

# Duration of Untreated Psychosis and Associated Factors in First Episode Psychosis in Mzuzu in Northern Malawi

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## Abstract

**Objective:** Early intervention is said to improve outcome in first episode psychosis, yet studies in developed countries have persistently found that many individuals with first episode psychosis delay significantly, before they access mental health services. Whether these findings apply to Malawi is not known. This study, therefore, aims to assess the average Duration of Untreated Psychosis (DUP), defined as the interval from first psychotic symptoms to first effective treatment, and assess factors that are associated with DUP in Mzuzu, Malawi. **Methodology:** The study was conducted in a catchment area with a population of 1,022,417. A total of 140 patients were recruited and assessed using Structured Clinical Interview for DSM-IV-TR (SCID), schedule for the assessment of positive and negative symptoms, Beiser Scale, and Global Assessment of Functioning (GAF) Scale. The data were analysed using Statistical Package for Social Sciences (SPSS). DUP was assessed using Beiser Scale, and in-depth interview from carers. Pearson Chi-square was used to analyse factors associated with DUP. **Results:** The mean DUP was 51.70 months. Low level of education, unemployment, diagnosis of schizophrenia, low GAF and negative symptoms were associated with a longer DUP. Most patients were assisted by family members in accessing services, and traditional healers were most commonly the first resource used. Those who first consulted traditional healers had a longer DUP than those who first consulted a health care service. **Conclusion:** The findings indicate that individuals with schizophrenia in Mzuzu have long Dup this could be due to difficulties in accessing health services and that several factors are associated with this delay.

**Keywords:** Schizophrenia; Access to health care; Traditional healers; Culture

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## Introduction

Studies have persistently indicated that patients with First Episode Psychosis (FEP) delay to access effective medical care<sup>1,2</sup>. The delay in accessing effective treatment is said to be influential in the outcome of first episode psychosis<sup>2,3</sup>. There are many factors that may be associated with this delay. Some studies have indicated poor access to services, and primary negative symptoms<sup>4,5</sup>. This they say, sometimes, may lead to less motivation to seek treatment in the patients, and less concern in carers than is the case with positive symptoms. In addition, other studies have shown that being young and having negative symptoms are associated with having carers being involved in help-seeking<sup>6</sup>. This may lead to delays because carers may be trying to observe first before appropriately seeking help, or they may fail to recognise the symptoms. Saint John of God Community Service (SJOG) has been providing mental health services for about eighteen years in Mzuzu. During this period, it has been anecdotally noted that there is a long duration of untreated psychosis (DUP) in individuals with first episode psychosis. The reason or reasons for this are not known. With the current health system in Malawi emphasising integrated primary health care, individuals with any illness should

access health services at a community level and have their illnesses treated as close to their homes as possible, and as soon as possible. However, the current situation and observations made at Saint John of God community service indicate that people with first episode psychosis do not access mental health services early in the course of their illness.

There is currently no information on the average duration of untreated psychosis in this area, nor is there any information on reasons for the apparent delay. Some studies in low- and middle-income countries in Africa have shown differences in mean DUP. For example, in South Africa, mean DUP was as low as 34.4 weeks (8.6 months), and as high as 88 weeks (22 months)<sup>7,8</sup>. In the Netherlands DUP was 61.4 weeks (15.35 months)<sup>4</sup>. In all these studies, DUP was associated with negative symptoms. The reasons for these differences in mean DUP is not clear.

This study, therefore, was conducted to establish the average DUP and its associated factors in Mzuzu, Malawi.

The objectives:

- 1) Assess the duration of untreated psychosis (DUP) in Mzuzu Northern Malawi.
- 2) Assess factors that are associated with DUP in Mzuzu Northern Malawi.

