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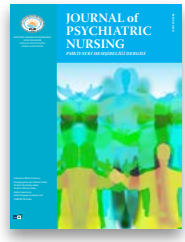

Original Article

Logotherapy as a psychosocial intervention for quarter-life crisis among young adults: A quasi-experimental study

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Abstract

Objectives: Quarter-life crisis (QLC) is a developmental and existential phenomenon commonly experienced by university students and young adults. It is characterized by identity confusion, uncertainty regarding future life direction, and psychological pressure during the transition to adulthood. QLC may negatively affect mental health, academic motivation, and social functioning. Logotherapy, as a meaning-centered form of psychotherapy, has the potential to reduce existential distress and improve psychological adaptation. This study aimed to examine the effect of logotherapy on quarter-life crisis levels among university students and to compare changes in QLC scores between intervention and control groups.

Methods: A quasi-experimental study with a pre–posttest control group design was conducted. A total of 134 university students were randomly allocated to an intervention group (n=67) and a control group (n=67). QLC levels were measured using a modified Quarter-Life Crisis Questionnaire developed based on Robbins and Wilner's conceptual framework (Cronbach's alpha=0.843). The intervention group received structured group logotherapy, while the control group received no intervention. Data were analyzed using the Wilcoxon signed-rank test for within-group comparisons and the Mann–Whitney U test for between-group comparisons.

Results: Significant reductions in QLC scores were observed in both groups ($p<0.001$). The control group had a mean reduction of 7.07 points, whereas the intervention group experienced a greater mean reduction of 14.76 points. Mann–Whitney U analysis indicated a significant difference in posttest scores between groups ($U=273.5$; $p<0.001$).

Conclusion: Logotherapy demonstrated beneficial effects in reducing QLC levels among university students. These findings underscore the value of meaning-centered psychosocial interventions for enhancing resilience and adaptive capacity in young adults, supporting their integration into university mental health services.

Keywords: Mental health; psychological adaptation; psychotherapy; students; young adults

The transition from adolescence to early adulthood represents a developmental phase characterized by complex adaptive demands, particularly in the domains of identity formation, career planning, and social relationships. Hurlock described the age range of 18–30 years as a period marked by significant psychological changes, which are often accompanied by internal conflicts and uncertainty regarding life direction. These conditions have been closely associated with the phenomenon of quarter-life crisis (QLC), defined as a state of confusion, anxiety, and profound doubt concerning life goals and future orientation.[1] Previous studies have indicated that QLC may negatively affect psychological well-being and adaptive functioning among young adults.

In recent years, quarter-life crisis has been increasingly observed among university students undergoing the transition toward professional life and adult independence. University students have been identified as a particularly vulnerable population due to academic pressure, career uncertainty, and social comparison with peers.[2] Evidence has shown that students experiencing QLC tend to demonstrate decreased

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academic motivation, heightened anxiety, sleep disturbances, and difficulties in decision-making, which may ultimately impair academic performance and social functioning.[3,4] These findings highlight the need for evidence-based interventions that address not only psychological symptoms but also underlying existential concerns.

Quarter-life crisis is increasingly conceptualized not merely as a developmental transition but as an existential and meaning-related crisis emerging during early adulthood. Individuals experiencing QLC often report feelings of emptiness, loss of purpose, uncertainty regarding identity, and anxiety about future life direction. These existential concerns closely align with Viktor Frankl's concept of an "existential vacuum," characterized by diminished meaning and reduced psychological coherence. Therefore, logotherapy was selected in the present study because it specifically targets meaning-making processes and existential distress, making it theoretically relevant for addressing the psychological core of quarter-life crisis.

Recent studies published within the last five years have demonstrated that quarter-life crisis among university students is associated with depressive symptoms, emotional dysregulation, low self-esteem, academic stress, and impaired psychological well-being. Furthermore, research has highlighted the role of meaning-centered coping in psychological adjustment and well-being, particularly during periods of uncertainty and life transition.[5–17] Despite these findings, intervention-based studies specifically targeting quarter-life crisis remain limited, particularly in psychiatric nursing contexts.

