



ABILITY TO MENTALIZE AND THE SENSE OF MEANING IN LIFE IN THE PROFESSIONAL GROUP OF NURSES: A CROSS-SECTIONAL STUDY

Łukasz Krzewiński¹, Patrycja Basińska²

¹ Independent researcher, Bydgoszcz, Poland

² Kazimierz Wielki University, Bydgoszcz, Poland
Faculty of Psychology

HIGHLIGHTS

- Higher mentalizing was linked to greater meaning in life among practicing nurses.
- Self-focused mentalizing predicted higher overall meaning, even after age and gender.
- Self-focused mentalizing was most strongly linked with purpose in life.
- Links were stronger for meaning presence than for meaning search.

ABSTRACT

Background: Mentalization supports emotion regulation and interpersonal functioning, and meaning in life is a key psychological resource in nursing. This study examined associations between mentalizing capacity and meaning in life among practicing nurses. **Material and Methods:** In a cross-sectional survey (February–March 2025) of 93 nurses (66 women, 27 men) working in hospital wards and public outpatient clinics in the Kujawsko-Pomorskie Voivodeship (Poland), mentalization was assessed with the *Mentalization Scale* (MentS), including the subscales: *Mentalization of Self*, *Mentalization of Others*, and *Motivation to Mentalize*. Meaning in life was measured with the *Meaning in Life Questionnaire* (MLQ) – the *Presence* and *Search* subscales of the MLQ – and the *Purpose in Life Test* (PIL). The PIL dimension attitude towards death and suicide was excluded due to unacceptable internal consistency ($\alpha = 0.07$). Analyses used Pearson correlations with false discovery rate control (Benjamini–Hochberg, $q = 0.05$) and multiple regression models entering the 3 MentS dimensions simultaneously while controlling for age and gender ($N = 91$, listwise deletion). **Results:** Self-oriented mentalizing correlated with MLQ *Presence* ($r = 0.37$, 95% CI: 0.18–0.53) and strongly with PIL purpose in life ($r = 0.72$, 95% CI: 0.61–0.81). Associations were generally stronger for PIL dimensions than for MLQ *Search*. In regression, self-oriented mentalizing uniquely predicted MLQ *Presence* ($\beta = 0.40$, $R^2 = 0.182$) and PIL total ($\beta = 0.54$, $R^2 = 0.464$). The regression model for MLQ *Search* was not significant ($R^2 = 0.092$). **Conclusions:** Higher mentalizing – particularly self-oriented mentalizing – was associated with a stronger sense of meaning in life in nurses, primarily reflecting meaning presence rather than meaning search. Given the cross-sectional design and convenience sample, findings are associative and warrant replication in larger studies. *Med Pr Work Health Saf.* 2026;77(2)

Key words: well-being, nurses, mentalization, meaning in life, self-concept, mental health

Corresponding author: Patrycja Basińska, Kazimierz Wielki University, Faculty of Psychology, Staffa 1, 85-867 Bydgoszcz, Poland, e-mail: patmic33@wp.pl

Received: September 2, 2025, accepted: March 18, 2026

INTRODUCTION

The concept of mentalization emerged from psychoanalytic literature in the late 1960s, while its empirical study only began in the 1980s [1]. It is defined as the ability to understand and make sense of one's own and others' mental states, including intentions, feelings, beliefs, desires, and goals. This process involves perceiving and interpreting behavior in the context of these mental states [2]. Fonagy described the ability to mentalize as “having a mind in mind,” thereby emphasizing its imag-

inative nature [3]. Mentalizing is not objective, as we can never be certain what another person thinks or feels.

Bateman and Fonagy [2] define mentalization as a mental process in which an individual, implicitly and explicitly, interprets their own and others' actions based on intentional mental states. The essence of mentalization is thus the understanding that behavior is motivated by internal mental states, which requires an imaginative insight into those states in oneself and in others. Undoubtedly, mentalization as an ability brings many benefits. It gives meaning to behaviors and plays a self-regulatory role, in-

fluencing the affect regulation [4]. As the ability to interpret one's own and other people's states, it seems to be very important, especially in helping professions, where the main goal is to provide support, care, and assistance to people in difficult life, health, or social situations.

Current empirical reports regarding the ability in nurses indicate that it undoubtedly plays a significant role in professional functioning, especially in psychiatric and mental health nurses [5–8]. Earlier studies also show that in the professional group of nurses during the COVID-19 pandemic, the ability to mentalize was a significant protective factor for their mental health in terms of stress, anxiety, and depression [9]. There are also empirical indications of a positive relationship between low levels of mentalization and 2 dimensions of professional burnout: emotional exhaustion and depersonalization in a group of doctors and nurses [10]. In a mentalization study which provided a comparison of a group of nursing students with working nurses, it has been demonstrated that the groups do not differ in their ability to mentalize [11]. It can be assumed that the readiness to practice the profession is associated with specific personality aptitude and, undoubtedly, one of them is the ability to mentalize.

