

# Psychological Resilience as a Mediator in the Relationship Between Meaning in Life and Psychological Distress in Adolescents

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## ABSTRACT

**Objective:** Adolescence is marked by significant physical, psychosocial, and cognitive changes. This developmental stage increases vulnerability to mental health challenges, with several mental disorders first manifesting during this period and potentially persisting into adulthood, thus imposing a substantial societal burden. Addressing interventions and protective factors is crucial for enhancing adolescent mental health. However, the role of meaning in life (MIL)—a principal concept in existential psychology for maintaining psychological well-being—has not been thoroughly investigated. This study aimed to explore the relationship between MIL and psychological distress in adolescents, as well as the mediating role of psychological resilience in this relationship.

**Methods:** The study sample comprised adolescents aged 14 to 17 who were attending a child and adolescent psychiatry outpatient clinic. Data collection occurred through face-to-face interviews between February 2024 and March 2024. The participants completed the Meaning in Life Questionnaire, the Brief Psychological Resilience Scale, and the Patient Health Questionnaire-4.

**Results:** A total of 113 adolescents participated in the study, with an average age of 16.03 years (SD = 1.19), and 74.3% were female. The findings indicated that the presence of MIL negatively predicted psychological distress ( $b = -.16 [-.23, -.09]$ ,  $p < .001$ ) and positively predicted psychological resilience ( $b = .20 [.10, .30]$ ,  $p < .001$ ). Furthermore, psychological resilience completely mediated the association between the presence of MIL and psychological distress ( $b = -.04 [-.07, -.01]$ ). Gender and age were not related to the presence of MIL, psychological resilience, or psychological distress.

**Conclusion:** The findings underscore the potential of the presence of MIL to mitigate psychological distress by enhancing psychological resilience. Additional longitudinal studies are necessary to further elucidate the relationship between MIL and mental health in this population.

**Keywords:** adolescent, meaning in life, psychological distress, psychological resilience



## INTRODUCTION

Adolescence represents a period marked by profound changes: hormonal alterations, shifts in the social milieu, and cognitive and emotional development [1]. This phase is also associated with the formation of self-identity [2]. However, adolescence renders individuals particularly susceptible to mental health challenges as they navigate the transition from childhood to adulthood [3]. Numerous mental disorders, including depression, anxiety, and addictive behaviors, often first manifest during this period [4]. These disorders can persist into adulthood, contributing to long-term morbidity and placing a considerable strain on societal resources [3]. It is, therefore, imperative to implement interventions and identify protective factors that can enhance mental health in adolescents.

Adolescents encounter a range of challenges, such as poverty, bullying, and academic pressures [5–7]. Although some adolescents may struggle with these issues and develop mental health problems, the majority are able to navigate these challenges without substantial disruption to their mental health [8]. At this juncture, psychological resilience plays a crucial role in mental health outcomes [9]. Psychological resilience is described as *“the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands”* [10]. Adolescents who are psychologically resilient might experience transient symptoms and fluctuations in their mental health and functioning, but they typically achieve a stable trajectory over time [11]. These individuals are also less likely to suffer from adverse psychological outcomes, such as distress [12]. In contrast, poor resilience is associated with detrimental mental health consequences [13].

### Main Points

- Meaning in life refers to the extent to which individuals perceive their lives as having coherence, purpose, or significance.
- Psychological resilience is positively linked to the presence of meaning.
- The presence of meaning is negatively related to psychological distress.
- Psychological resilience mediates the relationship between the presence of meaning and psychological distress.
- Meaning-based interventions can potentially promote both mental health and psychological resilience in adolescents.

