International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Barriers to Mental Health Services Utilization

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Abstract

Background

The use of health services is defined as the process of seeking professional healthcare and submitting oneself to the application of regular health services with the purpose to prevent or treat health problem .Person suffering from mental illness usually face different barriers . Theproblem of underutilization of mental health services may be due to: (1) barriers to initiation of mental health services and (2) barriers to persistence in treatment once it is sought. People with a number of unmet needs are likely to experience poor quality of life as well. Any mentalhealth service that aims to improve the quality of life of patients' needs to actively assess for these factors as early recognition can help in optimizing planning of treatment and implementation of care ensuring effectiveness of psychiatric care. It also plays a critical role in mental health rehabilitation Such an identification could lead to implementation of targetedstigma reduction strategies in addition to regular management plan.

Methodology

A cross sectional study was performed in Mental Hospital, Lalitpur, Nepal. Peoplesuffering from mental illness who fulfilled the inclusion criteria were recruited andBACE scale was administered along with relevant details of participants .

Results

Most of the participants were from Bagmati Province (65.1%, n=192) whereas least participationwas from Sudurpaschim Province (2.1%, n=6). The mean age of participants was 35 years with majority belonging to the age group of 26-35 years (37.3%, n=109). The participation of males (54.5%, n=159) was greater than that of females (45.5%, n=133). The participation of divorced andwidow/er was very less (2.4%, n=7) compared to those who were married (71.2%, n=208) or
unmarried (26.4%, n=77). A vast majority were Hindus (77.4, n=226) followed by Buddhist (12%,N=35 and Christians (9.6%, n=28) and others (1%,n=3). Majority of the participants had completed their higher secondary (38.4%, n=112) and secondary (19.5%, n=57) educationfollowed by no formal education (13.4%,n=39) and those with post graduate education and above(1.7% ,n=5). Regarding occupation, the number of unemployed (36.6%, n=107) was highest followed by service holders (17.8%, n=52), others (16.1%, n=47),farmer (15.8%,n=46) and business owners (13.7%, n=40) respectively. Socioeconomic status was measured using Kuppuswamy scale and it was found that most of the participants belonged to middle (63.4%, n=185) followed by upper (22.6%, n=66) and lower (14%, n=41) socioeconomic status.
Among the patient reported barriers related to stigma ,the most reported concern was " concerned that I might be seen as weak for having a mental health problem "(33.6 %),followedby "concern that I might be seen as crazy " (26.4%) ,followed by "Concern that my children may be taken into care or that I may lose access or custody without my agreement " (22.6%) and " feeling embarrassed or ashamed " (21.6 %) . Among the reported instrumental barriers in BACE scale , "having no one who could help me get professional care (18.2)" was the mostreported major barrier followed by " being unsure where to get

professional care "(17.8)" followed by being too unwell to ask for help " (14.4%). Among the different attitudinal components in BACE scale "wanting to solve problem on my own" (21.9%) was the most reported barrier followed by "dislikes of talking about my feelings, emotions or thought "(19.5%) and "thinking that I don't have problem"(17.8%).

Conclusion

Thus, it can be concluded that people people suffering from mental illness also experiencedifferent barriers during help seeking . This barriers is found more on people below 45 years of age and people with low socio economic status . This barriers influences the quality of life in terms of decline in physical health and environment.

Introduction

Health is a state of complete physical, mental and social well-being and not merely the absenceof disease or infirmity. The use of health services is defined as the process of seeking professional healthcare and submitting oneself to the application of regular health services withthe purpose to prevent or treat health problem, Terms such as access, availability, utilization and coverage have often been used interchangeably to reveal whether people are receiving the services, they need. Access is a broad term with varied dimensions: the comprehensive measurement of access requires a systematic assessment of the physical, economic, and socio-psychological aspects of people's ability to make use of health services. Availability is an aspect of comprehensiveness and refers to the physical presence or delivery of services that meet a minimum standard. Utilization is often defined as the quantity of health care services used. Coverage of interventions is defined as the proportion of people who receive a specific intervention or service among those who need it. The content of health services will differ fromone country to another but network of service delivery should have characteristics of comprehensiveness, accessibility, coverage, continuity, quality, personal centeredness, coordination ,accountability and efficiency .[1]

World health organization definition of health has stressed mental health as an important component, "Mental health is defined as a state of wellbeing in which every individual realizeshis or her own potential, can cope with the normal stress of life, can work productively and fruitfully, and is able to make a contribution to her or his community".[2] Mental disorders are of immense public health concern and they are leading cause of non-communicable disease burden around the world and this disease burden is expected to rise to 15 % by 2030 (Murrayet.al, 2012)[3].

After cardiovascular disease, Mental disorders are the major cause of disability, mentaldisorders account for approximately 33% of time lost to disability. Life time prevalence of mental disorder among adult worldwide excluding neurological condition affecting the brain ranges from 12.2% to 48.6%.[4] Despite of this fact; mental health services are often underutilized.

The problem of underutilization of mental health services may be due to: (1) barriers to initiation of mental health services and (2) barriers to persistence in treatment once it is sought.[5]Barriers to help seeking may be of various types, Cognitive barriers to seeking mental healthservices involves culturally informed conceptions of mental illness.[5] Cognitive barriers includetopics such as communication, language and health literacy.[6] Even after a problem is cognitively defined as psychological, culturally based affective responses may act as barriers in seeking help and these are defined as affective barriers. Value orientation barriers are culturalvalue orientations that govern norms for emotional management and communication that are highly relevant to mental health treatment.