Meaning in life is commonly conceptualized as:

- the presence of meaning – feeling that life is coherent and significant,
- the search for meaning – active efforts to find or deepen meaning [12].

In nursing, meaning may function as a psychological resource, while chronic stress and frequent exposure to suffering can undermine it. In this study, meaning was operationalized using 2 complementary approaches: the *Meaning in Life Questionnaire* (MLQ) – *Presence* and *Search* subscales – and the *Purpose in Life Test* (PIL), which captures broader purpose-in-life domains. Mentalizing may support meaning through reflective integration of experiences into a coherent self-narrative (self-oriented mentalizing) and through understanding others in ways that facilitate meaningful relationships (other-oriented mentalizing).

Both mentalization and the sense of meaning in life play an important role in the mental health and socialization of every individual. Mentalization is a component of a proper personality development, secure attachment style, empathy, building interpersonal relationships, and the development of social and emotional competencies and, therefore, mentalization deficits are associated with various psychological difficulties [13–17]. In turn, the sense of meaning in life, understood as an ability, falls

within the scope of fundamental human needs, affecting wellbeing a lot [18]. A lack of a sense of significance and purpose is associated with a deterioration in mental health quality [19].

The ability to mentalize, which enables an individual to understand themselves and others, can contribute to a sense of coherence, which is the key element of meaning in life. Understanding one's own and others' intentions and motivations can shape a sense of purpose, the meaning of one's actions, and a sense of meaning. Recognizing the impact of one's actions on others can enhance the sense of significance. Furthermore, self-reflective abilities, which are part of mentalization, can contribute to a sense of coherence by integrating life experiences and values. The multidimensional nature of mentalization suggests that the relationship with the sense of meaning in life can be complex, and different aspects of mentalization can contribute in unique ways. Strong self-reflection, being part of self-oriented mentalization, can enhance self-awareness and identity, which are related to a sense of coherence in life. Understanding the perspective of others, the domain of other-oriented mentalization, can foster meaningful social relationships and the discovery of meaning in life [1,20]. To date, no research seems to have been conducted on the direct relationship between the ability to mentalize and the sense of meaning in life. This article presents the results of research on the relationship between the 2 constructs in the professional group of nurses.

Aim and analytic focus

The study examined associations between nurses' mentalizing capacity (overall and its dimensions) and meaning in life. Based on the theoretical background suggesting that mentalizing may support meaning in life through self-reflective and interpersonal processes, and given the lack of prior studies directly examining this relationship in nurses, 2 primary research questions were formulated:

- whether higher levels of mentalizing are associated with higher meaning in life (primary outcomes: PIL total and MLQ *Presence*),
- whether the mentalizing dimensions show unique associations with meaning in life when considered jointly and controlling for age and gender.

MATERIAL AND METHODS

Participants and procedure

This cross-sectional survey was conducted February–March 2025 among practicing nurses working in hos-

pital wards and public outpatient clinics in the Kujawsko-Pomorskie Voivodeship, Poland. Recruitment used a convenience approach: invitations were disseminated via internal mailing lists and posters displayed in participating units. Because invitations were distributed through open mailing lists and posters, a response rate could not be determined. Participation was voluntary and anonymous; no identifying data were collected, and completing the questionnaire constituted informed consent. Recruitment and data collection were conducted independently of supervisors/management, and participants were informed that participation (or refusal) would have no workplace consequences. The study involved a minimal-risk, non-interventional questionnaire survey and was conducted in accordance with the Declaration of Helsinki (v. 2013). The survey was anonymous and involved minimal risk; therefore, according to local regulations and institutional practice for anonymous questionnaire studies, formal ethics committee approval was not required and no approval number is available. Inclusion criteria were: employment as a nurse in a hospital ward or a public outpatient clinic for ≥ 1 year and voluntary consent to participate. Exclusion criteria were: employment in another profession and lack of consent. The final sample included 93 nurses – 66 women (71%), 27 men (29%) – aged 22–62 years [mean (M) \pm standard deviation (SD) 39.0 \pm 9.9 years]. Mean length of service was 15.0 years (SD = 10.3 years). Most participants had a higher education degree (N = 79, 85%), 46 (49.5%) were married, and 59 (63%) lived in a city >150 000 inhabitants.

