ORIGINAL ARTICLE

PUBLIC KNOWLEDGE AND ATTITUDE TOWARDS MENTAL ILLNESS AND MENTALLY CHALLENGING PEOPLE IN GONDAR TOWN, NORTHWEST ETHIOPIA, 2011

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ABSTRACT

Background: *Despite the increased burden of mental health problems, little is known about community knowledge and attitude towards mental illness and mentally challenging individuals.*
Objective: *The aim of this study was to assess knowledge, attitude, and associated factors towards mental illness*
Methods: *A community-based cross-sectional survey was conducted on 864 residents of Gondar town on April 2011. Study participants were selected by using the multi-stage sampling technique. A structured questionnaire was used to collect data. Descriptive statistics and multivariate logistic regression were utilized for analysis by using SPSS version 16.*
Results: *A total of 864 participants with a response rate of 97.8% took part. Median age was 30.5years. About 562(65%) of the respondents with 95 %CI interval (61.4%, 66.3%) had good knowledge of mental illness. The majority, 757(87.4%), (CI 86.2% -89.7%), had unfavourable attitude towards mental illness and mentally ill people. In the multivariate analysis, youth and information on mass media were positively related to knowledge about mental illness with the odds ratio of [AOR=1.91,95% CI(1.20-3.05)] and [AOR=1.39,95% CI(1.03-1.88)], respectively. People aged between 35 and 44 years had good knowledge and favourable attitude towards mental illness with the odds ratio of [AOR=2.5, 95% CI(1.17-5.71)] and [AOR=1.94,95% CI(1.14-3.29)]*
Conclusion: *More than half of the respondents had good knowledge about mental illness. The attitude of the community towards mental illness and mentally challenging individuals was significantly unfavourable. Getting information from health institutions and young age were significantly associated with good knowledge. Being young and having good knowledge were found to have significant association with the attitude of the community towards mental illness and mentally challenging individuals.*

Key Words: *knowledge, attitude, mental illness.*

INTRODUCTION

Currently, mental health is a public health problem in both developed and developing countries [1]. About 14 % of the global burden of the disease has been attributed to mental and related diseases, mostly the chronically disabling nature of depression and other common mental disorders, like psychosis [2]. At least 40 million people in the world suffer from the severe forms of mental disorder, and other 450 million are incapacitated by other common forms of the problem [3]. In Ethiopia, 12 % of the people have suffered from one or other forms of mental health problems, of whom 2% had severe forms of mental disorder [4].

Despite the high burden of mental illness, the level of mental health literacy is low across the world. Stigma and social exclusion relating to mental illness are recognized as a major public health concern [5]. This poor knowledge and stigma may affect the attitude of the community towards mental illness and mentally challenging individuals. A study conducted in Malaysia showed that only 26.5% of respondents correctly answered half of the questions that required

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them to assess their knowledge of mental health issues. Respondents in this study generally subscribed to neutral attitude towards mental health issues [6].

The study conducted in Qatar revealed that poor knowledge of common mental illness seemed to prevail in the community; nearly 72.5 % of the respondents scored below the mean on knowledge questions; 84.7 % thought that substance abuse could result in mental illness, followed by traumatic events or shock that accounted for 83 %; 48 % believed mental illness could result from punishment by God. More than half (53.5 %) of the participants thought people with mental illness were dangerous. Only a minority thought people with mental illness could do regular jobs [7].

The most common symptoms proffered by respondents as manifestations of mental illness included aggressiveness/destructiveness (22%), talkativeness (21.2 %) and eccentric behaviour (16.1%). Drug misuse was identified as the major cause of mental disorder (34.4 %), followed by effects of divine wrath or God's will (18.8 %). The majority harboured negative feelings manifested by fear towards mentally challenging people [8].

