



## KNOWLEDGE AND ATTITUDE TOWARD PSYCHIATRIC DISORDERS AMONG UNIVERSITY STUDENTS, TAIF, SAUDI ARABIA

### Community Medicine

**Dr. Yasir. A. Altuwairqi** Consultant of Psychiatry, Assistant Professor of Psychiatry, College of Medicine, Taif University

**Dr. Ayman Abdelbaky\*** Department of Family and Community Medicine, College of medicine Taif University, Saudi Arabia. \*Corresponding Author

**Atheer Abdurraheem Alsufyani** Medical Students, College of Medicine Taif University, Saudi Arabia

**Omar Ahmed Asiri** Medical Students, College of Medicine Taif University, Saudi Arabia

**Sara Ahmed Ali Assiri** Medical Students, College of Medicine Taif University, Saudi Arabia

### ABSTRACT

**Background:** How we should deal with a psychiatric patient? in order to help, support and use their energies as a productive part of the society first we need to understand the mentality and attitude of the educated members of the community toward psychiatric disorders.

**Objective:** to assess the attitude of male and female university students toward psychiatric disorders in Taif university, KSA by assessing the level of stigma, the level of fear from psychiatric patients and participant's opinion about the duties could be given to a psychiatric patient. Also see the participants' knowledge about the causes, treatment and the available facilities for psychiatric disorders.

**Methods:** A cross sectional observational study was conducted as a pre-designed questionnaire with a yes/no ended questions, partially using CAMI scale (Community Attitudes toward the Mentally Ill) with modification. It was randomly published among 3 different University colleges in Taif, Saudi Arabia. A total of 381 participants between the age of 20 to 25, 169 from College of Medicine 68 male and 101 female, 109 from College of Computing and Information Technology, 50 male and 59 female, 103 from College of Art- Foreign Language Department 47 males and 56 females. data collection was conducted from the 5th of February 2017. we used IBM SPSS Statistics program for windows version 16 for data analysis.

**Results:** 80 (20,9%) of students believe that one of the most important causes of mental illness is spiritual as evil eye or sorcery. 251 (65,8%) of students think that mentally ill doesn't have any signs and looks just like a normal person and 298 (78,2%) think that the best cure for psychiatric disorders is spiritual treatment (Quran or Ruqyah) but 38 (9,9%) believe that psychiatric disorders could not be cured. 81 (21,2%) think it is socially not accepted to go to a psychiatric doctor, 134 (35,1%) have a shape of fear from the mentally ill as speaking to them, 167 (43,8%) think psychiatric disorders is an obstacle against success.

### KEYWORDS

psychiatric disorders, university students.

#### Introduction:-

Mental illnesses are medical conditions that can disrupt a person's thinking, feeling, ability to relate to others and daily performance. There are a lot of conditions prescribed as mental illness, such as depression, posttraumatic stress disorder, schizophrenia, bipolar disorder, panic disorder, personality disorder, eating disorders, obsessive compulsive disorder and addictive behaviors (1). The WHO estimated that one in four people worldwide will be affected by mental disorder at some point in their lifetime. Around 450 million people currently suffer from such conditions, placing mental disorders among the leading causes of ill-health and disability (2). In Saudi Arabia, one 3rd of the primary care patients in the central area were found to suffer from mental illnesses. The prevalence was higher in the younger age group (3). In another study, it was found that the prevalence of somatization and co-morbid depression in the primary care centers in Saudi Arabia is similar to the published rates worldwide (4). Also, a study conducted in Riyadh, measuring the prevalence of mental illnesses among high school students, indicated that almost half of the study population (N=354) suffer from mental illnesses, it was found to be more prevalent among females than males (5).

'Mental health literacy' is defined as "the knowledge and beliefs about mental disorders which aid their recognition, management or prevention including the ability to recognize specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking" (6). Social exclusion, discrimination and adding an additional burden on the people suffering from mental illnesses are the results of the stigma toward mentally ill people. WHO defined Stigma as "a distinguishing mark establishing a demarcation between the stigmatized person and others attributing negative characteristics to this person" (7).