Physical barriers include factors that may not be related to culture as much as to social class—the client's

lack of awareness about available services and their inability to access services dueto economic and geographic realities (e.g., having to work two jobs, unable to get time off to seek services, unmanageable distance to facility, lack of transportation, etc.).[5] The major barriers in accessing and receiving care are relevant to the knowledge and attitude related barriers, In the pilot study of national mental health survey it was found that about 79.8% of the participants who did not receive treatment did so because they wanted to solve their problem on their own.

The prevalence and disease burden of mental illness are high globally, Person with severe andpersistent mental illness have multiple and complex needs which are beyond the traditional mental health services. Assessment of patient severity and their problems in daily life is essential. People with a number of unmet needs are likely to experience poor quality of life aswell. Any mental health service that aims to improve the quality of life of patients' needs to actively assess for these factors as early recognition can help in optimizing planning of treatment and implementation of care ensuring effectiveness of psychiatric care. It also playsa critical role in mental health rehabilitation.

About 76% and 85% of people with severe mental disorder in low and middle income countriesreceive no treatment.[7] The magnitude, suffering and burden of disability due to Mental disorders and the cost of care and impact on individuals, families and societies due to mental disorders are staggering in any developing countries including Nepal.

Although efficacious treatment is available there is minimal utilization of mental health services.[8] Different models for help seeking behaviors suggest that individual progress throughdifferent stages before seeking help. These stages include experiencing symptoms, evaluatingthe severity and consequences of the symptoms, assessing whether treatment is required, assessing the feasibility of and options for treatment, and deciding whether to seek treatment[9]

. These barriers are broadly divided into individual attitudinal factors and system level factors.Attitudinal barriers include belief about and attitude towards mental illness and treatment, wishes to solve the problem on their own and thought that problem would go away, fear of stigmatization, feeling ashamed and embarrassed .[8,10] In addition structural barriers include lack of time , financial resource problem and unavailability of treatment.[10]

Many people with mental disorder struggle with their symptoms and disabilities and in additionthey are challenged by stereotypes and prejudice that result from misconceptions about mentalillness. As a result, their opportunity that defines a good quality of life including good job ,safehousing and satisfactory health care are compromised.[10] Delay in service utilization poses riskto the individual health whose social interactions deteriorates until they become too ill to seekhelp resulting in adverse pathway of care such as emergency services, social services or via theCriminal justice system.[11] Although study have been done in other countries in Nepal very fewstudies have been conducted to find out barriers of mental health services. In mental hospital patients from all over the country seek help and they share many similar religious, cultural myths and values. Understanding the different types of barriers for seeking mental health service will help out in developing different policies and plan for betterment of mental health service utilization. Much work is needed to understand the barriers of mental health service utilization in our country to reduce the unmet need for treatment and it is crucial to identify barriers in mental health to reduce adverse effects associated with the absence or postponementof timely treatment.

Literature review

In a qualitative study done by Izibeloko et al [12] among service users attending outpatient clinicof Rumingo

Neuropsychiatry hospital,10 care giver and 10 clients were interviewed by using a semi structured interview guided open ended questions developed by authors which reflectedupon their experiences, onset of disorder, the difficulties, challenges of accessing service, sustaining treatment barriers and their perception of mental health services. Results were presented in two categories; sociodemographic and thematic analysis. In sociodemographic analysis 60 % were with mean age of 37.7%,40% were unemployed ,15% had a regular income,10% were tertiary level students and 65% lived in rural area, Thematic analysis showedmany factors such as barriers, mostly physical, which included poor knowledge of mental health service, centralized health services and prolonged waiting time. In addition cultural barriers including stigma/discrimination, feeling of shame and financial barriers including travel distance, high cost of service and loss of productive income were also present.

A cross sectional survey conducted by Sara H. Ali et al. [13] using mixed qualitative and quantitative research methods in which 103 carers and 6 psychiatrists participated ,47% of respondents were male,53% were female ,73% were married,27% were unmarried including single, divorced and widows,18.4% of respondents were between age 30-40 years ,56.6% wereabove 40 years. 36% lacked any education and majority of participants said that their patientssought other types of treatment and consulting religious healers was the main alternative. Theyfound stigma and finance as major barriers .Number of psychiatric hospital were not sufficientand there was poor staff motivation along with migration of staff to other countries, they suggested mobilization of health services to rural area, establishment of psychiatric departments in general hospital and providing incentives for doctors to increase the utilizationof mental health services.

In a study in Chitwan district of Nepal conducted by Nagendra P.Luitel [14] to assess the treatment gap among adults with depressive disorder and alcohol use disorder, barriers to carewere assessed with the Barriers to Access to Care Evaluation (BACE) scale. For depressive disorder, the individual item proportion for expressing “any degree of barriers “ranged from 55%-92.8% and for alcohol use disorders it ranged from 45.2%-96.5%, The five most reportedbarriers for depressive disorder were not being able to afford the financial cost (22.5%), concern that I might be seen as “crazy” (11.0%), dislikes of talking about own feelings, emotions or thoughts (10.7%), concern that I might be seen as weak for having mental health problem (9.9%) and no one could help me get mental health care (8.3%). Major barriers for Alcohol use disorders (AUD) were not being able to afford the financial cost (22.5%), concernthat I might be seen crazy (12.2%), being unsure where to get mental health care 13.1%), harmfor applying for jobs (10.9%), concern of being seen as weak (10.3%), Treatment gap for bothdisorders was very high 91.5%-94.9%.