One study conducted in Agaro town reported that 65 % of the respondents recognized the illness of persons by signs and symptoms. The most commonly identified signs and symptoms were unusual behaviour (60 %) and talking and laughing alone (46 %). From the vignette, 74% identified schizophrenia as a mental health problem. Most (55 %) of the respondents perceived that the cause of mental illness was poverty, followed by God's will accounting for 40% [9].

Despite the heavy burden of mental health problems, little is known about the knowledge and attitude of the public towards mental health problems. There is a paucity of studies in our country, also the available few studies were conducted before the year 2001 and addressed only the socio-demographic characteristics as associated factors. According to the authors, there were no published data relating to this topic in the specific study area. Therefore, the aim of this study was identifying the knowledge of the community about mental illness, illustrating their attitude and finding out factors associated among the residents of Gondar town, northwest Ethiopia.

METHODS

This cross-sectional quantitative study was triangulated with qualitative components noted in Gondar town, which had an estimated 218,464 inhabitants in 12 kebeles in April 2011. Females constituted 52.6% of the total population. One government teaching referral hospital provided outpatient psychiatry services. People aged eighteen years and above and permanently lived in the town were the source population.

The single population proportion formula was used to calculate the sample size with the assumption of 50% proportion, 95% confidence interval, 5% margin of error, a design effect of 2 and 15% non-response rate. Thus, 883 participants were recruited. The multi-stage sampling technique was used, and six of the 12 kebeles were selected by the lottery method. Then, households from each kebele were selected by using the systematic random sampling technique based on the proportion of households in the kebeles, and one adult in each household was interviewed.

In the structured questionnaire which included socio-demographic characteristics, about thirteen knowledge and seventeen attitude questions were asked by using the Likart scale. It also included case vignettes which fulfilled the diagnostic and statistical manual fourth edition –text revised (DSM IV- TR) criteria. To assess public knowledge, the mean was taken as the cut-off point. To say a person had fa-

vourable attitude, a positive response for 70% of the attitude questions was taken as the cut off point [9].

The data were collected by six clinical nurses for 18 days. To assure the quality of the data, collectors were trained for two days; the questionnaire was pre-tested on 5% of the sample size in a nearby town (Bahrdar) which had similar socio-demographic characteristics with the study population, and some modifications were made. The collected data were checked daily for completeness and relevance. Four FGDs were conducted with key informants, like health professionals, religious leaders and local FM radio journalists.

The data were coded, entered, cleaned and analyzed by using SPSS version 16. Descriptive statistics were calculated to check the magnitude of knowledge and attitude. Chi-square and multivariate binary logistic regression were computed and P-value<0.05 was taken as statistically significant. Thematic analysis was used to examine and interpret the qualitative data.

A total of 28 focus group participants were purposively selected from religious institutions, health centres and Gondar FM radio station and participated in three FGDs. The prime purpose of the FGD was to supplement the data generated by the quantitative survey and to answer questions on knowledge and attitude of respectable persons who could influence the knowledge and attitude of the community.

Ethical consideration: Ethical clearance was obtained from the University of Gondar Ethical Clearance Committee and written permission from kebele administrations. After explaining the purpose of the study, respondents were requested to participate voluntarily. Confidentiality was maintained for all information provided by omitting personal identifiers. When we met mentally challenging persons during data collection, we advised and facilitated conditions for treatment in coordination with Gondar University hospital.

RESULTS

A total of 864 participants were interviewed with a response rate of 97.8%. The majority, 569(65.9%) were female; the median age was 30.5 years with range=62; 318(36.8%) were housewives with secondary school (grades 9-12) educational status; 769 (89%) were Amhara and 634(73.4%) Orthodox Christian. About 109(12.6%) and 69(8%) of the respondents reported their personal and family experience of mental illness for the last 12 months, respectively (**Table 1**).