Measures

Mentalization was measured using the *Mentalization Scale* (MentS) developed by Dimitrijević et al. [21] in the Polish adaptation by Jańczak [20]. The scale was created by referring to key indicators contained in Fonagy's theory of mentalization, within which it is understood as a personality trait. The scale consists of 28 statements to which the subject responds on a 5-point Likert scale: 1 – “completely false,” 5 – “completely true.” The tool is interpreted in terms of an overall MentS score, which indicates the general level of mentalization, and 3 subscales: *Mentalization of Others* (MentS-O), *Mentalization of Self* (MentS-S), and *Motivation to Mentalize* (MentS-M) [20]. In the study, the internal consistency of the test, measured using Cronbach's α reliability coefficient, was 0.86 for the overall MentS score, 0.69 for the MentS-O subscale, 0.85 for the MentS-S subscale, and 0.72 for the MentS-M subscale, which indicates good and acceptable levels.

Two research tools were used to measure the meaning in life. This solution was chosen to capture both general, existential dimensions of meaning in life and its more dynamic aspects. The use of 2 complementary tools allowed for a fuller and more multidimensional approach to the construct.

The first tool was the MLQ by Steger et al. [22], in the Polish adaptation by Kossakowska et al. [23]. The tool allows measuring the declared meaning in life from a present-time perspective (MLQ *Presence* scale) and a future perspective (MLQ *Search* scale) [22]. It consists of 10 questions to which the subject responds on a 7-point Likert scale: 1 – “absolutely untrue,” 7 – “absolutely true.” The basis for creating the tool is the assumption that every human being has their own interpretation of the concept of meaning/purpose or significance. The questions contained in it relate to 3 concepts associated with the overarching concept of meaning; meaning, purpose, and significance [24]. In the study, the internal consistency of the test, measured with Cronbach's α coefficient, was 0.79 for the overall score, 0.66 for the MLQ *Presence* scale, and 0.77 for the MLQ *Search*, which indicates an acceptable level.

The second tool used to measure the meaning was the PII by Crumbaugh and Maholick [25], in the Polish adaptation by Życińska and Januszek [26]. According to the authors' assumptions, the tool is used to assess the intensity of the sense of meaning in life and was created based on Frankl's logotherapy and logotherapy [25]. In the study, part A of the test was used, which is a questionnaire part containing 20 questions to which the subject responds on a 7-point scale: 1 – “strong disapproval of a given statement,” 7 – “the highest intensity of approval of a given statement.” According to theoretical tradition, within the study of the sense of meaning in life, this tool can identify 7 dimensions: purpose in life, meaning in life, affirmation of life, self-evaluation, evaluation of one's own life, freedom and responsibility, and attitude towards death and suicide [27]. In the study, the internal consistency of the test, measured using Cronbach's α coefficient, was 0.95 for the entire test, and for individual dimensions, respectively: purpose in life – 0.86, meaning in life – 0.84, affirmation of life – 0.81, self-evaluation – 0.69, evaluation of one's own life – 0.76, freedom and responsibility – 0.63, and attitude towards death and suicide – 0.07. The results indicate acceptable and good internal consistency for the entire scale and 6 dimensions. Due to the methodologically unacceptable consistency of the dimension attitude towards death and suicide, it was decided not to include

it in the analyses when discussing the results. It is worth noting that in the studies by Życińska and Januszek [26], that dimension also obtained a result indicating a lack of internal consistency, where Cronbach's α was 0.08.

Statistical analysis

With $\alpha = 0.05$ and $N = 93$, sensitivity/power analyses for correlations and multiple regression were conducted using G*Power 3.1 (Heinrich-Heine-Universität Düsseldorf, Düsseldorf, Germany). At 80% power, 2-tailed sensitivity for correlations corresponds to the Pearson's correlation coefficient (r) of 0.28–0.29, whereas for multiple regression with 5 predictors (3 MentS dimensions plus age and gender) the coefficient of determination (R^2) was approx. 0.13 [Cohen's effect size for multiple regression (f^2) was approx. 0.15] [28]. Pearson's r was used to assess bivariate associations, and for selected associations 95% confidence intervals (CIs) based on Fisher's z transformation were calculated. For regression models, standardized coefficients (β) and unstandardized coefficients (B) with standard error (SE) and 95% CIs were reported. Multicollinearity was evaluated using tolerance and variance inflation factors (VIF), values indicated no problematic collinearity (tolerance = 0.47–0.99, VIF approx. 1.01–2.15). Gender was

coded as 0 – “women,” 1 – “men.” To limit Type-I error across secondary analyses involving multiple subscales, the false discovery rate was controlled using the Benjamini–Hochberg procedure ($q = 0.05$) [29]. The PII dimension attitude towards death and suicide was excluded due to unacceptable internal consistency (α approx. 0.07). For regression analyses, $N = 91$ due to missing values in the outcome and/or covariates; cases were handled using listwise deletion.