A MIRIAD (mental illness related investigation on discrimination) conducted by Dockery et.al.[11] was a large cross-sectional study MIRIAD of 202 individuals using secondary mental healthservices and 8 care givers were done using BACE scale stigma and non-stigma related barrierswere identified which shows female service user were more likely to develop stigma related treatment barriers compare to male service users, service users with diagnosis of Schizophreniaspectrum disorder were more likely to develop stigma related treatment barriers compared with diagnosis of bipolar disorder. 83.2% service user reported delaying treatment seeking due to concern that seeking mental health care will harm their chances and delayed treatment was more common in men.

A cross sectional study conducted by Adalberto et.al[15].using BACE ,to assess barriers to mentalHealth service among Colombian outpatient in which 247 patient had participated with age between 18-22 years, showed that 27.9% of the sample had major attitudinal barriers ,25.1% had major barriers related to stigma and discrimination and 16.6% had major instrumental barriers.

A cross sectional study conducted by Bawo.O.James[16] at the outpatient clinic of the federal Neuropsychiatry hospital, Nigeria to determine. barriers to care among people with Schizophrenia using BACE scale showed lack of insight, preference for alternative care, illness severity and financial constrains to be the common barriers to care among the patient with Schizophrenia. Study participants consisted of consecutive sample of 161 patient and 161Caregivers in which average age of patient was 36.5 years with the majority in 31-40 years age range , and were mostly male and Christian. The stigma most commonly endorsed were "feeling embraced or ashamed "(12.4%)," concern that I might be seen as crazy " (9.3%), concern about what my friends might think, say or do "(7.5%) .Common attitudinal barriers endorsed were "thinking that I don't have problem "(37.3%)," preference to get alternative form of care "(20.5%). Instrumental barriers commonly endorsed were "being too unwell to ask for help (23.6 %)," and problem with transport and travelling to appointments "(18.6%).

A cross sectional study conducted by Laxmi Kasam et.al[17] that included 100 participants in two medical college using BACE to assess the reason for not seeking mental health services found that 26% participants did not seek any kind of mental health care ,51% sought informalhelp and only 18% participant sought professional help. The most common stigma related barrier was the concern that they may be seen as crazy, if people found that they were using professional help, the most commonly rated attitudinal barrier was wanting to solve the problem on their own. The most anticipated barrier among instrumental barrier item was difficulty taking time off work.

In a cross sectional done by Bustamante et.al[18] in a sample of Bolivian migrants in Brazil to examine the association between barriers of care and presence of symptoms of non-psychotic psychiatric disorder by using self-reporting questionnaire (SHQ) and BACE in which 104 individuals were enrolled , the mean BACE total score was 29.39%, the mean Stigma subscalewas 10.35 ,mean sub score in BACE structural barriers was 11.74 and mean Sub score in attitudinal barriers subscale was 6.90. There was positive correlation between SRQ score andtotal BACE score, indicating that the individual reporting more barriers to care also present a higher prevalence of psychiatric symptoms.

Objectives

General Objective

1) To find out the barriers to mental health service utilization in patient attending OPDservices at Mental hospital.

Specific Objectives

1) To find out the different types of barriers (treatment stigma, attitudinal barrier,instrumental barrier) by using BACE scale.
2) To find out the association of socio-demographic factors with identified barriers.
3) To find out associations of type of mental disorder with identified barriers.

Methodology

Type of study: Cross sectional study

Place of study: Mental Hospital, Lalitpur, Nepal (Outpatient)

Study duration: 6 months

Sample size: Sample size was calculated by using following formula ,where prevalence ofmaximum barrier was taken from recent similar study by Adalberto Campo-Arias et.al .[15]

Z= 1.96 at 95% confidence level

P= 27.9%

q= 100 – p = 72.1%

d= 5% (maximum tolerable error)
$N= z^2pq / d^2$
$= (1.96)^2 (27.9) (72.1) / 5^2$
= 309
Sampling: Non-probability, convenience sampling

Inclusion Criteria:

1. Participants should be Nepali citizen and should at least be able to read and understandNepali Language
2. Aged 18 years or older
3. Having total duration of illness of more than 1 year , able to give consent and interested involuntary participation for study
4. Clinically stable to use the BACE scale

Exclusion criteria:

1. Diagnosed with dementia, intellectual disabilities and others disorders affecting cognitiveabilities.
2. Medical and other comorbidities known to be associated with significant stigma and delay in treatment seeking.

Tools

The study was carried out on cross sectional basis in the Department of Psychiatry in MentalHospital at Lagankhel, over the period of six months. After obtaining informed consent, detailed clinical history, general and systemic examination of patients was done.

1. Pro Forma:

A semi structured questionnaire is developed to record socio-demographic and otherrelevant data of participants.

2. BACE Scale

BACE scale was developed and validated at the health services and population researchDepartment, Institute of psychiatry, Kings College, London.

BACE scale is designed to assess barriers to mental health care for people with mental healthproblems. It has 30 items and it includes barriers related to, and unrelated to, stigma and discrimination.

Respondent should indicate whether each item has ever stopped or delayed or discouragedhim/her from getting or continuing to get professional care for a mental problem.