Within psychiatric nursing practice, psychosocial interventions emphasizing self-awareness, coping, resilience, and meaning reconstruction are highly relevant for supporting students and young adults experiencing psychosocial distress. Psychiatric nurses play an important role in delivering therapeutic communication, facilitating group-based psychosocial interventions, and promoting adaptive coping strategies. Consequently, the integration of logotherapy into student mental health and psychiatric nursing services represents a promising approach for addressing existential distress associated with quarter-life crisis. Logotherapy, a meaning-centered psychotherapeutic approach developed by Viktor Frankl, offers a framework for addressing existential distress and helping individuals discover meaning in life experiences, including adversity.[11,12]

Despite these findings, empirical evidence regarding the effectiveness of structured logotherapy interventions in reducing quarter-life crisis remains limited. Most existing studies have focused on descriptive analyses and associated factors, while experimental investigations targeting meaning-centered interventions are still scarce, particularly within higher education settings. Therefore, the present study examined the effect of logotherapy on quarter-life crisis levels among university students using a quasi-experimental design with a control group. The findings were expected to contribute empirical evidence supporting the development of meaning-centered psychiatric nursing interventions for young adult populations.

What is presently known on this subject?

- Quarter-life crisis is commonly experienced by university students and is associated with psychological distress, identity confusion, and uncertainty regarding future life roles.

What does this article add to the existing knowledge?

- This study provides empirical evidence that structured group logotherapy significantly reduces quarter-life crisis levels compared with no intervention.

What are the implications for practice?

- The findings support the application of logotherapy as a meaning-centered psychosocial intervention within psychiatric nursing and student mental health services.

Materials and Method

Research Hypotheses

H1: University students receiving logotherapy will demonstrate significantly lower quarter-life crisis scores after the intervention.

H2: Posttest quarter-life crisis scores in the intervention group will be significantly lower than those in the control group.

Type and Design

A quantitative approach was employed using a quasi-experimental pre–posttest control group design to examine the effect of logotherapy on quarter-life crisis (QLC) levels. Logotherapy was treated as the independent variable, while the level of QLC among university students was considered the dependent variable.

Place and Date

The study was conducted at the Faculty of Nursing, Universitas Islam Sultan Agung Semarang, Indonesia, from March to September 2025.

Population and Sample

The study population consisted of 202 university students. A total of 134 participants were selected using simple random sampling and allocated to an intervention group (n=67) and a control group (n=67). Inclusion criteria included students aged 20–25 years who experienced quarter-life crisis and provided informed consent. Students with physical or psychological conditions that could interfere with active participation were excluded.

Data Collection Tools

Quarter-life crisis levels were measured using a modified Quarter-Life Crisis Questionnaire developed based on the conceptual framework proposed by Robbins and Wilner.[4] The questionnaire consisted of 20 items rated on a four-point Likert scale ranging from strongly disagree to strongly agree. The total score range was 20–80, with higher scores indicating greater levels of quarter-life crisis. Scores were categorized as low (20–39), moderate (40–59), and high (60–80). Previous psychometric testing demonstrated acceptable validity and reliability, and the instrument showed good internal consistency in the present study (Cronbach's alpha=0.843).

Intervention Procedure

The intervention consisted of structured group logotherapy delivered in six sessions over a six-week period. Each session focused on meaning-making through guided reflection on personal experiences, exploration of individual values, and reframing of challenging life situations. The intervention was facilitated by the researcher, who had received basic training in logotherapy. Participants in the control group did not receive any logotherapy intervention during the study period.

Statistical Analysis

Descriptive and inferential statistical analyses were performed using SPSS version 25 (IBM Corp., Armonk, NY, USA). A significance level of α=0.05 was applied. The Wilcoxon signed-rank test was used to examine within-group pre–post differences, while the Mann–Whitney U test was employed to compare posttest scores between the intervention and control groups.

Sample size was determined using a power analysis for two-group comparisons with a significance level of 0.05 and statistical power of 0.80. The minimum required sample size was estimated at 128 participants, and an additional margin was added to anticipate participant attrition, resulting in a final target sample of 134 participants.

Participants were recruited through announcements distributed within the Faculty of Nursing. Students who met the inclusion criteria completed an initial screening using the Quarter-Life Crisis Questionnaire. Eligible participants were subsequently assigned to intervention and control groups using simple random allocation.

To maintain intervention feasibility and group dynamics, the intervention group was divided into several smaller therapeutic groups consisting of approximately 10–12 participants per session. Sessions were conducted in classroom-based counseling settings within the faculty environment. The intervention process was facilitated by the principal researcher with assistance from two trained observers who monitored participation and intervention adherence.

A semi-structured logotherapy module was developed based on Frankl's meaning-centered therapeutic principles and reviewed by experts in psychiatric nursing and psychotherapy prior to implementation. A pilot implementation involving a small number of students was conducted to evaluate clarity, feasibility, and session flow before the main study.