Psychological resilience is influenced by various individual and environmental factors, such as cognitive skills, optimism, self-efficacy, and a supportive environment [14]. Another concept central to psychological resilience is “meaning in life” (MIL) [15, 16]. Defining MIL has been challenging, but a common view suggests that it encompasses comprehension, purpose, and existential significance [17]. Comprehension, or coherence, refers to maintaining a consistent understanding of life events. Individuals perceive their lives as meaningful when they integrate their past, present, and future into a coherent narrative [18, 19]. Purpose acts as the guiding force behind an individual’s actions and goals, and having goals provides motivation and direction, enabling individuals to experience life as meaningful [20]. Moreover, existential significance is the sense of value and worth one attaches to their own life and the precursors of MIL judgments [21].

Previous studies emphasize the role of MIL in enhancing psychological well-being [22]. Individuals with a higher sense of meaning generally report lower levels of psychological distress [23], while a lack of meaning is associated with a greater risk of adverse mental health outcomes, such as depression and suicidal ideation [24]. However, existing research presents gaps that necessitate further exploration. Therefore, this study examines the relationship between the presence of meaning and psychological distress among adolescents and hypothesizes that psychological resilience mediates this relationship.

## MATERIALS AND METHODS

### Power Analysis

A power analysis was performed *a priori* using standard software [25]. This analysis included four predictors and used 0.15 as the effect size ( $f^2$ ), 0.80 as the power, and 0.05 as the significance level [26]. The results were then compared with a conventional formula ( $N = 104 + K$ , where  $K$  is the number of predictors) [27], establishing a minimum required sample size of 108 participants.

### Participants and Procedure

The participant cohort consisted of adolescents aged 14–17 who were attending the Child and Adolescent Psychiatry Outpatient Clinic at Silifke State Hospital in Mersin, Türkiye. Data collection occurred through face-to-face interviews based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria from February to March 2024. Before obtaining written informed consent, the study procedures were fully explained to

the adolescents and their parents during the interviews. A total of 113 adolescents agreed to participate in the study, representing a subsample of the 167 interviewed adolescents (participation rate = 67.7%). Fifty-four adolescents were excluded due to having a psychiatric diagnosis (e.g., psychosis and bipolar disorder) or neurodevelopmental disorders (e.g., intellectual disabilities, autism spectrum disorder, and specific learning disabilities), as well as refusing to participate in the study.

### Data Collection Tools

**The Meaning in Life Questionnaire (MLQ-10)** is designed to evaluate two key aspects of meaning in life: the *presence of meaning* and the *search for meaning* [28]. The first (MLQ-PoM) measures how much individuals perceive their lives as meaningful and purposeful. The second examines how actively people seek to understand the purpose of their lives [28]. The MLQ consists of 10 statements, with five dedicated to each dimension. Examples of these statements include “*I understand my life’s meaning*” for the presence of meaning and “*I am searching for meaning in my life*” for the search for meaning. Respondents rate these statements on a 7-point Likert scale, ranging from “*1 = absolutely untrue*” to “*7 = absolutely true.*” Scores for each dimension can range from 5 to 35, with higher scores indicating a greater sense of meaning or a more active search for it. The MLQ has been widely used in various research settings and translated into several languages, including Turkish. It has been validated and is considered reliable for measuring meaning in life among Turkish populations [29, 30].

**The Brief Psychological Resilience Scale (BPRS)** was created to measure an individual’s overall psychological resilience [31]. The BPRS consists of six items, including statements like “*I tend to bounce back quickly after hard times*” and “*It is hard for me to snap back when something bad happens.*” Participants rate these items using a 5-point Likert scale, ranging from “*strongly disagree*” to “*strongly agree,*” with certain items (specifically 2, 4, and 6) being scored in reverse. The total score can range from 6 to 30, where higher scores indicate greater psychological resilience. Previous studies have established the BPRS as a reliable and valid measure of psychological resilience in Turkish populations [32].

