Do you have a family member diagnosed with mental illness		
Yes	1279	36.9
No	2185	63.1
Do you know any person diagnosed with mental illness other than a family member		
Yes	1310	62.2
No	2154	37.8

More than one third of the participants (36.9%) had a family member diagnosed with mental illness while around two thirds (62.2%) knew any person diagnosed with mental illness other than a family member.

Table 3: Saudi Adults' Attitudes towards Mental Illness and Persons With Mental Illnesses (n = 3464)

Statement	Agree		Neuteral		Disagree		M±(SD)
	N	%	N	%	N	%	
1. I feel afraid when I see any person with mental illness	970	28.0	1268	36.6	1226	35.4	1.07±0.97
2. I refuse to sit with a person with mental illness	825	23.8	1176	33.9	1463	42.2	1.18±0.97
3. I don't get upset if my neighbor is a person with mental illness	1144	33.0	1241	35.8	1079	31.1	1.02±0.80
4. I don't visit people with mental illnesses at their homes	899	26.0	1240	35.8	1325	38.3	1.12±0.79
5. I can speak with any person with mental illness	1265	36.5	1145	33.1	1054	30.4	1.43±0.75
6. I can go in a picnic with people with mental illnesses	1265	36.5	1145	33.1	1054	30.4	1.06±0.82
7. I feel afraid to go out with any person with mental illness	1037	29.9	1317	38.0	1109	32.1	1.02±0.79
8. I refuse to invite any person with mental illness to my home	799	23.1	1219	35.2	1446	41.7	1.19±0.78
9. I can make frindship with a person with mental illness	1191	34.4	1289	37.2	984	28.4	1.06±0.79
10. I don't feel afrid when dealing with persons with mental illnesses	1511	43.6	1201	34.7	752	21.7	1.22±0.79
11. I refuse to marry a person with aa family histort of mental illness	758	21.9	958	27.7	1748	50.5	1.29±0.80
12. I don't lestin to a speech of a person with mental illness	597	17.2	1029	29.7	1838	53.1	1.36±0.76
13. I don't refuse to set with a person with mental illness	1434	41.4	1158	33.4	872	25.2	1.16±0.80
14. I refuse to marry a person who had a mental illness and got treated	1230	35.5	1143	33.0	1091	31.5	0.96±0.82
15. I visit mental health hospitals frequently	460	13.3	759	21.9	2245	64.8	0.48±0.72
16. I like to watch movies about mental illnesses	990	28.6	1218	35.2	1256	36.3	0.92±0.80

Almost one third of the participants included in the current study were indecisive about their attitudes toward mental illness and persons with mental illnesses as they indicated their attitudes as neutral. 36.5 percent of the participants agreed that they can speak with any person with mental illness and can go in a picnic with people with mental illnesses, 43.5% don't feel afrid when dealing with persons with mental illnesses, 41.4% don't refuse to set with a person with mental illness.

The total attitude score ranged between 0 and 32 with a mean total score of 17.56±5.83. Although female participants showed slightly higher mean attitude score (17.63±6.08) than male participants (17.50±5.63), t test for independent samples revealed no statistically significant difference in the attitudes towards mental illness and persons with mental illnesses between male and female participants (t= 0.630, p=0.529).

Table 4: Saudi Adults' Attitudes toward Mental Health Health Services in Saudi Arabia (n = 3464)

Statement	Agree		Neuteral		Disagree	
	N	%	N	%	N	%
1. Saudi mental health hospitals are old fashion	1400	40.4	904	26.1	1160	33.5
2. There is too much spending of governmental money on mental health services in Saudi Arabia	792	22.9	737	21.3	1934	55.8
3. Saudi community has enough mental health services	647	18.7	755	21.8	2062	59.5
4. As much as we can, we have to increase community mental health services	2401	69.3	653	18.9	410	11.8
5. Saudi government must increase governmental money spent on mental health services	2671	77.1	580	16.7	213	6.1
6. Saudi mental health hospitals similar to prisons	2153	62.2	887	25.6	424	12.2
7. Mental hospitals should be built fare away from residential areas	1078	31.1	1033	29.8	1353	39.1

As presented in table 4, majority of the participants agreed that Saudi mental health hospitals are old fashioned and similar to prisons, more than three quarters of the participants agreed that Saudi government must

increase governmental money spent on mental health hospitals as well as community mental health services. On the other hand only 18.7% agreed that Saudi community has enough mental health services.