BACE-III has a test reliability of 0.89 (chronbach's alpha) and "good construct validity" withthe SSRPH (r=0.30, p=0.001) and with the ISMI(r=0.40,p<0.001).

Translated and validated BACE scale in the Nepali language is available, which is used forthis study.

Data Collection

Data were collected after informed consent was taken from selected participants as per the inclusion and exclusion criteria.

Questionnaire was given to the participants and the process of completing it was explained. During the process of completing the questionnaire any queries regarding the clarity of the questions or methods were answered by the investigator but no suggestions towards answers to any questions were made.

Incompletely filled questionnaires were excluded from this studyand no follow ups regarding this study was done.

After collection of completely filled questionnaire the answers were converted into appropriatevariables and were entered into computer appropriately using SPSS. A master chart was prepared after collection of all the data and was attested to the final thesis.

Data analysis and statistical analysis:

Statistical analysis was done using computer software **SPSS** Statistical Analysis was done by using relevant statistical tests. A 95% confidence interval was taken & P value less than 0.05 was termed as statistically significant.

Ethical Considerations

Approval of the study was obtained from the Institutional Review Board (IRB) of NAMS. Participant were explained about the study, the procedure and its significance, consequences, the expected benefit to them & to the community. No data that could identify the participants or their care receivers were stored. A written informed consent indicating that the participant has understood all the information in the consent form and is willing to participate in the research was obtained from all the participants included in this study. They were assured of full confidentiality during & after thestudy period. Participants could withdraw from study at any time without giving any reason.

Results

A total of 310 questionnaires were collected during the study period out of which 18 (6%) werediscarded due to incomplete data. The remaining 292 were analyzed and the results are discussed in the following sections.

Sociodemographic characteristics

Characteristics of participants

Most of the participants were from Bagmati Province (65.1%, n=192) whereas least participation was from Sudurpaschim Province (2.1%, n=6). The mean age of participants was35 years with majority belonging to the age group of 26-35 years (37.3%, n=109). The participation of males (54.5%, n=159) was greater than that of females (45.5%, n=133). The participation of divorced and widow/er was very less (2.4%, n=7) compared to those who weremarried (71.2%, n=208) or unmarried (26.4%, n=77). A vast majority were Hindus (77.4, n=226) followed by Buddhist (12%,N=35 and Christians (9.6%, n=28) and others (1%,n=3).Majority of the participants had completed their higher secondary (38.4%, n=112) and secondary (19.5%, n=57) education followed by no formal education (13.4%,n=39) and thosewith post graduate education and above (1.7% ,n=5). Regarding occupation, the number of unemployed (36.6%, n=107) was highest followed by service holders (17.8%, n=52), others (16.1%, n=47),farmer (15.8%,n=46) and business owners (13.7%, n=40) respectively.Socioeconomic status was measured using Kuppuswamy scale and it was found that most of the participants belonged to middle (63.4%, n=185) followed by upper (22.6%, n=66) and lower (14%, n=41) socioeconomic status.

Table 1: Demographic characteristics of participants

		Frequency (n=292)	Mean	Percentage (%)	SD
Province number	1	20		6.8	
	2	36		12.3	
	Bagmati	190		65.1	
	Gandaki	23		7.9	
	Lumbini	10		3.4	
	karnali	7		2.4	
	Sudurpaschim	6		2.1	
Age			35		
Age group	18-25 years	62		21.2	
	26-35 years	109		37.3	
	36-45 years	67		22.9	
	46-55 years	32		11	
	>55	22		7.5	
Sex	Male	159		54.5	
	Female	133		45.5	
Marital status	Married	208		71.2	
	Unmarried	77		26.4	
	Divorced/ Widow/er	7		2.4	
Religion	Hindu	226		77.4	
	Buddhist	35		12	
	Christian	28		9.6	
	Others	3		1	
Completed education	No formal education	39		13.4	
	Below primary	22		7.5	
	Primary	32		11	
	Secondary	57		19.5	
	Higher secondary	112		38.4	
	Undergraduate	25		8.6	
	Postgraduate & above	5		1 7	

Table 2: Social characteristics of participants

		Frequency (n=292)	Mean Percentage (%)	SD
Occupation	Business	40	13.7	
	Service	52	17.8	
	Farmer	46	15.8	
	Others	47	16.1	
	Unemployed	107	36.6	
Socioeconomic status (Kuppuswamy)	Lower	41	14	
	Middle	185	63.4	
	Upper	66	22.6	

Characteristics of care receivers/patients

The total duration of their illness was in the range of 1 year to 28 years (mean 6.92±5.73 years). Most of them were suffering from Schizophrenia; Schizotypal and delusional disorders(32.5%, n=95) followed by Neurotic; stress related and somatoform disorders (31.8%, n=91),Mood disorders (22.9%, n=67), Mental and behavioral disorders due to psychoactive substance use (10.6%, n=31) and others (2.1%, n=6). History of any psychiatric hospitalization was present in 32.5% (n=95) patients. 8.6% (n=25) had attempted suicide during their lifetime.

