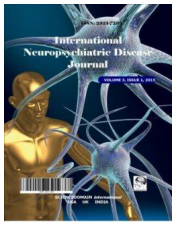

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Mental Health Literacy about Schizophrenia among Secondary School Students in Lagos, Nigeria

Increase Ibukun Adeosun[1*], Abosede Adegbohun[2], Oyetayo Jeje[2] and Fikunayo Manuwa[2]

[1]Department of Mental Health, Benjamin Carson Snr. School of Medicine, Babcock University, Ilishan-Remo, Ogun State, Nigeria.
[2]Department of Psychiatry, Federal Neuro-Psychiatric Hospital, Yaba, Lagos, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author IIA designed the study, managed the literature search and wrote the protocol. Authors AA, OJ and FM coordinated recruitment of participants and data collection, while authors IIA and AA performed the statistical analysis. All authors approved the final manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aim: There is a huge treatment gap for schizophrenia in low and middle income countries. Mental health literacy is a pre-requisite for prompt and appropriate help-seeking for schizophrenia. The current study assessed mental health literacy about schizophrenia in a sample of secondary school students in Lagos, Nigeria.
Study Design and Method: A cross-sectional study design was used. Secondary school students (n=156) attending a public co-educational secondary school in Lagos, south-West Nigeria completed a vignette-based questionnaire which assessed literacy about schizophrenia.
Results: None of the respondents accurately identified schizophrenia in the case vignette. However, 25.6% identified the vignette as a mental disorder, while 3.9%, 2.6% and 0.6% labelled it as emotional problem, depression and mania respectively. Stigmatising labels such as 'insane'

**Corresponding author: E-mail: dr.increase.adeosun@gmail.com;*

/'mad'/'brain touch' were used by 14.1% of the respondents. About a fifth (21.2%) perceived the vignette as a reaction to stress or negative emotional state. Other responses included drug addiction (3.2%), evil spirit possession (5.8%), cultism (3.9%), HIV-AIDS (3.9%) and guilt (5.1%). Less than a quarter (23.7%) of the respondents recommended psychiatrists/mental health services as the appropriate source of help-seeking.

Conclusion: The huge knowledge deficits about schizophrenia in this limited sample suggest a significantly unmet need for mental health literacy interventions among adolescents in Nigeria. This may negatively impact on appropriate help-seeking and outcomes of individuals with schizophrenia. Further larger scale studies are needed to confirm and extend our findings.

Keywords: Mental health literacy; schizophrenia; psychosis; help-seeking.

1. INTRODUCTION

Mental health literacy may be defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" [1]. It includes the ability to recognise specific disorders, obtain relevant mental health information, and seek appropriate help [1]. One of the most severe psychiatric disorders whose outcome is contingent upon early detection and intervention is schizophrenia [2]. Schizophrenia is a chronic psychotic disorder characterised by distortions in the thought system, perception, affect and behaviour with negative impacts on virtually all domains of functioning including personal care, social relationships and occupational performance [3]. Longer duration of untreated psychosis is associated with poorer treatment outcomes, worse psycho-social functioning and lower quality of life [4,5]. Therefore, a major goal in the treatment of schizophrenia is early intervention which is hinged on the prompt recognition of symptoms and the appropriate source of help-seeking [6]. Early intervention positively impacts on prognosis in schizophrenia [4,5].

A major public health concern partly related to mental health literacy is the presence of a huge treatment gap for treatable psychiatric disorders. Treatment gap refers to the absolute difference between the true prevalence of a disorder and the proportion of affected individuals who are treated for the disorder. In spite of the availability of effective treatment for schizophrenia, a huge treatment gap persist especially in low and middle income countries where less than 10% of affected individuals receive treatment [7,8]. In a community study conducted in Nigeria, Gureje et al. [9] reported that none of the participants with psychotic disorder had ever received appropriate mental health care, though 15% had presented to alternative health care practitioners or general practitioners.