The six intervention sessions included: (1) introduction and identification of existential concerns; (2) self-awareness and exploration of personal values; (3) understanding meaning in life experiences; (4) reframing stressful experiences through meaning-centered reflection; (5) future orientation and life-goal clarification; and (6) evaluation, reflection, and strengthening adaptive coping strategies.

Detailed Structure of Logotherapy Sessions

The logotherapy intervention was delivered by the principal researcher, who had received formal training in basic logotherapy principles and group psychosocial intervention techniques. In addition, two psychiatric nursing assistants were involved as observers to monitor participant engagement, group dynamics, and adherence to the intervention protocol.

Each session lasted approximately 90–120 minutes and followed a structured therapeutic format consisting of opening, exploration, reflection, discussion, and closing phases. The intervention procedures were adapted from Frankl's meaning-centered therapeutic framework and previous applications of group logotherapy and meaning-centered interventions reported in psychiatric and counseling settings.[9,11,12]

Session 1 focused on orientation and identification of existential concerns. Participants were introduced to the concept of quarter-life crisis, the purpose of logotherapy, group rules, and therapeutic expectations. Participants were encouraged to share personal experiences related to uncertainty, stress, and future concerns. This initial stage aimed to facilitate awareness of existential distress and establish a therapeutic climate conducive to meaning exploration, consistent with Frankl's theoretical framework and contemporary meaning-centered psychotherapy approaches.[9,11,12]

Session 2 emphasized self-awareness and personal values exploration. Participants reflected on meaningful life experiences, strengths, important relationships, and personal goals through guided discussion and reflective exercises. Guided self-awareness and value exploration techniques were developed according to Frankl's existential principles and previous group logotherapy studies.[9,11,23]

Session 3 addressed meaning in life experiences. Participants explored the concept of meaning according to Frankl's perspective and discussed how meaning can be discovered through creativity, relationships, responsibility, and attitudes toward adversity. Exploration of meaning through creativity, relationships, and atti-

Table 1. Frequency distribution of participants by characteristics

Characteristic	Control group		Intervention group	
	Frequency	%	Frequency	%
Gender				
Female	56	83.6	40	59.7
Male	11	16.4	27	40.3
Age (years)				
21	54	80.6	35	52.2
22	13	19.4	32	47.8
Religion				
Islam	67	100.0	67	100.0
Total	67	100.0	67	100.0

n=67 per group. No abbreviations used.

Table 2. Frequency distribution of quarter-life crisis levels

QLC	Pretest		Posttest	
	Frequency	%	Frequency	%
Control group				
Low	0	0	3	4.5
Moderate	57	85.1	57	85.1
High	10	14.9	7	10.4
Total	67	100.0	67	100.0
Intervention group				
Low	0	0	27	40.3
Moderate	44	65.7	40	59.7
High	23	34.3	0	0
Total	67	100.0	67	100.0

QLC: Quarter-Life Crisis.

tudes toward suffering was based on Frankl's theory of meaning and subsequent meaning-centered psychotherapy models.[11,12]

Session 4 focused on cognitive reframing and self-distancing techniques. Participants were guided to reinterpret stressful experiences and identify adaptive perspectives toward challenges associated with academic pressure, identity confusion, and future uncertainty. Cognitive reframing and self-distancing techniques have been widely described as essential components of logotherapy interventions.[9,12,26]

Session 5 emphasized future orientation and life-purpose clarification. Participants developed realistic personal goals, identified sources of motivation, and discussed strategies for coping with developmental transitions in early adulthood. Future orientation and life-purpose clarification were explored through meaning-centered reflection and value-oriented goal setting based on Frankl's theoretical framework and previous applications of logotherapy and meaning-centered psychotherapy.[9,11,12]

Session 6 involved evaluation, reflection, and strengthening adaptive coping strategies. Participants summarized personal insights gained during the intervention, discussed perceived psychological changes, and formulated plans for maintaining meaning-centered coping strategies after the program ended. Reflection and reinforcement of adaptive coping strategies were intended to facilitate sustainable meaning reconstruction and resilience, consistent with previous applications of logotherapy and meaning-centered interventions.[9,12,26]

Ethical Considerations

The study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Research Ethics Committee of the Universitas Islam Sultan Agung Semarang (approval number: 1000/A.1-KEPK/FIK-SA/VII/2025). Written informed consent was obtained from all participants prior to data collection, and anonymity and confidentiality were ensured.

Results

Participant Characteristics

A total of 134 university students participated in this study, consisting of 67 participants in the control group and 67 participants in the intervention group. In both groups, the majority of participants were female. Most participants were 21 years old, and all participants in both groups identified as Muslim. Detailed participant characteristics are presented in Table 1. No participants withdrew during the intervention period, and all participants attended the complete six-session program. Therefore, all enrolled participants were included in the final statistical analysis.