A large number, 731(84.6%), of the participants heard about mental illness, and the main source of information for 408(47.2%) was the mass media;161 (18.6%) saw mentally challenging persons in the streets. The most commonly identified signs and symptoms of 627 (72.6%) of the affected were said to be convulsion;527(61%) talked alone; 512(59.3%) neglected themselves and 473(54.7%) aggressed. Suicidal attempt, the least perceived symptom, was made by 169(19.6%). (**Figure 1**).

Table 1: Distribution of respondents by their socio-demographic characteristics (n=864) Gondar town, northwest Ethiopia, 2011

Variable	Frequency	Percent (%)
Age in years		
≤24	244	28.2
25-29	149	17.2
30-34	97	11.2
35-39	112	13
40-44	73	8.4
≥ 45	189	21.9
Sex		
Male	295	34.1
Female	569	65.9
Marital status		
Single	329	38.1
Married	389	45
Separated	56	6.5
Divorced	18	2.1
Widowed/widower	72	8.3
Religion		
Orthodox	634	73.4
Muslim	205	27.7
Protestant	12	1.4
Catholic	11	1.3
Others	2	0.2
Ethnicity		
Amhara	769	89
Tigre	80	9.3
Oromo	15	1.7
Educational level		
No formal education	137	15.9
Grade1-4	85	9.8
Grade5-8	141	16.3
Grade9-12	318	36.8
Diploma	149	17.2
Degree and above	34	3.9
Occupation		
Governmental em-	102	11.8
ployed	138	16
Private employed	157	18.2
Merchant	318	36.8
House wives	59	6.8
Unemployed	78	9.0
Student	12	1.4
Others		
Monthly income	557	64.4
Low income	307	35.6
High income		

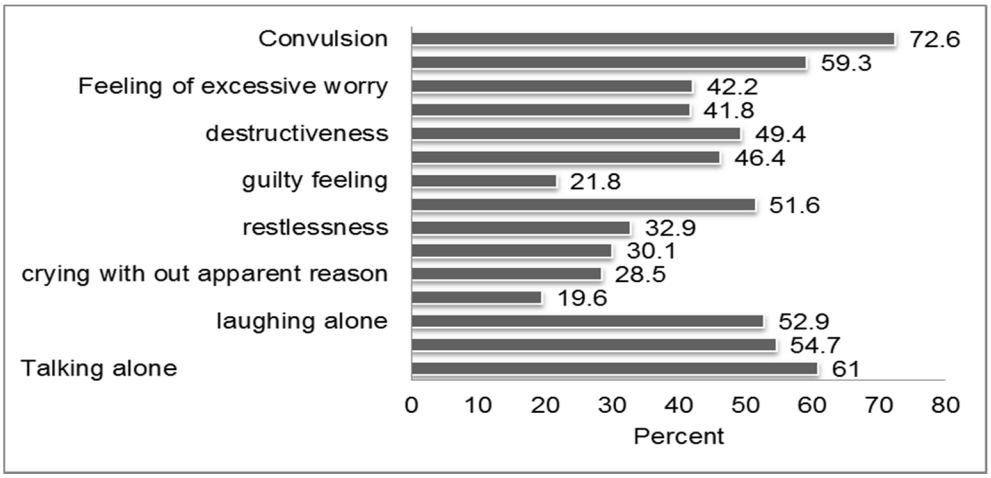

Figure 1: *Perceived symptoms of mental h ealth problems (n=864), Gondar town, April 2011.*

In the focus group discussions, the majority of the key informants mentioned only overt psychotic symptoms, like talking alone, laughing alone, restlessness, aggression, destructiveness, shouting and less wondering.

Substance abuse, stress in daily life, possession by evil spirit and head injury were the causes of mental illness for 728 (84.3%), 662 (72%), 566(65.5%) and 559 (64.7%) of the victims. The qualitative data showed that religious leaders believed that refusing to follow God's rules and demon possession were other common causes.

A 43 years old religious leader says, "When a person is separated from God, there is one part that becomes disturbed; after that the person fails to control themselves."

