HEALTH PSYCHOLOGY | RESEARCH ARTICLE

Characteristics of delayed and timely treatment seekers for first-episode schizophrenia in Thailand

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Abstract: To reduce delays in accessing services and providing early treatment for patients with first-episode psychosis requires an understanding of the causes of treatment delay. We investigated it among patients with the first-episode schizophrenia (FES) across the country. 302 outpatients with a FES were recruited in one psychiatric hospital, six general hospitals, one community hospital, and one university hospital from June 2017 to August 2018. Those who have the duration of untreated psychosis (DUP) 3 months or longer were considered as delayed treatment seekers. The relative influences of patients’ characteristics on the delay in treatment-seeking were estimated on logistic regression analyses. The mean and median DUP was 9 weeks (standard deviation: 12) and 4 weeks (interquartile range: 2–9), respectively. 24% of the enrolled patients were delayed treatment seekers. Those living 6–10 km away and those living more than 20 km away from the hospital tended to be delayed treatment seekers, while those who had a family history of mental disorders tended to have sought treatment timely. Since the distance to the hospitals was a potential barrier to seeking health care among patients with FES, providing outreach mental health services and transportation support may be considered to shorten treatment delay in Thailand.

Subjects: Medicine; Medicine, Dentistry, Nursing & Allied Health; Psychiatry

Keywords: Duration of untreated psychosis; first-episode psychosis; schizophrenia; Thailand

ABOUT THE AUTHOR

Patcharapim Takizawa is a psychiatrist in Thailand and currently Ph.D. student of the Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan. We are a multidisciplinary research team involving a range of health care professionals, including psychiatrists, psychiatric nurses, and public health professors from Thailand and Japan. Our main interest is to improve knowledge and treatment gaps among patients with schizophrenia in Thailand. We hope the results of our studies will benefit mental health care policy in Thailand and contribute a new strategy to improve the pathways to care for patients with schizophrenia.

PUBLIC INTEREST STATEMENT

Reducing delays in accessing mental health care services and providing early treatment for patients with first-episode psychosis are key strategies in preventing the impact of this illness. In Thailand, more than half of the individuals with psychosis experience a prolonged delay in accessing mental health services. However, the reasons for this have not been studied. Therefore, we examined the characteristics of patients with first-episode schizophrenia who delayed seeking treatment, and compared them to those of the patients with first-episode schizophrenia who sought timely treatment.
1. Introduction
The World Health Organization and the International Early Psychosis Association have emphasised that patients with first-episode psychosis (FEP) should receive treatment within 3 months from the onset of symptoms to reduce the impact of the illness and increase the chance of recovery (Bertolote & Mcgorry, 2005; Phahladira et al., 2020). The earlier the treatment starts after the onset of FEP, the more effective the management of symptoms and improvement of outcomes will be during the course of the illness (Lieberman et al., 2019).

Currently, the mental health service system in Thailand is not equipped to appropriately respond to the treatment needs of patients with mental illnesses. All Thai citizens face fewer financial barriers in utilising healthcare services because of universal health insurance, and mental health care is integrated into primary care services in the local communities; however, more than half of the individuals with psychosis experience a prolonged delay in accessing mental health services (Pavasuthipaisit et al., 2016). This might be reflective of the lack of adequate understanding regarding mental illnesses in the society. Moreover, some people still believe that psychoses are caused by supernatural beings and are untreatable (Udomratn, 2007).

While there is a paucity of research on the reasons for the delay in seeking help among patients with FEP in Thailand, factors influencing this delay have been identified in other countries, such as age at onset, gender, education, perceived stigma, family support, and the availability and affordability of health care services (Kelly K. Anderson et al., 2010; Jansen et al., 2015; Kaminga et al., 2019; Thakoor et al., 2016). The effects of these factors depend on sociocultural structures and the healthcare environments in these countries. Therefore, it is necessary to identify context-specific factors to improve access to mental healthcare services (Kelly K. Anderson et al., 2013; Srirhari et al., 2014). Hence, we compared the characteristics of patients in Thailand with first-episode schizophrenia (FES) who delayed seeking treatment with those of the patients with FES who sought timely treatment.

