

Analysis of Psychotropic Drug Adherence Among Patients with Anxiety Disorders Based on the Theory of Planned Behavior at Kraton Regional Hospital

Syifa Aldiena, Ekanita Desiani*

Fakultas Farmasi, Universitas Pekalongan

*Penulis Korespondensi : ekanitadesiani@gmail.com

Abstract

Anxiety disorder is a psychological condition related to mental disturbances, commonly treated with psychotropic medications that affect the brain and nervous system. Patient adherence to medication is critical for treatment effectiveness and relapse prevention. This study applies the Theory of Planned Behavior (TPB) to analyze factors influencing medication adherence among outpatients with anxiety disorders at the Psychiatric Clinic of Kraton Regional Hospital, Pekalongan. Using a cross-sectional design, data were collected from 68 patients diagnosed with anxiety and undergoing treatment with prescribed psychotropic drugs. A structured questionnaire was used to measure attitudes, subjective norms, and perceived behavioral control in relation to behavioral intention and medication adherence.

Spearman correlation tests revealed significant relationships between adherence and intention ($p=0.020$, $r=0.280$), attitude and intention ($p=0.000$, $r=0.442$), subjective norm and intention ($p=0.004$, $r=0.348$), and perceived behavioral control and intention ($p=0.000$, $r=0.485$). These findings indicate that patients' attitudes, social influences, and perceived control play important roles in shaping their intention and adherence to medication.

In conclusion, strengthening these psychological factors through targeted interventions may improve adherence among patients with anxiety disorders.

Keywords: anxiety disorder, medication adherence, psychotropic drugs, Theory of Planned Behavior

Introduction

Anxiety disorder is a psychological condition characterized by excessive and persistent worry that interferes with daily functioning. According to Rabbani et al. (2024), global cases of anxiety disorders significantly increased in 2020, with an estimated prevalence of 35.6%. Southeast Asia accounts for 23% of the global burden. In Indonesia, the 2018 Basic Health Research (Riskesdas) reported over 26,000 cases of mental disorders, and in Central Java, the number has continued to rise annually (Priyanti et al., 2021).

Treatment for anxiety disorders commonly involves psychotropic drugs such as SSRIs, SNRIs, TCAs, and MAOIs. However, irrational or prolonged use of these medications may lead to dependence (Permenkes RI, 2023). Patient adherence is essential to ensure treatment effectiveness and prevent relapse.

The Theory of Planned Behavior (TPB), proposed by Ajzen (2005), explains that behavioral intention, shaped by attitude toward the behavior, subjective norms, and perceived behavioral control, influences a person's actions, including medication adherence. Understanding these components can help identify psychosocial factors that affect patient adherence.

This study applies TPB as an analytical framework to examine psychotropic medication adherence among patients with anxiety disorders, a topic that has not been widely explored. The findings are expected to support the development of more effective strategies to improve treatment compliance and optimize anxiety disorder management.

METHOD

This study is a descriptive cross-sectional study that assessed medication adherence to psychotropic drugs among 68 patients with anxiety disorders at the Psychiatric Outpatient Clinic of RSUD Kraton Pekalongan.

The sample was selected using purposive sampling (inclusion criteria: diagnosed with anxiety disorders, receiving psychotropic medication, and willing to participate; exclusion criteria: severe personality disorders or undergoing intensive inpatient care). The independent variables (adherence, attitude, subjective norms, and perceived behavioral control) and the dependent

variable (intention) were measured using a validated Likert-scale questionnaire (validity > 0.6; reliability Cronbach's α > 0.7). Data collection was conducted through self-administered questionnaires following informed consent. Data were analyzed using univariate methods for descriptive statistics and bivariate analysis (Spearman correlation) to examine relationships between variables, with strict assurance of respondent anonymity and data confidentiality.

Materials

The materials used in this study consisted of both medical records and structured questionnaires. Medical records were employed to identify patients diagnosed with anxiety disorders and prescribed psychotropic medications at RSUD Kraton.

The main research instrument was a questionnaire adapted and modified from Givensyah (2024), based on the Theory of Planned Behavior (TPB). The questionnaire measured five key variables: adherence, attitude toward behavior, subjective norm, perceived behavioral control, and behavioral intention. Each construct was assessed using a 4-point Likert scale, except for the adherence scale, which used binary responses (Yes = 1, No = 0) and was based on the modified Morisky Medication Adherence Scale (MMAS-8).

All instruments were tested for validity and reliability. The validity test showed correlation coefficients above 0.6, while the reliability test using Cronbach's Alpha yielded coefficients greater than 0.7 for all variables, indicating acceptable internal consistency.