Table 3: Characteristics of care receivers/ patients

		Frequency (n=292)	Mean	Percentage (%)	SD
ICD 10 diagnostic category	F10-F19	31		10.6	
	F20-F29	95		32.5	
	F30-F39	67		22.9	
	F40-F48	93		31.8	
	Others	6		2.1	
Psychiatric hospitalization ever	Yes	95		32.5	
	No	197		67.5	
Suicidal attempts Ever	Yes	25		8.6	
	No	267		91.4	

Table 4: Total Duration of Illness (TDI) of participants

TDI (years)	Frequency	Percent
1-2	57	19.5
2-4	71	24.3
4-6	56	19.2
6-8	29	9.9
8-10	30	10.3
>10	49	16.8
Total	292	100.0

BACE score

The mean barrier as measured by BACE scale was calculated to be 33.70 ± 16.42. The mean score of BACE according to the socio demographic profile and the different types of barriers in BACE scale is shown in table . Mean weighted score was calculated by dividing the mean score from the total number of items.

Mean total BACE score was high among lower socioeconomic status followed by middle andupper classes ,mean score of BACE in male was slightly higher then female, mean score of patient from lumbini province was 41, sudurpaschim province is 39, karnali 37 and least BACEscore was in province no (25) .Mean BACE score of patient with respect to religion was Hindu (34) ,Buddhist (35) and Christian (32). Total BACE score in separated /divorced patient was38, single patients was 36 and un married was 32, score across occupation was same for variousservices , viz farmers and others (35) , business (29)and unemployed 34 .

Attitudinal barrier score, stigma and instrumental mean barrier score was calculated accordingto different socio-demographic profile like sex, socioeconomic status, religion, province, occupation and marital status which is presented in the table below.

Table 5: BACE score and scores on its domains of participants

Demographics		Total BACE score	Attitudinal Barrier score	Stigma Barrier score	Instrumental Barrier score
		Mean	Mean	Mean	Mean
Socio-economic status (kuppuswamy)	Lower	40	14	13	7
	Middle	33	11	11	6
	Upper	31	10	11	5
Sex of respondents	Male	34	11	12	6
	Female	33	11	11	6
	Others	.	.	.	.
Province number	1	25	8	9	5
	2	31	10	10	5
	Bagmati	35	12	12	6
	Gandaki	32	11	11	5
	Lumbini	41	14	14	7
	Karnali	37	11	13	9
	Sudhur Paschim	39	14	13	7
Religion respondents	Hindu	34	11	12	6
	Buddhist	35	12	12	6
	Christian	32	10	12	5
	Others	29	9	8	4
Hospitalization ever	Yes	36	12	12	7
	No	33	11	11	5
Suicidal attempts ever	Yes	35	12	12	6
	No	34	11	12	6
Marital Status	Married	33	11	11	6
	Single	36	13	13	6
	Separated/ Divorced	38	11	12	9
Occupation	Business	29	10	11	5
	Services	35	12	13	6
	Farmer	35	12	12	6
	Others	35	12	11	6
	Unemployed	34	12	11	6

Stigma related barriers:

Among the patient reported barriers related to stigma ,the most reported concern was " concerned that I might be seen as weak for having a mental health problem "(33.6 %),followedby "concern that I might be seen as crazy " (26.4%) ,followed by "Concern that my children may be taken into care or that I may lose access or custody without my agreement " (22.6%) and " feeling embarrassed or ashamed " (21.6 %)

.Mean stigma related barrier score among male /female and religion was similar, It was higher in Lumbini, Karnali and Sudurpaschim province and lowest in province no.1 .

Table 6: Stigma related barriers items

Stigma related barrier items		Percentage of respondents reporting item (as a barrier) N (%)		Mean
		To some degree	As major barrier	
Feeling embarrassed or ashamed	(H9)	157 (53.8)	63 (21.6)	1.27 (0.44)
Concern that I might harm my chances when applying for jobs	(H5)	128 (43.8)	49 (16.8)	1.20 (0.41)
Concern that I might be seen as weak for having a mental health problem	(H3)	128 (44.2)	98 (33.6)	1.43 (0.49)
Concern about what my family might think, say, do or feel	(H8)	152 (52.1)	56 (19.2)	1.33 (0.47)
Not wanting a mental health problem to be on medical record	(H21)	111 (38)	34 (11.6)	1.25 (0.44)
Concern that I might be seen as crazy	(H12)	125 (61.9)	77 (26.4)	1.3 (0.48)
Concern that people might not take me seriously if they found out I was having professional care	(H19)	157 (53.8)	38 (13)	1.26 (0.44)
Concern about what people at work might think, say or do	(H28)	134 (45.9)	57 (19.5)	1.34 (0.48)
Concern about what my friends might think, say or do	(H26)	149 (51)	54 (18.5)	1.25 (0.43)
Concern that I might be seen as bad parents	(H14)	141 (48.3)	60 (20.5)	1.23 (0.43)
Concern that people I know might find out		152 (52.1)	45 (15.4)	1.3 (0.44)
Concern that my child might be taken into care		78 (26.4)	60 (26.7)	1.2 (0.41)

Stigma related barrier items

Instrumental barriers:

Among the reported instrumental barriers in BACE scale , “having no one who could help me get professional care (18.2)“ was the most reported major barrier followed by “ being unsure where to get professional care “(17.8)“ followed by being too unwell to ask for help “ (14.4%).