2. Materials and methods

2.1. Participants
The participants of this study were outpatients aged 18–55 years, who were diagnosed with FES based on the International Classification of Diseases, Tenth Revision (ICD-10) criteria (F20.0-F20.9) in the past 12 months, and were taking adequate doses of chlorpromazine equivalents of antipsychotic drugs (Woods, 2003). We recruited such patients from the outpatient clinics of one psychiatric hospital, six general hospitals, one community hospital, and one university hospital in the southern, middle, and north-eastern parts of Thailand from June 2017 to August 2018. We excluded patients who had a history of psychotic conditions associated with mental retardation or organic diseases, and those with severe medical conditions that deterred participation in the study.

This study was based on the baseline data of a prospective cohort study that was designed to estimate the impact of duration of untreated psychosis (DUP) on remission among patients with FES. The cohort study required a sample size of 302 with a 5% significance level and a power of 80%, and with an assumption that the remission rate would be 80% among patients with a shorter DUP, whereas 65% among patients with a longer DUP (Malla et al., 2002). For this study, we obtained ethical approval from the review board at University of Tsukuba (No. 1188), as well as from each of the participating hospitals (No. 01/2560, 015/2560, 005/2560, 053/2560, 40/2559, 026/2560, 018/2560, 212/2560, and 09/2560).

2.2. Data collection
Hospital staff, such as psychiatric nurses, psychologists, or psychiatrists who were experienced in assessing psychotic disorders, conducted face-to-face interviews with the patients and their
caregivers in a designated interview room at each hospital, using semi-structured questionnaires. In cases where the patients were unable to answer questions, such as the approximate date of the onset of FEP, their caregivers were requested to answer the questions, if appropriate.

2.3. Measures
DUP was expressed as the number of weeks since the first manifestation of positive psychotic symptoms until the time of visiting a mental health care service to seek treatment for psychosis (Apeldoorn et al., 2014; Morgan et al., 2006; Oliveira et al., 2010). The date of the first manifestation of symptoms was determined as the date when the participants or their caregivers recognised hallucinations, delusions, or clear disorganised speech or thought in the participants (Andreasen et al., 1992). If there was more than one episode of psychosis and the first episode was not contiguous, we calculated the DUP from the first active positive psychotic episode. Since it is recommended that the treatment of FEP should start as early as possible, preferably within three months from the onset (Bertolote & Mccorry, 2005), the participants were considered as delayed treatment seekers if the DUP was three months (12 weeks) or longer; otherwise, they were considered to be timely treatment seekers.

The patients were diagnosed with schizophrenia according to the ICD-10 criteria (Lindström et al., 1997), wherein symptoms such as disorganised thought, delusions, hallucinatory voices, catatonic behaviour, and negative symptoms must be present and continue for at least one month.

2.4. Statistical analyses
First, we compared delayed and timely treatment seekers on the basis of characteristics that are known to influence, or that would potentially influence, the DUP, such as sex (Okasha et al., 2016), age (Okasha et al., 2016), marital status (Pek et al., 2006), education (Okasha et al., 2016), employment (Morgan et al., 2006; Nishii et al., 2010; Pek et al., 2006), living arrangements (Compton et al., 2011; Morgan et al., 2006; Nishii et al., 2010), the distance from their house to the hospital (Gulliver et al., 2010; Kvig et al., 2017), history of substance use (Souabiy et al., 2019), family history of mental disorders (Chen et al., 2005; Okasha et al., 2016), and hospital types (Kataria et al., 2018). Subsequently, logistic regression analyses were performed to estimate the relative influences of these characteristics on the delay in treatment seeking, using an adjusted odds ratio and 95% confidence interval.