Research Procedure

This study was conducted at Kraton Regional General Hospital (RSUD Kraton) in Pekalongan during May 2025, employing a quantitative correlational approach based on the *Theory of Planned Behavior (TPB)* as proposed by Ajzen. The sample consisted of 68 respondents, all of whom were patients diagnosed with anxiety disorders and undergoing psychotropic drug therapy. The sample size was determined using the Lameshow formula with a 90% confidence level. Data were collected using a four-point Likert scale questionnaire, which covered five key indicators: medication adherence, attitude toward treatment, subjective norms, perceived behavioral control, and intention to continue treatment. Each item response was scored and summed to obtain a total score, which was then categorized based on score range and mean values.

Before the correlation analysis, a normality test was performed using the Kolmogorov–Smirnov method, which indicated that the data were normally distributed. However, given the ordinal nature of the data, the relationship between variables was analyzed using Spearman's rank correlation test. The categorization of scores for each variable was conducted based on the guidelines provided by Sugiyono (2017) and Notoatmodjo (2018).

Results and Discussion

This study analyzed the adherence of 68 patients with anxiety disorders to psychotropic medications using the Theory of Planned Behavior (TPB) framework at the Psychiatric Clinic of Kraton Regional Hospital, Pekalongan.

Based on table.1 the majority of respondents were over 50 years old (47%), indicating that anxiety disorders are more common in this age group. Respondents aged over 50 are more likely to encounter psychological and social stressors, such as physical deterioration, shifting familial and societal roles, and heightened concerns regarding health and mortality. These conditions contribute to increased susceptibility to anxiety disorders in older adulthood. This finding is consistent with the study by Ngadiran (2019), which highlights that age-related physical decline, role transitions, and health-related concerns significantly elevate the risk of anxiety among the elderly (Ngadiran, 2019). Additionally, 56% of the respondents were female, Women have a higher tendency to experience anxiety compared to men, which may be attributed to hormonal fluctuations, dual social roles, and a greater tendency to express emotions openly this is supported by Muliadiani (2021), who found that gender significantly influences anxiety levels, particularly among adult and elderly women (Maulidan et al., 2021). with that age over 50 years and female gender are associated with a higher risk of anxiety disorders due to hormonal changes, increased physical health problems, and greater psychosocial stress. Women also face multiple social roles and are more emotionally expressive, which may contribute to a higher prevalence of anxiety. Finally, the majority of respondents had completed senior high school, which enables them to understand health information and access psychological services better. Higher education is also associated with a better understanding of medical information and stronger medication (Absor et al., 2020).

Table 1 Respondent Demographic Characteristics

Respondent Demographic Characteristics	Total	Percentage (%)
Age		
21-30 Years	6	9
31-40 Years	11	16
41- 50 Years	19	28
Over 50 years	32	47
Total	68	100
Gander		
Male	30	44
Famale	38	56
Total	68	100
Educational Background		
Elementary School	5	7
Junior High School	7	10
Senior High School	38	56
Bachelor's Degree (S1)	18	26
Total	68	100

Based on the responses provided by the participants and the subsequent data analysis, information was obtained regarding the levels of adherence, attitude, subjective norms, perceived control, and intention among patients with anxiety disorders, as presented in the following data.

Data on adherence level, attitude, subjective norms, perceived control, and intention of patients with anxiety disorders.

Table 2 Data on adherence level, attitude, subjective norms, perceived control, and intention of patients with anxiety disorders.

Variable	N	Persentase (%)
Adherence		
Poor \leq 55%	33	49
Moderate (56%-75%)	16	24
Good (76%-100%)	19	28
Total	68	100
Attitude		
Positif Attitude \geq means	48	71
Negatif Attitude $<$ means	20	29
Total	68	100
Subjective Norm		
Low (5-30)	0	0
Moderate (31-56)	2	3
High (57-80)	66	97
Total	68	100
Perceived Control		

Low (5-30)	0	0
Moderate (31-56)	1	1
High (57-80)	67	99
Total	68	100
Intention		
Low (5-30)	0	0
Moderate (31-56)	3	4
High (57-80)	65	96
Total	68	68

1. Data on adherence in patients with anxiety disorders.

Based on Table.2 out of 68 respondents, 49% showed low adherence to psychotropic medication, while 24% showed moderate adherence and 28% showed high adherence. This shows that more than half of the respondents are adherent to their medication. Adherence significantly affects the effectiveness of therapy, especially for patients with anxiety disorders who require consistent and ongoing treatment. Low adherence can be influenced by factors such as lack of knowledge about the importance of regular medication, side effects experienced, or limited access to health facilities.