Table 5: Sources of Information about Mental Illnesses among Saudi Adults (n = 3464)

Source	Frequency (N)	Percent (%)
Personal experience		
Yes	1493	43.1
No	1971	56.9
Discussion with other people		
Yes	1629	47.0
No	1835	53.0
Internet		
Yes	1289	37.5
No	2166	62.5
Mass media		
Yes	1106	31.9
No	2358	68.1
Others		
Yes	559	16.1
No	2905	83.9

The number one source of information about mental illnesses among Saudi public was discussion with others followed by personal experience, internet and mass media. Other sources of information reported by the participants included in the study were university classes and awarness campagins.

Table 6: Saudis Adults' Past and Future Experiences with People Diagnosed with Mental illnesses (n = 3464)

Statement	Yes		No		Don't Know	
	N	%	N	%	N	%
1. Are you currently living with, or have you ever lived with, someone with a mental health problem?	726	21.0	2335	67.4	403	11.6
2. Are you currently working, or have you ever worked, with someone with a mental health problem?	1188	34.3	1641	47.4	635	18.3
3. Do you currently, or have you ever, had a neighbour with a mental health problem?	1135	32.8	1576	45.5	752	21.7
4. Do you currently have, or have you ever had, a close friend with a mental health problem?	1023	29.5	1723	49.7	717	20.7
5. In the future, I would be willing to live with someone with a mental health problem	954	27.5	1477	42.7	1032	29.8
6. In the future, I would be willing to work with someone with a mental health problem	999	28.8	1160	33.5	1304	37.7
7. In the future, I would be willing to live nearby to someone with a mental health problem	1133	32.7	1081	31.2	1249	36.1
8. In the future, I would be willing to continue a relationship with a friend who developed a mental health problem	1312	37.9	1038	30.0	1113	32.1

Around one third of the participants included in the current study have worked, have lived or had a friendship with a person with mental illness while only 21% were currently or previously lived with a person with mental illness

More than one third of the Saudi adults included in the study were indecisive if they would work with, be a neighbor or have a friendship with a person with a mental illness in the future, while 42.7% of the participants can't live with a person with mental illness in the future.

Table 7: Saudis Adults' Knowledge of Causes of Mental Illnesses (n = 3464)

Statement	Agree		Don't Know		Disagree	
	N	%	N	%	N	%
1. Heridity and biological causes	1462	42.2	1062	30.7	939	27.1
2. Black magic and evil eye	1570	45.3	1092	31.5	801	23.1
3. Substance abuse	2109	60.9	844	24.4	510	14.7
4. Punishment from Allah (God)	1562	45.1	1052	30.4	849	24.5
5. Accidents	1866	53.9	975	28.1	622	18.0
6. Family and marital conflicts	2712	78.3	543	15.7	209	6.0
7. Poverty and financial problems	2595	74.9	587	16.9	281	8.1
8. Test from Allah (God)	2367	68.3	649	18.7	448	12.9

In exploring Saudis public' knowledge of causes of mental illnesses, analysis of collected data revealed that around three quarters of the participants referred mental illnesses to family and marital conflicts and poverty and financial problems followed by test from Allah (God), punishment from Allah (God), accidents, black magic and evil eye while only 42.4% referred mental illnesses to heridity and biological causes.

Table 8: Saudi Adults' Knowledge of Types of Mental Illnesses (n = 3464)

Mental Illnesses	Agree		Don't Know		Disagree	
	N	%	N	%	N	%
1. Depressive disorders	2329	67.2	836	24.1	299	8.6
2. Fatiugue	682	19.7	821	23.7	1961	56.6
3. Schizophrenia	2263	65.3	831	24.0	370	10.7
4. Bipolar disorder	2638	76.2	660	19.1	166	4.8
5. Alcohol and Substance abuse	2290	66.1	761	22.0	413	11.9
6. Greiving	1194	34.5	861	24.9	1409	40.7
7. Anxiety	1632	47.1	888	25.6	943	27.2
8. Anxitety disorders	1446	41.7	1071	30.9	946	27.3
9. Sleeping disorders	1748	50.5	1044	30.1	672	19.4
10. Eating disorders	1961	56.6	682	19.7	821	23.7

When assessing Saudi public' knowledge of types of mental illness, results of the current study showed that majority of the Saudi adults were knowledgable about the most common mental illnesses including bipolar disorders, depressive disorders, schizophrenia, eating disorders, sleeping disorders and anxiety disorder.