Previous research conducted in Europe [10-12], Australia [1,13] and North America [14] have predominantly shown low levels of mental health literacy about schizophrenia. Furthermore, levels of mental health literacy appear poorer for schizophrenia compared to depression [1,15-17]. The specific rates of literacy vary widely across regions with improving trends over the past few decades due to impact of public literacy interventions [18]. The level of mental health literacy about schizophrenia among Nigerian adolescents is currently unknown. Baseline assessment of mental health literacy will help to characterise the need for interventions targeted at improving literacy. Insight into the mental health literacy of adolescents is very crucial in light of the evidence that poor mental health literacy is a major barrier to appropriate help seeking for mental health problems among young people [6]. Furthermore, studies have shown that adolescents are more likely to turn to their peers for advice when they have mental health needs [6,13,15]. Therefore, in addition to being better informed about appropriate sources of treatment for mental health needs, adolescents with high levels of mental health literacy could positively influence their peers in this regard. The current study aimed to determine mental health literacy about schizophrenia in a sample of secondary school students in Lagos, Nigeria. Specifically, the rates of recognition of case-vignette of schizophrenia and beliefs about help-seeking were assessed.

2. METHODS

The study design was a cross-sectional descriptive survey. The participants were a convenient sample of students recruited from a public co-educational senior secondary school in Lagos, South-west Nigeria. The students were selected from one arm each from senior secondary classes 1 to 3. All consenting students in the selected arms/classes were recruited,

making a total of 156 participants. Prior to the commencement of the study, ethical approval was obtained from the Lagos Educational Authority District Office. The students were also educated about the purpose and nature of the study and informed consent obtained before their recruitment into the study.

The participants were presented a widely used case vignette of schizophrenia [1,6]. The content of the vignette is as follows: "*John is a 16 year old boy. For the past few months, John has stopped seeing his friends and no longer goes to school. He locks himself in his room and does not want to talk to his family. He refuses to take his bath. His parents also hear him walking around his bedroom at night when everyone is sleeping. Even though they know he is alone, they have heard him talking, shouting and arguing as if someone else is there with him in the room. When they try to encourage him to come out, he says he won't leave home because the neighbour is spying on him. They know he is not taking drugs because he never sees anyone or goes anywhere".*

This was followed by open-ended questions designed to elicit the participants' recognition of schizophrenia depicted in the vignette and their belief about the appropriate source of help-seeking, as widely used in previous studies on mental health literacy [1]. The specific items that elicited these variables were 'What do you think is wrong with John?' and 'Imagine you are John or have a problem like John, where would you go for help?' The age and gender of the participants were also elicited. All items in the questionnaire were completed by self-report. The questionnaire was pre-tested and found to be satisfactory based on its face validity and test-re-test reliability.

2.1 Statistical Analyses

The open-ended responses to the mental health literacy variables were tabulated and grouped into categories based on similarity of thematic content. Two of the researchers independently conducted the assignment into categories before a consensus was reached on further review. Descriptive statistics such as frequencies, percentages or mean values were computed for relevant socio-demographic and mental health literacy variables using IBM-SPSS version 20.

3. RESULTS

The mean age of the respondents was 15.1±1.6 years and 54% were females. None of the respondents accurately identified schizophrenia in the case vignette (Table 1). However, 25.6% identified the vignette as a mental disorder, while 3.9%, 2.6% and 0.6% labelled it as emotional problem, depression and mania respectively. Stigmatising labels were used by 14.1% of the respondents, while nearly a fifth of the respondents identified the vignette as a reaction to stressful life events or negative emotional states.

Less than a quarter (23.7%) of the respondents recommended psychiatrists/mental health services as the appropriate source of help-seeking (Table 2).

Table 1. Respondents' perception of schizophrenia case vignette

Responses	n	(%)
Mental disorder/sickness/problem	40	25.6
Stigmatising labels e.g. mad etc+	22	14.1
Reaction to stress e.g. being jilted++	19	12.2
Negative emotion e.g. frustration+++	14	9.0
Evil spirit possession	9	5.8
Guilty of an undisclosed offence	8	5.1
Psychological/Emotional problem	6	3.9
Cultism	6	3.9
HIV-AIDS	6	3.9
Drug addiction	5	3.2
Depression	4	2.6
Mania	1	0.6
Others++++	10	6.4

+ *Stigmatising labels e.g. insane, mad, brain-touch, sick upstairs, 'gagas', crazy.*
++*Reaction to stress e.g. jilted by girlfriend, impregnated girlfriend, bullied, maltreated*
+++ *Frustration, anger, fear, confused, fed-up, unusual feeling*
++++ *Nothing, not okay, disturbed mind, brain tumor, trying to discover self, needs time out*

Psychologists and Counsellors were recommended by 16% and 4.5% respectively. Nearly a quarter (24.4%) recommended General practitioners/hospitals, while 13.5% and 9.6% suggested spiritual/traditional healers and advice from family/friends respectively.

