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QUALITY OF LIFE AND MENTAL HEALTH EDUCATION IN A RESIDENTIAL REHABILITATION SETTING IN ACEH, INDONESIA

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ABSTRACT

Introduction: In Indonesia, baseline data on quality of life (QoL) among rehabilitation residents are limited. This study aimed to assess the QoL of SUD residents at Rumoh Harapan Atjeh while providing a brief mental health education session.

Methods: Nineteen male residents (18–60 years) undergoing rehabilitation for methamphetamine or cannabis use participated voluntarily. A 60-minute group education session was delivered, followed by completion of the WHOQOL-BREF (Bahasa Indonesia version) assessing physical, psychological, social, and environmental domains. Scores were transformed to a 0–100 scale and categorized as low (41–60), moderate (61–80), or high (>80). Ethical approval was not required, as the activity was categorized as community engagement without intervention. Informed consent and confidentiality were maintained.

Results: Mean total QoL was 57.0 (low). Physical health scored highest (68.5, moderate), while psychological well-being (56.5), social relationships (58.5), and environment (54.5) remained low. All participants scored low in psychological and environmental domains, reflecting emotional distress and limited autonomy.

Conclusion: Baseline QoL assessment identifies critical psychosocial needs among SUD residents. Integrating routine QoL monitoring and targeted psychosocial support into rehabilitation programs can enhance holistic recovery. Findings are preliminary due to small sample size and single-site setting.

KEYWORDS

community engagement; quality of life; rehabilitation; substance use disorder; WHOQOL-BREF

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1. INTRODUCTION

Drug use is an emerging public health concern in many low- and middle-income countries (LMICs) (UNODC, 2023). The United Nations Office on Drugs and Crime (UNODC) projects that by 2030, the population most vulnerable to drug use in these regions could increase by 43% (UNODC, 2023). Substance use disorders (SUDs), known locally as NAPZA (Narkotika, Psikotropika, dan Zat Adiktif), remain a serious public health challenge in Indonesia, particularly in the province of Aceh (BNN, 2022). Data from the National Narcotics Agency (BNN, 2022) indicate that approximately 3.3 million people were affected by substance abuse nationwide, with the highest prevalence among individuals of productive age. In Aceh, methamphetamine and cannabis are the most commonly abused substances, with methamphetamine accounting for over 70% of rehabilitation cases reported by the Aceh Provincial Narcotics Agency (BNNP Aceh, 2024). Chronic

substance use is often accompanied by psychiatric comorbidities such as anxiety, depression, and emotional dysregulation, which may hinder recovery and increase relapse risk (Ornell, Halpern, & Diemen, 2021).

Rumoh Harapan Atjeh is a residential rehabilitation unit under the Aceh Mental Hospital that provides integrated care for individuals with Substance Use Disorders (SUDs). The services are delivered by a multidisciplinary team consisting of psychiatrists, clinical psychologists, addiction counselors, and psychiatric nurses, addressing medical, psychiatric, and psychosocial needs within a single setting. However, opportunities for residents to improve their understanding of mental health through structured education remain limited. Many residents have not yet internalized essential concepts such as emotional regulation, self-awareness, and the relationship between mental health and substance use, despite receiving ongoing treatment.

In many rehabilitation settings in Indonesia, service delivery still tends to be biomedical in orientation emphasizing detoxification and pharmacological treatment while psychosocial education and health literacy receive less attention (Widoretno, Sulistyowati, & Widoretno, 2025). Evidence shows that even basic psychosocial education can enhance adaptive functioning, medication adherence, and social reintegration, while reducing relapse risk (Anindhita et al., 2024; Moore & Barnett, 2020).

Quality of life (QoL) is increasingly recognized as a vital indicator for evaluating the success of rehabilitation programs (Armoon et al., 2022). One of the most widely used instruments is the WHOQOL-BREF, the abbreviated version of the WHOQOL-100 developed by the World Health Organization. The WHOQOL-BREF comprises 26 items that measure individuals' perceptions of their quality of life over the previous two weeks, grouped into four domains: physical health, psychological health, social relationships, and environment. In addition, it contains two general questions on overall quality of life and satisfaction with health. The instrument has been adapted into Indonesian with good validity and reliability (Gondodiputro, Wiwaha, Lionthina, & Sunjaya, 2021). Scores for each domain are converted into a 0–100 scale, with higher scores indicating better QoL.

This community engagement activity was initiated to complement existing services at Rumoh Harapan Atjeh by delivering a structured mental health education session and conducting a QoL assessment using the WHOQOL-BREF. The activity did not aim to measure changes before and after the session but rather to provide residents with accessible knowledge on mental health and to document their baseline QoL profile. These findings can serve as a reference for improving rehabilitation programs and integrating mental health education into routine care for people with SUDs in Aceh.

2. MATERIAL AND METHODS

This community engagement activity was conducted on June 30, 2025, at Rumoh Harapan Atjeh, a residential rehabilitation unit under Aceh Mental Hospital, Indonesia. The facility provides integrated treatment for substance use disorders (SUDs) through a multidisciplinary team that includes psychiatrists, clinical psychologists, addiction counselors, and psychiatric nurses. The program involved 19 male residents aged 18–60 years who were undergoing rehabilitation for SUDs involving methamphetamine or cannabis.

