Original Research

The Association Between Sociodemographic Factors, Onset and Duration of Ilness With Personal and Social Performances in Outpatient Chronic Schizophrenia in Stabilization Phase

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Abstracts

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Introductions: Schizophrenia is a serious mental illness that affects a person's daily quality of life. Various factors such as sociodemographic factors, onset, and duration of illness can be related to the quality of life in schizophrenia. The parameter for measuring quality of life in schizophrenia patients is the Personal and Social Performance Scale (PSP Scale). This study is aim to analyze the association between sociodemographic factors, onset, and duration of illness in outpatient chronic schizophrenia patients in the stabilization phase with their personal and social performances. **Methods:** This study is an observational analytical research with a cross-sectional study design. The sample of this study was outpatient chronic schizophrenia stabilization phase in a mental hospital of North Sumatra Province, Prof. Dr. Muhammad Ildrem Medan Mental Hospital and selected using the purposive sampling method, where after calculating using the multivariate analysis predictive concept method, the number of samples needed was 80 samples. The data used is primary data obtained directly from respondents. The analysis used is univariate, bivariate and multivariate analysis with chi-square. **Results:** There is a significant relationship between the level of personal and social function with education level (p=0.002), marital status (p=0.001), and employment (p=0.002) in outpatient chronic schizophrenia stabilization phase. **Conclusion:** The results of multivariate analysis showed that the most significant variables with personal and social function in outpatient chronic schizophrenia stabilization phase were marital status (OR=4.395), employment (OR=4.220), and education level (OR= 0.220) in order of the variables with the greatest strength of influence.

Keywords: Schizophrenia, sociodemographic factors, PSP scale

INTRODUCTIONS

Schizophrenia is a syndrome or variation of the disease with symptoms of deviation in the thoughts, perceptions, emotions, and behaviour disorder [1]. The symptoms of schizophrenia are divided into two categories: positive symptoms and negative symptoms. In the case of positive symptoms, individuals with schizophrenia experience the sensation of their thoughts echoing and repeatedly circulating in their minds, accompanied by delusions, hallucinations, and persistent false beliefs. In contrast, negative symptoms manifest as extreme apathy, infrequent speech, and social withdrawal [2]. According to the American Psychiatric Association (APA), patients with schizophrenia go through three stages in their lives: the premorbid phase, the prodromal phase, and the psychotic phase. During the premorbid phase, an individual's functions remain as usual. In the prodromal phase, several non-specific symptoms emerge, including difficulty sleeping, anxiety, irritability, depression, lack of focus, fatigue, and even a decline in social functioning and personal performance. These symptoms can last for several months to years before a definitive schizophrenia diagnosis is made. The symptoms experienced by individuals with schizophrenia often affect social performance, cognitive decline, and social and personal functioning [2], [3], [4].

The results of research conducted by Global Health Metric in 2017 stated that schizophrenia is the top cause of disability in the world with a prevalence of nearly 1% of the world's population [5]. Data from the World Health Organization (WHO) in 2022 indicates that schizophrenia affects 24 million people worldwide, or 1 in 300 individuals (0.32%), with 1 in 222 (0.45%) occurring in adults [6]. The Basic Health Research Indonesia (Riskesdas), conducted in 2018, reported an increase in the prevalence of schizophrenia in Indonesia, rising to 400,000 people, or from 1.7 to 7.0 per 100,000 population. North Sumatra ranks sixth in Indonesia for the highest number of schizophrenia cases, with a prevalence of 6.0 per 100,000 population. Epidemiological data show that the onset of schizophrenia often occurs in late adolescence or early adulthood, typically between the ages of 20 and 45 years, and it is more prevalent in men than in women [7].

Schizophrenia is caused by several factors. The first factor is genetic, where the closer an individual's relation to someone with schizophrenia, the higher the risk of developing the disorder. The second factor is psychosocial stressors, such as marital problems that force an individual to adjust to life changes. The third factor is education level. According to the sociogenic hypothesis, low education levels lead to stress, which can trigger the onset of schizophrenia. The fourth factor is employment status. Work-related issues can serve as stressors, and if not properly managed, they may contribute to the development of schizophrenia [8].

Schizophrenia is a serious mental illness that can cause various complications that affect the daily life of a person's quality life. Sociodemographic factors such as low education level, marital status, low income level, and employment may be associated with complications in schizophrenia patients. The level of education and employment status can affect a person's ability to interact socially and understand applicable social rules, schizophrenia patients with low education levels and unemployment will have difficulty in understanding and following social norms, as well as difficulty in carrying out complex social tasks. Social support such as marital status and family support have a positive impact on the social functioning of patients with schizophrenia [9], [10].