Table 2. Preferred source of help-seeking for schizophrenia

Responses	n	%
General practitioner/Hospital	38	24.4
Psychiatrist	37	23.7
Counsellor	25	16.0
Church	19	12.2
Advice from family/friends	15	9.6
Nothing	13	8.3
Psychologist	7	4.5
Herbalist	2	1.3
Teacher	1	0.6

4. DISCUSSION

The current study assessed schizophrenia literacy in a sample of secondary school students in Lagos, Nigeria. To the best of our knowledge, this subject has not been previously researched among adolescents in sub-Saharan Africa. None of the adolescents precisely identified schizophrenia in the current study. Though majority of previous research in other continents highlighted low levels of mental health literacy, rates of recognition of schizophrenia ranged from about a fifth to three-quarters of the lay population [14,19]. Specifically, rates of recognition of schizophrenia vignettes in previous studies of mental health literacy were 19-30% in China [14], 25-80% in Australia [15,18], 42% in Portugal [11], 72% in Sri Lanka [20], 74% in Switzerland [21] and 76% in Canada [14].

Although schizophrenia was not precisely identified, nearly a third of the respondents recognised that the vignette either depicted a mental disorder (25.6%), emotional/psychological problem (3.9%), depression (2.6%) or mania (0.6%). This is consonant with previous research indicating that lay people may be more apt in recognising the presence of a mental disorder than identifying the specific disorder [2,13,20,22]. Some authors have argued that accurate 'diagnosis' by laypeople is not necessary so far there is recognition of the presence of a mental health problem that warrant help-seeking from mental health professionals [22]. On the other hand, other researchers insist that accurate labelling of the disorder is essential for appropriate help seeking [23-26].

In the current study, schizophrenia was underestimated as 'reaction to stressful life events', negative emotional states or simply 'not feeling okay' by many of the adolescents, a finding convergent with extant evidence [20,22]. The misconstruction of schizophrenia as a'normal' reaction to negative life events or stressors incontrovertibly has negative implications for appropriate help-seeking because it is associated with the misperception that it can be simply dealt with by self-help or the individual can 'just get over it' [27].

Stigmatising labels such as 'insane'/'mad'/'brain touch' were used by 14.1% of the respondents. This is in keeping with extant evidence of a high level of stigma against individuals with mental illness even among adolescents. Ronzoni et al. [28] reported a high level of stigmatisation of mental illness among secondary school students in Ibadan, south west Nigeria. The adolescents depicted individuals with mental illness with derogatory terms such as 'crazy', 'cursed', dull brain', 'mad', 'wreck', 'senseless' and 'head turned upside down'. Similar findings have also been reported in other parts of the world [29-30].

Less than a quarter of the participants endorsed psychiatric consultation as the appropriate help-seeking for schizophrenia. This contrasts with previous findings in North America [14], Sri Lanka [20], Europe [11] and Australia [31], where mental health professionals were predominantly recognised as the appropriate source of help-seeking. However, low rates of readiness to consult mental health professionals for symptoms of schizophrenia have also been reported in China [19,32], Japan [33] and Taiwan [34]. The disparities in recommended sources of help-seeking across studies are attributable to the variances in rates of recognition of schizophrenia by the lay respondents.

Nearly a tenth of the respondents believed that obtaining advice from family or friends is the best way to handle schizophrenia, while 4.6% recommended consultation of counsellors. Some studies have shown that adolescents are more likely to embrace informal sources of help from family members and friends [6] or contact counsellors [19] rather than core mental health professionals when they have mental health needs. These help-seeking choices reflect an

underestimation of the severity of schizophrenia and are likely to prolong the duration of untreated psychosis, thereby worsening outcomes by delaying onset of appropriate intervention. The stigma associated with contacting mental health services may also hinder appropriate help-seeking.

