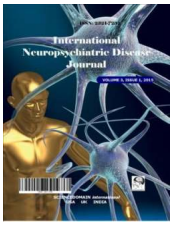

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Pathways to Psychiatric Care among Patients with Schizophrenia in Uyo, Nigeria

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Authors' contributions

This work was carried out in collaboration between both authors. Authors JHE and UKA designed the study and wrote the protocol. Author JHE preformed the statistical analysis, managed the literature search and wrote the first draft of the manuscript with assistance from author UKA. Both authors read and approved the final manuscript.

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ABSTRACT

Background: The pathways patients navigate to access mental health care have been reported to be responsible for the delay in commencing effective treatment following onset of schizophrenia.
Objective: This study was conducted to delineate the pathways patients navigate on their way to psychiatric services and to explore the socio-demographic and clinical factors on the delay of referral for treatment.
Study Design: This was a cross-sectional study that assessed the pathways to mental health care among patients with schizophrenia (n = 108), at their first contact with mental health services at the University of Uyo Teaching Hospital mental health services.
Results: Traditional and religious healers were the first contact for the majority (76.8%) of the patients. Patients who first contacted non-orthodox healers made a greater number of contacts in the course of seeking help compared to those who first contacted orthodox practitioners (p=0.02). Negative symptoms of schizophrenia were significantly associated with a longer duration of untreated psychosis (p<0.001).

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Conclusion: Mental health educational interventions are required to change the health system and illness beliefs of the people. This will change their beliefs and perceptions of mental illness and ultimately positively change their help seeking behaviour towards orthodox mental healthcare.

Keywords: Schizophrenia; pathways to care; Nigeria.

1. INTRODUCTION

Schizophrenia is a chronic, disabling mental disorder affecting about 1% of the general population and is a major contributor to the global burden of disease [1] According to the World Health Organisation (2004), mental illnesses account for 11.5% of the global burden of disease and this figure is projected to increase to 15% by 2020 [2]. Worldwide, 340 million people suffer from mental illnesses, with the majority living in the developing world [2]. With more than 40 million people affected with schizophrenia in low and middle income countries in need of treatment, there exist a huge treatment gap in spite of availability of effective treatment, because of the disparity between mental health needs and available treatment resources [3-5].

Help seeking behaviour is the critical link between the emergence of mental health issues and the provision of mental health care services [6]. Pathways to care has been defined as the sequence of contacts an ailing person makes with services provided by individuals or organisations, prompted by the effort of the distressed persons and those of his or her significant others, in the process of seeking treatment for the ailment [7]. The pathways toward mental illness care are diverse and dependent on socio-cultural and economic factors including the conventions governing referral, the availability/accessibility of mental health services, and the laison between mental health services and the rest of the disciplines [8,9].

Studies have shown that delay in the commencement of appropriate treatment following the onset of psychosis is associated with more severe symptom profile, worse psychosocial functioning, poorer quality of life, and poorer treatment outcomes in patients with schizophrenia [10,11]. It has also been reported that many individuals with first episode psychosis experience significant delays before receiving treatment [12]. Efforts at reducing the time lag in the initiation of treatment for first episode schizophrenia has led to an increasing research interest in the pathways through which people with mental disorders access care, with the view to identifying points of delay and, consequently potential loci of interventions that could minimize the delay [13].

Worldwide several studies [14-16] have been conducted on pathways to mental health care in first episode schizophrenia. These studies have reported variations across countries which have been attributed to differences in socio-cultural, religious, and health service contexts. Also, an individual's ethnic background has been reported to influence decisions about whether and how to seek help, as well as the array of services and supports that are available to the patient throughout the help-seeking process [17,18] Ethnicity which describes the social group a person belongs to based on factors such as language, religion, and place of origin [19] has an impact on illness models and consequently care pathways [20]. In their study, Ferrari M et al. [21] reported that factors that influenced help-seeking delays across the African, Carribean and European ethnic groups were: personal awareness of symptoms, family members' knowledge of psychotic symptoms and knowledge of mental health services. In different cultural settings, previous studies also have highlighted the important role played by family members and relatives in the help seeking pathways of care navigated by patients with mental disorders [22-24]. Family members commonly initiate evaluation and treatment. Del Vecchio et al. [25] reported that the first request for help was made by relatives in 76% of cases.

