



The Influence of *Acceptance and Commitment Therapy* (Act) anxiety disorders in Patients at Limboto Health Center

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Article Info

Article history:

Received March 17, 2023

Revised March 31, 2023

Accepted April 04, 2023

Keywords:

Acceptance and commitment therapy;

Anxiety disorders; Patients

ABSTRACT

Anxiety disorders not only impact an individual's psychological state, but also affect social functioning, productivity, and quality of life. One of the psychotherapy approaches that is developing to overcome anxiety is Acceptance and Commitment Therapy (ACT). This study aims to determine the effect of Acceptance and Commitment Therapy (ACT) on the level of anxiety of patients at Limboto Health Center. This study uses a quasi-experimental method with a one group pre-test and post-test design approach. The population in this study is all adult patients who experience anxiety at the Limboto Health Center, with a sampling technique using purposive sampling, so that a sample of 18 respondents was obtained. Data analysis was carried out using the Wilcoxon test because the data was abnormally distributed. The results showed that before the intervention, there were 6 respondents with mild anxiety and 12 respondents with moderate anxiety. After being given ACT therapy, the number of respondents with mild anxiety increased to 17 people, while moderate anxiety decreased to 1 person. The Wilcoxon test showed a significance value of $p = 0.000$ ($p < 0.05$), which indicates a significant effect of ACT therapy on reducing anxiety levels. This study concluded that Acceptance and Commitment Therapy (ACT) was effective in lowering anxiety levels.

INTRODUCTION

Mental health issues are a global issue that is gaining more attention as the complexity of modern life increases. Mental health not only affects the psychological well-being of individuals, but also impacts social functioning, family relationships, work productivity, and the stability of society at large. One of the most common mental disorders found in daily life is anxiety disorder, which can affect thought processes, emotional regulation, as well as individual behavior in dealing with the stress and pressures of life. (Bandelow & Michaelis, 2022)

Anxiety is an emotional response that arises when an individual faces a situation that is perceived as threatening or uncertain, and to some degree serves as an adaptive mechanism. However, anxiety can develop into a psychological disorder if it lasts continuously and excessively, interfering with daily functioning. Chronic anxiety is known to not only impact mental health, but also affect the body's physiological systems, such as activation of the autonomic nervous system, increased blood pressure and heart rate, sleep disturbances, prolonged fatigue, as well as decreased immune function due to sustained stress activation. (Chand & Marwaha, 2023)

Anxiety disorders are one of the most common mental health problems globally and have a significant impact on an individual's quality of life, social functioning, and productivity. The World Health Organization (WHO) reports that about 301 million people in the world suffer from anxiety disorders, making it one of the highest prevalence mental disorders. In Indonesia, data from the Basic Health Research (Riskesmas) shows that mental emotional disorders, including anxiety and depression, are still experienced by the majority of the population aged ≥ 15 years and are a serious concern in public health services This condition is exacerbated by the post-pandemic impact of COVID-19 which triggered increased social and economic pressures, thus

contributing to the increase in anxiety complaints in various groups of people (. (World Health Organization, 2023) (Ministry of Health of the Republic of Indonesia, 2022) (Noraini et al., 2023)

In Gorontalo Province, the prevalence of mental emotional disorders reaches around 10%, higher than the national average. Gorontalo Regency and Gorontalo City are recorded as the regions with the highest number of cases. Initial data at the Limboto Health Center in 2025 shows that there are 29 patients with mild to moderate anxiety complaints in the age range of 19-70 years. This condition shows the increasing need for mental health services in primary health facilities.

A number of recent studies have shown that *Acceptance and Commitment Therapy* (ACT) is effective in lowering anxiety levels in various populations through increased psychological flexibility, acceptance of internal experiences, and reinforcement of adaptive life values, both in clinical patients and non-clinical populations. Although Acceptance and Commitment Therapy (ACT) has been shown to be effective in reducing anxiety, most research still focuses on hospital settings and tertiary mental health services, so evidence for its application in primary health services such as health centers is limited. This condition shows that there is a research gap related to the effectiveness of ACT in first-level health services, especially in areas with limited mental health service resources. (Gloster et al., 2022) (Thompson et al., 2023)

Based on this background, this study aims to determine the effect of Acceptance and Commitment Therapy (ACT) on reducing anxiety levels in patients at the Limboto Health Center, Gorontalo Regency.

RESEARCH METHODS

Methodology This research will be carried out at the Limboto Health Center, Gorontalo Regency, in December 2025. The selection of the study location was based on the finding of patients with mild to moderate anxiety disorders and the lack of Acceptance and Commitment Therapy (ACT) psychological intervention in the health care facility.