Epilepsy and schizophrenia were mentioned as mental health problems by 670(77.5%) and 598(69.3%) of the participants, respectively, as shown in Figure 2.

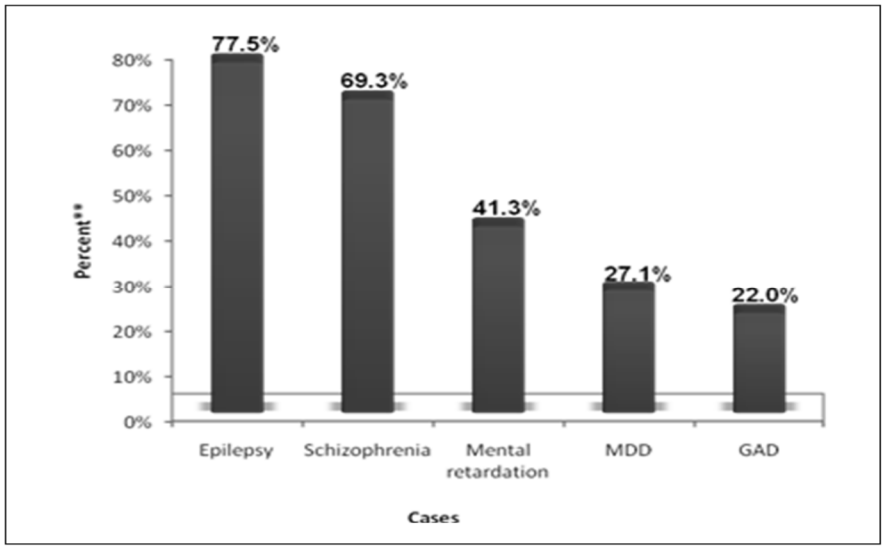

Figure 2: *Perceived cases from the vignette (N=864), Gondar town, April 2011*

The majority, 624 (72.2%), knew mental illness could be successfully treated with medication, but only 217(25.1%) were aware of the availability of modern mental health services in the town; a large number, 755(87.4%), believed that mental illness was contagious, and 602(69.7%) supposed that all psychiatric medications caused addiction.

In the case vignette, schizophrenia was perceived as the most serious illness by 348(40.3%) of the respondents, but the major depressive disorder (MDD) was perceived as the least serious type of mental health problem; only 36(4.2%) perceived MDD as a serious illness.

By using the mean score as the cut-off point for all knowledge questions, more than half of the participants,562(65%),had good knowledge with a 95 % CI. The majority of the respondents (72.6%)showed negative attitude towards mentally challenging people as they believed that the latter were dangerous, and (62.2%)afraid to have conversation with such people. Only 233(27%) thought mentally challenging people could work at regular jobs, and only 199 (23%) were willing to marry someone who had mental illness. In general, 87.6% [95% CI (86.2% - 89.7%)]of the respondents had unfavourable attitude towards mental illness and mentally challenging individuals. The thematic analysis of the qualitative data also showed similar results that the majority of the FGD participants had negative attitude towards mentally ill persons indicated by fright to have conversation and not willing to live or work with them, in addition to believing that mentally ill people were dangerous for themselves and others.

A 28 year old journalist said, “Because I didn’t know when the symptoms would return, I was not willing to marry or allow my family members to marry someone with mental illness even if they didn’t show any signs.”

In the multivariate analysis, respondents aged 18-24 years were found two fold more knowledgeable than respondents aged 45 years and above, with the odds ratio [AOR=1.91, 95% CI (1.20-3.05)]. Respondents who had information from the mass media were also found more knowledgeable than their counterparts [AOR=1.39, 95%CI (1.03-1.88)]. Those who had mental health information from religious institutions were less likely to have good knowledge [AOR=0.55, 95% CI(0.36-0.86)](Table 2).

