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Knowledge and Social Distance Towards Mental Disorders in an Inner-City Population: Case of University Students in Cameroon

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ABSTRACT

Mental disorders are widely recognized as a major contributor to the global burden of disease worldwide. They often constitute a double jeopardy for those affected because of stigmatization by members of the community. The purpose of this study is to explore knowledge and social distance of mental disorders among students from Cameroonian universities who reside in urban areas, as mental health among university students represents an important and growing public health concern for which epidemiological data are needed. A cross-sectional survey was conducted from October 2014 to march 2015 among 680 students from six universities. A self-administered questionnaire exploring knowledge and social distance within students was formulated. Questions were based on basic demographic information, opinions about stigmas, myths and knowledge of mental health. Data was analyzed using descriptive and inferential statistics to investigate the relationship between the participant's field of study, their beliefs and perceptions about mental disorders and the participants' length of stay in urban settings. Of 680 students surveyed, 453 have already heard about mental diseases and 227 know someone who has suffered or who is suffering from mental illness. Among them, 53.2% are attending social/human sciences studies whereas 26.9 and 19.9% are attending, respectively life sciences and applied sciences studies. Most of the respondents (71.0%) have been living in urban areas for at least five years. Recognition of common mental disorders in the studied population is poor (42.6%) and 39.5% believe that mental illness can be treated. Though respondents are university students, knowledge of mental illnesses is poor and their negative perceptions and attitudes towards individual with mental disorders suggest opportunities to address mental health issues (increase mental health literacy) in this important group of populations.

Keys words: Mental diseases, knowledge, social distance, university students, urban settings, Cameroon

INTRODUCTION

The world is suffering from an increasing burden of mental disorders which are estimated to account for 12% of the global burden of disease. Mental disorders are widely recognized as a major contributor (14%) to the global burden of disease worldwide as about 450 million people suffer from mental or behavioral disorders worldwide today, from which 154 million people from depression, 25 million people from schizophrenia, 91 million people from alcohol use disorders and 15 million from drug use disorders (WHO., 2015). Already, mental disorders represent four of the 10 leading causes of disability worldwide. This growing burden amounts to a huge cost in terms of human

misery, disability and economic loss (Araya *et al*., 2001). Yet the mental health budgets of the majority of countries constitute less than 1% of their total health expenditures. Moreover, about 40% of countries have no mental health policy and over 30% have no mental health programme (WHO., 2001). Apart from this, general public's view about mental illness remains unfavorable, as the topic itself evokes a feeling of fear and even disgust fostering negative attitudes towards mentally ill people. Globally, individuals with mental illnesses are victimized for their illness and become the targets of stigma and discrimination (Corrigan *et al*., 2005). Given this situation, a key recommendation of the World Health Organization is that mental health topic should be widely addressed. It is in this sense that several studies have researched (i) on the clinical and neurological aspects of mental diseases (WHO., 2006; Paulsena *et al*., 2001; McKhann *et al*., 1984), (ii) on types and epidemiological features of the disease (Giovanni and Angst, 2005) and (iii) on knowledge and attitudes towards both mental health and people with mental illnesses (Pothen *et al*., 2003; Crisp *et al*., 2001). Roughly speaking, researches have established that the public holds negative beliefs about persons with mental illnesses. Moreover, these negative perceptions have been remarkably constant despite advances in scientific understanding of mental illnesses and extensive efforts to improve public understanding (Raguram *et al*., 1996; Charles *et al*., 2007). It is unlikely that these negative attitudes and misperceptions emerge full blown in adulthood. Rather, they likely have their roots in childhood and develop gradually through childhood and adolescence. Shunning, rejection and damage to self-esteem, as well as reluctance to seek or accept mental health treatment, are among the possible consequences (Singh *et al*., 1992; Kranke and Floersch, 2009). These consequences are particularly relevant during adolescence and preadulthood, a period in which onset of a variety of psychiatric disorders peaks. Accordingly, it is important to understand more about the knowledge and attitudes of youths and young adults related to mental disorders and individuals who may manifest such illnesses. However, in Cameroon where the problem is troublesome as well as in most developing countries, knowledge and attitudes toward mental illness has not received much attention among young adults. In fact, based on the medical literature, a report from the ministry of public health in Cameroon in 2012 revealed a prevalence (7.0%) of conspicuous psychiatric morbidity and mitigates knowledge of young Cameroonians about mental health, thus suggesting that more research is needed. The objective of this study is to assess knowledge and social distance of students toward mental illness. This study would be useful in setting up strategies for improving mental health literacy, tackling stigma and emphasizing mental health promotion.