Table 9: Relationship between Selected Demographic Criteria and Attitude towards Mental Illness (n = 3464)

Demographic Criteria	Attitude towards Mental Illness and Persons with Mental Illnesses	
	r	P
Age	0.076	0.000
Education	0.075	0.000
Having a family member diagnosed with mental illness	0.137	0.000
Knowing any person diagnosed with mental illness	0.149	0.000

As shown in table 9, age of the participants, level of education, having a family member diagnosed with mental illness and knowing any person diagnosed with mental illness were significantly correlated with the attitude towards mental illness and persons with mental illnesses scale score.

Discussion

The purpose of this study was to investigate the attitude towards mental illness and persons with mental illnesses as well as to explore the attitude towards mental health services available in Saudi Arabia among general Saudi adult population. Some of the study participants had a decision that they can communicate with any person with mental illness and can have a picnic with people having mental illnesses. As well few don't feel afraid when dealing with the person with mental illnesses and don't deny sitting with an individual with mental illness. These perceptions may be consistent with reality. The vast prevalence of mental illness in Saudi Arabia and transference of mental health services place the families in the front line of patient care. Joint alliance of the families with the healthcare professionals needs proper Knowledge of mental illness, their causes, and treatment results. (Elbur, Albarraq, Yousif, Abdallah, Aldeeb, 2014)

The present study found that a substantial proportion of the general Saudi population were uncertain about their attitudes toward mental illness and persons with mental illnesses as they suggested their attitudes as

neutral. This finding can be compared with the study done by Taylor & Dear (1981) their study explored that people with real life experience of persons with mental illness exhibited positive attitudes , much more than those lacking such experience as well as the preconceptions towards persons with mental illness are neutralized by experience of people with mental illness. A Dutch public study by Veer, Kraan, Drosseart & Modde (2006) recommended that in order to improve public mental health literacy and attitudes we ought to first deal with the most adverse conventional beliefs. Otherwise, the lack of knowledge and false beliefs will lead to patients not being referred for suitable mental healthcare. About 80 % of the participants believed that people with mental illness are dangerous (Ayazi, Lien, Eide, Shadar & Hauff, 2013).Stigma has been defined as a bunch of undesirable attitudes and opinions that encourage the general public to fear, avoidance, and differentiation against people with mental illness (Rockville, 2003). Another study by Elbur et al. (2014**)** explored that almost thirty five of the interviewed relatives agreed that mentally ill person should not be permitted to make resolutions, even for routine events.72% said that they can marry a person with mental illness, 30% had an idea of they would refuse to inform others that they are mentally ill and also 35% said they will be ashamed of, if their family member is diagnosed with mental illness.

In our study, female participants revealed a little higher mean attitude score than male participants, the statistical analysis indicated no significant difference in the attitudes towards mental illness and persons with mental illnesses between male and female participants. Research by Bener & Ghuloum (2010) showed that Arab population of Qatar, men were better informed about mental illness than women. Another study by Gaebel, Baumann, witte & Zaeske (2002) reported that in Germany, more women than men knew the causes of schizophrenia, which was more often documented as a mental illness. This difference between the two ethos echoes many variations. The level of education, access to resources including computer literacy, the presence of mental health alertness operations are all contributing factors. According to Elbur et al. (2014**)** Males were more ashamed compared to females about having mental illness.

On examining the relationship between the selected demographic variables and attitude towards mental illness, the age of the participants, level of education, having a family member diagnosed with mental illness and knowing any person diagnosed with mental illness were significantly correlated with the attitude towards mental illness and persons with mental illnesses. This finding was not consistent with the study done by Das & Phookun (2013) they found no significant association between knowledge, attitude, perception and belief of patients'relatives towards mental illness and the age of the relatives, gender, occupation , socioeconomic status and type of family of the relatives . Also (Al-Adawi, Dorvlo, Al-Ismaily, Al-Ghafry, Al-Noobi, Al-Salmi, et al.,2002) found no relationship between attitudes towards people with mental illness, and demographic variables such as age and personal exposure to people with mental illness.