RESULTS

In the first step of the analyses, descriptive statistics were calculated and distribution normality was assessed to select the appropriate statistical tests (Table 1). Analyzing the skewness and kurtosis values, it was assumed that despite the statistical significance of the distributions of all the variables measured by the Shapiro-Wilk W test, the distributions were close to normal, as skewness and kurtosis fall within the range of -2 – 2 . Parametric tests were used in further analyses. The MentS subscales were moderately intercorrelated (MentS-S–MentS-M $r = 0.72$, MentS-S–MentS-O $r = 0.23$, MentS-O–MentS-M $r = 0.18$), consistent with related but non-redundant dimensions.

Table 1. Descriptive statistics and distribution normality for the study variables among nurses ($N = 93$) from the Kujawsko-Pomorskie Voivodeship, Poland, February–March 2025

Variable	Score [pts]				Shapiro–Wilk W	p	Skewness	Kurtosis
	M	SD	min.	max				
<i>Meaning in Life Questionnaire</i>								
Presence	26.8	4.3	14	35	0.93	0.001	–0.94	1.77
Search	25.7	5.3	6	35	0.94	0.001	–0.97	2.01
<i>Purpose in Life Test</i>								
purpose in life	26.2	5.3	12	35	0.96	0.005	–0.63	0.10
meaning in life	15.5	3.9	7	21	0.95	0.001	–0.48	–0.45
affirmation of life	20.7	4.1	8	28	0.96	0.005	–0.60	–0.06
self-evaluation	10.7	2.2	5	14	0.95	0.001	–0.43	–0.28
evaluation of own life	10.9	2.5	3	14	0.92	0.001	–0.79	0.27
freedom and responsibility	9.8	2.9	2	14	0.95	0.001	–0.55	–0.28
<i>Mentalization Scale</i>								
MentS-S	36.5	6.9	22	50	0.97	0.04	–0.35	–0.58
MentS-O	26.9	6.1	11	37	0.95	0.002	–0.65	–0.17
MentS-M	35.6	6.2	22	50	0.97	0.03	–0.08	–0.65

MentS-M – Mentalization Scale – Motivation to Mentalize, MentS-O – Mentalization Scale – Mentalization of Others, MentS-S – Mentalization Scale – Mentalization of Self. Shapiro–Wilk W – test of normality, p – p-value significance level for the Shapiro–Wilk test.

Table 2. Pearson's correlations between mentalization dimensions and meaning in life indicators among nurses (N = 93) from the Kujawsko-Pomorskie Voivodeship, Poland, February–March 2025

Variable	Pearson's r correlation			
	MentS-S	MentS-O	MentS-M	MentS total
<i>Meaning in Life Questionnaire</i>				
<i>Presence</i>	0.37***	0.20	0.22*	0.35***
<i>Search</i>	0.25*	−0.09	0.18	0.16
<i>Purpose in Life Test</i>				
purpose in life	0.72***	0.30**	0.56***	0.70***
meaning in life	0.61***	0.25*	0.52***	0.61***
affirmation of life	0.65***	0.31**	0.54***	0.66***
self-evaluation	0.68***	0.24*	0.49***	0.63***
evaluation of own life	0.48***	0.23*	0.41***	0.49***
freedom and responsibility	0.42***	0.23*	0.36***	0.44***

MentS – Mentalization Scale, MentS-M – Mentalization Scale – Motivation to Mentalize, MentS-O – Mentalization Scale – Mentalization of Others, MentS-S – Mentalization Scale – Mentalization of Self.

All statistically significant correlations remained significant after Benjamini–Hochberg false discovery rate correction ($q = 0.05$).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The next step was to analyze the relationship between the dimensions of mentalization and its overall score with the MLQ subscales and PIL dimensions (Table 2). *Mentalization of Self* revealed positive, significant relationships with all the MLQ subscales and PIL dimensions. The relationships ranged from weak (0.25) with the search for meaning to strong (0.72) with purpose in life. *Mentalization of Others* revealed positive, statistically significant relationships with all the PIL dimensions. These relationships were weak, ranging from 0.23 with evaluation of own life and freedom and responsibility to 0.31 with affirmation of life. *Motivation to Mentalize* demonstrated a weak (0.22) relationship with the presence of meaning (MLQ) and moderate relationships with all the PIL dimensions. They ranged from 0.36 with freedom and responsibility to 0.56 with purpose in life. The overall mentalization score correlated with the presence of meaning (MLQ) and all the PIL dimensions. The correlations were moderate to strong. After Benjamini–Hochberg false discovery rate correction ($q = 0.05$), all statistically significant correlations remained significant. For key associations 95% CIs are also reported: MentS-S with MLQ *Presence* ($r = 0.37$, 95% CI: 0.18–0.53) and with PIL purpose in life ($r = 0.72$, 95% CI: 0.61–0.81).

Mentalization dimensions uniquely associated with the 2 MLQ subscales (*Presence* and *Search*) and the overall PIL score were then examined. Three multiple regression models were fitted with MLQ *Presence*, MLQ *Search*, and PIL total as outcomes, with

the 3 MentS dimensions entered simultaneously while controlling for age and gender (Table 3).