Negative attitudes and the lack of knowledge about the causation of mental illnesses were found to be associated with stigmatization of mental illnesses by the public (8). In a study conducted among adult relatives (aged >18 years) of mentally ill patients attending for follow-up visits in Mental Health Hospital, Taif, Saudi Arabia. The majority of respondents thought that evil eye was the major cause of mental illness, followed by personal weakness (9). Another data collected as a part of a community study of knowledge and attitudes toward mental illnesses in Nigeria found that people holding exclusively biopsychosocial views of causation were not different from those holding exclusively religious-magical views in regard to general knowledge of the nature of mental illness. However, religious-magical views of causation were more associated with negative and stigmatizing attitudes to the mentally ill (10).

However, if education was accompanied by the exposure to people with mental illnesses. Individuals will be more enlightened and scientific about their knowledge and understanding of the mentally ill people (11). Fear plays a major role as a cause of stigma toward mental illness, the widely publicized dangerous and violent yet rare incidents feed the fear and stigma of mental illness. Personal culpability is a perception that makes people assume that treatment might be inappropriate or it won't help. People usually have an assumption of difficult communication and lack of productivity associated with mentally ill people (8). Nearly two-thirds of people with a known mental disorder never seek help from a health professional due to the stigma, discrimination and neglect (2). The need to increase mental health literacy is confirmed by the low knowledge about mental illnesses. (12).

University student's current perception about mental illnesses is an important aspect that needs to be viewed in order to have an overview about the extent of knowledge they will carry to the future generation

and what needs to be improved. Therefore, this study was conducted to identify university student's knowledge and attitudes toward psychiatric illnesses, the provided health services, and the treatment of these illnesses.

**Methodology: -**

A cross sectional survey on Knowledge and attitude toward psychiatric disorders was conducted on 381 participants between the age of 20 to 25, 169 from College of Medicine 68 male and 101 female, 109 from College of Computing and Information Technology, 50 male and 59 female, 103 from College of Art- Foreign Language Department 47 males and 56 females . Data collection was conducted from the 5th of February 2017 till 4th of march 2017 in Taif University which is a large sized and a public University located in Taif city in the Western region of Saudi Arabia and consists of thirteen colleges. Taif city is located in Mecca province of Saudi Arabia at the west of Saudi Arabia in an elevation of 1700 meters on the slopes of the Al-Sarawat Mountains. It has a population of 987,914 (2010 census).

A multistage random sampling technique was used to recruit the participants of the study. At the first stage of selection, three colleges were selected by simple random sampling (Medicine, Computing and Information Technology, and College of Art- Foreign Language Department). At the second stage of selection of grade was randomly selected from first, second, third, fourth, fifth and sixth years in each male and female section of each college. At the third stage, all students in each grade were included in the study. Pilot study was done before beginning the work in order to test the questionnaire, detect any difficulties, and also to give an idea about the questionnaire. The selected grades were visited by research team to clarify the purposes of the study. A schedule for the next visit was given to the questionnaire. A total of 381 students (165 male students and 216 female students) returned the questionnaire.

**Data collection:**

Data were recruited using a pre-designed questionnaire that consisted of the following: 1) demographic characteristics (for example, gender, age, , and educational level), 2) a pre-designed questionnaire with a yes/no ended questions, partially using CAMI scale (Community Attitudes toward the Mentally Ill) with modification .It was randomly published among 3 different University colleges in Taif, Saudi Arabia. The CAMI is a valid and reliable tool that is available in different languages. The questionnaires were completed through direct interview with the students. All interviews were conducted by one interviewer to minimize interviewer bias.

**Inclusion criteria:**

All Students enrolled in the selected college in Taif university, Saudi Arabia,2016-2017.

**Ethical consideration: -**

Approval by the deanship of student affairs was be taken before starting the work. During the research activities, each studied subject will be informed about the study objectives stressing on confidentiality of collected data and getting a verbal consent of the subject to share in the study.

**Statistical analysis:**

Data entry and Statistical analysis was been performed using statistical package for the social science (SPSS) program for windows version 16. Frequency and range checks was been performed. Descriptive statistics was been used for the quantitative variables. Percentage was been used to determine the Knowledge and attitude toward psychiatric disorders.