MATERIALS AND METHODS

Study area: Our area of study is Cameroon, a country of the central African subregion, located at the bottom of the Gulf of Guinea. Situated between the 2nd and 13th degree latitude North and the 9th and 16th degree East longitude, its surface area is 182,410.88 square miles and hosts a population of about 16,790,000 inhabitants, that is an average density of 31.6 inhabitants km^{-2} (Bucrep, 2005). As far as social indicators are concerned, Cameroon has a school attendance rate of 63%, a growth rate of 2.7%, a birth rate and death rate of respectively 39 and 11.4% and a life expectancy of 56 years. With an urban development rate of 45%, Cameroon is one of the most urbanized countries in Africa Sub-Sahara. However, this rapid urbanization process has modified the epidemiologic feature of the country. In fact, inhabitants which were formerly and almost exclusively suffering from infectious communicable diseases are currently facing also chronic and non-communicable diseases such as diabetes, hypertensive diseases, cardiovascular diseases and

mental disorders. Cameroon is a low-and-middle income country based on the World Bank 2004 criteria. The health expenditure is 4.5% of Cameroon's gross national product, the government health budget is the highest (amounting to 31$ per head and year), however only 0.5% of the health budget is spent on mental health. Cameroon has 0.03 psychiatrists per 100,000 inhabitants, 10.3 psychiatric beds and three public psychiatric hospitals, all located in the South of the country.

Sampling: Irrespective of where they live or their social background, Cameroonians are exposed to mental health. However the problem seems to be more troublesome in cities; what has motivated us to focus on urban settings. We used a stratified random sampling procedure based on two stages to select our target population. First, 6 university cities were selected out of the 16 that make up the country. This was necessary to derive a sample seize being enough for containing all the categories of students according to fields of study. In the second stage, we selected students on the basis of studying and living in urban environments. The sample size was determined in 2012 on the basis of prevalence of mental of 7.0% of the total population as per data provided by the ministry of public health. A total sample of 711 students was determined, but finally 680 students participated in the survey, representing a response rate of 95.6%.

Data collection and management: Data used in this study derive from an interdisciplinary research programme designed and implemented by Institute for Training and Research in Demography/Université de Yaoundé II (Cameroon) and under supervision of the Institut Douglas de Santé Mentale/McGill University (Montréal-Canada). It was a descriptive cross-sectional survey conducted from October 2014 to March 2015. A structured questionnaire was used. The survey consisted of three measures constructed to assess the knowledge and attitudes of students toward mental illnesses and were developed with special attention given to their utility for university students. The measures were developed by using items from previous studies of adolescents and adults' attitudes (Aidoo and Harpham, 2001). A pilot study was used to test and refine items. The knowledge measure consisted of factual statements about mental illness rated on a 5 point Likert scale, from strongly disagree to strongly agree. The attitude measure consisted of opinion statements rated on the same 5 point Likert scale. The items for knowledge and attitudes were randomly interspersed in a single questionnaire for ease of completion. The third major instrument was a social distance scale in which respondents indicated their degree of willingness to interact with a person with a mental illness in specific social situations. Items were modified from standard social distance measures (20) to better fit the lives of students. For example, instead of being asked about willingness to work with someone with a mental illness at one's job, students were asked about willingness to work together on a class project. The eight items were rated on a 5-point Likert scale, from definitely unwilling to definitely willing. In addition, a range of demographic data was included: sex, age, field of study, ethnicity of respondent, area of residence. Participant's verbal consent was obtained before their participation in the study. The participants received an explanation that the study results would be of benefit to the general practice of mental health. Confidentiality of results was assured. Bivariate statistical analyses and tests of significance were carried out to verify the level of association between variables. The software used were Epi info 3 (for raw data recording, verification and validation of the data collected) and SPSS software package for windows version 15.0 (for statistical analysis and tabulation). Level of significance was set as $p<0.05$.