In the regression model predicting MLQ *Presence* from the 3 mentalization dimensions while controlling for age and gender ($N = 91$), the overall model was significant, $F(5, 85) = 3.79$, $p = 0.004$, explaining 18.2% of the variance ($R^2 = 0.182$, adjusted $R^2 = 0.134$). *Mentalization of Self* was the only significant predictor ($\beta = 0.40$, $B = 0.25$, $SE = 0.09$, $t = 2.79$, $p = 0.007$), whereas MentS-O, MentS-M, age and gender were not significant (all $p \geq 0.10$).

In the regression model predicting MLQ *Search* from the 3 mentalization dimensions while controlling for age and gender ($N = 91$), the overall model was not significant, $F(5, 85) = 1.71$, $p = 0.140$, and explained 9.2% of the variance ($R^2 = 0.092$, adjusted $R^2 = 0.038$). None of the predictors reached statistical significance (all $p \geq 0.159$). *Mentalization of Self* showed a trend-level association with MLQ *Search* ($\beta = 0.27$, $B = 0.20$, $SE = 0.11$, $t = 1.79$, $p = 0.077$), whereas MentS-O and MentS-M were not associated with MLQ *Search*.

In a multiple regression predicting overall meaning in life (PIL total) from the 3 mentalization dimensions while controlling for age and gender ($N = 91$), the model was significant, $F(5, 85) = 14.70$, $p < 0.001$, explaining 46.4% of the variance ($R^2 = 0.464$, adjusted $R^2 = 0.432$). *Mentalization of Self* was the only significant predictor ($\beta = 0.54$, $B = 1.57$, $SE = 0.33$, $t = 4.70$, $p < 0.001$), whereas MentS-O, MentS-M, age and gender were not significant (all $p > 0.12$).

Table 3. Multiple regression models predicting *Meaning in Life Questionnaire (MLQ) Presence*, *MLQ Search*, and *Purpose in Life Test (PIL) total* from mentalization dimensions, age, and gender among nurses (N = 91) from the Kujawsko-Pomorskie Voivodeship, Poland, February–March 2025

Predictor	β	SE(β)	B	SE(B)	95% CI of B	t(85)	p
MLQ							
<i>Presence^a</i>							
constant			14.749	3.448		4.278	0.001
gender	-0.058	0.102	-0.556	0.969	-2.483–1.372	-0.573	0.568
age	0.105	0.099	0.045	0.043	-0.040–0.130	1.061	0.292
MentS-S	0.398	0.143	0.249	0.089	0.071–0.426	2.788	0.007
MentS-O	0.169	0.103	0.121	0.073	-0.025–0.266	1.651	0.102
MentS-M	-0.076	0.144	-0.052	0.099	-0.250–0.145	-0.527	0.600
<i>Search^b</i>							
constant			19.658	4.378		4.490	<0.001
gender	0.013	0.107	0.154	1.231	-2.293–2.601	0.125	0.901
age	0.052	0.104	0.027	0.054	-0.081–0.135	0.496	0.621
MentS-S	0.270	0.151	0.203	0.113	-0.022–0.428	1.792	0.077
MentS-O	-0.154	0.108	-0.132	0.093	-0.317–0.053	-1.421	0.159
MentS-M	0.033	0.152	0.028	0.126	-0.223–0.278	0.220	0.826
PIL total^c							
constant			18.501	12.858		1.438	0.153
gender	0.092	0.082	4.042	3.615	-3.145–11.229	1.118	0.266
age	0.021	0.079	0.043	0.159	-0.273–0.359	0.269	0.788
MentS-S	0.544	0.115	1.565	0.333	0.903–2.227	4.703	0.001
MentS-O	0.129	0.083	0.422	0.273	-0.121–0.965	1.548	0.125
MentS-M	0.123	0.116	0.391	0.371	-0.347–1.129	1.054	0.294

MentS-M – *Mentalization Scale – Motivation to Mentalize*, MentS-O – *Mentalization Scale – Mentalization of Others*, MentS-S – *Mentalization Scale – Mentalization of Self*.

β – standardized regression coefficient, B – unstandardized regression coefficient, F – F statistic for the overall regression model, R^2 – coefficient of determination,

SE(β) – standard error of the standardized regression coefficient, SE(B) – standard error of the unstandardized regression coefficient, t – t-statistic.

^a $F(5,85) = 3.79$, $p = 0.004$, $R^2 = 0.182$, adjusted $R^2 = 0.134$.

^b $F(5,85) = 1.71$, $p = 0.140$, $R^2 = 0.092$, adjusted $R^2 = 0.038$.

^c $F(5,85) = 14.70$, $p < 0.001$, $R^2 = 0.464$, adjusted $R^2 = 0.432$.