Ethical approval for this community engagement activity was considered informal because the activity was a non-clinical, non-interventional community service program. It did not involve experimental treatments or modifications to participants' care; instead, it consisted of an educational session and a quality of life assessment using a standardized questionnaire. All participants provided written

informed consent, and the study adhered to principles of confidentiality, anonymity, and voluntary participation.

The activity consisted of two main components: a mental health education session and a quality of life (QoL) assessment. These were designed to complement the existing clinical services by introducing structured health education and generating baseline psychosocial data.

The mental health education session lasted 60 minutes and was delivered in a group format to all 19 participants simultaneously. It was conducted in simple Bahasa Indonesia using visual aids such as PowerPoint slides and posters to explain fundamental concepts of mental health. The session covered: (1) the definition of mental health and common misconceptions; (2) the psychological effects of methamphetamine and cannabis use; (3) basic emotional regulation strategies; and (4) the importance of seeking help and reducing self-stigma. The session was facilitated by the author, a mental health professional, with logistical support from facility staff. The approach emphasized interpersonal communication such as using empathy, active listening, and openness to create a safe and non-judgmental space for learning. No focus group discussions (FGDs) or skill-building exercises were conducted.

Immediately after the education session, participants completed the WHOQOL-BREF (Bahasa Indonesia version), a standardized instrument developed by the World Health Organization to assess quality of life across four domains: physical health, psychological well-being, social relationships, and environment (Skevington et.al., 2004). The questionnaire contains 26 items scored on a 5-point Likert scale. Raw scores were transformed to a 0–100 scale using standard formulas, with the following interpretation: 41–60 = low, 61–80 = moderate, and >80 = high. The instrument has been validated for use in Indonesian populations and is widely used in clinical and community settings (Gondodiputro et al., 2021). Participants completed the questionnaire individually, with facilitator support available for reading or clarification.

3. RESULTS

A total of 19 male residents participated in this community engagement activity at Rumoh Harapan Atjeh, a rehabilitation facility under Aceh Mental Hospital. The demographic profile of participants is presented in Table 1. The majority of participants (47.4%) were in the 31-45 years age group. Methamphetamine was the predominant substance of abuse, used by 73.7% of participants. Notably, 78.9% of participants had been using substances for more than five years.

Figure 1 Mental Health Sharing Session with Substance Use Rehabilitation Residents at Rumoh Harapan Atjeh

Figure 2. Mental Health Education and QoL Assessment in Rumoh Harapan Atjeh

Table 1. Demographic Characteristics of Participants (N=19)

Characteristic	n	%
Age Group		
18-30 years	7	36.8
31-45 years	9	47.4
46-60 years	3	15.8
Primary Substance Used		
Methamphetamine	14	73.7
Cannabis	5	26.3
Duration of Substance Use		
<5 years	4	21.1
5-10 years	8	42.1
>10 years	7	36.8

Table 2. WHOQOL-BREF Domain Scores Among SUD Residents at Rumoh Harapan Atjeh

Domain	Mean (± SD)	Classification (N, %)
Physical Health	68.5 ± 14.9	Moderate (12, 63.2%)
Psychological Well-being	56.5 ± 10.6	Low (19, 100%)
Social Relationships	58.5 ± 14.1	Low (17, 89.5%)
Environmental	54.5 ± 9.6	Low (19, 100%)

The WHOQOL-BREF assessment revealed important insights about participants' quality of life across four domains. Overall, the mean total QOL score was 57.0 (range: 41.7-72.9), which falls within the low category (41-60) according to WHO interpretative guidelines.

The physical health domain showed the highest level of functioning among all domains assessed. The mean score was 68.5 (SD=14.9), classified as moderate (61-80) on the WHO scale. Specifically, 63.2% of participants (12 out of 19) scored in the moderate range (61-80), while 36.8% of participants (7 out of 19) scored in the low range (41-60). In contrast to the physical health domain, the psychological well-being domain revealed significant challenges, with a mean score of 56.5 (SD=10.6), classified as low. All participants (100%) scored in the low range (41-60).

Similarly, the social relationships domain showed a mean score of 58.5 (SD=14.1), classified as low. Eighty-nine point five percent of participants (17 out of 19) scored in the low range (41-60), while only 10.5% of participants (2 out of 19) scored in the moderate range (61-80). The environmental domain showed the most significant challenges, with the lowest mean score of 54.5 (SD=9.6), classified as low. All participants (100%) scored in the low range (41-60).

4. DISCUSSION

This community engagement activity revealed a significant pattern in the quality of life (QoL) of substance use disorder (SUD) residents at Rumoh Harapan Atjeh while physical health showed moderate scores (68.5), psychological well-being (56.5), social relationships (58.5), and environmental factors (54.5) all remained in the low range. This pattern indicates that while medical and detoxification services effectively address physical needs, psychosocial dimensions of recovery require greater attention even within integrated care settings.

