

Correlation of Treatment Duration and Family Support with Anxiety Levels in Patients with Anxiety Disorders in Selected Healthcare Facilities

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Abstract

Background: Anxiety disorders result from complex interactions among biological, psychological, and social factors. Treatment duration and family support may influence the severity of anxiety symptoms among patients receiving outpatient care. **Objectives:** To examine the associations of treatment duration and family support with anxiety levels among outpatients diagnosed with a primary anxiety disorder. **Methods:** This analytic observational study used a cross-sectional design and recruited 41 participants through consecutive sampling at three health care facilities. Anxiety levels were assessed using the Indonesian Zung Self Rating Anxiety Scale, family support was measured using a questionnaire, and treatment duration was obtained from medical records. Associations were analyzed using the Fisher Freeman Halton exact test. **Results:** Panic disorder was the most frequent diagnosis (43.9%). Twenty-five participants (61.0%) had received treatment for 3 to 9 months, while 16 (39.0%) had received treatment for more than 9 months. Treatment duration was not significantly associated with anxiety level ($p = 0.104$; Cramer's $V = 0.34$), nor was family support ($p = 0.156$; Cramer's $V = 0.26$). **Conclusions:** No, statistically significant associations were identified. However, the small sample and sparse data warrant cautious interpretation and further investigation in larger studies.

Keywords: Family support; treatment; anxiety severity.

Introduction

Anxiety disorders are characterized by persistent fear, excessive worry, and behavioral alterations¹. These conditions may arise from interacting biological, psychological, and social factors, including genetic vulnerability, stressful life events, and trauma². World Health Organization reports estimated that anxiety disorders affected approximately 3.6% of the global population in 2015 and 3.8% in 2019^{3,4}. The 2022 Indonesia National Adolescent Mental Health Survey estimated that 2.5 million Indonesian

adolescents were living with an anxiety disorder⁵. National Basic Health Research data showed that the prevalence of emotional mental disorders among people older than 15 years in East Kalimantan increased from 3.2% in 2013 to 9.64% in 2018, while the 2018 prevalence in Samarinda was 7.17%⁶. Anxiety disorders can cause persistent fear, apprehension, distress, and disproportionate worry about everyday concerns. Generalized anxiety disorder is particularly characterized by chronic and excessive worry⁷.

Anxiety severity may range from mild to severe and can include panic symptoms⁸. Anxiety can narrow attention toward immediate concerns and may be accompanied by shortness of breath, increased heart rate and blood pressure, dry mouth, appetite changes, restlessness, blurred vision, insomnia, sweating, headache, nausea, and a heightened sense of threat⁹. Educational background, socioeconomic conditions, the care environment, and social support may influence symptom severity. Family support is especially relevant to daily functioning and coping⁸. Economic constraints can also reduce access to medication and follow up care, delay treatment, and impair adherence¹⁰.

Nurhasanah and Nuralita reported an association between family functioning and patient functioning among people with anxiety disorders¹¹. Sianipar et al. also found that stronger family support was associated with lower anxiety among patients with coronary heart disease¹². Evidence from psychiatric care indicates that family support can influence clinically important outcomes even when its association with current symptom severity is uncertain¹³. Manggasa et al. showed that education can reduce anxiety by improving knowledge and health behavior¹⁴, while Indriani et al. demonstrated that clear information about a patient's condition can reduce anxiety among family members in a critical care setting¹⁵.

Treatment for anxiety disorders generally involves psychotherapy, pharmacotherapy, or both. Initial management often emphasizes psychotherapy, with medication added when improvement is insufficient. Pharmacotherapy commonly includes an acute phase followed by continuation or maintenance treatment¹⁶. Treatment response is shaped by clinical and psychosocial factors, and duration alone may not account for symptom severity¹⁷. Evidence that relaxation and other supportive

interventions can reduce anxiety further illustrates that outcomes may depend on multiple therapeutic and contextual factors¹⁸.