## Methodology

The study was conducted within SJOG community services

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catchment area with a population of 1,022,417. In this catchment area, there are two district hospitals located in two districts, and one referral hospital located in Mzuzu City. All these hospitals provide general health services and are supposed to provide integrated services. However, there are inadequate resources in these hospitals to provide meaningful mental health services. Therefore, a Community Mental Health Care Team (CMHCT) of SJOG visited the communities to sensitise people on early signs and symptoms of FEP, and to provide mental health services. The sensitisation campaign mostly targeted health workers, community leaders, traditional healers, families, and religious leaders. After the general population had been sensitised, the CMHCT received or attended to people who were referred to them directly by members of the community including traditional healers. Furthermore, a hotline was introduced on which members of the community could phone if they had observed somebody with signs and symptoms of FEP, and the CMHCT would assess and provide treatment to this individual within 24 to 48 hours. Regular monthly visits in all these places were established to provide community mental health services. As this was not an incidence study, individuals of 18-65 years of age with signs and symptoms of FEP referred to CMHCT were considered as suitable for the study. However, people with an organic illness, learning disability and substance abuse disorder were excluded from the study. In a period of three years of Community Mental Health Care programme, a total of 400 clients were referred. Out of these patients, 202 met the inclusion criteria. These patients and their families were approached to participate in the research. Ethical approval was sought from the National Health Sciences Research Committee (NHSRC). Research information was given to all participants and informed consent was sought. A total of 140 clients accepted to participate in the study and were recruited. The remaining patients were provided treatment as usual. Before the analysis was performed, outliers were identified and removed as a result only 135 participants were considered for data analysis.

Analysis was done using the Statistical Package for Social Sciences (SPSS) version 16.0. Statistical significance was set at  $P < 0.05$ . For categorical data, chi-square tests were used to study the association of DUP with gender, marital status, level of education, employment status, referral pathway, how help was sought, where help was sought, and diagnosis.

### Instrumentation

All participants were assessed using the five modules of the Structured Clinical Interview for DSM-IV-TR (SCID-1),<sup>9</sup> namely: Module A (for diagnosis of mood episodes), Module B (for psychotic symptoms), Module C (for differential diagnosis for psychotic disorders), Module D (for mood disorders), and Module E (for substance use disorders, and alcohol use disorders-life time). Module E was administered to exclude psychotic disorders secondary to substance and alcohol use. Psychopathology was assessed using Assessment of Positive and Negative Symptoms (SAPS and SANS), and DUP was assessed using Beiser Scale<sup>10</sup> and in-depth interview from carers, to provide additional information was conducted.

### Results

#### Social-demographic characteristics

Of the one hundred and thirty five (135) patients in the study, eighty-two (60.7%) were male and fifty-three (53) were

female (39.3%). The mean age was 34.49 years,  $SD = 11.704$ . Sixty-eight (48.6%) were married, six (4.3%) were widowed eight (5.7%) were divorced, nineteen (13.6%) were separated and thirty-nine (27.9%) had never been married. Forty-nine (36.30%) had primary school education, seventy-four (54.81%) had secondary school education, and only twelve (8.8%) had tertiary education (university or college education). The majority of our clients, one hundred and twenty (88.89%), were unemployed.

#### Help seeking behaviour

One hundred and twenty-one (121) (89.6%) patients did not seek help for themselves. Only fourteen (14) 10% sought help on their own but of these fourteen, four (4) (2%) involved their guardians in this initiative and 10 (7%) sought help without the guardians involvement. Of the patients who sought help on their own, five sought help from traditional healers, five from hospital and four sought help from other sources (church prayers, counsellors).

One hundred and thirty-two (97%) patients had their guardians involved in seeking help and three (3) (2%) guardians did not take any action. Of the one hundred and thirty-two guardians who sought for help, eighty-one (60%) of them sought help from traditional healers; thirty-eight (28%) sought help from hospitals, thirteen (9%) sought for help from other source (church prayers and counsellors), three (2%) did not seek for help at all.

The mean DUP was 51.70 months with a standard deviation of 70.14 months and median 18 months, with positive skewing, indicating variations in DUP. There were significant differences in mean DUP amongst various demographic and clinical variables (Table 1).

In this study, there was no significant association between DUP and gender, marital status, or participants seeking help themselves. However, participants who were employed were statistically significantly more likely to have shorter DUP than those with less education or those who were unemployed.