In the current study more than one third of the participants had a family member diagnosed with mental illness and two thirds knew any person diagnosed with mental illness other than a family member. Nearly one third of the participants involved in the current study has worked, have lived or had a friendship with a person with mental illness. Whereas, only 21% were presently or previously existed with a person with mental illness. Almost one third of the Saudi adults included in the study were wavering if they would work with, be a neighbor or have a friendship with a person with a mental illness in the future, while 42.7% of the participants can't live with a person with mental illness in the future. In comparing the findings with the research by Corrigan, Markowitz & Watson (2004) they demonstrated that knowing someone with a mental health problem or awareness with mental illness is intensely linked with knowledge about mental health, attitudes and behavior. A Missourian study on attitude toward mental illness through telephone survey showed that mainstream of Missourians have had some personal experience with mental illness. A large proportion of Missourians sampled reported knowing or living near someone with a mental illness at some point in time (Missouri Mental Health Foundation, 2013). Another report prepared for Time to Change, on attitudes to mental illness from 2008 to 2014 revealed that most of the respondents reported that someone close to them had some kind of mental illness. One in ten said a member of their family e.g. uncle, aunt, cousin, grandparent had experienced some kind of mental illness. According to this report, since 2009 the percentage of respondents saying somebody close to them has some kind of mental illness has considerably altered. The percentage of reporting about a person with mental illness decreased from 5% to 3% in 2014, but persons diagnosed with mental illness themselves was increased from 5% in 2009 to 7% in 2014, also participants reporting someone they know who has had some kind of mental illness has increased from 58% in 2009 to 65% in 2014 (TNS BMRB 2015).

The result of this study showed that majority of the participants agreed that Saudi mental health hospitals are old fashioned and similar to prisons, more than three quarters of the participants agreed that Saudi government must increase governmental money spent on mental health hospitals as well as community mental health services. On the other hand, only 18.7% agreed that Saudi community has enough mental health services. This finding is also consistent with the review done by Mackenzie, Erickson, Deane & Wright (2014). The major finding of this review was that attitudes toward seeking mental health services have become gradually more undesirable. Regardless of the reasons for increasingly negative attitudes toward mental health services, the

finding indicated that mental health services continue to be underutilized despite the fact that clinicians, policymakers, and researchers have been concerned about low rates of professional mental health service use. The results of Aloud,(2004) study indicated that the positive or negative attitudes of Arab-Muslims toward pursuing mental health services was mostly affected because of cultural and traditional beliefs about mental health problem, knowledge and familiarity with formal services, perceived societal stigma, and the use of informal ethnic resources. According to Elbur et al, (2014) half of the respondents said that mental health services are available in the community. Less than fifty percent of them accepted that mentally ill are treated in hospitals. About (72.2%) believed on conventional and/or spiritual treatment for mental illnesses. But as a positive sign in their study (72.9%) of the participants believed that medicines can treat mental illness, while (18.8%) denied and (7.9%) had an idea that medicines worsen the condition. A Significant correlation was identified between relatives' positive beliefs on medicines and adherence to treatment plan. Al-Krenawi (2002) in his review of mental health services utilization among Arab populations, explored that the Arab-Muslim people's behaviors related to help seeking for mental health were set in a categorized pattern. First, individuals try to get help from their family members; next, they rely on close friends or traditional healers, when the first two approaches flop then lastly, they seek help from general medical doctors. A study by Razali, Khan, & Hasanah, (1996) proclaimed that beliefs about causes may modify ways of seeking help and the response to treatment. Accordingly, in Malaysia psychiatric patients belief in supernatural factors was linked with more use of traditional healers and lesser compliance with medication. Al-Darmaki, 2003 & Sayed (2002). in their study revealed that, in the Arab culture, individuals often do not seek professional help due to fear of self-disclosure as self-disclosure may imply to them a disloyalty of the individual's family and/or might be seen as an unambiguous affirmation of feebleness. According to Abu-Ras (2003) In her study, examining the factors influencing social services utilization among Arab immigrants experiencing domestic abuse in Dearborn, Michigan, the findings showed that among the most substantial obstacles to select formal services was the lack of knowledge about existing services and their providers.