**Result:**

**Participants demographics:**

A total of 381 participants 165(43.3%) were males and 216(56.7%) were females. 169(44.4%) participants from College of Medicine 68(40.2%) were males and 101(59.8%) were females, 109(28.6%) from College of Computing and Information Technology, 50(45.9%) were males and 59(54.1%) were females. 103(27.0%) were from College of Art- Foreign Language Department, 47(45.6%) were males and 56(54.4%) were females [table1]. participants age were between 20 and 25 years old with mean of 21.71 and standard deviation of 1.037 [table 2], the participants average academic year were 3.45 sd 1.145. the mean for college of medicine were 3.37 sd 1.039, the mean for from College of Computing and Information Technology were 3.62 sd

1.238, the mean for College of Art- Foreign Language Department were 3.42 sd 1.201.[table 3]

**Table 1 :**

gender		Frequency	Percent	Valid Percent	Cumulative Percent
male	College of Medicine	68	41.2	41.2	41.2
	College of Computing	50	30.3	30.3	71.5
	College of Art	47	28.5	28.5	100.0
	Total	165	100.0	100.0	
female	College of Medicine	101	46.8	46.8	46.8
	College of Computing	59	27.3	27.3	74.1
	College of Art	56	25.9	25.9	100.0
	Total	216	100.0	100.0	

**Table 2 :**

gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	165	43.3	43.3	43.3
	female	216	56.7	56.7	100.0
	Total	381	100.0	100.0	

**Table 3:**

Age		Frequency	Percent	Valid Percent	Cumulative Percent	mean	
male	Valid	20	35	21.2	21.2	21.2	21.82
		21	42	25.5	25.5	46.7	
		22	39	23.6	23.6	70.3	
		23	22	13.3	13.3	83.6	
		24	20	12.1	12.1	95.8	
		25	7	4.2	4.2	100.0	
		Total	165	100.0	100.0		
female	Valid	20	34	15.7	15.7	15.7	21.62
		21	80	37.0	37.0	52.8	
		22	56	25.9	25.9	78.7	
		23	32	14.8	14.8	93.5	
		24	8	3.7	3.7	97.2	
		25	6	2.8	2.8	100.0	
		Total	216	100.0	100.0		

**Knowledge:**

**Attitude:**

statement	answer	Male		Female	
		frequency	percent	frequency	percent
1. believe that one of the most important causes of mental illness is spiritual as evil eye or sorcery.	Yes	33	20.0	47	21.8
	No	132	80.0	169	78.2
2. think that psychiatric disorders are illusions and they shouldn't give much attention to them	Yes	24	14.5	16	7.4
	No	141	85.5	200	92.6
3. think that there are sufficient hospitals and facilities for the mentally ill.	Yes	29	17.6	25	11.6
	No	136	82.4	191	88.5
4. think that There are sufficient existing services for the mentally ill.	Yes	25	15.2	18	8.3
	No	140	84.8	198	91.7
5. think the mentally ill doesn't have any signs and looks just like a normal person	Yes	108	65.5	143	66.2
	No	57	34.5	73	33.8

6. think that psychiatric disorders could be treated as any physical disorders by using medications or psychiatric consultations	Yes	137	83.0	196	90.7
	No	28	17.0	20	9.3
7. believe that psychiatric disorders could be cured	Yes	146	88.5	197	91.2
	No	19	11.5	19	8.8
8. Think that the best cure for psychiatric disorders is spiritual treatment (Quran or Ruqyah)	Yes	133	80.6	165	76.4
	No	32	19.4	51	23.6
9. Stigmatize themselves or their relatives by having psychiatric illness	Yes	25	15.2	14	6.5
	no	140	84.8	202	93.5
10. have the courage to tell friends and family about having a mental illness	Yes	100	60.6	122	56.5
	No	65	39.4	94	43.5
11. Think it is socially not accepted to go to a psychiatric doctor	Yes	47	28.5	34	15.7
	No	118	71.5	182	84.3
12. Can live next door to someone who has been mentally ill	Yes	61	37.0	93	43.1
	No	103	62.4	123	56.9
13. have a shape of fear from the mentally ill as speaking to them	Yes	59	35.8	75	34.7
	No	106	64.2	141	65.3
14. accept having a relationship with a psychiatric patient	Yes	41	24.8	36	16.7
	no	124	75.2	180	83.3
15. accept having a relationship with a person having a history of psychiatric illness	Yes	93	56.4	89	41.2
	no	72	43.6	127	58.8
16. think that the mentally ill should be part of the community as having a job and social connections	Yes	126	76.4	161	74.5
	no	38	23.0	55	25.5
17. think the mentally ill can be given responsibilities (as babysitting)	Yes	64	38.8	88	40.7
	no	101	61.2	128	59.3
18. think the mentally ill could be reproductive at work	Yes	108	65.5	133	61.6
	no	57	34.5	83	38.4
19. think the person with history of psychiatric illness could be reproductive at work	Yes	141	85.5	200	92.6
	no	24	14.5	16	7.4
20. think psychiatric disorders is an obstacle against success	yes	73	44.2	94	43.5
	no	92	55.8	122	56.5