Longer DUP was associated with a diagnosis of schizophrenia compared to other diagnoses ( $\chi^2 = 58.360$ ,  $df = 6$ ,  $P = 0.000$  (Kruskal-Wallis test). Seeking help from traditional healers was also associated with longer DUP than seeking help from other sources ( $\chi^2 = 13.298$ ,  $df = 2$ ,  $P = 0.001$  (Kruskal-Wallis test).

Pearson chi-square ( $\chi^2$ ) was used to determine linear relationship between DUP and independent variables. There was a statistically significant linear relationship between where patients and their families sought help and DUP. Participants and their families who sought help from traditional healers were more likely to have a longer DUP than those who sought help from hospitals and other services ( $\chi^2 = 10.88$ ,  $df = 3$ ,  $P = 0.012$ ). Type of diagnosis was also associated with DUP in that schizophrenia was associated with longer DUP than other diagnoses ( $\chi^2 = 71.421$ ,  $df = 7$ ,  $P = 0.000$ ). There was also a significant correlation between negative symptoms and DUP ( $r = 0.347$ ,  $p = 0.000$ ) we found no correlation between DUP and positive symptoms ( $r = 0.106$ ,  $p = 0.221$ ).

We did not find any linear relationship between gender and marital status with DUP. Even though there were significant mean DUP differences between level of education and occupation, DUP was not linearly related with

Table 1: showing demographic and Clinical variables and their association with DUP					
	Frequency, n (%)	Mean $\pm$ SD of DUP in Months	$\chi^2$	df	P values
<b>Gender</b>					
Male	82 (60.74)	50.45 $\pm$ 69.286	0.001	1	0.982
Female	53 (39.26)	53.62 $\pm$ 72.065			
<b>Marital Status</b>					
Single (not married)	68 (50.37)	56.24 $\pm$ 72.714	0.896	1	0.344
Married	67 (49.63)	47.09 $\pm$ 67.661			
<b>Level of Education</b>					
Std 8 or less	49 (36.3)	83.08 $\pm$ 84.846	13.048	2	0.001
Form I to Form IV	74 (54.81)	35.32 $\pm$ 54.26			
University or College training	12 (8.89)	24.5 $\pm$ 44.494			
<b>Employment Status</b>					
Employed	15 (11.11)	13.2 $\pm$ 19.702	7.463	1	0.006
Unemployed	120 (88.89)	56.51 $\pm$ 72.69			
<b>Referral pathways A</b>					
Self referral	14 (10.37)	45.57 $\pm$ 62.51	0.096	1	.756
Did not seek help	121(89.63)	52.40 $\pm$ 71.171			
<b>Referral pathway B</b>					
Family referral	132 (97.78)	49.09 $\pm$ 67.635	4.497	1	0.034
Did not seek help	3 (2.22)	166.33 $\pm$ 99.123			
<b>Where help was sought A</b>					
Hospital	5 (3.7)	35.60 $\pm$ 26.51	8.966	2	0.011
Traditional healers	5 (3.7)	88.60 $\pm$ 88.562			
Others	4 (2.96)	4.25 $\pm$ 3.096			
<b>Where help was sought B</b>					
Hospital	38 (28.15)	41.37 $\pm$ 71.247	13.298	2	0.001
Traditional healers	81 (60.00)	58.75 $\pm$ 69.02			
Others	13 (9.63)	11.46 $\pm$ 13.22			
<b>Diagnosis of illness</b>					
Schizophrenia	89 (65.93)	72.19 $\pm$ 76.945	58.360	6	.000
Schizoaffective disorder	6 (4.44)	36.5 $\pm$ 38.635			
Bipolar I disorder	12 (8.89)	13.75 $\pm$ 28.185			
Schizophreniform disorder	20 (14.81)	8.3 $\pm$ 19.636			
Delusional disorder	1 (0.74)	1			
Brief psychotic disorder	5 (3.7)	0.2 $\pm$ 0.447			
Psychotic disorder NOS	1 (0.74)	2			

these variables ( $\chi^2=2.240$ ,  $df=2$ ,  $P=0.326$ ;  $\chi^2=3.146$ ,  $df=1$ ,  $P=0.076$ , respectively).