DISCUSSION

The aim of this study was to extend knowledge on the association between mentalizing and meaning in life in nurses – a professional group exposed to emotional and existential strain. Overall, higher mentalizing was linked to higher meaning, with the most consistent effects observed for self-oriented mentalizing. At the bivariate level, MentS-S correlated moderately with MLQ *Presence* ($r = 0.37$) and strongly with PIL purpose in life ($r = 0.72$). In multivariable models controlling for age and gender, MentS-S remained the only unique predictor of MLQ *Presence* ($\beta = 0.40$, $R^2 = 0.182$) and PIL total ($\beta = 0.54$, $R^2 = 0.464$), whereas MentS-O and MentS-M did not add incremental explanatory value.

To place these findings in a broader context, it is useful to note that both constructs may share common developmental roots. Mentalization and meaning in life are shaped by early relational experiences (e.g., attachment quality, caregivers' emotional availability and mirroring) as well as the cultural and narrative context in which the individual develops [2,22,30]. These conditions support the emergence of coherent interpretive frameworks for experience [31,32], making it plausible that individual differences in mentalizing capacity are associated with existential coherence and meaning.

The present results suggest that mentalizing about the self may be particularly relevant for meaning in life. Self-oriented mentalizing – perceiving and interpreting one's own intentions, emotions, and experiences –

showed the strongest associations with meaning indicators and remained robust in regression analyses. This pattern is consistent with accounts in which self-reflection and integration of experience contribute to building a narrative identity [31], which is closely linked to stable purpose and coherence. In nursing work, where emotionally demanding encounters are common, the ability to “hold oneself in mind” may facilitate reflective processing of difficult experiences and value-consistent action, thereby supporting purpose and a sense that life (and work) is meaningful.

Other-oriented mentalizing was positively related to several PIL dimensions (e.g., affirmation of life, self-evaluation, evaluation of one’s own life), though the correlations were small (approx. $r = 0.23\text{--}0.31$) and did not translate into unique effects in regression models. This pattern may still be theoretically meaningful: understanding others’ inner worlds can support meaningful interpersonal relationships – often described as a key source of meaning [18,22]. In nursing, relationships with patients and families can carry a strong emotional and existential dimension, potentially influencing how nurses construe their work and life as meaningful. At the same time, the modest effect sizes suggest that – within this dataset – interpersonal mentalizing may be less central than self-reflective mentalizing for global meaning outcomes.

Motivation to mentalize (readiness and willingness to understand mental states) showed moderate associations with multiple PIL dimensions ($r \leq 0.56$ for purpose in life), suggesting that a reflective stance and curiosity about inner experience may accompany stronger existential orientation. However, motivation to mentalize did not uniquely predict meaning outcomes once self-oriented mentalizing was included, indicating that the motivational component may be intertwined with (or operate through) effective self-understanding in explaining meaning in life.

An important nuance is that mentalizing was more strongly related to structural aspects of meaning (e.g., purpose, affirmation of life, self-evaluation) than to meaning as an active pursuit. This is consistent with the distinction between “presence” and “search” proposed by Steger et al. [24]. In the analyses, the regression model for MLQ *Search* was not significant ($R^2 = 0.092$), and none of the predictors reached conventional significance (self-oriented mentalizing showed only a trend, $\beta = 0.27$, $p = 0.077$). Moreover, after Benjamini–Hochberg false discovery rate correction, all statistically significant correlations remained significant, reinforcing the interpretation that mentalizing is more closely linked

to having meaning than to seeking it. One plausible explanation is that searching for meaning can reflect heterogeneous processes, including exploration during developmental transitions or responses to uncertainty and existential tension [12,25], which may be less directly tied to trait-like reflective capacities.

Finally, while the present findings do not justify strong applied claims, they may help formulate testable directions for nursing practice and research. If replicated, the prominence of self-oriented mentalizing could motivate evaluating reflective and mentalization-informed approaches (e.g., structured reflective practice, supervision, or meaning-centered components inspired by logotherapy) as potential avenues to support nurses’ existential resources. These possibilities require longitudinal and intervention research to determine whether enhancing mentalizing relates to changes in meaning over time.

Limitations

The study used a small, non-random convenience sample from 1 region of Poland, which limits generalizability and increases uncertainty around effect estimates. The cross-sectional design precludes causal inference. Because recruitment relied on open invitations (mailing lists/posters), a response rate could not be established and self-selection bias is possible. Several subscales showed internal consistency below the conventional 0.70 threshold (e.g., MLQ *Presence*, PIL freedom and responsibility, MentS-O), which may have attenuated associations. Although age and gender were included as covariates in the regression models and multicollinearity was assessed (VIF approx. 1.01–2.15), other potential confounders (e.g., burnout, distress, empathy, religiosity, social support) were not measured. Multiple testing was conducted in the correlational analyses; although the false discovery rate was controlled using the Benjamini–Hochberg procedure, replication in larger and more diverse samples remains necessary.