**The Patient Health Questionnaire-4 (PHQ-4)** is a four-item instrument developed to evaluate psychological distress among

respondents [33]. It includes two items that focus on depression (PHQ-2) and two that address anxiety (GAD-2), both of which have proven effective as short screening instruments. The PHQ-4 employs a 4-point Likert scale, where responses range from “*0 = not at all*” to “*3 = nearly every day.*” Sample items include “*Feeling nervous, anxious, or on edge*” and “*Feeling down, depressed, or hopeless.*” The total score can range from 0 to 12, with no reverse scoring applied. Higher scores reflect greater psychological distress. The PHQ-4 has also been confirmed as a reliable and valid measure for assessing psychological resilience in Turkish samples [34].

### Statistical Analysis

Statistical analyses were conducted using SPSS 29.0. The normality assumption was evaluated using skewness and kurtosis values and histogram examination, with skewness and kurtosis values within  $\pm 1.0$  indicating normal distribution [35]. Pearson’s correlation analysis was employed to explore the relationships between variables. Additionally, a mediation analysis was performed to assess the role of psychological resilience as a mediator in the relationship between the presence of meaning and psychological distress [36]. Age and gender were included as covariates [37], but psychiatric diagnoses were not controlled for due to their categorical heterogeneity and the small size of each category.

### RESULTS

A total of 113 adolescents participated in the study, with an average age of 16.03 years ( $SD = 1.19$ ), and 74.3% were female ( $n = 84$ ). Out of the participants, 61.9% ( $n = 70$ ) had been diagnosed with a psychiatric condition. Anxiety disorders were the most prevalent psychiatric diagnosis (18.6%,  $n = 21$ ), followed by depressive disorders (12.4%,  $n = 14$ ), attention deficit hyperactivity disorder (10.6%,  $n = 12$ ), and other conditions such as obsessive-compulsive disorder and bulimia nervosa (Table 1). Unpaired *t*-test analyses revealed no significant differences in scale scores based on gender, education status, or chronic diseases. Likewise, no differences were observed in scale scores based on psychiatric diagnosis.

A significant negative correlation was observed between MLQ-PoM and PHQ-4 scores ( $r = -.402, p < .001$ ). Similarly, an inverse association was found between BPRS and PHQ-4 scores ( $r = -.387, p < .001$ ). In contrast, MLQ-PoM and BPRS scores

**Table 1.** The sociodemographic characteristics (n = 113)

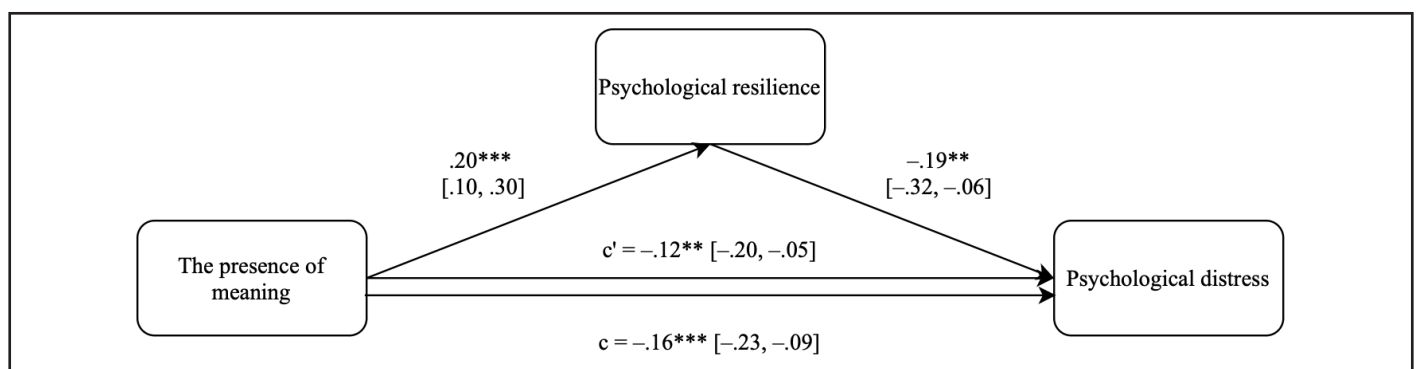
Age (years), mean (SD)	16.03 (1.19)
Gender, n (%)	
Female	84 (74.3)
Male	29 (25.7)
Educational status, n (%)	
Formal education	89 (78.8)
Non-formal education	24 (21.2)
Chronic disease, n (%)	
No	90 (79.6)
Yes	23 (20.4)
Psychiatric diagnosis, n (%)	
No diagnosis	43 (38.1)
Anxiety disorders	21 (18.6)
Depressive disorders	14 (12.4)
Attention deficit hyperactivity disorder	12 (10.6)
Others	23 (20.4)