Physicians and other orthodox medical professionals or services are usually the first point of contact for patients with schizophrenia in western countries, whereas non physicians are the major first point of care for service users in Asia and Africa [26,27]. Previous studies conducted on subjects in Nigeria have highlighted the fact that Pathways patients take to psychiatric care reflects the popular beliefs about mental illness [28]. In Nigeria there are still strong beliefs in magico-religious origins of human ailments, especially mental disorders [29]. Adebowale and Ogunlesi [29] reported that

the majority of patients in their study attributed their ailments to supernatural causes, which explains why visiting a spiritual house was their first option. The continued influence of such healers has been associated with beliefs about witchcraft as a cause of mental illness and with patients' desire to be protected from relapses since traditional and religious healers often claim total cure [30,31]. Previous studies that have explored the influence of socio-demographic and clinical factors on pathways to mental health care have reported inconsistent findings. While some studies have reported that patients whose first contact in the pathway to care were non physicians had significantly longer duration of untreated psychosis [32-34] others did not find such association [35-37]. It has been reported that pathways to care may vary across diagnostic categories. Many of these studies have examined heterogeneous sample with various mental disorders. Research on the pathways to mental healthcare in patients with schizophrenia become imperative as this will enable effective planning of mental health services and programmes to reduce the gap experienced in accessing care and support for those in need. This study explored the pathways to mental health service of families and persons with schizophrenia in Uyo, South-South region of Nigeria before they arrive at mental health care services.

2. MATERIALS AND METHODS

2.1 Location of the Study

This study was conducted at University of Uyo Teaching Hospital from November 2014 to April 2015. The hospital is located in Uyo, the capital city of Akwa Ibom State, Nigeria. The hospital is a 450 bed capacity tertiary healthcare centre that offers secondary and tertiary care. It receives referral from primary and secondary healthcare facilities in the state as well as from the neighbouring states. All diagnoses made in the institution were according to the tenth edition of the International Classification of Diseases and health-related disorders (ICD -10) criteria [38]. Clinically generated data for each subject enrolled were matched to the ICD -10 criteria.

2.2 Subjects

The sample consisted of one hundred and eight (n=108) new patients recruited on the day of their first presentation to the facility. Inclusion criteria consisted of (1) patients with a diagnosis of schizophrenia, according to the International Classification of Diseases (ICD-10) diagnostic criteria, (2) patients whose presentation to the hospital was the first contact with a tertiary mental health care facility since onset of illness

2.3 Procedure

Approval for the study was obtained from the Research and Ethical Committee of the University of Uyo teaching Hospital. Informed consent was obtained from patients and their accompanying family members. Patients who met the inclusion criteria were consecutively recruited into the study after a comprehensive psychiatric evaluation and diagnosis by resident doctors in psychiatry. The Mini International Neuropsychiatric Interview (MINI) English Version 5.0.0 [39] was further used to confirm the diagnosis of schizophrenia in the participants. The MINI was designed as a brief structured interview for the major Axis 1diagnosis in the Diagnostic and Statistical Manual (DSM-IV) [40] and ICD-10.

2.4 Measures

2.4.1 Semi-structured questionnaire

A socio-demographic questionnaire designed by the authors was used to obtain information Socio-demographic details (Age, gender, years of formal education, marital status, place of residence).

The encounter form, filled out by the psychiatrist who saw the patient during the initial interview, was used to gather systematic information about the sources of non orthodox care such as religious and traditional healers including herbalist, prophets, and other Christian or Muslim institutions used by patients before presentation to the mental health professional.

Non-physician pathways were defined as contacts to non orthodox practitioners such as traditional or religious healers, while physician pathways consisted of contacts to general practitioners and other orthodox medical practitioners including psychiatrists. The duration of psychosis before consulting the first contact point and the reasons for the choice of contacts in the pathways to care were explored. The interval in weeks between the onset of psychotic symptoms and contact with professional mental

health care was regarded as duration of untreated psychosis (DUP). DUP is usually defined as the time from the appearance of the first psychotic symptoms to the time of commencement of antipsychotic drug treatment. The onset of psychotic symptoms was determined from information provided by the patients and informants, and a distinction was made between DUP and the onset of illness, which is the emergence of first psychiatric symptoms.