Table 7: Instrumental barrier items

Instrumental barrier items		Percentage of respondents reporting item (as a barrier) N (%)		Mean
		To some degree	As major barrier	
Not being able to afford the financial costs	(H11)	128 (43.8)	38 (13.0)	1.22 (0.42)
Being too unwell to ask for help	(H16)	115 (39.4)	42 (14.4)	1.25 (0.43)
Difficulty taking time off work/unsure where to get professional care	(H27)	126 (43.2)	28 (9.6)	1.16 (0.36)
Problems with transport/travel to appointments	(H6)	129 (44.2)	32 (11.0)	1.15 (0.36)
Having no one who could get me professional care	(H30)	120 (41.1)	53 (18.2)	1.3 (0.47)
Unavailability of professionals from my own ethnic or cultural group	(H15)	121 (41.4)	26 (8.9)	1.1 (0.39)
Being unsure where to go to get professional care	(H1)	155 (53.1)	52 (17.8)	1.2 (0.3)
Concern about what people at work might think, say or do		129 (44.2)	32 (11.0)	1.1 (0.35)

Attitudinal barrier:

Among the different attitudinal components in BACE scale "wanting to solve problem on my own" (21.9%) was the most reported barrier followed by "dislikes of talking about my feelings, emotions or thought "(19.5%) and "thinking that I don't have problem"(17.8%).

Table 8: Attitudinal barrier items

Attitudinal barrier items		Percentage of respondents reporting item (as a barrier) N (%)		Mean
		To any degree	As major barrier	
Dislike of talking about my feelings, emotions or thoughts	(H18)	161 (55.1)	57 (19.5)	1.26 (0.44)
Concern about treatment available (for example, medication side effects ...etc)	(H20)	147 (50.3)	39 (13.4)	1.26 (0.44)
Wanting to solve the problem on my own	(H2)	175 (59.9)	64 (21.9)	1.25 (0.44)
Thinking that professional care would not help	(H13)	129 (44.2)	19 (6.5)	1.13 (0.34)
Fear of being put in hospital against my will	(H4)	109 (37.3)	47 (16.1)	1.28 (0.45)
Thinking the problem would get better by itself	(H7)	145 (49.7)	51 (17.5)	1.28 (0.45)
Having had previous bad experiences with professional care for mental health	(H22)	94 (32.2)	26 (8.9)	1.18 (0.38)
Thinking I did not have a problem	(H25)	152 (52.1)	52 (17.8)	1.32 (1.07)
Preferring to get help from family or friends	(H23)	143 (49.0)	52 (17.8)	1.26 (0.44)
Preferring to get alternative forms of care	(H10)	124 (42.5)	37 (12.7)	1.25 (0.43)

Multiple variate analysis

Multiple regression analysis was performed. The variables adjusted were age, sex, marital status, religion, years of formal school attained, occupation, socioeconomic status, total duration of illness, ICD 10 diagnostic categories and history of suicidal attempts.

Significant association was found between BACE score, age and socioeconomic status.

Table 9: Multiple regression Analysis

Coefficients[a]

Model 1		Unstandardized Coefficients		Standardized coefficients			95% confidence interval for B	
		B	Std. Error	Beta	t	Sig.	Lower bound	Upper bound
	(Constant)	51.089	8.689		5.880	.000	33.986	68.192
	Age (years)	-.230	.107	-.163	-2.145	.033	-.440	-.019
	Sex of respondents	1.232	2.186	.037	.564	.573	-3.071	5.536
	Marital status	-.038	2.130	-.001	-.018	.986	-4.232	4.155
	Religion of respondents	-.972	1.364	-.041	-.712	.477	-3.656	1.713
	Education completed	1.047	.749	.101	1.397	.163	-.428	2.521
	Occupation	-.020	.697	-.002	-.028	.977	-1.391	1.352
	Socio-economic status (kuppuswamy)	-4.207	1.759	-.154	-2.391	.017	-7.670	-.744
	Total Duration of illness	-.189	.180	-.066	-1.048	.295	-.543	.166
	ICD 10 diagnostic category	-1.291	.914	-.083	-1.412	.159	-3.091	.509

[a] Dependent Variable: total BACE score

[a] Dependent Variable: total BACE score

ANOVA[a]

Sum of squares	df	Mean Square
7292.679	9	810.298
71196.801	282	252.471
78489.479	291	

B – Predictors: (Constant), ICD 10 diagnostic category, Marital status, Religion of respondents, Socioeconomic status (Kuppuswamy), Total duration of illness, Occupation, Sex of respondents, Education completed, Age (years)

Independent t-test was performed between

Dependent Variables	Independent Categorical variables
Total base score	Sex
Instrumental score	Hospitalization status
Attitude score	Any Suicidal Attempt ever status
Stigma score	

Within the groups of sex (male and female), there was no significant difference in scores fortotal base score or instrumental score, attitude score or stigma score.

Table 10: Independent T test results

		Independent Samples Test (Sex – Male/Female)				
		t	df	Sig. (2-tailed)	Mean difference	Std. Error Difference
Total BACE score	Equal variances assumed	.364	290	.716	.703	1.933
	Equal variances not assumed	.362	273.760	.718	.703	1.944
Attitudinal Barrier score	Equal variances assumed	-.140	290	.889	-.095	.678
	Equal variances not assumed	-.138	262.114	.890	-.095	.687
Stigma Barrier score	Equal variances assumed	1.504	290	.134	1.162	.773
	Equal variances not assumed	1.502	279.930	.134	1.162	.774
Instrumental Barrier score	Equal variances assumed	-.586	290	.558	-.291	.496
	Equal variances not assumed	-.585	277.303	.559	-.291	.497

For testing between Total BACE score / stigma score / instrumental score / attitudinal scoreAND socio-economic status, One-way ANOVA test was performed.