In exploring Saudis public' knowledge of causes of mental illnesses, around three quarters of the participants referred mental illnesses to family and marital conflicts, poverty , financial problems or as a test from Allah (God), punishment from Allah (God), accidents, black magic and evil eye while only 42.4% referred mental illnesses to heredity and biological causes , but a study conducted by Elbur et al, (2014), the ideas discovered by the participants about the causes of mental illness were evil eye, personal weakness, misuse of drugs, stress and social problems**,** brain disease and magic were also considered as causes respectively. Another view stated by Teferra & Shibre, (2012) in their study regarding the causes of mental illnesses varied incorporating supernatural causes such as control by evil spirits, profanity, bewitchment, attack by evil spirit in postnatal women and bio psychosocial causes such as infections , loss of someone close to an individual, alcohol and khat abuse. A study among Qatar public conducted by Bener and Ghuloum (2010) revealed that they were not knowledgeable about the causes of mental illness. Many women than men perceived mental illness was due to possession by evil spirits. The most commonly recognized cause of mental illness among women was a belief that shock can be a trigger; this belief was less common in men.

When assessing Saudi public's knowledge of types of mental illness, majority of the Saudi adults were familiar about the most common mental illnesses such as bipolar disorders, depressive disorders, schizophrenia, eating disorders, sleeping disorders and anxiety disorder. In contrast a study conducted by Bener and Ghuloum, (2010) a poor recognition of mental disorders was observed in Qatari nationals than in non-Qatari Arabs. Acknowledgment rate for Schizophrenia as common mental illness was higher in the Arab population than in Qataris and more similar results were found for depression also. Recognition of common mental illness was higher in the U.S (Link 1999), as it was reported in a study on the public perceptions on mental illness that the mainstream of the public identified Schizophrenia and depression as a common mental illness. The potential reason for this dissimilarity is the lack of health information on the signs, symptoms and causes of mental illnesses in the studied Arab population.

Conclusion and recommendations

Findings of the study give an overview of the public attitudes towards mental illness and mental health services in Riyadh, Saudi Arabia. Despite the limited empirical evidence the present study infers that one third of the participants have an indecisive attitude toward mental illness and persons with mental illness. This makes it clear that there is still a way to go in accomplishing a positive attitude toward mental illness. Also the mental health services rendered should be improved, systematized, standardized, and community mental health services have to be well established. Various researches have to be conducted to guide efforts to modernize the mental health care system. However, as psychiatry moves rapidly into the 21st century in Saudi Arabia, one cannot ignore the dominating influences that culture, family, and religion continue to have on the understanding, diagnosis, and treatment of mental disorders in this country. Further research is required to address misconceptions about the causes of mental illnesses. The cumulative findings from this study offer federal and state decision makers and

other key stakeholder's insights about the public's attitudes toward mental illness and mental health services and promote social inclusion in Saudi Arabia.

Based on the findings of this study, the following recommendations are suggested:

- Implement culturally competent stigma reduction initiatives at local, regional, and nation-wide levels.
- Conduct similar studies using mixed qualitative and quantitative research approach to enrich data relevant to culture and beliefs that would help in the development of anti-stigma intervention programs.
- Implement anti stigma campaigns aiming to develop a positive healthy public attitude in relation to mental illness and mental health services.
- Implement evidence-based mental health educational programs insisting the importance family participation in caring for people with mental illnesses.
- Offer guidance to local media regarding how they can reduce stigma by avoiding exaggeration about mental illness and warrant stability in dissemination by encouraging stories about recovery, accomplishment, and contributions by people with mental illness.
- Support people with mental health problems by referring them to available community resources.
- Teach caregivers how to offer reassurance, companionship, emotional strength, and acceptance to a friend, family member, neighbor, or others with mental health problems.

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Conflict of Interests
The authors declare that they have no conflict of interests with any organization regarding the materials discussed in this manuscript.

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References

Abu-Ras, W. (2003). Barriers to services for Arab Immigrant bartered women in a Detroit suburb. *Journal of Social Work Research and Evaluation,* 1 (4), 49-65.

Al-Darmaki, F. (2003). Attitudes towards seeking professional psychological help: What really counts for United Arab Emirates University Students? Social Behavior and Personality: *An International Journal,* 31, 497-508.