Based on the background outlined above, both treatment duration and family support may influence the anxiety levels of patients, although findings across studies remain inconsistent. Research on these variables is still limited, particularly in East Kalimantan. Therefore, the present study was conducted across several healthcare facilities, including one type A hospital; *Rumah Sakit Jiwa Daerah (RSJD) Atma Husada Mahakam Samarinda* and two primary clinics, namely *Klinik Graha Respirasi Semesta Samarinda* and *Klinik Permata Bunda Paser*. A biopsychosocial perspective provides the conceptual basis for examining these variables together. Treatment duration may reflect exposure to care, but it can also be influenced by baseline severity, recurrence, adherence, medication effects, access to services, and clinician decisions. Family support may operate through emotional reassurance, practical assistance, treatment reminders, communication, and help with accessing care. It may also buffer the effect of stress, although excessive involvement or conflict could have a different effect. Consequently, neither variable should be expected to explain anxiety severity in isolation. Examining both factors within routine clinical settings can nevertheless identify patterns that may guide patient education, family engagement, and continuity of care.

The research question of this study is: "Is there an association between treatment duration and family support with the level of anxiety among patients with anxiety disorders across several healthcare facilities?" The aim of this study is to determine the relationship between treatment duration and family support and the level of anxiety in patients with anxiety disorders in various healthcare settings. This

study offers scientific benefits by contributing to a deeper understanding of the relationship between treatment duration, family support, and anxiety levels among patients with anxiety disorders across various healthcare facilities. For healthcare institutions, the findings of this research are expected to serve as valuable information for evaluating healthcare services and improving mental health programs, particularly those related to treatment duration and family support for patients with anxiety disorders in different healthcare settings. For the researcher, this study provides meaningful experience and learning opportunities regarding proper research procedures and scientific writing, as well as an opportunity to apply the knowledge gained during their studies at the Faculty of Medicine, Universitas Mulawarman. The study therefore focused on whether the observed distributions of anxiety severity differed across prespecified treatment duration and family support categories. Because the design measured exposure and outcome at the same time, the objective was limited to estimating association rather than establishing causation. This distinction is important for service evaluation: a longer duration may reflect persistent symptoms that require continued care, while patients with more severe symptoms may also seek or receive more intensive family assistance. Interpretation must therefore consider the possibility of reverse direction and residual confounding.

Materials and Methods

Study Design

This study utilized an observational analytic research design with a cross sectional approach, in which exposure and outcome data were collected at one point in time. This design was selected to examine the associations between treatment duration and family support with

anxiety levels among participants without manipulating the study variables.

Sample

The population consisted of patients receiving outpatient treatment for anxiety disorders at Atma Husada Mahakam Psychiatric Hospital Samarinda, Graha Respirasi Semesta Clinic, and Permata Bunda Clinic. Eligible participants had a psychiatrist documented primary anxiety disorder, had received treatment for more than three months, and met the established consent and participation criteria. A primary depressive disorder or primary obsessive compulsive disorder without a documented anxiety disorder was an exclusion criterion. The depressive disorder and obsessive compulsive disorder entries in Table 2 describe recorded comorbidity among patients who remained eligible because an anxiety disorder was documented as their primary condition. The minimum sample size was calculated with the formula for an unmatched categorical analytic study¹⁹, resulting in 41 participants.

Data Collection Technique

Nonprobability consecutive sampling was used by enrolling every eligible patient encountered until the required sample was reached²⁰. Anxiety was assessed using the Indonesian language Zung Self Rating Anxiety Scale. The scale contains 20 items scored from 1 to 4, producing a raw score from 20 to 80. Raw scores of 20 to 44 were categorized as normal, 45 to 59 as mild, 60 to 74 as moderate, and 75 to 80 as severe²¹. The scale has established clinical measurement use and has also been applied in an HTJ anxiety study^{15,21}. Family support was measured with the study family support questionnaire and classified as good, adequate, or poor according to its protocol. Treatment duration was obtained from medical records. Normal treatment duration was operationally defined as 3 to 9 months, while

prolonged treatment was defined as more than 9 months. Item level responses and documentation needed to recalculate reliability in the present sample were unavailable for both questionnaires; this was considered a measurement limitation.

Data Analysis Technique

Univariate analysis summarized categorical variables with frequencies and percentages. Because the treatment duration by anxiety table was 2 by 3 and the family support by anxiety table was 3 by 3, with sparse expected counts and a zero cell, associations were tested using the two sided Fisher Freeman Halton exact test for general contingency tables. Statistical significance was set at $p < 0.05$. A p value greater than 0.05 was interpreted as insufficient evidence to reject the null hypothesis and not as proof of no association. Cramer's V was reported as the effect size. Analysis of the original continuous scores or an ordinal model was not feasible because the retained analysis data contained categorized values only.