### Discussion: -

Acknowledgement of psychiatric disorders is just one aspect of mental health literacy that influences behaviors and attitudes towards the mentally ill. (13). There is certainly an increased awareness in most Arab countries of the importance of mental health problems as part of the total health care picture. This awareness however is, rarely translated into action on the ground. (14) In this study there is an overwhelming positive attitude toward the recognition of the psychiatric disorders, most of the students didn't agree that mental illness is just an illusion and they thought that psychiatric illness needs attention, also the vast majority of students agree that the mentally ill person doesn't have any signs and looks just like a normal person. These results are in accordance with a study that was done in Jazan university where the majority of students (90.3%) have intermediate mental health literacy and a significant number of the participants thought that anyone can suffer from a mental illness (15)

Muslims all over the world according to Islamic teaching, strongly believe in the existence of supernatural forces such as magic powers and the evil eye. The beliefs in such spiritual forces coupled with fear are passed on from one generation to another (16) Beliefs about the causes of mental illnesses may alter both patterns of help seeking and treatment outcome. Saudi community beliefs about sorcery ( magic powers ) and evil eye could be attributed to strong cultural and religious reasons (17) other researches showed that negative attitudes toward mental illnesses were found to be correlated with lack of knowledge about the causation of these illnesses by having religious

beliefs as magical powers (18) In this study we expected that participants would view evil eye or the sorcery as the most important cause of mental illness. Interestingly, most of the students (80.0%) male and (78.2%) females didn't think of the evil eye or the sorcery as the most important cause of mental illness. Such results which are different from those reported in some previous studies. In Jeddah a research was done on the general population 72% of the participants indicated that Evil Spirit is a major cause of mental illness.(19) Another study was conducted among undergraduate students of Jazan University ,over half (59.4%) viewed evil eye, magic, demonic possession, and envy as causes of mental illness (7). In another research among psychiatric outpatient department at King Fahd Hospital of the University in Al-Khobar , KSA, they found out that (70.5%) of all patients have resorted to traditional healing ( will be discussed later on ) sometime during the course of their psychiatric illness ,and that (20%) of them were diagnosed as having evil eye. (20) The different results in our study are suggesting the possibility that the youths of today haven't picked up the same views of psychiatric disorders that persist among the past generations of the community. Despite that great positive attitude, a small percentage of (20.0%) males and (21.8%) females have a strong belief that the evil eye or the sorcery are one of the most important causes of mental illness. These numbers are small but still significant to tell us about the negative perception regarding knowledge about the causes of mental illness. Thinking about supernatural causes of mental illness may imply that classical medical care would be non-effective and that help would be more likely to be obtained from spiritualists and traditional healers(21)

Traditional healing is a popular alternative form of therapy , as using rouqyah and holy Quran , despite the relative availability of modern health services. Although people seek help through traditional healing for a wide range of medical conditions, psychiatric complaints takes the major part of this traditional practice (21) this study results show that although an overwhelming number of respondents didn't think that the evil eye or sorcery are the most important causes of mental illness, the majority of students (80.6%) females, (76.4%) males thought that the most important and significant cure for the psychiatric disorders is spiritual treatment (Quran or Ruqyah) . At the same time most of the students thought that the medications or psychiatric consultations are also able to cure psychiatric disorders and that they're generally curable. It is not easy to find a clear explanation of this findings but different factors have been found to operate in the decision-making process of choosing to consult either the biomedical or the traditional care providers. The traditional care providers more often provide their clients with more explanations than the biomedical care providers do; explanations were mostly spiritual (22). We think that these results might give us an indication that there is an urgent need to emphasize on the importance of the modern medical care and the psychiatric consultations. We think that the major problem in choosing the spiritual treatment as the treatment of choice is that it might hinder the process of having the proper medications earlier, especially if the patient needs an urgent psychiatric consultation. In King Fahd Hospital of the University in Al-Khobar the majority of patients (60%) visited the traditional healers prior to seeking medical psychiatric treatment. (21)