Table 11: Results of One-way ANOVA

		Sum of squares	df	Mean square	F	Sig.
Total BACE score	Between groups	2006.460	2	1003.230	3.791	**.024**
	Within Groups	76483.020	289	264.647		
	Total	78489.479	291			
Attitudinal Barrier score	Between groups	311.602	2	155.801	4.815	**.009**
	Within Groups	9351.258	289	32.357		
	Total	9662.860	291			
Stigma Barrier score	Between groups	68.930	2	34.465	.792	.454
	Within Groups	12572.988	289	43.505		
	Total	12641.918	291			
Instrumental Barrier score	Between groups	81.640	2	40.840	2.319	.100
	Within Groups	5089.402	289	17.610		
	Total	5171.082	291			

There was difference seen in the total base score among the socio-economic status (i.e sig <0.05). In terms of attitude score, mean attitudinal score in lower socioeconomic status was (14), followed by middle (11) and upper socioeconomic status (10).

Though difference was noticed but for stigma and instrumental barrier score, significant difference in mean score was not noticed. On conducting further post-hoc analyses, (i.e amongmultiple groups in which two groups) difference was noticed, Tukey post hoc comparison was used and the result showed that total base score was significantly different among upper

and lower socio-economic groups. (sig ,0.05). Attitude barrier score was significantly differentamong lower and upper socio-economic groups (sig < 0.05) as well as lower and middle socio-economic groups.

Table 12: Results of Post hoc Analysis among socioeconomic class

Dependent variable	(I) Socioeconomic status (Kuppuswamy)	(J) Socioeconomic status (Kuppuswamy)	Mean difference (I-J)	Std. Error	Sig.
Total BACE score	Lower	Middle	6.489	2.808	.056
		Upper	8.720*	3.235	.020
	Middle	Lower	-6.489	2.808	.056
		Upper	2.231	2.332	.605
	Upper	Lower	-8.720*	3.235	.020
		Middle	-2.231	2.332	.605
Attitudinal Barrier score	Lower	Middle	2.545*	.982	.027
		Upper	3.441*	1.131	.007
	Middle	Lower	-2.545*	.982	.027
		Upper	.896	.816	.516
	Upper	Lower	-3.441*	1.131	.007
		Middle	-.896	.816	.516
Stigma Barrier score	Lower	Middle	1.399	1.139	.437
		Upper	1.396	1.312	.537
	Middle	Lower	-1.399	1.139	.437
		Upper	-.004	.946	1.000
	Upper	Lower	-1.396	1.312	.537
		Middle	.004	.946	1.000
Instrumental Barrier score	Lower	Middle	1.140	.724	.258
		Upper	1.796	.834	.081
	Middle	Lower	-1.140	.724	.258
		Upper	.656	.602	.521
	Upper	Lower	-1.1796	.834	.081
		Middle	-.656	.602	.521

Discussion

The prevalence and disease burden of mental illness are high globally, person with severe andpersistent mental illness have multiple and complex needs which are beyond the traditional mental health services. Assessment of their problem and early recognition can help in optimizing planning of treatment and implementation of care ensuring effectiveness of psychiatric care .This also plays a critical role in mental health rehabilitation.

More than half of the patient expressed barriers as either some degree or as major barriers withmean score of 35.The most reported stigma related barrier was "concern that I might be seen as weak as having mental health problem " and this is consistent with the item reported barrierin similar study by Luitel et.al. [19] at Chitwan . Likewise the stigma discrimination related barrier affected majority of participants which suggests lack of common knowledge in societyabout cause and treatment for mental disorders (Dockery et.al,Eisenberg et.al[20]) which leads the generation of stigma and discrimination .

Most reported attitudinal barrier item in this study "wanting to solve problem on my own " is the major barrier item reported in recent mental health survey and similar to study by Dockeryet.al ,Mojtabe et.al [21],Reason for this may be difficulties of getting help from the person in family and consequences of structural stigma which may limit resources given to mental healthservices ,similarly treatment stigma has a negative effect on service user's help seeking particularly in regards to disclosure and confidentiality .(clement et.al)[22]. Among the participants majority of participants are male (54.5%) , As they are the main earning member in a family they are brought more often to hospital but the barriers reported by males and females were similar and consistent with the findings of Luitel.et.al [14], in contrast to previous studies that have compared BACE scale parametrically in which women reported more barriersthen men. (Dockery et.al ,James et.al [16],Salahedin et.al [23]).

Majority of participants were hindu (77.4%) which is becacuse percentage of Hindu populationas per the census report 2068 B.S but BACE scale score was independent of religion ,which is similar to study by Campo Aris et.al [15]. Majority of participants (65.1%) were from Bagmatiprovince , which may be because highest population is in this province with easy access to the Mental hospital due to nearest location .Likewise lesser participants from Sudurpaschim and karnali province may be due to lowest population ,distance for province from Centre andgeographical difficulties making them least accessible to Mental Hospital.

This study found higher total BACE score in Divorced/Widowed as compared with married and unmarried participants, this could possibly point towards the perception of divorce by society and stigmatization towards their marital status which could have confounded the findings. People with prior suicidal attempts and patient with previous hospital admission have more score on BACE scale which may be due to stigmatization regarding their attempts,hospital admission and fear that mental illness if present would be known to others which would add up more stigma and attitude of patients may be affected by the perception of their Friends and family. In a study by Daniel .Goldstone et .al [24] regarding perceptions of barrier tosuicide prevention , structural barrier ,stigma ,poverty were the major reason .In contrast ,in a study by Chang Cc et,al [25] at Tiwan stigma was found to be lower in participants whose patientshad ever attempted suicide compared to those who had not attempted suicide .This might be because suice attempters would naturally attract more sympathy and social support from familyand society thus possibly reducing stigma and its internalization .