2.4.2 Positive and Negative Syndrome Scale (PANSS) [41]

This was used to assess certain clinical characteristics in the patients with schizophrenia. It includes a structured interview to assess patients on 30 items covering positive and negative symptoms as well as general psychopathology. Of the thirty items included in the PANSS, seven constitute a positive scale, seven a negative scale, and the remaining sixteen a general psychopathology scale. For each item, ratings are made on a 1–7 scale of increasing levels of psychopathology ranging from absent to extreme. The scores for the scales are arrived at by summation of ratings for the component items.

All the above questionnaires used in this study were translated into Ibibio language separately by two bilingual translators. The two versions were combined and revised and then back translated into English by another bilingual translator. The translation was refined after back translation until agreement was obtained among the four people involved in the translations.

For data collection a structured interview was conducted by the researchers by posing questions to patients in English or Ibibio language, depending on the native language of the patient.

2.5 Statistical Analysis

Descriptive statistics such as frequencies, median, mean and standard deviation were computed for socio-demographic and clinical characteristics of the participants and other variables as appropriate. Relevant inferential statistics such as chi-square and *t*-test were used to determine the relationship between outcome and independent variables. Significance was computed at $p < 0.05$.

3. RESULTS

The mean age of the participants was 36.02±11 years. More than half of the sample was males (66.7%). The majority of the participants were single (77.8%) and more than half of them (70.4%) were unemployed. Secondary education was the highest level of education attained by (45.4%) of participants while (43.5%) of them attained up to tertiary education. The mean positive and negative scales scores of PANSS were (30.70±9.1) and (18.37±9.9), respectively (Table 1). The mean general psychopathology scale score of the PANSS was 41.36±12.7. The mean and median DUP were 72.80±75.7 weeks and 52 weeks, respectively.

Table 1. Socio-demographic and clinical characteristics of the participants

Variables	n(%)
Age in years (mean±SD)	36.02±11
Age	
≤20 years	24 (22.2)
>20 years	84 (77.8)
Sex	
Male	72 (66.7)
Female	36 (33.3)
Place of residence	
Rural	36 (33.3)
Urban	72 (66.7)
Marital status	
Single	84 (77.8)
Married	24 (22.2)
Educational level	
Primary	12 (11.1)
Secondary	49 (45.4)
Tertiary	47 (43.5)
Employment status	
Employed	32(29.6)
Unemployed	76(70.4)
PANSS score	
Positive scale score	30.70±9.1
Negative scale score	18.37±9.9
General psychopathology	41.36±12.7
DUP in weeks	72.8±75.7
Number of treatment contacts before tertiary care (mean)	2.0±1.14

Table 2 shows the distribution of patients according to the pathways to care and the reasons given for the choice of the first treatment option used and belief about the cause of the illness by patients/relatives. Of all participants, 65.7% consulted religious healers as the first place of choice for treatment while 11.1% sought

traditional healers as the first contact in the help seeking path to mental health. 19.4% of participants reported poor knowledge about efficacy of orthodox medical treatment and 13.0% cited the influence of significant others in their decision to seek non orthodox treatment alternatives. Psychiatrists were the first contact for 18.5% of participants while 4.6% of participants received medical attention from general medical practitioners before referral.

Almost 19.4% of the patients thought the illness was not amenable to orthodox care while nearly 10.2% had confidence that their first choice of treatment would give them a cure. 36.4% of participants had visited a second religious treatment centre and 41.7% had visited a third religious centre before arriving at a psychiatric treatment service.

Table 3 shows the association between the pathways to care and the socio-demographic and clinical characteristics of the patients. Patients with non orthodox contacts in their pathway to mental health services had longer duration of untreated psychosis ($p<0.001$) and visited a greater number of contacts ($p=0.02$) in their pathways to care. There was significant association between pathways to care and the negative PANSS scores of the participants ($p<0.001$). Patients who first presented to religious and traditional healers had marginally higher scores in the positive symptoms and general psychopathology subscales of the PANSS.

Table 4 shows the association between the duration of untreated psychosis and patients' characteristics. Patients who were younger than 20 years were more likely present to a psychiatric facility within one year of onset of symptoms. Urban residency of patients was associated with early presentation for orthodox medical attention ($p=0.01$) with a shorter duration of untreated psychosis however, they were as likely as their rural counterparts to prefer non orthodox pathways early in help seeking for mental health issues (see Table 3). Only the negative subscale of PANSS was associated with a long duration of untreated psychosis ($p=0.02$).