Ethical Considerations

This study received ethical approval from the Health Research Ethics Committee of the Faculty of Medicine, Mulawarman University, Samarinda, under approval number 162/KEPK FK/IX/2025. All participants received complete information about the study and provided written informed consent before participation. Personal and identifying data were kept confidential and are not presented in this manuscript.

Results

Univariate analysis described the frequency and percentage distributions of age, sex, educational attainment, diagnosis, treatment location, treatment duration, treatment course, family support, and anxiety level.

Most participants were aged 17 to 25

years (16; 39.0%). The sample included 30 women (73.2%) and 11 men (26.8%). Most participants had completed senior high school or vocational high school (27; 65.9%), followed by elementary school (6; 14.6%), junior high school (4; 9.8%), and a bachelor's degree (4; 9.8%).

Table 1. Distribution of Respondent Characteristics

Characteristics	Frequency (n)	Percentage (%)
Age		
12 – 16	1	2.4
17 – 25	16	39.0
26 – 35	8	19.5
36 – 45	8	19.5
46 – 55	6	14.6
56 – 65	2	4.9
Gender		
Man	11	26.8
Woman	30	73.2
Highest Level of Education		
Elementary School	6	14.6
Junior High School	4	9.8
Senior High School	27	65.9
Bachelor's Degree	4	9.8

Source : Data Primer 2025

Table 2. Distribution of Respondents' Diagnoses

Diagnosis	Frequency (n)	Percentage (%)
Generalized Anxiety Disorder	11	26.8
Panic Disorder	18	43.9
Social Anxiety	4	9.8
Depressive Disorder	5	12.2
Obsessive Compulsive Disorder	1	2.4
Unspecified Anxiety Disorder	1	2.4
Agoraphobia	1	2.4

Source : Data Primer 2025

Panic disorder was the most frequent primary anxiety diagnosis, affecting 18 participants (43.9%). Other recorded diagnostic categories were generalized anxiety

disorder in 11 (26.8%), social anxiety in 4 (9.8%), comorbid depressive disorder in 5 (12.2%), comorbid obsessive compulsive disorder in 1 (2.4%), unspecified anxiety disorder in 1 (2.4%), and agoraphobia in 1 (2.4%). The depressive and obsessive compulsive entries were comorbid conditions in participants whose primary eligible diagnosis remained an anxiety disorder.

Table 3. Distribution of Respondents' Treatment

Characteristics	Frequency (n)	Percentage (%)
Treatment Location		
Hospital	11	26.8
Clinic	30	73.2
Duration of Treatment		
3 – 9 months	25	61.0
>9 months	16	39.0
Treatment Course		
Prolonged	16	39.0
Normal	25	61.0

Thirty participants (73.2%) received treatment at clinics and 11 (26.8%) at the hospital. Twenty five participants (61.0%) had received treatment for 3 to 9 months, whereas 16 (39.0%) had received treatment for more than 9 months. Using the prespecified

operational definition, 25 participants (61.0%) had a normal treatment duration and 16 (39.0%) had a prolonged treatment duration.

Table 4. Distribution of Family Support Characteristics

Characteristics	Frequency (n)	Percentage (%)
Family Support		
Good	19	46.3
Adequate	5	12.2
Poor	17	41.5
Total	41	100.0

Nineteen participants (46.3%) received good family support, 5 (12.2%) received adequate support, and 17 (41.5%) received poor support.

Table 5. Characteristics of Anxiety Level

Characteristics	Frequency (n)	Percentage (%)
Anxiety Level		
Normal	12	29.3
Mild	23	56.1
Moderate	6	14.6
Total	41	100.0

Twelve participants (29.3%) had normal anxiety scores, 23 (56.1%) had mild anxiety, and 6 (14.6%) had moderate anxiety.