As shown in Table 3, people between 35 and 44 years of age and had good knowledge were found to have favourable attitude towards mental illness with the odds of [AOR=2.5,95% CI(1.17-5.71)] and [AOR=1.94,95% CI(1.14-3.29)], respectively.

Table 2: Factors influencing knowledge of mental illness (n=864) Gondar town, April 2011

Variable	Knowledge		Crude OR (95%CI)	Adjusted OR(95%CI)
	Good Knowledge	Poor knowledge		
Age				
Less than or equal to 24	184	60	2.45(1.63-3.69)*	**1.91(1.20-3.05)***
25-34	164	82	1.58(1.01-2.47)*	1.39(0.91-2.14)
35-44	109	76	1.14(0.76-1.73)	1.16(0.69-1.64)
Greater than or equal to 45(RC)	105	84	1.00	1.00
Educational level				
Illiterate (RC)	78	59	1.00	1.00
Elementary school	128	98	0.98(0.64-1.51)	0.85(0.54-1.33)
high school	223	95	1.77(1.17-2.69)*	1.22(0.76-1.97)
Diploma & above	133	50	2.01(1.26-3.21)*	1.38(0.82-2.32)
Source of information				
Mass medias				
No	270	186	1.00	1.00
Yes	292	116	1.73(1.30-2.31)*	**1.39(1.03-1.88)***
Health institution				
No (RC)	483	269	1.00	1.00
Yes	79	33	1.33(0.86-2.05)	1.64(0.93-2.90)
Religious institution				
No	506	253	1.00	1.00
Yes	56	49	0.57(0.37-0.86)*	**0.55(0.36-0.86)***
Previous history of mental illness				
No(RC)	501	254	1.00	1.00
Yes	61	48	0.64(0.43-0.97)*	0.77(0.48-1.24)
Family history of mental illness				
No(RC)	527	268	1.00	1.00
Yes	35	34	0.52(0.31-0.85)*	0.71(0.39-1.26)

RC-reference category **-P value<0.05*

Table 3: Factors influencing attitude towards mental illness and mentally challenging persons (n=864), Gondar town, April 2011

Variable	Attitude		Crude OR(95%CI)	Adjusted OR(95%CI)
	Favourable	Unfavourable		
Age				
Less than or equal to 24	41	203	3.61(1.76-7.42)*	1.89(0.86-4.18)
25-34	28	218	2.29(1.08-4.86)*	1.47(0.66-3.28)
35-44	28	157	3.19(1.50-6.78)*	**2.75(1.26-5.99)***
Greater than or equal to 45(RC)	10	179	1.00	1.00
Educational level				
Illiterate (RC)	8	129	1.00	1.00
Elementary school	16	110	1.22(0.51-2.95)	0.99(0.40-2.44)
High school	51	267	3.08(1.42-6.68)*	2.19(0.94-5.12)
Diploma and above	32	151	3.42(1.52-7.68)*	2.32(0.96-5.99)
Sources of information				
Mass media				
No (RC)	43	413	1.00	1.00
Yes	64	344	1.79(1.18-2.69)*	0.99(0.50-1.96)
Monthly income				
Low (RC)	56	501	1.00	1.00
High	51	256	1.78(1.18-2.68)	1.57(0.80-3.09)
Knowledge				
Poor Knowledge (RC)	20	282	1.00	1.00
Good Knowledge	87	475	2.58(1.55-4.29)*	**2.31(1.36-3.91)***

RC-reference category **-P value<0.05*

DISCUSSION

A large proportion of the participants heard about mental illness, and most of them (47.2%) from the mass Media. The result is greater than that of a study conducted in Qatar (32%), but less than that of a study in Germany (64.2%) [7, 10]. Most respondents recognized only convulsion and overt psychotic symptoms, such as talking alone, self-neglect and aggression, supported by the result of the FGD in which most participants perceived similar symptoms as manifestations of mental illness. That could be due to lack of health information on the symptoms of the problems. This finding is in agreement with that of Agaro and Butajira studies [9, 11].