Al- Adawi, S., Dorvlo, A. S., Al- Ismaily, S., Al- Ghafry, D., Al- Noobi, B., Al-Salmi, A., Burke, D., Shah, M., Ghassany, H., & Chand, S. (2002). Perception of and attitude towards mental illness in Oman. *International Journal of Social Psychiatry*, 48 (4), 305 – 317.

Al-Krenawi, A. (2002). Mental health service utilization among the Arabs in Israel. *Social Work in Health Care*, 35, 577- 590.

Aloud, N. (2004).Factors Affecting Attitudes Toward Seeking And Using Formal Mental Health And Psychological Services Among Arab-Muslims Population, The Ohio State University. *Doctoral Dissertation*, 85-105.

Angermeyer, M. C. & Matschinger, H. (1997) Social distance towards the mentally ill: Results of representative surveys in the Federal Republic of Germany. *Psychological Medicine*. 27, 131 – 141.

Ayazi.T, Lien.L, Eide.A, Shadar.E, Hauff. (2013) Community attitudes and social distance towards the mentally ill in South Sudan: a survey from a post-conflict setting with no mental health services. *Soc Psychiatry Psychiatr Epidemiol*. 771-780.

Bener, A. & Ghuloum, S.(2010). Gender differences in the knowledge, attitude and practice towards mental health illness in a rapidly developing Arab society. *International Journal of Social Psychiatry*, 57(5) 480–486.

Bhugra, D. (1989) Attitudes towards mental illness: A review of the litrature. *Acta Psychiatrica Scandinavica,* 80, 1 – 12.

Brockington, I. F., Hall, P., Levings, I. & Murray, C. (1993) The community's tolerance of the mentally ill. *British Journal of Psychiatry*, 162, 93 – 99.

Burns, N. & Grove, S. K. (1997) The practice of nursing research: Conduct, critique, & utilization. 3rd Ed., W. B.