SD: Standard deviation

**Table 2.** The correlations among variables

Variables	1	2	3	Mean	SD	Skew.	Kurt.	$\alpha$
The presence of meaning (MLQ-PoM)	—			20.91	6.92	-.198	-.669	0.75
Resilience (BPRS)	.372***	—		15.67	3.06	-.062	-.790	0.62
Psychological distress (PHQ-4)	-.402***	-.387***	—	8.05	2.86	-.389	-.898	0.73

\*\*\* $p < .001$ , Pearson correlation analysis, Kurt: Kurtosis, SD: Standard deviation, Skew: Skewness, MLQ-PoM: Meaning in Life Questionnaire-The Presence of Meaning Subscale, BPRS: Brief Psychological Resilience Scale, PHQ-4: Patient Health Questionnaire-4



**Figure 1.** Conceptual and statistical diagram, \*\* $p < .01$ , \*\*\* $p < .001$ .

demonstrated a positive correlation ( $r = .372, p < .001$ ) (Table 2).

**Mediation Analysis**

There was a significant positive association between the presence of meaning and psychological resilience ( $b = .20, 95\% \text{ CI } [.10, .30], p < .001$ ). Concurrently, psychological resilience was found to be inversely related to psychological distress ( $b = -.19, 95\% \text{ CI } [-.32, -.06], p = .006$ ) (Figure 1).

The presence of meaning exerted a significant negative direct effect on psychological distress ( $b = -.12, 95\% \text{ CI } [-.20, -.05], p = .002$ ) as well as a total effect ( $b = -.16, 95\% \text{ CI } [-.23, -.09], p < .001$ ). The mediating role of psychological resilience in the relationship between the presence of meaning and psychological distress was also statistically significant ( $b = -.04, 95\% \text{ CI } [-.07,$

–.01]) (Figure 1).

## DISCUSSION

The current study demonstrates that the presence of meaning is inversely associated with psychological distress, and psychological resilience mediates this relationship. These findings are compatible with the existing literature [38, 39]. It is beneficial to consider these results in the context of the key aspects of MIL, coherence, purpose, and existential significance. The sense of coherence (SoC) theory posits that individuals with a higher sense of coherence are more adept at managing emotional distress, thereby reducing the likelihood of mental health issues [40]. Furthermore, a strong sense of coherence enhances an individual's ability to understand situations, effectively utilize personal resources, and develop suitable coping strategies [41]. Supporting this, a longitudinal study revealed that SoC scores at the age of 15 negatively predicted the relative risk of psychiatric diagnosis at the age of 18 [42]. Another longitudinal study reported a notable difference in social functioning and mental health indicators between adolescents with low and high SoC, favoring those with high SoC [43].

Possessing a profound purpose in life enhances the ability to cope with negative events, bolsters psychological resilience, and expedites emotional recovery following adverse experiences [44, 45]. Conversely, a lack of purpose is associated with the emergence of mental health challenges [46]. Moreover, a sense of meaning, including purpose and coherence, can shield against psychological distress by diminishing repetitive negative thinking and uncertainty [47]. Indeed, an epidemiological study demonstrated that over a 4-year follow-up period, individuals with a stronger sense of purpose experienced significantly positive psychosocial outcomes (e.g., higher optimism, reduced risk of depression, and lower loneliness), as well as improved physical health outcomes, such as a reduced risk of mortality [48]. Similarly, a longitudinal study showed that increases in purpose identification promoted life satisfaction and reduced depressive symptoms in adolescents [49].