CONCLUSIONS

In this cross-sectional sample of nurses, higher mentalizing capacity – particularly self-oriented mentalizing – was associated with higher presence of meaning and higher overall purpose in life. In covariate-adjusted models, self-oriented mentalizing showed the most consistent unique association with meaning outcomes, whereas other-oriented mentalizing and motivation to mentalize were weaker and not robust. Given the correlational design and the small, non-random sample,

the findings should be interpreted as associative and hypothesis-generating. Replication in larger, preferably multi-center samples and longitudinal or intervention studies is needed to clarify directionality and practical relevance.

AUTHOR CONTRIBUTIONS

Research concept: Łukasz Krzewiński

Research methodology: Łukasz Krzewiński, Patrycja Basińska

Collecting material: Łukasz Krzewiński

Statistical analysis: Patrycja Basińska

Interpretation of results: Łukasz Krzewiński, Patrycja Basińska

References: Łukasz Krzewiński, Patrycja Basińska

REFERENCES

- Cierpiałkowska L, Kwiecień A, Miśko N. Zdolność do mentalizacji w kontekście relacji przywiązania u osób z zaburzeniami borderline. In: Cierpiałkowska L, Górska D, editors. *Mentalizacja z perspektywy rozwojowej i klinicznej*. Poznań: Wydawnictwo Naukowe UAM; 2016. p. 182–4. Polish.
- Bateman A, Fonagy P. *Mentalization-based treatment for personality disorders: a practical guide*. Oxford: Oxford University Press; 2016. <https://doi.org/10.1093/med:psych/9780199680375.001.0001>.
- Dejko K. Badanie zdolności do mentalizowania w procesie diagnozy psychiatrycznej i psychoterapeutycznej. *Psychiatr Pol*. 2015;49(3):575–84. <https://doi.org/10.12740/PP/27303>.
- Jańczak M. Mentalizacja w praktyce klinicznej – perspektywa psychodynamiczna. *Psychoterapia*. 2018;4:5–17. Polish.
- Free G, Swildens W, Hoogendoorn A, Beekman A, van Meijel B. Empathy and mentalizing of mental health nurses: a cross-sectional correlational study. *Int J Ment Health Nurs*. 2025;34(1):1–12. <https://doi.org/10.1111/inm.70002>.
- Free G, Swildens W, Knappen S, Beekman A, van Meijel B. Mentalizing capacities of mental health nurses: a systematic PRISMA review. *J Psychiatr Ment Health Nurs*. 2024;31(1):87–110. <https://doi.org/10.1111/jpm.12963>.
- Cracknell L. Introducing mentalization and its role in mental health practice. *Ment Health Pract*. 2020;23(6):33–42. <https://doi.org/10.7748/mhp.2020.e1520>.
- Warrender D. Staff nurse perceptions of the impact of mentalization-based therapy skills training when working with borderline personality disorder in acute mental health: a qualitative study. *J Psychiatr Ment Health Nurs*. 2015; 22(8):623–33. <https://doi.org/10.1111/jpm.12248>.
- Safiye T, Gutić M, Dubljanin J, Stojanović TM, Dubljanin D, Kovačević A, et al. Mentalizing, resilience, and mental health status among healthcare workers during the COVID-19 pandemic: a cross-sectional study. *Int J Environ Res Public Health*. 2023;20(8):5594. <https://doi.org/10.3390/ijerph20085594>.
- Safiye T, Vukčević B, Gutić M, Milidrag A, Dubljanin D, Dubljanin J, et al. Resilience, mentalizing and burnout syndrome among healthcare workers during the COVID-19 pandemic in Serbia. *Int J Environ Res Public Health*. 2022; 19(11):6577. <https://doi.org/10.3390/ijerph19116577>.
- Bordoagni G, Fino E, Agostini A. Burnout, attachment and mentalization in nursing students and nurse professionals. *Healthcare (Basel)*. 2021;9(11):1576. <https://doi.org/10.3390/healthcare9111576>.
- Frankl V. *Wola sensu. Założenia i zastosowanie logoterapii*. Warszawa: Czarna Owca; 2018. Polish.
- Adamczyk D, Kaleta-Witusiak M, Skowron A. Fenomen ludzkiego cierpienia: Ujęcie filozoficzne, psychopedagogiczne i teologiczne. Kraków: Wydawnictwo Naukowe Uniwersytetu Pedagogicznego; 2021. Polish.
- Vahidi E, Ghanbari S, Behzadpoor S. The relationship between mentalization and borderline personality features in adolescents: mediating role of emotion regulation. *Int J Adolesc Youth*. 2021;26(1):284–93. <https://doi.org/10.1080/02673843.2021.1931376>.
- Yazdanimehr R, Aflakseir A, Sarafraz M, Taghavi M. The structural model of mother-infant bonding in the first pregnancy based on the mother's attachment style and parenting style: the mediating role of mentalization and shame. *BMC Psychol*. 2023;11(1):396. <https://doi.org/10.1186/s40359-023-01436-4>.
- Cheng X, Zheng L, Duan J, Liu Z, Huang D, Zhou H, et al. Mentalizing and interpersonal competence: a resting-state functional magnetic resonance imaging study. *Soc Behav Pers Int J*. 2024;52(8):1–9. <https://doi.org/10.2224/sbp.13880>.
- Chelouche-Dwek G, Fonagy P. Mentalization-based interventions in schools for enhancing socio-emotional competencies and positive behaviour: a systematic review. *Eur Child Adolesc Psychiatry*. 2025;34(4):1295–315. <https://doi.org/10.1007/s00787-024-02578-5>.
- Sica LS, Parola A, De Rosa B, Sommantico M, Fenizia E, Postiglione J, et al. Meaning matters: a person-centered investigation of meaning in life, future time perspective, and well-being in young adults. *J Person-Oriented Res*. 2024; 10(2):104–16. <https://doi.org/10.17505/jpor.2024.27189>.
- Joshanloo M, Yıldırım M. Aversion to happiness mediates effects of meaning in life, perfectionism, and self-esteem on psychological distress in Turkish adults. *Aust Psychol*. 2025;60(3):235–47. <https://doi.org/10.1080/00050067.2024.2415068>.