Saunders company, Philadelphia.
Corrigan, P.W., Markowitz, F.E., & Watson, A.C. (2004). Structural levels of mental illness: Stigma and discrimination. *Schizophrenia Bulletin*, 20(3), 481–491.
Cuomo, D. & Ronacher, A. (1998) Attitudes among college students towards mental illness. (Unpublished manuscript)
Das,S., Phookun.H., (2013).Knowledge, Attitude, Perception and Belief (K.A.EB.) of Patients'Relatives Towards Mental Illness: Association with Clinical and Socio demographic Characteristics, *Delhi Psychiatry Journal* ,16:(1) 98-109.
Elbur,A., Albarraq,A., Yousif, M A., Abdallah,M., Aldeeb, I., (2014). Relatives Perception On Patients With Mental Illness.*World Journal Of Pharmacy And Pharmaceutical Sciences,* 2, 969-980.
Elfawal, M. (1999) Cultural influnce on the incidence and choice of method of suicide in Saudi Arabia. *American Journal of Forensic Medicine& Pathology*. 20, 163 – 168.
Gaebel, W., Baumann, A., Witte, A.M. and Zaeske, H. (2002) Public Attitudes towards People with Mental Illness in Six German Cities. *European Archives of Psychiatry and Clinical Neuroscience,*252: 278–287.
Hannigan, B. (1999) Mental health care in the community: An analysis of contemporary public attitudes towards, and public representation of mental illness. Journal of Mental Health, 8 (5), 431 – 440.
Kathami, A. (2001) The implementation and evaluation of educational program for PHC physicians to improve their recognition of mental illness in the Eastern Province of Saudi Arabia (Dissertation). AlKobar, King Faisal University.
Kurihara, T., Kato, M., Sakamoto, S., Reverger, R., & Kitamura, T. (2000) Public attitudes towards the mentally ill: A cross – cultural study between Bali and Tokyo. *Psychiatry and Clinical Neurosciences,* 54, 542 – 552.
Lam, L. C., Chan, C. K., Chen, E. Y. (1996) Insight and general public attitude on psychotic experiences in Hong Kong. *International Journal of Social Psychiatry,* 42, 10 – 17.
Link, B. G. (1982) Mental patient status, work, and income: An examination of the effects of psychiatric label. *American Social Reviews*, 47, 202 – 215.
Link, B.G., et al., Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *Am J Public Health*, 1999. 89(9): 1328-33.
Mackenzie C.S. Erickson. J.,Deane.F., Wright.M ., (2014).Changes in attitudes toward seeking mental health services: A 40-year cross-temporal meta-analysis.*Clinical Psychology Review*, 34 99–106.
Missouri Mental Health Foundation. (2013). Telephone Survey of Missourians Regarding Attitudes toward People with Mental Illness, Substance Use and Developmental Disabilities. The Missouri Institute of Mental Health at the University of Missouri-St. Louis, 2-4.
Murray, M. G. & Steffen, J. J. (1999) Attitudes of case managers toward people with serious mental illness. *Community Mental Health Journal,* 35 (6), 505 – 514.
Ng, P. & Chan, K. (2000) Sex differences in opinion towards mental illness of secondary school students in Hong Kong. *The International Journal of Social Psychiatric*, 46 (2), 79 – 88.
Okasha, A. &Karam, E. (1998) Mental health services in research in the Arab world. *Acta Psychiatrica Scandiavica,* 98, 406 – 413.
Polit, D., & Hungler, B. (1999). Nursing Research: Principles and Methods. Lippincott, Philadelphia.
Quinn, N. (2007) Beliefs and community responses to mental illness in Ghana: The experiences of family carers. *International Journal of Social Psychiatr,* 53 (2), 175 – 188.
Razali, S. M., Khan, U. A. & Hasanah, C. I. **(**1996**).** Belief in supernatural causes of mental illness among Malay patients: impact on treatment. *Acta Psychiatrica Scandinavica*, 94, 229
Rockville, MD, (2003). President's New Freedom Commission on Mental Health. Achieving the Promise: Transforming Mental Health Care in America: Available from http://govinfo.library.unt.edu/mentalhealthcommission/reports/FinalReport.(accessed July 9, 2012)
Roth, D., Antony, M. M., Kerr, K. L., & Downie, F. (2000) Attitudes toward mental illness in medical students: Does personal and professional experience with mental illness make a difference? *Medical Education.* 34, 234 – 236.
Sayed, M.A. (2002). Arabic psychiatry and psychology: The physician who is philosopher and the physician who is not a philosopher: Some cultural considerations. *Social Behavior and Personality: An International Journal*, 30, 235-242.
Shokeer, Z. (2002). Attitudes towards mental illness scale. Zahraa Al Shark, Cairo.
Song,L., Chang, L. Y., Shih, C. Y. Lin, C. Y. & Yang, M. J. (2005) Community attitudes towards the mentally ill: The results of a national survey of the Taiwanese population, *International Journal of Social Psychiatry*, 51 (2), 162 – 176.
Taylor, S. M., Dear, M. J. & Hall, G. B. (1979). Attitudes toward the mentally ill and reactions to mental health facilities. *Social Science and Medicine,* 13 D, 281 – 290.

Taylor, S. M. & Dear, M. J. (1981) Scaling community attitude toward the mentally ill. *Schezophrenia Bulletin*, 7, 225 – 240.

Teferra , S., & Shibre ,T., (2012). Perceived causes of severe mental disturbance and preferred interventions by the Borana semi-nomadic population in southern Ethiopia: a qualitative study. *BMC Psychiatry* ,12-79.

TNS BMRB. (2015) .Research Report Prepared for Time to Change, Attitudes to Mental Illness 2014.

Veer,V., Kraan. H.F., Drosseart, S.H.C.& Modde, J.M., (2006) Determinants that shape Public Attitudes towards the Mentally Ill: A Dutch Public Study. *Social Psychiatry and Psychiatric Epidemiology* 41(4): 310–317.

WHO EMRO – Wold Health Day 2001, at http://wwww.emro.who.int/mnh/whd/CountryProfile-Saa.htm, accessed 13 December 2014.

World Health Orhanization. Mental Health: A state of wellbeing. http://www.who.int/features/factfiles/mental_health/en/, accessed 03 April 2016.

Wolff, G., Pathare, S., Craig, T. & Leff, J. (1996 a) public education for community care: A new approach. *British Journal of Psychiatry,* 168, 441 – 447.

Wolff, G., Pathare, S., Craig, T. & Leff, J. (1996 b) Community knowledge of mental illness and reaction to mentally ill people. *British Journal of Psychiatry,* 168, 191 – 198.

Wolff, G., Pathare, S., Craig, T. & Leff, J. (1996 c) community attitudes to mental illness. *British Journal of Psychiatry,* 168, 183 – 190.

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