A person with epilepsy was labelled as suffering from mental illness by 77.5% of the respondents, while schizophrenia was considered as such by 69.3%. However, MDD was recognized as mental health problems by only 27.1 %. This could be due to the more subjective features of the illness. This result is in harmony with that of a study conducted in the

UK and Agaro town [9, 12].

In this study, a significant number of people implicated multiple causes, including substance abuse, stress in daily life and possession by evil spirit, unlike other studies in Ethiopia which put supernatural powers as the main causes of mental health problems [9, 11]. A large proportion, 755 (87.4%), thought that mental illness was contagious. The result was also supported by the qualitative data.

Even though a large number of respondents knew the importance of modern medicine, only a few knew the presence of mental health services in the town, which was in line with the finding of a study conducted in Malaysia, where 72.2% didn't seek any help for their problem because they didn't know where to go[6].

After a listening case, vignettes schizophrenia was labelled as the most serious illness, while MDD was perceived as a less serious problem, which is in line with the Agaro study [9].

In general, more than half of the respondents scored above the mean on knowledge questions. The result was dissimilar to that of a study conducted in Qatar and found that 72.5 % of the respondents scored below the mean on knowledge questions [7].

This result also differed from the findings of studies conducted in Malaysia, where only 26.5% of the respondents correct by answered half of the knowledge questions. The differences were because of different cut-off points used [6, 12]. Our result could not be compared with others because the other studies reported the results for different knowledge questions separately, not together with knowledge in general.
Respondents in the younger age group and had mental health information had good knowledge about mental health problems. A similar result was noted in the study conducted in Bahir Dar [13].

Although a large proportion of the study population accepted that people with mental illness could live in communities, only 27% thought that mentally challenging people could work in regular jobs. This could be due to the belief that mentally challenging people were no more functional. This was in contrast to the result of a study conducted in Agaro [9]. Nearly half of the respondents were uncomfortable to work with persons who had mental health problems. This could be so because respondents thought hat mentally challenging people were violent. The study conducted in Bahir Dar also revealed a similar result that only 23.1 % were comfortable to work with mentally challenging individuals[13]

A large proportion (73%) of the participants were against a close relative's marrying such a person, and only 23% of them were willing to marry a person with mental illness. It could be due to the fear of transmission to offspring and thought that they couldn't manage families. Another explanation would be social stigma due to being married to such people. Similar results were found by studies conducted in Canada and Nigeria [14]. Our result differed from the result of a study conducted in Agaro and reported a favourable attitude towards marital prospects [9].

More than half of the respondents thought that mentally challenging people were dangerous, and almost a similar number of participants reported that they were afraid to have conversations with them. Our finding is in broad agreement with observations made by other studies in different countries, like Nigeria, and showed that 82.2% of the participants were afraid to have conversation with mentally ill persons. In a study conducted in Qatar, 53.3% of the subjects were afraid to talk to such individuals [14, 15].

Despite their good knowledge, a large number of

respondents had negative attitude towards mentally challenging people. This discrepancy could be due to the disinhibited and disturbing nature of the symptoms of mental health problems, widely identified by the participants. The other explanation could be the thought that possession by evil spirits was one cause of mental health problems. It could also be due to the fear of being infected, since most believed that mental illness was contagious. This result was also supported by the result of the FGD and a study conducted in Qatar [7].

Young people with good knowledge about mental illness were found significantly and positively associated with the attitude of respondents. This was in harmony with the results of studies conducted in Malaysia, the UK and Bahir Dar [6, 12, and 13].

The attitude of the community towards mental illness, its treatment and mentally challenging individuals could affect the health seeking tendency of the community for mental illness. Therefore, changing public attitude is vital to enhance health seeking tendencies for mental illness and to improve the quality of life of mentally challenging individuals. Policy makers should formulate strategies for changing public attitude towards mental illness.