The main tool used in this study is the Hamilton Anxiety Rating Scale (HARS) as an instrument to measure respondents' anxiety levels. In addition, cameras or recording devices are used for documentation of therapy implementation, stationery, and laptops for data processing and analysis. Supporting materials for the research include Standard Operating Procedures (SOP) for the implementation of ACT and educational leaflets used during the intervention process.

This study uses a quasi-experimental design with a one group pre-test and post-test design approach. This design involved a group of respondents whose anxiety levels were measured before and after the ACT intervention. This approach was chosen because it allows for the evaluation of direct anxiety changes in real clinical conditions, as well as being considered practical and ethical to be applied in primary health services such as health centers. (Abraham & Supriyati, 2022)

The advantage of the one group pre-test post-test design lies in its ability to make comparisons in the same subject (within-subject), so that each respondent functions as a control for himself. Although it has limitations in controlling internal validity, this design is widely used in health intervention research due to its applicative nature in the field. (Anantasia & Rindrayani, 2025)

The population in this study is all adult patients with anxiety disorders recorded at the Limboto Health Center. Based on early data in 2025, the number of patients with mild to moderate anxiety was recorded at 29 people, consisting of 15 male patients and 14 female patients with an age range of 19-70 years. The determination of the research sample was carried out using *the purposive sampling technique*, which is a method of selecting respondents based on certain inclusion criteria that are adjusted to the research objectives and characteristics of the intervention given. The *purposive sampling technique* is considered appropriate to be used in small and specific populations because it is able to produce relevant and relatively homogeneous subjects, so that the effectiveness of the intervention can be evaluated more accurately. (Etikan & Bala, 2022)

The external validity in this study was maintained through the selection of respondents from primary health services, so that the characteristics of the research subjects reflected the general population of Puskesmas patients. Meanwhile, internal validity was controlled by the application of clear inclusion and exclusion criteria to minimize the influence of confounding variables and ensure that *Acceptance and Commitment Therapy* (ACT) interventions were administered consistently and in accordance with the respondents' conditions, so that changes in anxiety levels could be appropriately attributed to the intervention provided. (Hernán & Robins, 2024)

The research data consists of primary data and secondary data. Primary data was obtained from pretest and posttest HARS scores as well as observation and interview results, while secondary data came from the medical records of the Limboto Health Center related to anxiety disorder patients.

The main instrument in this study is *the Hamilton Anxiety Rating Scale* (HARS), which is an anxiety measurement tool consisting of 14 items with an assessment scale of 0-4 on each item and a total score ranging from 0-56. HARS assesses anxiety symptoms that include psychological and somatic aspects, so it is widely used in clinical and community research to evaluate the severity of anxiety and changes in conditions before and after psychological interventions. Recent studies have shown that HARS has good validity and reliability as an anxiety assessment instrument and remains relevant for use in a variety of healthcare contexts (Bandelow & Michaelis, 2022)

In addition to the anxiety measurement instrument, this study uses *the Acceptance and Commitment Therapy* (ACT) protocol and *implementation checklist* to ensure that interventions are delivered consistently and in accordance with the principles of therapy. The ACT protocol is designed in several structured sessions that include the development of acceptance of internal experiences (*acceptance*), increasing current awareness through *mindfulness* practice, releasing attachments to negative thoughts (*cognitive defusion*), as well as clarifying values and strengthening committed *action*). This psychological flexibility-based approach has been shown to be effective in lowering anxiety because it helps individuals respond to thoughts and emotions adaptively without avoiding or suppressing unpleasant internal experiences (Tyndall et al., 2020).

The research procedure was carried out in three stages, namely pretest, intervention, and posttest. The pretest was conducted through structured interviews using HARS, the ACT intervention was administered in three sessions over one week, and the posttest was conducted after all sessions were completed to measure changes in respondents' anxiety levels.

Data analysis was carried out using SPSS software. Univariate analysis was used to describe respondent characteristics and anxiety score distribution, while bivariate analysis used the Wilcoxon Signed Rank Test to determine the effect of ACT on a decrease in anxiety levels with a significance level of $\alpha = 0.05$. (Latif et al., 2025)

RESULTS AND DISCUSSION

Table 1 Characteristics of respondents

| Characteristics | Frequency | Introduce yourself |
|-------------------------|-----------|--------------------|
| Age: | N | % |
| 18-35 Years | 7 | 38,9% |
| 36-59 Years | 11 | 61,1% |
| Total | 18 | 100% |
| Final Education: | | |
| SD | 4 | 22,2% |
| Junior High School | 5 | 27,8% |
| High School | 6 | 33,3% |
| D3/S1 | 3 | 16,7% |
| Total | 18 | 100% |
| Gender: | | |
| Male | 6 | 33,3% |
| Women | 12 | 66,7 % |
| Total | 18 | 100% |

Premiere date 2025

Based on Table 1, from 18 respondents, it is known that most of the respondents are in the age group of 36-59 years as many as 11 people (61.1%), while the age of 18-35 years is 7 people (38.9%). Based on the latest education, the majority of respondents had a high school education of 6 people (33.3%), followed by 5 people in junior high school (27.8%), 4 people in elementary school (22.2%), and 3 people in D3/S1 (16.7%). Meanwhile, based on gender, most of the respondents were women as many as 12 people (66.7%), while men as many as 6 people (33.3%).