Quarter-Life Crisis Levels

At baseline (pretest), most participants in both the control and intervention groups were classified as having a moderate level of quarter-life crisis, with a notable proportion of participants in the intervention group also categorized as having a high level of quarter-life crisis.

At posttest, the distribution of quarter-life crisis levels in the control group showed minimal change, with most participants remaining in the moderate category. In contrast, the intervention group demonstrated a clear shift toward lower levels of quarter-life crisis, with an increased proportion of participants classified as having a low level and no participants remaining in the high category. The distribution of quarter-life crisis levels before and after the intervention is shown in Table 2.

Effect of Logotherapy on Quarter-Life Crisis

The Shapiro–Wilk test indicated that posttest scores violated normality assumptions; therefore, nonparametric statistical analyses were applied.

Table 3. Differences between pretest and posttest scores in both groups using the wilcoxon signed-rank test

Variable	Mean pre	Mean post	Mean difference	Z	p	Outcome
Quarter-life crisis (control group)	55.16	48.09	-7.07	-7.22	<0.001	Mild reduction
Quarter-life crisis (intervention group)	57.33	42.57	-14.76	-7.32	<0.001	Marked reduction

Differences analyzed using Wilcoxon Signed-Rank Test (p<0.05).

Table 4. Differences in posttest scores between the control and intervention groups using the mann–whitney u test

Variable	U	Z	p	Outcome
Quarter-Life Crisis (Control vs Intervention)	273.5	-8.46	<0.001	Significant difference between groups

Mann–Whitney U test used to compare posttest scores (p<0.05).

Wilcoxon Signed-Rank Test Results

Within-group comparisons using the Wilcoxon signed-rank test revealed statistically significant reductions in quarter-life crisis scores in both the control and intervention groups (p<0.001). The magnitude of score reduction was greater in the intervention group than in the control group. Detailed results of the Wilcoxon signed-rank test are shown in Table 3.

Mann–Whitney U Test Results

Between-group analysis using the Mann–Whitney U test demonstrated a statistically significant difference in posttest quarter-life crisis scores between the intervention and control groups (U=273.5; p<0.001). Participants in the intervention group exhibited lower posttest quarter-life crisis scores compared with those in the control group. The results of the Mann–Whitney U test are presented in Table 4.

Discussion

Principal Findings

This study demonstrated beneficial effects of logotherapy in reducing quarter-life crisis among university students. Participants in the intervention group experienced a substantially greater reduction in QLC levels compared with those in the control group, confirming the study hypothesis. The marked shift from high to low QLC categories and the larger decrease in mean scores in the intervention group indicate that logotherapy produced a clinically meaningful improvement rather than a minimal or spontaneous change.

Although the control group also showed a statistically significant reduction in QLC scores, the magnitude of change was relatively small. This modest improvement may reflect natural psychosocial adaptation and gradual changes in identity and emotional adjustment during emerging adulthood.[6–8] Longitudinal evidence also indicates that experiences of quarter-life crisis may change during the transition from university to adult roles.[18]

Interpretation of Changes in Quarter-Life Crisis

The pronounced improvement in the intervention group indicates that logotherapy contributed directly to reducing existential distress associated with quarter-life crisis. Unlike the control group, the intervention group showed not only a decrease in symptom severity but also a substantive categorical transition from high to low levels of QLC. This pattern suggests a deeper transformation in participants' perception of life meaning, identity, and future orientation.

Quarter-life crisis has been associated with negative emotional experiences, including heightened depressive symptoms and reduced psychological well-being.[5] The sharp reduction in QLC following logotherapy is consistent with evidence that meaning-centered and logotherapy-based interventions can enhance meaning in life and reduce psychological distress, depressive symptoms, and hopelessness.[9–14]

Mechanisms Underlying the Effectiveness of Logotherapy

The effectiveness of logotherapy in this study can be explained through its focus on meaning-making processes. According to Frankl's theoretical framework, existential crises such as QLC originate from an existential vacuum characterized by a lack of perceived meaning.[11,12] Logotherapy targets this noetic dimension through self-distancing, self-transcendence, and meaning reconstruction, enabling individuals to reinterpret stressful life events in a more adaptive and purposeful manner.

Recent empirical studies have shown that meaning-based interventions enhance purpose clarity, life coherence, and future orientation—key protective factors against quarter-life crisis.[19–21] These mechanisms were not present in the control group and may explain why the intervention group demonstrated a significantly greater reduction in QLC scores.