Table 2. Pathways to care and reasons for choosing non orthodox treatment

Variables	n(%)
Place of first visit for treatment	
Religious healers	71 (65.7)
Traditional healers	12 (11.1)
General/private Hospital	5 (4.6)
Psychiatric Hospital	20 (18.5)
Reason for choice of first place of treatment	
Spiritual/traditional beliefs about causality	55 (50.9)
Ignorance about effectiveness of orthodox treatment	21 (19.4)
Influence of significant others	14 (13.0)
Confident of cure	11 (10.2)
Stigma	6 (5.6)
Proximity	1 (0.9)
Place of second visit for treatment	
Religious healers	28 (36.8)
Traditional healers	12 (15.8)
General/private Hospital	4 (5.3)
Psychiatric Hospital	28 (36.8)
Place of third visit for treatment	
Religious	20 (41.7)
Traditional	12 (20.5)
Psychiatric Hospital	16 (33.3)
Reason for use of psychiatric hospital	
Advice from friends/relatives	71 (65.7)
Referral from religious	12 (11.1)
Minimal/No improvement	5 (4.6)

Table 3. Association between pathways to care and patients' characteristics

Variables	Physician	Non-Physician	X^2	P-value
Gender				
Male	15(21.7)	54(78.3)	1.31	0.25
Female	5(12.8)	34(87.2)		
Employment				
Employed	8(25.0)	24(75.0)	1.26	0.26
Unemployed	12(15.8)	64(84.2)		
Education				
<6 years	14(17.1)	68(82.9)	0.47	0.49
>6 years	6(23.1)	20(76.9)		
Place of residence				
Urban	16(22.2)	56(77.8)	1.96	0.16
Rural	4(11.1)	32(88.9)		
DUP				
Short <52 weeks	14(28.0)	36(72.0)	5.54	0.01
Long>52 weeks	6(10.3)	52(89.7)		
Age in years, mean(SD)	24.00±3.4	24.14±3.9	T=-0.16	0.21
Number of contacts	1.27±0.47	2.08±1.2	T=-4.3	0.02
PANSS				
Positive score	26.80±11.56	31.6±8.46	T=-1.82	0.12
Negative score	9.40±2.21	20.41±9.87	T=-9.47	<0.001
General psychopathology	30.60±9.66	43.81±12.81	T=-5.25	0.21

Duration of untreated psychosis was dichotomised at a median score.

Table 4. Association between duration of untreated psychosis and patients' characteristics

Variables	Duration of illness before treatment < 1 year n(%)	Duration of illness before treatment > 1 year n(%)	X^2	P value
Age				
< 20 years	**16(66.7)**	**8(33.3)**	**5.15**	**0.02**
>20 years	**34(40.5)**	**50(59.5)**		
Gender				
Male	29(42.1)	29(41.4)	1.89	0.17
Female	21(55.3)	17(44.7)		
Employment				
Employed	18(56.3)	14(43.8)	1.81	0.18
Unemployed	32(42.1)	44(57.9)		
Education				
<12 years	25(41.0)	36(59.0)	1.59	0.21
>12 years	25(53.2)	22(46.8)		
Place of residence				
Urban	40(55.6)	32(44.4)	7.45	0.01
Rural	10(27.8)	26(72.2)		
PANSS				
Positive <28	20(50.0)	20(50.0)	0.35	0.55
Positive>28	30(44.1)	33(55.9)		
Negative <28	42(52.5)	38(47.3)	4.78	0.02
Negative>28	8(28.6)	20(71.4)		

4. DISCUSSION

In this study, majority of participants (76.8%) patronised non-orthodox treatment facility as their first treatment option in help seeking for mental disorders. This comprises (65.7%) of those who patronized religious healers as their first contact and (11.1%) of participants who visited traditional healers for their first treatment attention. This finding is similar to previous

Nigerian studies [42-44] which have reported similar high level non orthodox care preference among service users.