Table 6. Treatment Duration and Anxiety Levels

Treatment Duration	Anxiety Level						<i>p value</i>
	Normal		Mild		Moderate		
	(n)	(%)	(n)	(%)	(n)	(%)	
3 – 9 months	6	24.0	13	52.0	6	24.0	0.104
>9 months	6	37.5	10	62.5	0	0.0	
Total	12	29.3	23	56.1	6	14.6	

Table 7. Family Support and Anxiety Levels

Family Support	Anxiety Level						<i>p value</i>
	Normal		Mild		Moderate		
	(n)	(%)	(n)	(%)	(n)	(%)	
Good	8	42.1	10	52.6	1	5.3	0.156
Adequate	2	40.0	2	40.0	1	20.0	
Poor	2	11.8	11	64.7	4	23.5	
Total	12	29.3	23	56.1	6	14.6	

The two sided Fisher Freeman Halton exact test did not detect a statistically

significant association between treatment duration and anxiety level (exact p = 0.104).

The effect size was moderate (Cramer's $V = 0.34$), but its uncertainty should be interpreted cautiously because of the small sample and sparse cells.

The two sided Fisher Freeman Halton exact test did not detect a statistically significant association between family support and anxiety level (exact $p = 0.156$). Cramer's V was 0.26, indicating a small to moderate effect that remained statistically uncertain in this sample.

Discussion

Most participants were aged 17 to 25 years. This pattern is consistent with evidence that many anxiety disorders begin in adolescence or young adulthood²². This group also lies within the productive age range used in Indonesian health reporting²³. Women constituted 73.2% of the sample, consistent with global evidence showing a higher anxiety burden among women than men²⁴. Biological, psychological, and social mechanisms may contribute to this difference, including variation in stress exposure and emotional processing²⁵. The broad educational distribution suggests that anxiety disorders can occur across educational levels and that education alone should not be interpreted as protective. The age distribution may also reflect patterns of help seeking rather than only the underlying onset of disease. Younger people may recognize mental health symptoms earlier, obtain information through digital channels, and access outpatient services more readily, whereas older adults may present through general medical services or attribute symptoms to physical illness. Likewise, the female predominance should not be interpreted as evidence that sex independently caused anxiety in this cohort. The study did not estimate population prevalence or adjust for differences in service use, socioeconomic position, exposure to

violence, reproductive factors, or comorbid disease. The descriptive findings are therefore useful for characterizing the participating facilities but should not be generalized beyond comparable outpatient populations^{24,25}.

Panic disorder was the most frequent anxiety diagnosis, followed by generalized anxiety disorder. This descriptive pattern should not be interpreted as a population prevalence estimate because the sample was small, facility based, and selected consecutively. Global epidemiological evidence shows that the distribution of anxiety diagnoses varies by population and assessment method^{17,24}. Five participants also had a documented depressive disorder and one had obsessive compulsive disorder as comorbidity; these conditions were not used as stand alone eligibility diagnoses. Clear separation of primary anxiety diagnoses from comorbidity is important when interpreting the clinical profile. Panic disorder may be especially visible in clinical services because sudden somatic symptoms and fear can prompt urgent consultation. Generalized anxiety may instead be recognized gradually through persistent worry and functional impairment. Diagnostic comorbidity further complicates symptom interpretation because depression and obsessive compulsive symptoms may increase distress, alter treatment needs, and influence questionnaire scores. Reporting these conditions as comorbidity, rather than as independent eligibility diagnoses, resolves the classification concern while preserving the observed clinical complexity. Future studies should record a principal diagnosis, all comorbid diagnoses, and standardized diagnostic criteria in separate variables.

Most participants received care at clinics rather than at the hospital. Primary care use among people with anxiety symptoms can reflect accessibility and proximity of

services²⁶. Twenty five participants (61.0%) had received treatment for 3 to 9 months, defined in this study as normal duration, while 16 (39.0%) had received treatment for more than 9 months, defined as prolonged duration. The 9 month threshold combined an initial treatment phase with approximately six months of continuation care and was used as an operational study cutoff rather than a universal definition¹⁶. The larger clinic proportion may also reflect referral pathways and the feasibility of receiving repeated outpatient follow up closer to home. However, the study did not measure distance, costs, waiting time, referral status, or preference for a particular facility, so these explanations remain provisional. Treatment duration is similarly difficult to interpret without information on modality, dose, adherence, interruptions, clinical response, and previous episodes. Two patients with the same duration can therefore have markedly different cumulative exposure to effective treatment. The category used here is best understood as a pragmatic service variable, not a direct measure of treatment intensity or quality.