RESULTS

Table 1 shows the socio-demographic attributes of the sample. In keeping with the demographic and economic profile of Cameroon and therefore of university students, the sample was predominantly young, in the age group of 15-29 years. Majority of them were female (60.6%) vs 39.4% of men and most are new city-dwellers as they were living in their urban environment for 3 years and less (69.3%). Findings comparing results across field of study revealed consistent differences.

Table 2 describes that the mean knowledge score of the subjects was 5.17±1.62. Item wise awareness regarding mental disorders was prognosis (78.1%), signs and symptoms (76.2%), common mental disorders (53.2%), causes (69.5%).

Regarding attitudes and social distance, the detailed frequencies and means for the individual items are reported in Table 3. In the following, only the main results are summarized. On the causes and nature of mental illness, a majority of participants (67.9%) rejected (aggregate of "disagree" and "strongly disagree") the view that mental illness is an illness like any other, rather it was seen by 72.6% of participants as a consequence of lack of self-discipline and will power. Although, virtually anyone may become ill (57.9%), it was generally believed that it is easy to tell persons with mental illness from 'normal' people (63.7%).

Table 1: Socio-demographic characteristics of the participants

Parameters	Frequency	Percentage
Gender		
Male	268	39.4
Female	412	60.6
Age (years)		
15-19	204	30.0
20-24	303	44.5
25-29	173	25.5
Duration of residence in the city		
Short-term (≤3 years)	471	69.3
Long-term (>3 years)	209	30.7
Academic/programme level		
Bachelor degree programme	341	50.1
Master degree programme	297	43.7
PhD programme	42	06.2
Fields of study		
Social/human sciences	362	53.2
Life sciences	183	26.9
Applied sciences	135	19.9

Source: Field investigations, 2014-2015

Table 2: Knowledge of students about mental disorders

Domains of knowledge score	Frequency	Percentage
Prognosis[1]	531	78.1
Signs and symptoms[2]	518	76.2
Common mental illnesses[3]	362	53.2
Causes[4]	473	69.5
Treatment[5]	303	44.5
Total knowledge score	Mean: 5.81±SD (1.27)	

1: Individuals with a mental illness are generally dirty, violent, irresponsible and dangerous, 2:Six items have been considered: sadness, neurotic disorders associated with stress, somatic disorders, fear of the public, having problems to feed, behavioral disorders, 3: Eight items such as affective mood, schizophrenia, bipolar disorder, depression, stress, grief, drug addiction, aggressivity, 4: Mental illness is a biological dysfunction, is hereditary, derives from mystic action, is happening to those who have tried to complicate their lives and 5: Items considered are: Individuals suffering from a mental illness can consult a physician/psychiatric, it is the community responsibility to take care of people with mental disorders, if you are diagnosed with a mental illness, will you be willing to look for care through religious? if you are diagnosed with a mental illness, will you be willing to look for care through traditional healers? Source: Field investigations, 2014-2015

Table 3: Frequencies, means and standard deviations for the items of attitudes and social distance towards mental disorders and individual with mental illness (n = 680)