**Table 2 Univariate analysis based on anxiety level before administration
ACT therapy**

| Anxiety | Frequency (n) | Present(%) |
|-------------|---------------|------------|
| Lightweight | 6 | 33,3% |
| Medium | 12 | 66,7% |
| Total | 18 | 100% |

Premiere date 2025

Based on Table 2, of the 18 respondents, it was known that before being given Acceptance and Commitment Therapy (ACT), most of the respondents experienced moderate anxiety as many as 12 people (66.7%), while mild anxiety as many as 6 people (33.3%). This shows that the majority of respondents were at moderate levels of anxiety before being given the ACT therapy intervention.

Table 3 Univariate analysis based on anxiety level after ACT therapy

| Anxiety | Frequency (n) | Present(%) |
|-------------|---------------|------------|
| Lightweight | 17 | 94,4% |
| Medium | 1 | 5,6% |
| Total | 18 | 100% |

Premiere date 2025

Based on Table 3, of the 18 respondents after being given Acceptance and Commitment Therapy (ACT), most of the respondents experienced mild anxiety as many as 17 people (94.4%), while moderate anxiety was 1 person (5.6%). This showed that after ACT therapy there was a decrease in anxiety levels in most respondents.

Table 4 Analysis of the Effect of Acceptance and Commitment Therapy (ACT) on Anxiety Disorders

| Variable | N | Red | Red Differentiation | Std. Deviation | Sum Of ranks | P-Value |
|----------------|----|------|---------------------|----------------|--------------|--------------|
| Anxiety Before | 18 | 1,67 | 0,61 | ,485 | 66,00 | 0,001 |
| After-Anxiety | 18 | 1,06 | 0,61 | ,236 | | |

Premiere date 2025

Based on Table 4, the results of the analysis showed that there was an effect of giving Acceptance and Commitment Therapy (ACT) on anxiety disorders in respondents. This is shown from the mean value of anxiety before therapy of 1.67 and after therapy of 1.06, which indicates a decrease in anxiety levels after being given ACT therapy. In addition, a p-value = 0.001 ($p < 0.05$) was obtained, which means that there is a significant influence of ACT therapy on the reduction of anxiety disorders in respondents.

CONCLUSION

Characteristics of respondents

Based on Table 1, the majority of respondents are in the middle adult age group (36-59 years), which is a phase of life with a high level of productive activity and social responsibility. This age group tends to experience increased exposure to work stress and psychosocial burdens that can affect the physical and mental health conditions of individuals. In addition, population-based research shows that middle-aged individuals have health patterns that are strongly influenced by lifestyle and work environment, so the age characteristics of the respondents in this study are relevant to be studied further in the context of public health. (World Health Organization, 2023) (Santini et al., 2022)

In terms of education, the results of the study show that most of the respondents have the last level of education in high school. Education level plays an important role in shaping an individual's ability to understand health information, make the right decisions, and implement healthy living behaviors independently. Other research also states that individuals with secondary to higher education tend to have better health literacy, making them more responsive to health interventions and promotive-preventive programs provided in the research. (Nutbeam & Lloyd, 2021) (Sørensen et al., 2021)

Based on gender characteristics, female respondents dominated in this study. These findings are in line with previous studies that stated that women tend to be more active in participating in health research and more open in conveying their health conditions. In addition, biological and psychosocial differences between men and women can affect responses to certain health conditions, so the dominance of female respondents in this study is an important factor in interpreting the results of the study comprehensively. (Sharma et al., 2022) (Mauvais-Jarvis et al., 2023)

Univariate analysis based on anxiety level before ACT therapy

Based on the results of the study, most of the respondents were at moderate levels of anxiety before being given Acceptance and Commitment Therapy (ACT), which suggests that anxiety is a fairly dominant psychological condition in primary healthcare patients and has the potential to interfere with individual adaptive functioning. Moderate-level anxiety is generally characterized by excessive worry, emotional tension, as well as concentration disorders that are still possible to be treated through nonpharmacological psychological interventions. (Bandelow & Michaelis, 2022) (American Psychiatric Association, 2022)