This supported research by Kamelia et al. (2023), who found a significant relationship between patients' knowledge and medication adherence the higher the knowledge, the better the adherence (Kamelia et al., 2023).

2. Data on the adherence attitudes of patients with anxiety disorders.

Table.2 shows that 71% of respondents have a positive attitude toward the use of psychotropic medication in managing anxiety disorders. This reflects the patients' understanding and belief in the importance of treatment and the effectiveness of the therapy they are undergoing.

A positive attitude is closely related to the acceptance of the illness and trust in healthcare services. According to Notoatmodjo (2012), attitude consists of cognitive, affective, and conative components, all of which contribute to patient adherence. Fintiya's (2019) research also shows that a positive attitude enhances treatment adherence(Fintiya, 2019).

The high proportion of positive attitudes serves as an indicator of the success of psychotropic therapy and emphasizes the importance of education and support from healthcare professionals in maintaining long-term adherence.

3. Data on Subjective Norms in Patients with Anxiety Disorders

From Table.2 it is found that 97% of respondents have high subjective norms. This indicates that most patients with anxiety disorders in this study feel strong social pressure from family, healthcare professionals, and their environment to adhere to psychotropic medication. High subjective norms reflect that individuals believe important people in their lives support their medication behavior, reinforcing their intention and adherence to therapy.

This is consistent with Ajzen's (1991) Theory of Planned Behavior, which states that subjective norms are a key determinant of an individual's intention to engage in behavior, including treatment adherence. The stronger the social pressure or support, the greater the intention to comply. Research by Sari & Marlina (2019) also highlights that good family and social support can increase motivation for regular treatment, especially in patients with chronic or mental health conditions. Thus, high subjective norms in this study are a positive indicator of the success of psychotropic medication therapy for anxiety patients (Sari, F., & Marlina, 2019).

4. Data on Perceived Control in Patients with Anxiety Disorders

Based on Table IV.9, 99% of respondents (67 out of 68) had high perceived control, with only 1% in the moderate category and none in the low control category. This indicates that most patients feel they have control over their health behaviors, particularly in managing their medication and anxiety.

High perceived control is linked to factors like strong support from healthcare providers and family, easy access to healthcare services, and affordable medication. Afrianti (2023) supports this, showing that family and healthcare support significantly contribute to medication adherence in patients with mental disorders.

Thus, high perceived control is an important indicator of successful therapy, as it increases the likelihood of adherence to treatment and better clinical outcomes.

5. Data on Intention to Adhere in Patients with Anxiety Disorders

Based on Table IV.11, 96% of respondents (65 out of 68) have a high intention to adhere to psychotropic medication according to the schedule and doctor's recommendations, while only 4% have a moderate intention. This high level of intention indicates strong awareness, commitment, and internal motivation to continue treatment consistently. High intention is a key predictor of actual behavior, as described in the Theory of Planned Behavior (Ajzen, 1991).

The high level of intention also reflects the success of educational interventions and support from healthcare professionals and family. Nilawati Uly's (2023) research supports that motivation and family support are significantly related to medication adherence (Nilawati Uly, 2023).

Thus, the high intention within this group indicates a great opportunity for long-term therapeutic success, but ongoing efforts are needed to maintain motivation, such as through counseling, social support, and monitoring patients' psychological progress.

Results of the Correlation Test Between Adherence, Attitude, Subjective Norms, and Perceived Behavioral Control with Intention

1. The Correlation Between Medication Adherence and Patients' Intention to Comply With Psychotropic Drug Use in Individuals With Anxiety Disorders.

Table 3 The Correlation Between Medication Adherence and Patients' Intention to Comply With Psychotropic Drug Use in Individuals With Anxiety Disorders.

Adherence	Intention					
	Moderate		High		Total	Percentage
	<i>f</i>	Percentage (%)	<i>f</i>	Percentage (%)		
Poor	0	0 %	33	48,5 %	33	48,5 %
Moderate	1	1,5 %	16	23,5 %	17	25 %
Good	2	2,9 %	16	23,5 %	18	26,5 %
Total	3	4,4 %	65	95,6 %	68	100 %
Spearman Test	P= 0,20 Correlation coefficient value = 0,283					

Table 3, illustrates that the majority of patients with high intention exhibited moderate to good adherence (51.4%). The Spearman correlation result ($r = 0.283$, $p = 0.020$) reveals a weak yet statistically significant association between intention and adherence. While high intention is linked to better adherence, factors such as side effects may hinder compliance. According to the Theory of Planned Behavior (TPB), intention is influenced by attitude, subjective norms, and perceived behavioral control. Enhancing adherence requires strengthening intention, reducing barriers, and fostering environmental support.