Traditional or spiritual healers were recommended by about one out of seven participants. This view about help-seeking is apparently rooted in perceived supernatural causation of mental illness which is widespread among lay populations in Nigeria and some other non-western cultures [32,34,35]. Ohaeri and Fiddo [36] reported that caregivers of patients with schizophrenia in Nigeria predominantly attributed the disease to 'satan's work' or other supernatural causes such as witchcraft or curse by enemies. This pattern of misattribution has been substantiated by subsequent community studies in Nigeria [34,35]. A recent study of pathways to mental health care among patients with schizophrenia in Lagos, south west Nigeria revealed that spiritual and native healers were the most frequent first point of call for help-seeking, eventuating in a longer duration of untreated psychosis [37].

Our findings in the current study have a number of significant implications. Firstly, the lower rate of schizophrenia literacy in our sample compared to previous research in other parts of the world highlights a significantly unmet need for mental health literacy interventions among adolescents in Nigeria. Whereas, adolescents in these countries have benefited from both public and school based mental health literacy intervention programmes, such efforts are virtually non-existent in Nigeria. Consequently, it is not surprising that the knowledge base of Nigerian adolescents on mental health may be limited to information transmitted by adult family members, friends, and the local media, which is likely to reflect traditional beliefs, myths and superstitions [38-40]. Interventions that have demonstrated evidence in improving mental health literacy in other countries can be adapted while paying attention to cultural competence and feasibility in a resource constrained setting [18,40,41]. Examples of such interventions are public awareness campaigns including the mass media and social media, integration of mental health literacy into the curriculum of students and teachers. For instance, Ravley and Jorm [18] recently reported that as a result of mental health literacy intervention, public views about schizophrenia in Australia have consistently improved over the past two decades.

Secondly, the need for the de-stigmatisation of mental illness is demonstrated by our findings. Evidence indicates that knowledge about mental illness does not automatically translate to less stigmatising behaviour and attitudes towards individuals with mental illness. Therefore stigma may remain a barrier to utilisation of services even when the obstacle of ignorance has been surmounted. Anti-stigma interventions are therefore essential to potentiate the gains from improved mental health literacy. Evidence-based anti-stigma interventions include organised contact with mental health service users, policy changes/legislation to protect the rights of individuals with mental illness and public educational campaigns [29,42,43].

Furthermore, apart from the above universal strategies, interventions need to specifically target current sources of help-seeking in order to facilitate 'referrals' to mental health professionals. These include General practitioners, Counsellors, traditional and spiritual healers. Since stigmatising attitudes exhibited by young people are often imbibed from parents, and adolescents are unlikely to independently initiate contact with mental health services in Nigeria without the backing of elderly family members, it is expedient to promote mental health literacy among adults, household heads and community leaders [43].

Our findings must be considered within the context of the limitations of the current study. Firstly, our sample size was limited and participants were recruited by convenient sampling which may limit the extrapolation of our findings to the general population. Secondly, though the case vignette is indicative of a chronic psychotic disorder with a probable diagnosis of schizophrenia, it is difficult to make a definite diagnosis based on the limited clinical information in the case vignette. Other possible differential diagnoses include affective and organic psychosis. Notwithstanding, this vignette was used to facilitate comparability with previous studies on this subject. Thirdly, assignment of responses into categories by the authors may introduce bias because the procedure was not blinded. However, a consensus was reached following independent categorisation by two of the researchers. Furthermore, participants may give socially desirable responses which may not be consistent with their reaction in real-life

situations. However, participants were assured of the anonymity and confidentiality of their responses. The use of case vignette has also been shown to facilitate communication of the adolescent's opinion with minimal interference from the researcher. Furthermore, the use of a similar methodology to previous studies conducted in other parts of the world facilitated comparison of our results with extant literature. Overall, the current study has provided valuable information on a previously under-researched subject in Africa. Further large scale research is desirable to extend the current findings.

5. CONCLUSION

The current study found a low level of mental health literacy among secondary school students in Lagos, Nigeria. The majority of the adolescent respondents could neither recognise features of chronic psychosis nor identify appropriate sources of help seeking. Our findings highlight a crucial need for mental health literacy interventions among adolescents in Nigeria. Further larger scale research is required to corroborate and extend the findings of the current study.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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