The onset and duration of illness in schizophrenia patients significantly affect the severity of complications, particularly in personal and social performances. The onset of schizophrenia patienst at a younger age is associated with more severe

complications and a greater impact on social and personal development, which can affect interpersonal relationships, independence, and overall social functioning. The length of illness in schizophrenia patients affects the complications of the sufferer. The duration of illness also influences the complications experienced by patients. The longer a person endures uncontrolled symptoms of schizophrenia, the more likely they are to experience a decline in social function and difficulty in performing daily tasks [9], [11], [12]. A study conducted in Jordan found a relationship between the level of education, social support, and employment with the quality of life in schizophrenia patients. However, a study conducted in Sweden found that sociodemographic factors had only a weak relationship with the quality of life in schizophrenia patients [9].

Schizophrenia is the leading disability-causing serious mental illness worldwide due to its complications, which significantly affect the quality of life. The quality of life in schizophrenia patients may be influenced by sociodemographic factors, as well as the onset and duration of the illness. One tool used to measure the quality of life in schizophrenia patients is the Personal and Social Performance Scale (PSP Scale). Therefore, this study aims to analyze the association between sociodemographic factors, onset, and duration of illness in outpatient chronic schizophrenia patients in the stabilization phase with their personal and social performances.

METHODS

Participants

This study is an observational analytical research with a cross-sectional design. The sample consisted of outpatients in the chronic schizophrenia stabilization phase at Prof. Dr. Muhammad Ildrem Medan Mental Hospital in North Sumatra Province, selected using purposive sampling. Eighty outpatients in the chronic schizophrenia stabilization phase were recruited as

participants through consecutive sampling. Inclusion criteria included being male, aged 25-60 years, diagnosed with schizophrenia according to the ICD-10 criteria, in a stable treatment phase, and accompanied by a family member or caregiver familiar with the patient's condition for at least one month. Exclusion criteria included having chronic physical diseases that could affect social and personal functioning in daily living, as well as comorbidity with substance use or other mental disorders.

Research Instrument

The instrument applied in this research is the Personal and Social Performance Scale (PSP), which measures how well patients with schizophrenia perform in their personal and social lives. Morosini et al. introduced the PSP scale in 2000, after its development began in 1999, to assess the social functioning and personal performance of patients. dr. Dharmawan A. Purnama, Sp.KJ, validated this instrument in Indonesia in 2008, giving it a validity score of 0.77. The PSP scale is divided into four main domains: aggressive and disruptive behavior, which has five components; self-care, which has six components; useful social activities, which has three components; and personal and social relationships, which have two components [13]. The PSP scale assessment uses a tiered scoring approach, allowing for scores based on clinical observations, information from patients and families, and medical records. This research took place between June and August of 2023. Ethical clearance for the study was obtained from the Research Ethics Committee of the Medical Faculty at the University of Sumatera Utara, Medan (ref no: 842/KEPK/USU/2023). The study used the Statistical Package for the Social Sciences (SPSS) and Microsoft Excel to analyze statistical data.

RESULTS

Eighty outpatients in the chronic schizophrenia stabilization phase at Prof. Dr. Muhammad Ildrem Medan Mental

Hospital were included in this study. As shown in Table 1, most participants (n = 40, 50%) were in the age group of 25-35 years. The majority of participants had a high educational level (55%), were unmarried (66.3%), unemployed (68.8%), had an onset of illness at 19 years or older (86.3%), a duration of illness of five years or less (52.5%), and a low level of personal and social performance (70%).

Table 1. The distribution of the sample

Variable		n = 80	Percentage (%)
Age	< 25 years	5	6.3
	25 – 35 years	40	50
	> 35 years	35	43.8
Education Level	< 12 years (low)	36	45
	≥ 12 years (High)	44	55
Marital Status	Maried	27	33.8
	unmarried	53	66.3
Employment	Employed	25	31.3
	Unemployed	55	68.8
Onset of Ilness	< 19 years	11	13.8
	≥ 19 years	69	86.3
Duration of Ilness	≤ 5 years	46	57.5
	> 5 years	34	42.5
PSP Scale	≥ 70 (High Level)	24	30
	< 70 (Low Level)	56	70

According to Table 2, a higher level of personal and social performance functioning was more prevalent in the age group of 25-35 years (31.3%), among those with a high education level (25%), married individuals (20%), employed participants (17.5%), those with an onset of illness at 19 years or older (27.5%), and those with a duration of illness of five years or less (18.8%). There was a significant relationship between the level of personal and social functioning and education level (p = 0.002), marital status (p = 0.001), and employment (p = 0.002). However, there was no significant relationship between the level of personal and social functioning and age (p = 0.717), onset of illness (p = 0.490), or duration of illness (p = 0.730).