Parameters	Agree/strongly agree (%)	Unsure	Disagree/strongly disagree (%)	Mean	SD
Attitudes and perceptions				2.38	0.43
One of the main causes of mental illness is a lack of self-discipline and will power	72.60	08.10	19.30	2.83	1.25
There is something about the mentally ill that makes it easy to tell them from normal people	63.70	24.60	11.70	1.64	0.70
As soon as a person shows signs of mental disturbance, he should be hospitalized	59.60	16.10	24.30	1.98	0.97
Mental patients need the same kind of control and discipline as vulnerable individuals	68.90	13.60	17.50	2.08	1.31
Mental illness is an illness like any other	18.40	13.70	67.90	2.85	1.70
Mental hospitals are an outdated means of treating the mentally ill	28.40	50.80	20.80	2.86	1.83
Virtually anyone can become mentally ill	57.90	13.40	28.70	2.18	1.73
Mentally ill have for too long been the subject of ridicule	72.40	15.00	12.60	2.11	1.02
More investment should be spent on the care and treatment of the mentally ill	40.30	21.30	38.40	2.34	1.24
Only people who are weak and overly sensitive let mental illness affect them	61.70	14.80	23.50	2.07	1.14
We have a responsibility to provide the best possible care for the mentally ill	60.80	07.50	31.70	1.75	0.97
Mentally ill don't deserve our sympathy	31.90	11.70	56.40	3.52	1.42
Mentally ill are a burden on society	54.70	21.40	23.90	2.70	1.42
Social restrictiveness and community mental health ideology				2.76	0.73
Mentally ill should not be given any responsibility	72.80	08.30	18.90	2.37	1.25
It is best to avoid anyone who has mental problems or to invite him to your home	65.30	10.20	24.50	2.94	1.61
Mentally ill should be isolated from the rest of the community	47.10	13.80	39.10	2.94	1.35
Talk to someone with a mental illness	56.10	08.40	35.50	3.12	2.47
It would be foolish to marry someone who has suffered from mental illness, even though he seems fully recovered	40.30	21.30	38.40	2.42	1.72
Work on a class project with someone with mental illness	15.00	12.60	72.40	2.11	1.02
Students with mental illness shouldn't be in regular classes	60.80	07.50	31.70	3.43	1.40
I would not want to live next door to someone who has been mentally ill	38.40	19.90	41.70	2.97	1.29
Sit next to someone with a mental illness	24.80	22.10	53.10	1.80	1.30
I have little in common with people who have mental illness	28.70	13.40	57.90	2.18	1.73
Students with mental illness need special programs to learn	62.80	08.40	28.80	3.15	1.40
Go on a date with someone with a mental illness	11.30	08.00	80.70	1.60	1.02
Mentally ill should be denied their individual rights	58.30	16.33	25.37	2.53	1.25
Most women who were once patients in a mental hospital can be trusted as babysitters	40.30	22.30	37.40	3.29	1.32
Residents should accept the location of mental health facilities in their neighborhood	65.70	13.10	21.20	2.05	1.17
Keeping people with mental illness in the hospital makes the community safer	34.11	24.29	41.60	2.99	1.10
Locating mental health services in residential neighborhoods does not endanger local residents	47.10	18.90	34.00	3.08	1.74
Fear of violence: It is frightening to think of people with mental problems living in residential neighborhoods	38.10	11.30	50.60	2.74	1.58

Regarding the personal and social distance to persons with mental illness, only a little majority (45.3%) endorsed the statement that it is best to avoid persons with mental illness. This attitude extended to potential marriage with 40.3% agreeing that it would be foolish to marry someone who has suffered from mental illness (38.4% rejected this view). Although most participants assented to the statement that no one has the right to exclude the mentally ill from their neighborhood, 47.1% believed that the mentally ill should be isolated from the community and 38.4% would not want to live next door to someone who has been mentally ill. 52.6% thought that

Table 4: Comparison of knowledge score of new city-dwellers and old city-dwellers students

Parameters	Mean score	SD	Mean±SD	t-value
Knowledge score of new city-dwellers students	43.4	5.1	6.54	7.61*
Knowledge score of old city-dwellers students	31.9	7.2		

*Significant at 0.05 level, p<0.05

Table 5: Correlation between knowledge, attitude and social distance towards mental health and mental disorders among university students in Cameroon

Variables and modalities	Measure	Maximum score	Mean score	SD	r
Academic programme/level					
Bachelor degree	Knowledge	46	32.51	4.29	0.25*
	Attitude	72	48.14	3.65	
	Social distance	68	49.37	6.44	
Master degree	Knowledge	51	25.94	3.80	
	Attitude	74	45.62	3.11	
	Social distance	68	51.74	4.75	
PhD	Knowledge	49	61.83	4.76	
	Attitude	67	74.58	3.83	
	Social distance	51	34.91	5.01	
Field of study					
Social/human sciences	Knowledge	62	35.71	4.76	0.39**
	Attitude	53	49.48	3.83	
	Social distance	49	51.22	5.01	
Life sciences	Knowledge	56	61.83	4.77	
	Attitude	49	74.58	3.54	
	Social distance	44	34.91	5.89	
Applied sciences	Knowledge	39	48.76	4.01	
	Attitude	42	50.87	3.86	
	Social distance	40	41.55	3.77	

*Significant at 0.05 level, df (72), r = 0.34, p≤0.05, **Significant at 0.05 level, df (74), r = 0.32, p≤0.05

the risks of mental patients living within residential neighborhoods are too great. However, locating mental health services in residential areas was not regarded as dangerous by 47.1% of the respondents.