Existential significance arises from the internal recognition of one's life having enduring influence over time and space [50]. It, along with other MIL components, is linked to favorable mental health indicators. While the belief in one's significant impact on the world may initially appear to be a form of narcissistic delusion, there is no substantial evidence to suggest that this sense of importance results in negative mental health outcomes [20]. Furthermore, fostering a sense of existential significance

is crucial for preventing serious consequences such as suicidal thoughts and attempts [51] and is positively correlated with self-esteem, which is predictive of beneficial social and psychological outcomes [52–54]. Conversely, social exclusion and threats to belongingness can negatively predict mental health by reducing a sense of significance [55].

This study also revealed the mediating role of psychological resilience in the relationship between the presence of meaning and psychological distress, aligning with existing literature. Resilience refers to the capacity to withstand, adapt to, recuperate from, and thrive despite challenging life situations [56]. Extensive research indicates a negative connection between psychological resilience and distress [57]. Furthermore, the presence of MIL is linked to favorable mental health outcomes, such as reduced psychological distress [58]. This link could be attributed to increased resilience, as perceiving life as meaningful can improve coping with adverse events and enhance psychological resilience.

Various demographic factors have been associated with MIL. Females are more inclined than males to experience, contemplate, and prioritize the significance of and meaning. Therefore, females demonstrate a greater determination to seek meaning in their lives and possess a stronger sense of meaning compared to males [38]. The current findings do not support this suggestion. Additionally, some studies have demonstrated that a sense of meaning tends to increase consistently from the age of 25 onwards, while other studies propose that the relationship between age and meaning in life is nonlinear [59]. In this study, there is no significant relationship between the presence of meaning scores and age. As observed, these findings diverge from earlier studies regarding the link between demographic factors and meaning in life, which may be attributed to the limited sample size in this research.

This study offers valuable insights into the relationship between the presence of meaning and psychological distress. However, it is essential to acknowledge certain limitations. The cross-sectional design precludes the ability to observe changes in the variables over time. Secondly, the small sample size and clinical sampling may limit the generalizability of the findings. Thirdly, the relationships of MIL components (i.e., comprehension, purpose, and existential significance) with psychological resilience and psychological distress were not evaluated separately. Additionally, concepts such as optimism, social support, and cognitive skills that are linked to psychological resilience and

distress were not addressed.

## CONCLUSION

The findings from this study underscore the inverse association between the presence of meaning and psychological distress. Adolescence plays a critical role in human development, making it essential to discern the root causes of psychological distress during this developmental stage. This research supports the implementation of practical interventions aimed at improving mental health among adolescents. Encouraging adolescents to discover meaning and purpose in their lives could significantly mitigate mental health challenges. Thus, interventions focused on meaning could enhance mental health [60, 61]. Moreover, engaging in leisure activities may promote adolescents' mental health by enabling them to experience life more meaningfully [62]. Additional longitudinal studies are necessary to thoroughly explore the relationship between MIL and mental health.

**Conflict of Interest:** No conflict of interest was declared.

**Informed Consent:** Informed consent was obtained from all participants and their parents.

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**Data Availability Statement:** The data that support the findings of this study are available from the corresponding author upon reasonable request.

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**Author Contributions:** Conception: BA, CÜ; Design: BA, CÜ, AAG; Supervision: AAG; Fundings: BA; Materials: BA, CÜ; Data Collection and/or Processing: BA; Analysis and/or Interpretation: BA, AAG; Literature review: BA, CÜ, AAG; Writing: BA, CÜ; Critical Review: BA, CÜ, AAG. All authors approved the final version of the manuscript.

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