Our findings particularly the relatively low psychological, social, and environmental QoL domains compared with the moderate physical score partly resonate with local studies. For example, a study of outpatient rehabilitation clients at the Jambi Provincial National Narcotics Agency found that overall QoL was in the moderate category across all domains, highlighting the continuing vulnerability of

substance users during the COVID-19 pandemic(Ova & Pratiwi, 2021). Similarly, research on the role of addiction counselors at the Rumoh Geutanyoe Foundation in Aceh emphasized that psychosocial support and family involvement substantially contribute to non-medical aspects of recovery, particularly in strengthening interpersonal and social functioning (Syarah, 2024). Furthermore, a study at the Tabina Foundation in Aceh underlined the importance of psychological resilience factors such as emotional regulation, optimism, and empathy in maintaining recovery after rehabilitation (Mubarak, Hafnidar, & Dewi, 2021).

The demographic profile of participants provides critical context for understanding these QoL findings. With 73.7% of participants using methamphetamine and 78.9% having used substances for more than five years, universally low psychological well-being underscores the severity of emotional distress in this group. According to the National Narcotics Agency of Aceh Province (2024) methamphetamine accounts for over 70% of substance use cases in the province, consistent with our findings (BNNP Aceh, 2024). This high prevalence of stimulant use is concerning, as methamphetamine use is associated with severe and persistent cognitive and emotional disturbances (Kim, Yun, & Park, 2020), which likely contribute to the consistently low psychological scores observed.

The chronic nature of substance use in this population (78.9% >5 years) may have led to neuroadaptations that affect emotional regulation and social cognition, making psychological recovery more challenging even after physical detoxification (Koob & Volkow, 2016; Kwako & Koob, 2017). This explains why all participants (100%) scored in the low range for psychological well-being, indicating widespread emotional distress and difficulties with self-esteem. Prior research emphasizes that incorporating quality of life, particularly psychological well-being, is essential for capturing meaningful recovery outcomes beyond abstinence (Corner, Arden-Close, & McAlaney, 2023; De Maeyer, Vanderplasschen, & Broekaert, 2010; Kellam et al., 2011; Kelly, Greene, & Bergman, 2018).

Similarly, the high prevalence of long-term substance use helps explain the narrow standard deviation in environmental scores (9.6), suggesting a consistent perception of limited autonomy and restricted opportunities across all residents. As noted in healthcare literature, "the environmental context significantly influences patient perceptions of care quality and their ability to form therapeutic relationships" (Chichirez & Purcărea, 2018; Smith, 2020; Tawfik, Sexton, Adair, Kaplan, & Profit, 2017). For individuals with chronic SUD, the institutional environment may feel particularly confining, as it separates them from their social networks and daily routines that they have known for many years (Strickland & Acuff, 2023). This aligns with findings that the quality of the care environment, including organizational and relational aspects, directly shapes both patient experience and recovery trajectories (Lucas, Jesus, Almeida, & Araújo, 2023)

The findings highlight the importance of routine QoL assessment in rehabilitation settings. While clinical services address medical needs, the WHOQOL-BREF provided valuable data on residents' subjective experiences. As emphasized in healthcare literature, "the speaker expects a verbal message to provide a solution to an uncertainty or to confirm an expectation. This message must be accurate, fair, and appropriate to the situation of communication"(Chichirez & Purcărea, 2018; Tawfik et al., 2017). Regular QoL monitoring could help identify specific areas needing additional support beyond clinical symptoms, a point supported by recent studies showing that structured QoL evaluations enhance patient-centered care and guide tailored interventions in substance use rehabilitation (Smith, 2020; Strickland & Acuff, 2023).

This study has limitations. It represents a single-point assessment without pre-intervention data,

making it impossible to determine changes over time. The small sample size (N=19) limits generalizability, and no formal assessment of knowledge change was conducted following the education session. Future activities could incorporate pre- and post-session assessments to measure knowledge acquisition and include follow-up assessments to evaluate longer-term impacts.

Despite these limitations, this community engagement activity demonstrates that even simple interventions such as basic mental health information sessions and routine QoL assessment can provide valuable insights and complement existing integrated services. By incorporating regular QoL assessments within the existing framework, rehabilitation facilities can better support residents' comprehensive recovery. The universal low scores in psychological well-being and environmental satisfaction highlight the need for more targeted psychosocial interventions that address the specific challenges faced by individuals with chronic methamphetamine use, which represents the predominant substance use pattern in the Aceh region.

The universal low scoring in psychological well-being (100% of participants) and environmental satisfaction (100% of participants) is particularly concerning. As noted in healthcare communication literature, the environmental context significantly influences patient perceptions of care quality and their ability to form therapeutic relationships (Chichirez & Purcărea, 2018). The narrow standard deviation in environmental scores (9.6) suggests a consistent perception of limited autonomy and restricted opportunities across all residents.

5. CONCLUSION

This community engagement activity found that residents of Rumoh Harapan Atjeh showed moderate physical health but consistently low psychological, social, and environmental quality of life. These results highlight the need for targeted psychosocial support alongside existing rehabilitation services. Integrating mental health education with regular QoL assessments can strengthen recovery efforts and serve as a baseline for future program development in Aceh.

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