Data presented in Table 4 show that there was significant difference (t = 7.61) between the mean knowledge score of new city-dwellers students (43.4) and the old city-dwellers ones (31.9).

Data presented in Table 5 show that 'r' obtained was 0.25, which is found to be statistically significant at 0.05 level. This indicates there was a positive significant correlation between the knowledge of bachelor/Master/PhD students regarding mental health and mental illness and their attitude/social distance towards mental health and mental illness. This suggests that those university students not only have more knowledge but also possess a certain attitude and a social restrictiveness towards mental health and individuals with mental disorders. In the same Table 5, data presented show that 'r' obtained was 0.39, which is found to be statistically significant at 0.05 level. This indicates there was a positive significant correlation between the knowledge of university students attending social/life/applied sciences programmes regarding mental health and their attitude/social distance towards mental health and mental disorders. This suggests that students attending social/human sciences (such as philosophy, sociology, geography, history, literature and fine arts), life sciences (such as biology, earth sciences, biomedical and medicine) and applied sciences (such as informatics, engineering, building and civil engineering and biotechnology), not only have adequate knowledge but also possess favourable attitude towards mental health and individual with mental disorders.

DISCUSSION

Mental health illnesses are medical conditions that disrupt a person's thinking, feeling, mood, ability to relate to others and daily functioning. They are medical conditions that often result in a

reduced ability to cope with the routine daily activities such as going to work or raising a family (Reddy and Chandrashekar, 1998). There exists no standard by which to measure, diagnose and study the presence of mental health. By default, science portrays mental health as the absence of psychopathology, precisely as a complete state in which individuals are free of psychopathology and flourishing with high levels of emotional, psychological and social well-being (Keyes, 2002, 2003). This study was then aiming at exploring knowledge, attitudes and social distance towards mental disorders among students, similar to WHO definition of mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community" (WHO., 2001). The results suggest that students' knowledge of mental illness is inconsistent: they seemed well-informed about some things such as the depiction of people with mental illnesses, but their knowledge seemed lacking in other areas and the greatest gap in knowledge involved symptoms of specific mental disorders. Similarly, a majority of students did not know that overly energetic behavior is a characteristic of bipolar disorder or that mental illness and mental retardation are not the same. Though this misconception and inconsistency can be explained by the lack of health literacy on mental health (Keyes, 2005; Jorm, 2000), remain serious because the ignorance could possibly be more in other groups of population (Salve *et al*., 2013). The students' responses to knowledge items also included some unexpected results. One is fear of violence: a major component of students' views of mental illness is the inaccurate belief that individuals with psychiatric disorders tend to be violent and dangerous. Our expectation was that, in accordance with Barke *et al*. (2011), this belief would be shared by a majority of students as well. However, only few students agreed that people with a mental illness tend to be violent and dangerous and half of respondents disagreed (50.6%). Another astonishing result is the biological aspects of mental illness. Given the increasing trend of conceptualizing mental illness as having biological roots and the pervasiveness of pharmaceutical advertising for an increasing variety of psychiatric conditions, it was expected that students would view mental illness primarily as a biological condition and identify drugs as a main treatment. However, most students (72.6%) expressed effect on the use of illicit or psychoactive substances, will power and possession by evil spirits (Borinstein, 1992). This last view was expressed by as many as our respondents who also thought mental illness might be a divine punishment. This finding is close to that of Adewuya and Makanjuola (2008) and Pescosolido *et al*. (2010), who stated there is also a cultural understanding that some emotionally trying traditional rites or rituals could lead to mental illness in those who are not psychologically or physically prepared. Overall, such views apart from further implying that people with mental illness might in some way be deserving of their lot, have important ramifications for the seeking of medical care by persons affected. A supernatural view of the origin of mental illness may imply that orthodox medical care would be futile and that help would be more likely to be obtained from spiritualists and traditional healers (Rose *et al*., 2007). The responses to specific items in the survey of attitudes, moreover, were consistent with those beliefs: 50.6% of students said they would not be frightened if approached by someone with a mental illness, disagreed that people with a mental illness should be avoided. Such results which are different from those reported in some previous studies (Kermode *et al*., 2009; Chong *et al*., 2007; Hugo *et al*., 2003), suggest the possibility that the youths of today have not picked up the same fears of mental illness that persist among general populations.