This could be attributed to their belief in the supernatural and magical causation of their problem. Half of the patients thought the illness was not amenable to orthodox care and 19.4% of participants expressed ignorance about the effectiveness of orthodox care. This implies that a high percentage of service users in this culture continue to navigate tenuous pathway to effective mental health care in an orthodox setting. It is observed in this study that those who made initial contact with unorthodox practitioners in the pathway of care continued in that path when there were no discernable or remarkable improvements. They were more likely to visit more than one treatment centre. In this study, 41.7% visited a second religious treatment centre and 36.8% visited a third before attention in a tertiary psychiatric facility. It is evident in this study that Religious belief has a strong influence on the choice of treatment for mental illness and patients who were taken to religious or traditional healers tended to delay the time of presentation at psychiatric hospital. Several studies [42-44] reported that consultation with traditional and religious healers often results in significant delays before patients present at the psychiatric clinic. Also, Makanjuola found that such delays were associated with unsatisfactory clinical outcomes [45]. A similar study done in India [46] showed that 85% of clients attending mental health services had consulted religious healers prior to their visit to the hospital. In this study navigation through the unorthodox pathway was a cause of significant delay in the duration of untreated psychosis (DUB) p=0.02. Since patients with schizophrenia present early to religious and traditional healers in Nigeria, there is a possibility of reducing the delay in accessing orthodox mental health service by the liaison of orthodox mental health professionals with traditional healers [13].

In this study, there was no significant association between pathways to care and the socio-demographic characteristics of the participants. This implies that the preferential use of non-orthodox practitioners was regardless of level of education, age, gender, and economic status. Poor knowledge about the efficacy of mental health services was cited by 19.4% of participants to have contributed to non utilization of services at the onset of illness. This finding is similar to a Nigerian study which reported 14.6% of participants being ignorant of mental health services [47]. It is observed that participants with more years of formal education were as likely as those with less years of formal education to choose the unorthodox treatment option first. The low level of knowledge about orthodox mental health services actually implies a lack of knowledge about the nature of mental illness due to poor health education, inaccessibility to good health care services and also low literacy levels prevalent in some areas. Ganasen et al. [48] argues that poor knowledge of mental health issues and services in developing countries can be an obstacle to providing treatment for those in need, and is of particular concern in a resource poor environment. Therefore, interventional health educational strategies focusing on the community may be the way forward. There is the need for effective implementation of mental health services at the primary healthcare level to make evidence of effective treatment for mental health disorders more visible and available. This potentially can improve the community's knowledge, attitude and practices with regard to mental healthcare help seeking behaviour.

In this study, negative symptoms were significantly associated with non physician pathway to care (p=<0.001) implying increased tendencies to delay presentation to orthodox psychiatric treatment. Patients with negative symptoms were more likely to have visited more than one treatment centre before visiting psychiatric hospital compared to those with positive symptoms. This may be due in part to wrong interpretation of problems by relatives and inaccurate diagnosis by the doctors. This is in agreement with previous study which had reported that Non-psychiatric facilities were sought more often when the problems of a patient were mainly of "negative symptoms" such as "deviation from a daily routine" or "impairment in social functioning" [49].

Residential status was a factor in early presentation to psychiatric services. Makanjuola noted that the distance between the patient's home and the psychiatric facility was related to delay in presentation as well as prior treatment by religious or traditional healers [45]. This means that rural people have to travel great distances for specialized care. Due to the absence of these services in the community, religious and traditional healers tend to provide succour to people with mental health issues [50].

This study has some limitations. The reliance on report of subjects to determine the pathway may

introduce bias like recall bias and recall difficulties. Also, the cross sectional nature of the study may not establish causal relationship, therefore the value remains exploratory. The study was conducted in one institution and the findings may not be generalised to the whole country.

5. CONCLUSION

Traditional and religious healers were the first contact for the majority (76.8%) of the patients. Patients who first contacted non-orthodox healers made a greater number of contacts in the course of seeking help compared to those who first contacted orthodox practitioners ($p=0.02$). Negative symptoms of schizophrenia were significantly associated with a longer duration of untreated psychosis ($p<0.001$).

The culture and belief of a people affect their help seeking behaviour towards mental healthcare. Therefore, mental health education intervention measures targeted at the masses and non-orthodox care givers will enhance the overall mental healthcare delivery system in resource poor setting prevalent in many developing countries.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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