20. Jańczak M. Polish adaptation and validation of the *Mentalization Scale* (MentS) – a self-report measure of mentalizing. *Psychiatr Pol*. 2021;55(6):1257–74. <https://doi.org/10.12740/PP/125383>.
21. Dimitrijević A, Hanak N, Altaras Dimitrijević A, Jolić Marjanović Z. The *Mentalization Scale* (MentS): a self-report measure for the assessment of mentalizing capacity. *J Pers Assess*. 2017;100(3):268–80. <https://doi.org/10.1080/00223891.2017.1310730>.
22. Steger MF, Frazier P, Oishi S, Kaler M. The *Meaning in Life Questionnaire*: assessing the presence of and search for meaning in life. *J Couns Psychol*. 2006;53:80–93. <https://doi.org/10.1037/0022-0167.53.1.80>.
23. Kossakowska M, Kwiatek P, Stefaniak T. Sens w życiu. Polska adaptacja kwestionariusza MLQ. *Psychol Qual Life*. 2013;12(2):111–31. <https://doi.org/10.5604/16441796.1090786>. Polish.
24. Steger MF, Kashdan TB, Sullivan BA, Lorentz D. Understanding the search for meaning in life: personality, cognitive style, and the dynamic between seeking and experiencing meaning. *J Pers*. 2008;76:199–228. <https://doi.org/10.1111/j.1467-6494.2007.00484.x>.
25. Crumbaugh JC, Maholick LT. An experimental study in existentialism: the psychometric approach to Frankl's concept of noogenic neurosis. *J Clin Psychol*. 1964;20:200–7. [https://doi.org/10.1002/1097-4679\(196404\)20:2<200::AID-JCLP2270200203>3.0.CO;2-U](https://doi.org/10.1002/1097-4679(196404)20:2<200::AID-JCLP2270200203>3.0.CO;2-U).
26. Życińska J, Januszek M. *Test sensu życia (Purpose in Life Test, PIL)* J.C. Crumbaugh i L.T. Maholicka: analiza psychometryczna. *Psychol J*. 2011;17(1):133–42. Polish.
27. Popielski K. Testy egzystencjalne: metody badania frustracji egzystencjalnej i nerwicy noogennej. In: Popielski K, editor. *Człowiek – pytanie otwarte: studia z logoteorii i logoterapii*. Lublin: Redakcja Wydawnictw KUL; 1987. p. 237–61. Polish.
28. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behav Res Methods*. 2009;41(4):1149–160.
29. Benjamini Y, Hochberg Y. Controlling the false discovery rate: a practical and powerful approach to multiple testing. *J R Stat Soc Ser B*. 1995;57(1):289–300.
30. McAdams DP. The psychology of life stories. *Rev Gen Psychol*. 2001;5(2):100–22. <https://doi.org/10.1037/1089-2680.5.2.100>.
31. Schore AN. Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Ment Health J*. 2001;22(1–2):7–66. [https://doi.org/10.1002/1097-0355\(200101/04\)22:1<7::AID-IMHJ2>3.0.CO;2-N](https://doi.org/10.1002/1097-0355(200101/04)22:1<7::AID-IMHJ2>3.0.CO;2-N).
32. Fonagy P, Gergely G, Jurist E, Target M. *Affect regulation, mentalization, and the development of the self*. New York: Other Press; 2002.