These findings are consistent with previous studies indicating that meaning-centered psychotherapy improves psychological adaptation, resilience, and emotional regulation among young adults facing developmental transitions. The present

study extends previous literature by specifically demonstrating the effectiveness of logotherapy for quarter-life crisis within a university student population. The intervention may have facilitated cognitive reframing, improved future orientation, and enhanced participants' ability to perceive life challenges as meaningful and manageable experiences.

Comparison with Previous Studies

The findings of this study are consistent with prior research demonstrating that logotherapy and other meaning-centered approaches can reduce psychological distress and enhance meaning in life and psychological well-being among university students and young adults.[9,10,13–15] Similar studies have reported improvements in identity development and psychological adjustment following logotherapy-based interventions.[16]

Furthermore, the significant difference in posttest scores between the intervention and control groups supports previous evidence that changes resulting from meaning-centered therapy cannot be attributed solely to natural developmental processes.[21–24] These findings strengthen the empirical support for logotherapy as an effective psychosocial intervention for individuals experiencing quarter-life crisis.

Clinical and Theoretical Implications

The results of this study have important implications for mental health services in higher education. The high prevalence of quarter-life crisis among students highlights the need for structured interventions that address existential concerns, not only symptom reduction. Logotherapy may serve as a cost-effective, flexible, and culturally adaptable intervention that can be integrated into university counseling and psychiatric nursing services.

From a theoretical perspective, this study supports the applicability of logotherapy within the Indonesian cultural context. The findings suggest that logotherapy may enhance intervention acceptability within the Indonesian cultural context. Meaning-centered approaches may facilitate adaptive coping and psychological well-being among Indonesian young adults.[22–29] These findings provide empirical support for the development of culturally sensitive, meaning-centered mental health interventions for university students.

The present findings also reinforce the relevance of psychiatric nursing interventions that address existential dimensions of mental health. Psychiatric nurses working in university and community settings are strategically positioned to provide supportive counseling, psychoeducation, and meaning-centered group interventions for students experiencing developmental crises. By facilitating reflection, emotional expression, and adaptive coping, psychiatric nurses may contribute substantially to improving psychological resilience and preventing more severe mental health problems among young adults.

In addition, the integration of logotherapy into psychiatric nursing practice may strengthen holistic approaches to mental health care by addressing cognitive, emotional, social, and spiritual dimensions simultaneously. This aligns with contemporary mental health frameworks emphasizing person-centered and recovery-oriented care.

Limitations and Future Directions

Several limitations should be acknowledged. First, the quasi-experimental design limits causal inference despite the inclusion of a control group. Second, the sample was drawn from a single institution, which may limit generalizability. Third, reliance on self-report measures introduces the possibility of response bias. In addition, the long-term effects of logotherapy were not examined.

Future research should employ randomized controlled trials, include more diverse student populations, and incorporate longitudinal follow-up to assess the sustainability of logotherapy outcomes. Further exploration of culturally adapted meaning-centered interventions may also enhance the effectiveness of mental health services for young adults experiencing quarter-life crisis.

Conclusion

The findings suggest that logotherapy may serve as an effective intervention for reducing quarter-life crisis among university students and support the proposed research hypotheses. The findings demonstrate that logotherapy facilitates adaptive meaning-making, enhances clarity of life direction, and strengthens students' capacity to cope with existential challenges during the transition to early adulthood. Practical implications of these findings include the incorporation of structured logotherapy programs into university counseling and psychiatric nursing services to support students experiencing uncertainty, identity confusion, and existential distress during early adulthood.

The significance of this research lies in its contribution to student mental health interventions by demonstrating that meaning-centered therapy addresses core existential concerns rather than merely alleviating symptoms. These results support the integration of logotherapy into university counseling services and emphasize the importance of culturally sensitive meaning-centered interventions for promoting psychological well-being among university students. Future research is recommended to involve more diverse populations, apply longitudinal designs to examine the sustainability of intervention outcomes, and explore digital-based formats to enhance accessibility and continuity of logotherapy-based programs. Nursing practitioners and university mental health professionals are encouraged to incorporate structured meaning-centered interventions into counseling and psychosocial support programs for students experiencing quarter-life crisis.

Ethics Committee Approval: The study was approved by the Universitas Islam Sultan Agung Semarang Ethics Committee (no: 1000/A.1-KEPK/FIK-SA/VII/2025, date: 10/07/2025).

Informed Consent: Written informed consent was obtained from all participants prior to data collection, and anonymity and confidentiality were ensured.

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