The study attempted to assess the knowledge and attitude of the community towards mental illness and mentally challenging persons in general. The knowledge and attitude of the community was influenced by mental health problems, which had overt and visible symptoms, so the result was affected by this methodological limitation.

CONCLUSION

This study demonstrated that the majority of the community had good knowledge about mental illness, but the knowledge was influenced by awareness about the symptoms and causes of mental health problems which were manifested by overt psychotic symptoms. Despite good knowledge, public attitude towards mental illness and mentally challenging people was negative. Knowledge was positively influenced by young age and mental health information from health institutions. Youth, mental health information from health institution and good knowledge were significantly associated with public attitudes towards mental illness and mentally challenging people. To change the attitude of the community, educating people about mental health problems by using the mass media will be vital. We recommend future researchers examine the knowledge and attitude of communities towards specific types of mental health problems.

Competing interest: No competing interests

Authors' contribution: HM initiated and design the study, participated in the field work, performed the statistical analyse, and drafting the manuscript. EM conceived of the study, and participated in its design and coordination and helped to draft the manuscript. HS conceived of the study, and participated in its design and coordination. All authors read and approved the final manuscript.

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REFERENCES

1. World Bank, Development report inventory on health, *oxford university press,* New York; 1999.
2. Prince M, Patel V, Saxena S, et al. *Global mental health 1, no health without mental health.*

Lancet. 2007; 370:859-877.

3. WHO, mental health care in developing countries; a critical appraisal in research findings, *technical report series 698*, WHO, Geneva.1994
4. Desjardins R, Eisenburg L: a world mental health problem and properties in low income countries; *oxford university press*, oxford Inc, 1995.
5. Abdullah H, Kebede D, hailemariam D: burden of disease in Butajira, southern Ethiopia; *Ethiopian medical journal* 2001; 39(4) 271-281.
6. World Health Organization *World Health Report – Mental Health: New Understanding, New Hope*. *2001* Geneva: World Health Organization.
7. Yeap R, Low W Y. Mental health knowledge, attitude and help seeking tendency; a Malaysian context; *Singapore med. journal* 2009:50 (12):1169-1176.
8. Suhaila.G. Abdulbari B: epidemiological survey of Knowledge, attitude and health literacy concerning mental illness in a national community sample: a global burden journal of primary care and community health 2010, 1(2) 111-118.
9. Mohammed K, Zubair I. et al. perception and belief about mental illness among adults in Karif village; *BMC international health and human rights* 2004 4(3).
10. Deribew A. Awareness and attitude towards common mental health problems, Agaro town south western Ethiopia; *Ethiopian journal of health sci.*2005 15(1)1-21.
11. Hillert, A., Sandmann, J., Ehmig, S. C., *et al* The general public's cognitive and emotional perception of mental illnesses: an alternative to attitude -research. In *The Image of Madness: The Public Facing Mental Illness and Psychiatric Treatment 1999*; 56-71.
12. Alem A, Jacobson, Araya M, Kebede D, Kullgren GH. How are mental disorders seen and where is help sought in rural Ethiopian community? *Acta Psychiatr Scand.* 1999; 100:40-47.
13. Wolff, G., Pathare, S., Craig, T., *et al*. Community knowledge of mental illness and reaction to mentally challenging people. *British Journal of Psychiatry*, 1996, 168; 191-198. [med line].
14. Samuel M. Perception of mental and physical illness in north western Ethiopia, causes, treatment, and attitude. *J Health Psychol*. 1999; 4:531-549.
15. Mike N. stigma of mental illness: shocking survey from Canada-US likely the same; *Canadian medical association* 2008. 8; 38-45
16. Mohammed K, Zubair I. et al. perception and belief about mental illness among adults in karifi village; *BMC international health and human rights* 2004 4(3).
17. Oye G, Victor O, et al. community study of knowledge and attitude to mental illness in Nigeria; *British journal of psychiatry* 2005 186:436 -441.