There is now a relatively good network of mental health facilities in KSA, although there is need for a better balance between mental hospitals and community mental health services(23) However, The participants in our study thought that there is no sufficient hospitals and facilities for the mentally ill and the services provided for the mentally ill patients are not sufficient . 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 individuals 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 commonly among men, age 30 to 39 years, and immigrants (24)(25). In Saudi Arabia prior to 1983, mental health care was provided in one hospital only in Taif city , KSA , where the service was not accessible to all Saudi citizens, this resulted in delaying seeking care and problems lacking of beds that led to discharging patients 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 in the future is to further integrate mental health services with primary health care (26)

People attitudes toward mentally ill patients plays an important rule in measuring the stigma toward those patients , this stigma is one of the

major obstacles that render patients from seeking treatment (27). According to the sociodemographic level, we hypothesizes that there is a difference between male and female attitude toward the mentally ill. Interestingly, this research shows that there is no significant difference between male and female responses which is the opposite of a research conducted upon turkey university students that shows that female have more positive attitudes(28). This result found to be consistent with a research conducted in the community of Riyadh city in Saudi Arabia(29). According to the definition of stigma that states "Stigma is a mark of disgrace that sets a person apart from others. When a person is labelled by their illness they are no longer seen as an individual but as part of a stereotyped group. Negative attitudes and beliefs toward this group create prejudice which leads to negative actions and discrimination" (30), an interesting variation of responses regarding attitude toward psychiatric patients has been noticed, the positive attitude toward patients is seen in point 9, 10, 11, 13, 16, 18, 19, 20 which states that the majority of students show open mindedness and acceptance by stating that they don't stigmatize or discriminate themselves or others by having mental disorder, positive about telling friends and family about it and seeing a psychiatric doctor, also the majority of students believe that psychiatric patients could be a reproductive part of the community by having a job and it's never an obstacle against success. On the other hand, if it comes to social engagements with the mentally ill patients at a personal level, students attitudes tend to be negative, the majority of students refuse to have a relationship (marriage) with the mentally ill patients, having them as neighbors or giving them responsibilities as babysitting, these results are shown in point 12, 14, 15, 17. However, majority of students deny having any shape of fear as talking to psychiatric patients, which is represented in point 13. These results still show the social exclusion and distance that patients suffer from despite the other positive responses. These results are highly consistent with a research was conducted among students of Jazan university, KSA (15) and also consistent with a research was conducted among university students of Cameroon (31). According to point 15, despite both genders refuse to have a relationship with mentally ill patients, (56.5%) of males seem more open about having a relationship with a healthy person having a history of mental illness, (58.8%) of females seems to reject it. This interesting point was highlighted in (32) which mentioned that females have more overall positive attitudes except they are more fearful and avoidant than males regarding people with mental illness. regarding the overall attitude, this results seem to be generally positive, so we could say that the educated members of the community tend to have more positive attitude toward the mentally ill patients than the uneducated members. According to Stephan et al, mental health education helps in reducing stigma, enhancing the assessment to mental health services, and preventing mental disorders(33). Negative views of psychiatric disorders have been reported in some studies to be more common among poorly educated individuals (34). A Previous study in Nigeria suggested that negative attitude to psychiatric disorders may be less common among the well-educated individuals(35) Also, it was found that the patients who described that they experienced jinn entering their bodies are largely patients who are particularly weak, misinformed, uneducated(16) Public education for enhancing mental health literacy has become a priority, since this will improve early detection, early help seeking, and treatment intervention by those with mental problems (36)