No statistically significant association between treatment duration and anxiety level was detected (exact $p = 0.104$; Cramer's $V = 0.34$). A systematic review likewise found insufficient evidence that longer psychotherapy consistently produces better outcomes than shorter psychotherapy across adult mental health disorders²⁷. Relapse can occur after discontinuation, and duration alone may not capture treatment type, dose, adherence, baseline severity, or comorbidity¹⁶. Newman et al. found that illness duration and comorbid depression can modify treatment outcomes in generalized anxiety disorder²⁸, while Hale et al. identified somatic symptoms as a potential mediator of anxiety treatment outcomes in younger patients²⁹. These differences in population and

treatment context limit direct comparison. The moderate effect size in the present study also suggests that the nonsignificant p value may reflect limited precision rather than evidence of no relationship. The contingency table contained no participant with moderate anxiety in the group treated for more than 9 months. Although this pattern contributed to the effect size, the small cell counts make it unstable and unsuitable for a causal claim. Longer treatment could reduce symptoms for some patients, but patients with persistent or recurrent symptoms may remain in treatment longer, producing confounding by indication and reverse direction. The exact test appropriately addresses sparse counts but does not remove these design limitations. A longitudinal analysis measuring anxiety repeatedly from treatment initiation would better distinguish symptom improvement, persistence, and relapse. Recording psychotherapy sessions, medication class and dose, adherence, adverse effects, and diagnostic comorbidity would also permit more clinically meaningful comparisons^{16,27,28,29}.

No statistically significant association between family support and anxiety level was detected (exact $p = 0.156$; Cramer's $V = 0.26$). Family environment and responses to stress may influence anxiety through mechanisms not captured by a broad support category³⁰. Hagen et al. reported that pretreatment family functioning did not predict anxiety reduction among children receiving cognitive behavioral therapy³¹, and Detzel et al. described complex family burden and environment patterns among patients with panic disorder³². Conversely, a large network study found that family support was linked with lower levels of specific anxiety symptoms³³. HTJ evidence also indicates that family support can influence relapse in chronic psychiatric illness¹³, while anxiety

may respond to clinical and psychosocial interventions beyond family support alone¹⁸. Thus, the present result should be interpreted as an imprecise estimate in a small sample, not as proof that family support is unimportant. Family support is multidimensional. Emotional warmth, practical assistance, financial help, treatment supervision, and constructive communication may have different relationships with anxiety, while criticism, conflict, or overinvolvement may counteract beneficial support. Collapsing these dimensions into good, adequate, and poor categories can conceal important variation. Anxiety severity can also shape how support is perceived and reported, creating common method and reverse direction concerns. The present result therefore concerns the specific categorized measure used in this sample and should not be generalized to every form of family involvement. Clinical services may still reasonably assess family needs and offer information or supportive interventions, while avoiding the assumption that family involvement alone will determine symptom outcomes^{13,18,30,31,32,33}.

This study has several limitations. Its cross sectional design prevents determination of temporal direction. The sample of 41 outpatients produced sparse contingency tables and limited statistical power, so clinically relevant associations may not have reached statistical significance. Categorization of anxiety and family support reduced information, while continuous score analysis and an ordinal model could not be performed from the retained dataset. Item level data were unavailable to estimate questionnaire reliability in this sample, and complete documentation of the family support instrument was not available. Economic status, physical condition, stressors, diet, treatment type, medication, adherence, and

psychiatric comorbidity were not comprehensively measured. These limitations restrict precision, reproducibility, and generalizability.

Conclusion

Participants were predominantly young adults and women, and panic disorder was the most frequent anxiety diagnosis. Twenty five participants had a normal treatment duration of 3 to 9 months and 16 had a prolonged duration of more than 9 months. In this sample, no statistically significant association was detected between treatment duration and anxiety level or between family support and anxiety level. Because the sample was small and the tables were sparse, these findings do not demonstrate absence of an association. Larger longitudinal studies using continuous or ordinal instrument scores, complete psychometric reporting, and adjustment for treatment, medication, adherence, comorbidity, and socioeconomic factors are needed.

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Conflict of Interest Statement

The author(s) declare no commercial, financial, or personal conflicts of interest related to this research. All authors approved the final manuscript and consented to its publication in *Healthy Tadulako Journal*.

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