As we can notice, students' attitudes overall are quite positive, given that most of them expressed respectful views toward individual with mental disorders. However, the sizable "minorities" who have shown negative attitudes toward persons with mental illness are potentially

problematic. About 61.7% students agreed that only individuals who are weak and overly sensitive let themselves be affected by mental illness and about one in four (28.7%) saw themselves as having little in common with a person with mental illness. These numbers suggest an environment that includes a substantial undercurrent of negative views about mental illness despite the presence of many positive attitudes.

Social distance results revealed a pattern of negative attitudes by a majority of respondents. For example, 72.4% of the students indicated unwillingness to work on a class project with a classmate with a mental illness and only 15.0% expressed a clear willingness to do so. As well, 60.8% of respondents clearly declare that students with mental illness shouldn't be in regular classes. The results also mirrored a frequent finding by studies that measure social distance-the more intimate the relationship, the less willing is an individual to interact with someone with a mental illness (Lawrie, 1999). Although, 56.1% of students were willing to talk to someone with a mental illness, only 24.5% were willing to sit next to such a person or to invite him at home and a mere 11.3% would consider dating that person. Such results suggest that a student with mental illness still will experience substantial rejection and exclusion by his or her peers. Such negative views of mental illness have been reported in some studies to be more common among the poorly educated, those of low social class and persons aged 50 years and above (Wolff *et al*., 1996).

CONCLUSION

Mental illnesses are a societal burden and are projected to become more prevalent and burdensome. As such, there is little skepticism about the societal value of greater support for mental illness research. In parallel with treatment and prevention, basic and applied research appear at first glance to be more urgent public health issues. This study provides one of the few systematic empirical assessments of knowledge and attitudes about mental illness and its results expand considerably what is known about the views of students. Results suggest two main learning objectives. First, there are still some gaps in students' knowledge about mental illness, particularly with respect to the causes of specific disorders as those students who yet are from academic level, do not seem to have a good understanding of the signs of specific disorders. They may then be slow to recognize illnesses experienced by themselves or by their peers, leading to delays in help seeking. It might also be possible that students will be confused by or misunderstand psychiatric labels that may be used to describe themselves or others. Second, attitudes expressed toward and social acceptance of individuals with a mental illness among these students were generally positive, nevertheless a substantial proportion of young people held negative views about and were reluctant to interact with individuals with a mental illness. At an age when peer approval and inclusion are especially important and when many serious mental health problems emerge, a student experiencing such problems will not be well served by encounters with classmates with negative and rejecting views. In light of these concluding remarks, better education of students or young people in general about mental illness and its varied forms and inculcation of more positive and accepting attitudes are needed. In fact, health education and increase in students awareness regarding factual information about mental illness can decrease the stigma attached with mental illness and improve help-seeking behavior of the community, including academia. Equally important will be a reduction of the treatment gap and improved access to psychiatric care for mentally ill persons. The experience that mental illnesses can be successfully treated may decrease the stigma attached to such illnesses. In a more indirect way, improvements in the educational sector and increased health literacy in mental health may contribute to more favourable attitudes towards mentally ill persons and also help in reducing burden of psychiatric morbidity in the community.

LIMITATIONS

This study is not without limitations. Items were phrased so as to ask in a generic way about "mental disorders". They did not differentiate between different diagnoses. It is, therefore, possible that students' attitudes were not the same for all mental disorders. Furthermore, the items might take on a different meaning in the context of a developing country with few psychiatric resources available to the population. Student participants may have expressed attitudes that were more positive than their actual views to appear more accepting or to please the researchers.

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