3. Results
Of the 319 eligible patients who met the inclusion criteria, 302 (95%) agreed to participate in the study. Their mean age was 33 years (standard deviation (SD): 10). The majority were male (66%), single (62%), had an education level of junior high school or lower (62%), unemployed (51%), lived with family or friends (95%), lived within 5 km from the hospitals (66%), had a history of substance use (69%), did not have a family history of mental disorders (76%), and used non-psychiatric hospital services (52%). The mean and median DUP was nine weeks (SD: 12) and four weeks (interquartile range [IQR]: 2–9), respectively. Moreover, 71 participants (24%) had a DUP of 12 weeks or longer (delayed treatment seekers). The results of the logistic regression analyses revealed that those living 6–10 km away and those living more than 20 km away from the hospital tended to be delayed treatment seekers, while those who had a family history of mental disorders were more likely to have sought treatment timely. Table 1 shows the characteristics of delayed and timely treatment seekers and the relative influence of these characteristics on the delay in treatment seeking.

4. Discussion
We found that those living more than 5 km away from the hospital tended to be delayed treatment seekers among the patients with FES; this was especially true for those living over 20 km away from the hospital. Our findings suggest that the distance to the hospitals could be a barrier to seeking
| Variables                      | Age          | Sex      | Marital status          | Education               | Employment status |
|-------------------------------|--------------|----------|-------------------------|-------------------------|-------------------|
| Short DUP (<12 weeks)         | Long DUP ≥12 weeks |          |                         |                         |                   |
| n (%)                         | n (%)        | Adjusted odds ratio | 95% confidence interval | Adjusted odds ratio | 95% confidence interval |
| < 30 years                    | 94 (41)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| 30–40 years                   | 79 (34)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| > 40 years                    | 58 (25)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Male                          | 152 (66)     | 1.27     | 0.61 to 2.61            | Ref                     |                   |
| Female                        | 79 (34)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Single                        | 141 (61)     | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Married                       | 63 (27)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Widowed/Divorced/Separated    | 27 (12)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Elementary school level       | 81 (35)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Junior high school level      | 57 (25)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Senior high school level      | 52 (21)      | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Vocational, university, or higher | 41 (18)  | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Employed                      | 114 (49)     | 0.70     | 0.29 to 1.67            | Ref                     |                   |
| Variables                        | Short DUP (<12 weeks) | Long DUP ≥12 weeks) | Adjusted odds ratio * | 95% confidence interval |
|---------------------------------|-----------------------|----------------------|-----------------------|-------------------------|
|                                 | n (%)                 | n (%)                |                       |                         |
| Unemployed                      | 117 (51)              | 38 (54)              | 1.36                  | 0.74 to 2.51            |
| Living arrangements             |                       |                      |                       |                         |
| Live with family or friends     | 221 (96)              |                      | Ref                   |                         |
| Live alone                      | 10 (4)                | 66 (93)              | 1.95                  | 0.55 to 6.83            |
| Distance to the hospital (km)   |                       |                      |                       |                         |
| ≤ 5 km                          | 163 (70)              |                      | Ref                   |                         |
| 6–10 km                         | 36 (16)               | 37 (52)              | 2.15                  | 1.02 to 4.48            |
| 11–20 km                        | 17 (7)                | 17 (24)              | 2.18                  | 0.83 to 5.73            |
| > 20 km                         | 15 (7)                | 8 (11)               | 3.28                  |                         |
| Substance use history           |                       |                      |                       |                         |
| No                              | 73 (32)               |                      | Ref                   |                         |
| Yes                             | 158 (68)              | 20 (28)              | 1.42                  |                         |
| Family history of mental disorders |                   |                      |                       |                         |
| No                              | 169 (73)              |                      | Ref                   |                         |
| Yes                             | 62 (27)               | 62 (87)              | 0.34                  |                         |
| Hospital types                  |                       |                      |                       |                         |
| Psychiatric hospitals           | 106 (46)              |                      | Ref                   |                         |
| Non-psychiatric hospitals      | 125 (54)              | 39 (55)              | 0.73                  | 1.26 to 8.57            |
|                                 |                       | 32 (45)              |                       | 0.68 to 3.00            |
|                                 |                       |                       |                       | 0.15 to 0.76            |
|                                 |                       |                       |                       | 0.40 to 1.30            |