Majority of participants in our study were suffering from Schizophrenia; Schizotypal and delusional disorders (32.5%, n=95) followed by Neurotic; stress related and somatoform disorders (31.8%, n=91),

Mood disorders (22.9%, n=67), Mental and behavioral disorders dueto psychoactive substance use (10.6%, n=31) and others (2.1%, n=6) .This is in consistence with the National mental health survey [26] or other community study ,As our study had a cross-sectional design it was impossible to know if they had more symptoms because they were notbeing treated or, if more symptomatic individuals had greater barriers and also have difficultiesto organize themselves to obtain care.

In our study regarding, age of participants was significantly high BACE score was seen amongthose in age group <45 years ,This findings is consistent with other similar studies which showsthat younger people find more barriers and therefore find more difficulties in seeking help in mental health care . Older people may have more contact with mental health professionals and,with it ,a lower barrier of attitudinal access (Campo Arias et.al,Dockery et.al).

In our study we also found that socioeconomic status is significantly associated with BACE score ,higher barriers was seen in those with lower socioeconomic status which may be becacuse of low level of occupation or unemployment ,lower knowledge and not being exposed to such services making them more susceptible to erroneous traditional beliefs regarding mental health which they may hold strongly and this may have contributed to higherlevel of barriers to service utilization . Interestingly, individuals reporting a low family incomehad a high probability of reporting psychiatric symptoms, which could be related to more exposure to stress and deprivation circumstances, but it could also be due to difficulty of individuals with mental disorders to obtain and maintain good jobs (Scott et al., 2013) [27].

In comparison to other barriers result is not significant with respect to instrumental barriers this may be due to sharing similar geographical difficulties ,similar difficulties in treatment seeking and similar stigma. Over all most of the findings in this study is is consistent with the findings of previous studiesby Luitel et.al[28], Dockery et.al and Bustamate et .al[18].

Strength and Limitations

This is the first study to report on barriers to care utilizing BACE in Mental hospital, which isthe only central hospital for mental health. As compared to another similar study (Dockery et.al , clement et.al[29]) this study has large sample size. As this scale is self-administered scale, patient were free to rate their score in attitudinal ,stigma related and instrumental score .

As this study was hospital based results cannot be generalized to community samples, this mayinclude to those patient who are severe during the time of their first service utilization .The BACE scale is only to be filled by the those who are able to read and write ,this could not include to those who are illiterate . In addition, although the patient may be stable during the time of interview there may be unnoticed psychopathology that may interfere with the total BACE score.

As this is a cross sectional study ,based on hospital setting there may be bias in terms of case selection, Although maximum precautions was taken to avoid any errors while entering the raw data and analyzing it, chances of human errors are still possible.

Clinical Implication:

Barriers to care are prevalent in our community, As identified the most commonly reported items were “Concern that I might be seen as weak for having a mental health problem “followed by "Concern that I might be seen as crazy".

Incorporating stigma reducing programs at least during inpatient management of patients can do a great deal in reducing affiliate stigma, In a hospital-based setting, stigma reduction approach by education and

contact is suggested, Approach by education increases knowledgeabout mental illness and thus leads people to be less likely to endorse stigma and discrimination. This education intervention could be by group sessions, flyers, posters, pamphlets, audio and visual aids during visits to hospital. Approach by contact facilitates stigmatized people to interact, people with mental illness and their affiliates. Being in contact with them will lead to realization, of negative aspects of their prejudice thus decreasing chancesof endorsing and internalizing, with the end product being less affiliate stigma.

As this study has measured the instrumental barriers and attitudinal barriers, policy to increasethe mental health service utilization and to make service more accessible can be considered.

Identifying barriers not only measures the gap for help seeking behavior, considering the possible barrier can help clinician to maintain uninterrupted compliance, regular follow-up and improve social support. All these changes will ultimately lead to better prognosis,shortened course of illness, decrease cost and burden of frequent admission and prevent cognitive decline and disability.

Conclusion

It can be concluded that barriers to mental health service utilization is endorsed by the participants of this study. It was found to be significantly associated with age less then 45 yearsand low socioeconomic status. Among the patient reported barriers related to stigma ,the most reported concern was " concerned that I might be seen as weak for having a mental health problem "(33.6 %),followedby "concern that I might be seen as crazy " (26.4%) ,followed by "Concern that my children may be taken into care or that I may lose access or custody without my agreement " (22.6%) and " feeling embarrassed or ashamed " (21.6 %) . Among the reported instrumental barriers in BACE scale , "having no one who could help me get professional care (18.2)" was the mostreported major barrier followed by " being unsure where to get professional care "(17.8)" followed by being too unwell to ask for help " (14.4%). Among the different attitudinal components in BACE scale "wanting to solve problem on my own" (21.9%) was the most reported barrier followed by "dislikes of talking about my feelings, emotions or thought "(19.5%) and "thinking that I don't have problem"(17.8%).

Recommendations

Future studies must be conducted to elicit the reliability of these findings. Inclusion of severityof illness, variables measuring other burden and other factors experienced by participants canbe useful addition for elimination of possible confounders. Validation of the tool measuring barriers in context of Nepal is also recommended.

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