Table 2. Relationship sociodemographic factors, onset and duration of illness with social and personal level

Variable		Level of functional		p
		High (%)	Low (%)	
Age	< 25 years	5	1.3	
	25 – 35 years	31.3	18.8	0.717
	> 35 years	27.5	16.3	
Education Level	< 12 years (low)	5	40	0.002
	≥ 12 years (High)	25	30	
Marital Status	Maried	20	27	0.001
	unmarried	10	53	

Table 2. Relationship sociodemographic factors, onset and duration of illness with social and personal level

Variable		Level of functional		p
		High (%)	Low (%)	
Employment	Employed	17.5	13.8	0.002
	Unemployed	12.5	56.3	
Onset of Ilness	< 19 years	2.5	11.3	0.490
	≥ 19 years	27.5	58.8	
Duration of Ilness	≤ 5 years	18.8	38.8	0.730
	> 5 years	11.3	31.3	

Multivariate logistic regression analysis (Table 3) revealed that education level, marital status, and employment significantly influence the level of personal and social performance. The strength of the relationship, from largest to smallest, is as follows: marital status (OR = 4.395), employment (OR = 4.220), and education level (OR = 0.220).

Table 3. Multivariate Analysis

Variable	P Value	EXP (B)	95% CI	
			Lower	Upper
Educational Level	0.029	0.220	0.57	0.856
Marital Status	0.013	4.395	1.363	14.172
Employment	0.016	4.220	1.303	13.928

DISCUSSIONS

In this study, it was found that the proportion of outpatient chronic schizophrenia patients in the stabilization phase with low levels of personal and social performance function (70%) was higher than those with high levels of personal and social performance function (30%). These results are consistent with previous research conducted by Farizah et al. in 2019 on outpatient schizophrenia patients at Atma Husada Mahakam Samarinda Mental Hospital, where 23 respondents had low social function and 15 had high social function. Similarly, Suprapti et al. in 2020 conducted a study at Dr. Amino Gundohutomo Hospital Semarang and found 37 respondents with low social function and 27 with high social function [13], [14].

There was a significant relationship between the level of personal and social functions with educational level (p = 0.002), marital status (p = 0.001), and employment (p = 0.002). However, no significant relationship was found between the level of personal and social functions with age (p = 0.717), onset of illness (p = 0.490), or duration of illness (p = 0.730). This aligns with the literature, which states that schizophrenia generally occurs in young adults, most commonly in the 25-30 age group [15]. As age increases in schizophrenia patients, there is less decline in cognition and other domains, suggesting that the relationship between age and schizophrenia is not very pronounced [16].

The analysis of education level on personal and social function performance aligns with the literature, which states that education level significantly influences social function and personal performance in schizophrenia patients. A higher level of education is associated with better outcomes in schizophrenia patients, while a lower level of education is linked to poorer outcomes [10]. The analysis of marital status on personal and social function performance is supported by the literature, which states that patients who are married tend to have better outcomes. This may be attributed to the support of family and relatives, which helps patients manage the stress they experience [17]. The analysis of occupation on personal and social function performance found that active socialization, such as having a job, plays a crucial role in the recovery

and positive outcomes for schizophrenia patients, even when they still exhibit active psychotic symptoms [11].

The analysis of the onset of schizophrenia on personal and social function performance found that the majority of respondents (86.3%) had an onset age of 19 years or older, with 58.8% demonstrating poor function and 27.5% showing good function. This aligns with the literature, which states that an earlier onset of schizophrenia is associated with worse social function. However, appropriate and timely treatment can improve social function and personal performance [11], [12]. The analysis of the duration of schizophrenia on personal and social function performance, it was found that the majority of respondents (71.3%) had experienced schizophrenia for less than 10 years, with 51.2% having poor function and 20% having good function. Among respondents with a duration of schizophrenia of 10 years or more, 18.8% had poor function and 10% had good function. In 2012, Buoli stated that a longer duration of schizophrenia is associated with worse outcomes due to brain tissue damage, which makes it more challenging for patients to respond to treatment [18].

The results of the multivariate logistic regression indicate that marital status is the most significant variable related to personal and social function perfomance, with an odds ratio (OR) of 4.395. This means that unmarried subjects have a 4.395 times higher probability of having poor functional performance compared to married subjects. Additionally, the employment variable has an OR of 4.220, indicating that subjects who are unemployed have a 4.220 times higher probability of having poor functional performance compared to those who are employed. The education level variable has an OR of 0.220, suggesting that subjects with a low level of education are 0.220 times more likely to have poor functional performance compared to those with a high level of education.

Previous studies have examined the factors influencing the Personal and Social Performance (PSP) value. This study shows that the most significant factor affecting the PSP value is the patient's employment, as work is believed to provide substantial psychosocial support for schizophrenia patients [19]. In contrast, another study conducted by Monika J in 2012 found that the most significant factor influencing the PSP value was the level of education, with an OR of 4.472 [20].

CONCLUSIONS

The high level of social and personal performances functioning in outpatient chronic schizophrenia stabilization phase were only found by 24 people (30%), while as many 56 people were in low level (70%). There was a significant relationship between the level of personal and social functions with education level (p = 0.002, OR = 0.220), marital status (p = 0.001, OR = 4.395), and employment (p = 0.002, OR = 4.220).

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CONFLICT OF INTEREST

No potential conflict of interest

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