2. The Correlation Between Patients' Attitudes and Their Intention to Adhere to Psychotropic Drug Use in Individuals with Anxiety Disorders.

Table 4 The Correlation Between Patients' Attitudes and Their Intention to Adhere to Psychotropic Drug Use in Individuals with Anxiety Disorders.

Attitudes	Intention					
	Moderate		High		Total	Percentage (%)
	<i>f</i>	Percentage (%)	<i>f</i>	Percentage (%)		
Negatif	3	4,4 %	17	25 %	20	29,4 %
Positif	0	0 %	48	73,8 %	48	70,6 %
Total	3	4,4 %	65	95,6 %	68	100 %
Spearman Test	P= 0,000 Correlation coefficient value = 0,442					

Based on table 4, there is a significant correlation between attitude and intention to use psychotropic drugs among patients with anxiety disorders, with a Spearman's correlation coefficient of 0.442 ($p = 0.000$). This indicates a moderate but statistically significant relationship, where a more positive attitude toward medication is associated with a stronger intention to adhere. A positive attitude reflects the belief in the benefits and safety of psychotropic drugs in managing anxiety.

Although some patients exhibited negative attitudes, their intention to adhere remained high due to the support and information provided by healthcare professionals. This highlights the important role of medical personnel as referents in shaping patients' subjective norms and shifting negative attitudes. Therefore, educational approaches that foster trust and address negative perceptions are key strategies to improve adherence to psychotropic treatment.

3. The Correlation Between Subjective Norms and Patients' Intention to Comply With Psychotropic Drug Use in Anxiety Disorder Patients.

Subjective Norms	Intention					
	Moderate		High		Total	Percentage (%)
	<i>f</i>	Percentage (%)	<i>f</i>	Percentage (%)		
Moderate	1	1,5 %	1	1,5 %	2	2,9 %
High	2	2,9 %	64	73,8 %	66	97,1 %
Total	3	4,4 %	65	95,6 %	68	100 %
Uji spearman	P= 0,004 Correlation coefficient value = 0,348					

Based on Table 5, the majority of respondents (73.8%) with high subjective norms also demonstrated a high intention to use psychotropic medication, indicating a strong influence of social support and positive social pressure on the formation of health-related behavioral intentions. The Spearman correlation coefficient was 0.348 with a p-value of 0.004, indicating a statistically significant moderate relationship. This suggests that individuals with stronger subjective norms are more likely to have a greater intention to adhere to psychotropic medication use.

Subjective norms are shaped not only by referents but also by normative beliefs and the motivation to comply (Ajzen, 2005). When patients feel supported and perceive expectations from significant referents, such as family members or healthcare providers, to adhere to treatment, both subjective norms and behavioral intentions are strengthened. This study supports the theory that consistent social support enhances intention, and communication-based interventions involving trusted individuals may

serve as effective strategies to improve medication adherence among patients with anxiety disorders.

4. The Correlation Between Perceived Behavioral Control and Patients' Intention to Comply With Psychotropic Drug Use in Anxiety Disorder Patients.

Perceived Behavioral Control	Intention					
		Moderate		High	Total	Percentage (%)
	<i>f</i>	Percentage (%)	<i>f</i>	Percentage (%)		
Moderate	1	1,5 %	0	0 %	1	1,5 %
High	2	2,9 %	65	95,6 %	65	98,5 %
Total	3	4,4 %	65	95,6 %	68	100 %
Spermean Test	P= 0,000 Correlation coefficient value = 0,485					

Table indicates that the majority of patients with a high level of perceived behavioral control also demonstrated a high intention to use psychotropic medication (95.6%). The Spearman correlation test revealed a moderate but significant correlation between perceived control and intention ($\rho = 0.485$; $p = 0.000$). These findings suggest that the greater the patient's sense of ability and control over their treatment, the stronger their intention to adhere to medication use.

Within the framework of the Theory of Planned Behavior (TPB), perceived behavioral control plays a crucial role in shaping intention. Patients who feel capable of managing their treatment, understanding procedures, and overcoming barriers tend to exhibit stronger adherence intentions. Therefore, enhancing perceived control through education, social support, and adequate access to healthcare services is essential in promoting adherence to psychotropic medication.

CONCLUSION

This study demonstrates that the intention to use psychotropic drugs among patients with anxiety disorders is influenced by attitude, subjective norms, perceived behavioral control, and adherence. Perceived behavioral control showed the strongest correlation with intention ($r = 0.485$; $p < 0.05$), followed by attitude ($r = 0.442$), subjective norms ($r = 0.348$), and adherence ($r = 0.280$). Social support and patients' confidence play a key role in shaping strong treatment intentions. Education and social support-based interventions are essential to improve medication adherence.

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