## References

- Duckworth K. Mental Illness: What you Need to Know. Arlington VA: National Alliance on Mental Illness; 2013.
- World health report 2001
- Al-Khathami AD, Ogbeide DO. Prevalence of mental illness among Saudi adult primary-care patients in Central Saudi Arabia. Saudi Med J. 2002.
- Screening for somatization and depression in Saudi Arabia: a validation study of the PHQ in primary care. Becker SI, Al Zaid K, Al Faris E.
- Prevalence of mental disorders among high school students in National Guard Housing, Riyadh, Saudi Arabia
- Al Faris E, Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P (1997) "Mental health literacy": a survey of the public's ability to recognize mental disorders and their beliefs about the effectiveness of treatment.
- World Health Organization. Mental Health Gap Action Programme (mhGAP) Geneva: World Health Organization; 2016
- James A. Stigma of mental illness. Foreword. Lancet. 1998
- Dr. Abubaker Ibrahim Elbur\*, Dr. Ahmed Abdulrahman Albarraq, Yousif MA Mustafa Awad Abdallah, Ibrahim D. T. Aldeeb. Relatives' perception on mental illnesses, services and treatment, Taif, Saudi Arabia
- Do beliefs about causation influence attitudes to mental illness? World Psychiatry 2006
- Stuart H. Arboleda-Flórez J. Community attitudes towards people with schizophrenia. Can J Psychiatry. 2001
- Lauber C, Nordt C, Falcató L, Rossler W. Do people recognize mental illness? Factors influencing mental health literacy. European Archives of Psychiatry and Clinical Neuroscience 2003
- Ethnic differences in the knowledge, attitude and beliefs towards mental illness in a traditional fast developing country Abdulbaker Bener & Suhaila Ghuloum
- Dealing with mental illness in the middle east, Yehya-2012 Available at <https://www.natureasia.com/en/middleeast/article/10.1038/nmiddleeast.2012.103>
- Mental Health Literacy Among Undergraduate Students of a Saudi Tertiary Institution: A Cross-sectional Study Mohamed S. Mahfouz1 Abdulwahab Aqeeli2
- A pilot study of faith healers' views on the evil eye, jinn possession, and magic in the kingdom of Saudi Arabia
- The Evil Eye: Traditional Superstitions and Mental Illness in Saudi Arabia. Ashraq Al-Awsat. August 2, 2007. Available at <http://www.aawsat.net/2007/08/article55261911>.
- Gureje O., Olley BO., Oluwanuga OE., Kola L. Do beliefs about causation influence attitudes to mental illness? World Psychiatry 2006
- Stigma versus Mental Health Literacy: Saudi Public Knowledge and Attitudes Towards Mental Disorders, College of Nursing, Jeddah Dr. Amal Ibrahim Khalil
- Traditional Healing of Psychiatric Patients in Saudi Arabia Sayed M., Abosinaina B., Rahim S. IA
- Rose, D., G. Thornicroft, V. Pinfold and A. Kassam, 2007. 250 labels used to stigmatize people with mental illness. BMC Health Serv. Res., Vol. 7
- The pathways to primary mental health care in high-density suburbs in Harare, Zimbabwe. Patel V I, Simunyu E, Gwanzura F.
- Mental health system in Saudi Arabia: an overview Naseem Akhtar Qureshi, I
- Elfawal M. Cultural influence on the incidence and choice of method of suicide in Saudi Arabia. American Journal of Forensic Medicine & pathology 1999.
- Khathami A. The implementation and evaluation of education program for PHC physicians to improve their recognition of mental illness, in the Eastern Province of Saudi Arabia. Al Khobar, King Faisal university 2001.
- World Health Organization Eastern Mediterranean Health Journal 2001
- Mental Health Literacy : Public knowledge and attitude toward mental disorders by Dr. Amal I. Khalil
- Gender effect on attitudes towards the mentally ill: a survey of Turkish university students
- Public Attitude towards Mental Illness and Mental Health Services in Riyadh, Saudi Arabia Eman Dawood1, 2, 3 Omar Modayfer3, 4
- Government of western australia, department of health, mental health "stigma, discrimination and mental illness".
- Knowledge and Social Distance Towards Mental Disorders in an Inner-City Population: Case of University Students in Cameroon
- Impact of gender and age on attitudes towards mental illness in Sweden. Ewalds-Kvist B1, Högberg T, Litzén K.
- Stephan SH, Weist M, Kataoka S, Adelsheim S, Mills C. Transformation of children's mental health services: the role of school mental health
- Community knowledge of mental illness and reaction to mentally ill people. G Wolff, S Pathare, T Craig, J Leff
- Odejide, A. O. & Olatawura, M. O. (1979) A survey of community attitudes to the concept and treatment of mental illness in Ibadan.
- Mental health literacy: empowering the community to take action for better mental health.