The high proportion of moderate anxiety in this study suggests that respondents are in the right phase to obtain an intervention, based on acceptance and emotion regulation such as ACT, which focuses on improving psychological flexibility and acceptance of internal experiences. Recent research shows that ACT is effectively applied to individuals with mild to moderate anxiety because it is able to help patients reduce avoidance of experiences and increase engagement in meaningful activities. (Twohig et al., 2021) (Brown et al., 2023)

The study's findings are in line with previous studies that reported that the majority of patients in first-level healthcare facilities experienced anxiety in the mild to moderate category before receiving psychological therapy. This condition reinforces the relevance of the application of ACT as an effective and efficient early intervention in lowering anxiety before it progresses to a more severe disorder. (Santabárbara et al., 2021) (Dindo et al., 2021)

Univariate analysis based on anxiety levels after ACT therapy

The results showed that after being given Acceptance and Commitment Therapy (ACT), almost all respondents experienced a decrease in anxiety levels to the mild category, indicating the effectiveness of ACT in helping individuals manage emotional responses adaptively. ACT therapy works by increasing acceptance of internal experiences and reducing psychological avoidance so that anxiety no longer dominates the patient's daily functioning. (Gloster et al., 2022) (Pakenham et al., 2023)

The dominance of post-intervention mild anxiety in this study suggests that ACT is able to improve patients' psychological flexibility in primary health care, which is a key indicator of the success of acceptance-based therapy. These findings are consistent with empirical evidence that ACT is effective in lowering levels of moderate anxiety to mildness through strengthening life values and meaningful behavioral commitments. (Ong et al., 2022) (Stockton et al., 2021)

The results of this study are in line with previous intervention studies that reported a significant reduction in anxiety levels after administration of ACT in adult patients in community health facilities. Thus, ACT can be recommended as an effective, applicable, and sustainable nonpharmacological psychological intervention to reduce patient anxiety in the Health Center. (Dawson & Golijani-Moghaddam, 2022) (Hacker et al., 2023)

Analysis of the Effect of Acceptance and Commitment Therapy (ACT) on Anxiety Disorders

The results of the bivariate analysis showed a decrease in the average level of respondents' anxiety after being given Acceptance and Commitment Therapy (ACT), which was shown by a decrease in mean values from before to after the intervention, thus reflecting the effectiveness of ACT in reducing patient anxiety clinically (Harris, 2021). A decrease in mean difference value of 0.61 indicates that the ACT intervention provides a meaningful change in the patient's psychological state through improved acceptance and management of unpleasant emotional experiences. (Zhang et al., 2023)

The results of the Wilcoxon Signed Rank Test which showed a p-value of < 0.05 confirmed that there was a significant influence of ACT therapy on reducing the level of anxiety of patients at the Limboto Health Center, so that the research hypothesis could be statistically accepted. These findings are in line with experimental research that reports that ACT significantly lowers anxiety through mechanisms of increased psychological flexibility and reduced avoidance of internal experiences. (Rohani et al., 2022) (Jansen & Morris, 2021)

The success of ACT in this study can also be explained through a value approach and behavioral commitment that helps patients maintain optimal functioning despite experiencing anxiety, so that anxiety is no longer a major obstacle in daily activities. Thus, ACT therapy can be recommended as an effective and applicable nonpharmacological psychological intervention to lower patient anxiety in first-level healthcare facilities. (Levin et al., 2022) (Gloster & Karekla, 2024)

SUGGESTION

Based on the results of a study on the effect of Acceptance and Commitment Therapy (ACT) on anxiety disorders in patients at the Limboto Health Center, it can be concluded that ACT therapy has a positive and significant impact on reducing the level of anxiety of patients. Prior to the ACT intervention, most respondents were at moderate levels of anxiety, while a small percentage of others experienced mild anxiety. This condition shows that anxiety is a psychological problem that is quite dominant experienced by patients at the Limboto Health Center.

After the implementation of Acceptance and Commitment Therapy, there was a significant change in the respondents' anxiety levels. The majority of patients showed a decrease in anxiety levels to the mild category, while the number of patients with moderate anxiety experienced a very significant decrease. The results of statistical analysis using the Wilcoxon Signed Rank Test confirmed the findings, with a significance value of $p < 0.05$, which indicates a real effect of ACT therapy on reducing patients' anxiety levels. Thus, Acceptance and Commitment Therapy can be stated as an effective psychological intervention and worthy of being applied in an effort to handle anxiety disorders in patients at the Limboto Health Center.

For patients, it is recommended that the techniques in Acceptance and Commitment Therapy, such as mindfulness, acceptance, and committed action, can be practiced actively and continuously, both during and after therapy sessions. Consistent application of ACT is expected to help patients manage anxiety independently

and improve psychological well-being in the long term.

For health workers, especially nurses and counselors at health centers, it is hoped that they can integrate the ACT approach into nursing services and psychosocial counseling as one of the non-pharmacological interventions in handling anxiety disorders.

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