*Adjusted for age, sex, marital status, education, employment status, living arrangements, distance to the hospital, substance use history, family history of mental disorders, and hospital types.
health care among patients with FES. In Thailand, mental health care services are combined with primary care services that have been provided in local communities for many years (Udomratn, 2007; WHO and Ministry of public health, Thailand, 2007). However, patients with mental illnesses are likely to be referred to psychiatric or tertiary hospitals because of limited capacity in specialised mental health care units at the primary care level (Udomratn, 2007; WHO and Ministry of public health, Thailand, 2007). Therefore, the delay in treatment seeking is less likely to be due to the unavailability of health services in rural areas, and more likely to be caused by either a lack of means of transportation to the hospital or financial difficulties with accessing any transportation (Kullanit & Taneepanichskul, 2017; Syed et al., 2013; Thammatacharee et al., 2012; Wallace et al., 2005).

The participants who had a family member with a history of mental disorders tended to seek treatment earlier than their counterparts. A potential explanation for this finding is that the past experience of psychiatric illness and health care utilisation in the family might have helped the participants or their family members notice the onset of the symptoms and seek treatment promptly (Chen et al., 2005).

The proportion of delayed treatment seekers in our study was 24%, which was lower than the 52% that was previously reported among patients with psychosis in Thailand (Pavasuthipaisit et al., 2016). This might be because the previous study in Thailand included those who had other psychoses, such as affective psychosis, brief psychosis, and other non-organic psychoses, while our study targeted only patients with FES. Furthermore, if the symptoms of psychosis are severe and the onset is acute, individuals seek care earlier (Chang, Tang, Hui, Lam, Wong et al., 2012; Chen et al., 2005), which may be the case for schizophrenia. On the other hand, individuals who experience milder symptoms and a more gradual development of psychosis might delay seeking help as they might be able to adapt their lifestyle to the illness or experience delay in recognising any abnormal symptoms (Chang, Tang, Hui, Lam, Wong et al., 2012; Chen et al., 2005).

The proportion of delayed treatment seekers in our study was also lower than that in other studies outside Thailand, although all of these studies were hospital-based and used the same definition of delay (Albert et al., 2017; Chang, Tang, Hui, Lam, Chan et al., 2012; Chang, Tang, Hui, Lam, Wong et al., 2012; González-Valderama et al., 2017; Harrigan et al., 2003; Harris et al., 2005; Thakoor et al., 2016; Verdoux et al., 1998). This difference might be partly explained by the following factors: (1) the presence of universal health coverage in Thailand, which reduces financial barriers to health care utilisation (Tangcharoensathien et al., 2012), (2) an exceptionally high prevalence of substance use history among the participants, which might have amplified the severity of symptoms and prompted timely treatment-seeking behaviour (Carr et al., 2009; Mauri et al., 2006; Souaiby et al., 2019), and (3) different sample characteristics in these studies.

The findings of this study, however, need to be interpreted in light of some of the study’s limitations. First, the study participants were recruited from outpatient clinics at hospitals that were mainly located in rural regions. Therefore, our findings are not generalisable to patients in urban regions where transportation is readily available. Moreover, the findings pertaining to outpatients might not be applicable to inpatients who may have had more severe symptoms, thereby being prompted to seek treatment irrespective of the distance to the hospital. Second, this cross-sectional study involved patients who had already started treatment. Therefore, we were unable to examine factors influencing treatment-seeking behaviour that could change due to the treatment, such as the internalised stigma of mental illness. Such modifiable factors should be further studied in future research.
5. Conclusions

The distance to the hospital was a potential barrier to seeking health care among patients with FES in Thailand. To overcome this barrier and facilitate timely treatment seeking, establishing outreach mental health services and providing transportation support may be considered.

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Competing interests

The authors declare that they have no competing interests.

Data availability statement

The data that support the findings of this study are available from the corresponding author, [TakizawaP], upon reasonable request.

Citation information

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