## Discussion

This is the first study in Malawi, which examines the duration of untreated psychosis and its associated factors. In this study the mean DUP was 51.70 months (about 4.3 years) which is far longer compared to some findings in other studies from both developed and developing countries 3,4,11, where the mean DUP has persistently been estimated to be 1-2 years. Furthermore, the mean DUP of 51.70 months is longer than the mean DUP found in other African countries.<sup>7,12</sup> Also in Asia, where the mean DUP was 16.8 months.<sup>13</sup> These variations in mean DUP is probably due to methodological differences in the studies. The prolonged DUP could reflect the people's multiple, diverse and contradictory explanatory models of illness,<sup>14</sup> which we think may have an influence in help seeking behaviours. The diagnosis of schizophrenia is associated with a longer mean DUP than any other diagnosis. This could be due to the nature of the illness in that people with schizophrenia often have no insight and hence are not motivated to seek treatment early.<sup>6</sup>

## Help Seeking

Families appear to be important in help seeking. Studies have shown that family members seem to notice the change in behaviour of their sick relative in which the patient has limited insight<sup>15</sup> because of the nature of the illness and therefore seek for help on their behalf<sup>13,15</sup>. Other studies in Asia have also indicated that families appear to be important in pathway to care<sup>13</sup>. We note in this study that many family members (81%) first consulted traditional healers. There are a number of possible reasons for this. Cultural beliefs could play an important role. Psychotic symptoms may be seen as evidence of an individual being 'called' to become traditional healers (Kutwatsa or vimbuza).

Other possible cultural explanatory models of psychosis include supernatural causation, sin, punishment or witchcraft<sup>15</sup>. As a result of this, help could be sought from a range of different sources<sup>13,16</sup>. We note that in the study area, witchcraft is viewed as a cause of any illnesses or misfortune. Another possible reason for consulting traditional healers is that they provide an important health care alternative where there are no mental health services or health facilities are

distant and poorly resourced. Only thirty-eight (28%) carers and five (3%) patients utilised health facilities (hospitals) as their first port of call. The stigma around mental illness may deter family members or patients from seeking help at health facilities.<sup>11</sup> The negative perceptions of the causes of mental illness are significant and are compounded by ignorance about biological explanations of aetiology in serious mental illness.<sup>1</sup>

This current research is unable to confirm why people go to traditional healers; however, issues of stigma, accessibility, informality of healers as part of the community and affordability and explanatory models of psychosis may be some of the reasons.

However, whatever the reasons of consulting traditional healers may be, in this study, those who sought help from traditional healers were more likely to have longer DUP than those who sought help from hospitals, counsellors and church players. There are other studies that have also indicated that longer DUP is associated with help seeking which is influenced by attribution of illness cause<sup>17</sup>. It is also important to note that patients who had prominent negative symptoms were more likely to have a longer DUP.<sup>7</sup> This is likely to be due to the nature of symptoms, as patients with negative symptoms may have no insight; they are often withdrawn and apathetic or unmotivated and consequently are not viewed as a danger to anyone.<sup>4,5</sup> Families may tend to observe them at home for sometime before seeking for help.<sup>4,5</sup> It has been said that symptoms recognition is a predictor in oncology<sup>15</sup> and we suggest that this is the same with the first episode psychosis patients. Findings in Hong Kong, confirm that lack of awareness of symptoms was an important determinant of help seeking among first episode psychosis patients.<sup>18</sup> This seems to be consistent with our findings as those with positive symptoms who can be very aggressive and disruptive and therefore perceived to be dangerous to family members and the community were more likely to have shorter DUP as they were usually brought to police or health facilities very quickly. Similar findings were also found in South Africa.<sup>17</sup>

## Conclusion

Although these findings require replication in other epidemiologically based first-episode samples, these results suggest that there is a long mean duration of untreated psychosis (DUP) in Mzuzu and that factors associated with this long DUP include diagnosis, symptomatology, social support, and help seeking behaviours. There is evidence that the majority who sought help from the tradition healers had long DUP and this has a public health implication.

## Recommendation

The findings of this study are a cause for concern. There is need for further research to explore mental health literacy and explanatory models of families and patients with first episode psychosis. In addition there is need to provide accurate information about the biological basis of serious mental illness to the communities as well as traditional healers. This could assist patients with first episode psychosis to access services early.

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