THE TRIPARTITE MEANING IN LIFE SCALE: ASSESSING MEANING IN LIFE IN THREE DIMENSIONS

Leelanuch HAPUTPONG[1] and Jitra DUDSDEEMAYTHA[2]
[1] Graduate School, Srinakharinwirot University, Thailand; leelanuch.haputpong@g.swu.ac.th
[2] Graduate School, Srinakharinwirot University, Thailand

ARTICLE HISTORY
Received: 24 February 2023 **Revised:** 15 March 2023 **Published:** 27 March 2023

ABSTRACT
The field of meaning in life (MIL) suffers from definitional ambiguity. This ambiguity extends to the measurement of MIL, hampering cohesive research on the construct. Recent scholarly consensus points to a tripartite conceptualization of MIL. This paper describes the development of the Tripartite Meaning in Life Scale (TMLS), a 23-item measure of the three subconstructs of MIL: coherence, purpose, and significance. Results from a 30-undergraduate-student sample demonstrate that the final scale has favorable psychometric properties. The Index of Item-Objective Congruence (IOC) scores were above .5 for all items, indicating good content validity. The Corrected Item-Total Correlation (CITC) ranged from .212-.508, .427-.729, and .452-.718 for coherence, purpose, and significance, respectively. The overall Cronbach Alpha's coefficient was .892, indicating good internal consistency. The TMLS offers a way to measure MIL in a multidimensional approach consistent with current conceptualization, encouraging a cohesive body of research to be built upon in the same, meaningful direction.
Keywords: Meaning in Life, Purpose, Coherence, Significance, Measurement

CITATION INFORMATION: Haputpong, L., & Dudsdeemaytha, J. (2023). The Tripartite Meaning in Life Scale: Assessing Meaning in Life in Three Dimensions. *Procedia of Multidisciplinary Research, 1*(3), 8.

INTRODUCTION

In every person, there is an innate motive to strive for meaning in life (MIL) (Frankl, 2006). Within positive psychology, meaning is a central element of well-being (Seligman, 2013), key to the promotion of flourishing and the prevention of pathologies that may arise during challenging life experiences (Seligman & Csikszentmihalyi, 2000). Among the host of positive outcomes, research has linked MIL to increased happiness, life satisfaction, self-esteem, self-efficacy (Damasio & Koller, 2015; Thoits, 2012), physical health (Thoits, 2012), mastery (García-Alandete et al., 2018; Thoits, 2012), hope (Damasio & Koller, 2015; Hedayati & Khazaei, 2014) and optimism (Damasio & Koller, 2015). Individuals with MIL have been found to experience healthy transitions across the life span (Damon et al., 2003) and increased well-being at all stages of life (Steger et al., 2009). However, despite being a well-researched construct, researchers agree that MIL suffers from definitional ambiguity (e.g., George & Park, 2016a; King & Hicks, 2021; King et al., 2006; Martela & Steger, 2016). The myriad of MIL conceptualizations and combinations of dimensions seen across studies point to a dire lack of conceptual clarity. This ambiguity extends to the measurement of MIL, hampering cohesive research on the construct. It is only recently that growing consensus has appeared among contemporary MIL scholars, driving the need for the development of a contemporary tripartite MIL scale.

LITERATURE REVIEW

Definitions of MIL

Traditional or existential conceptualizations of MIL viewed the construct as unidimensional, with past definitions largely focusing on having an overarching purpose (e.g., Frankl, 2006; Yalom, 1980). However, contemporary literature holds a more expanded view of MIL, with scholars explicitly agreeing to a tripartite model of the construct (e.g., George & Park, 2016a; King et al., 2006; Martela & Steger, 2016). MIL may be defined as

"…emerging from the web of connections, interpretations, aspirations, and evaluations that (1) make our experiences comprehensible, (2) direct our efforts toward desired futures and (3) provide a sense that our lives matter and are worthwhile" (Martela and Steger, 2016, p. 538). Embedded in this definition are the three subconstructs of coherence, purpose, and significance.

Dimensions of MIL

Coherence is the "sense of comprehensibility and one's life making sense" (Martela & Steger, 2016, p. 534). Individuals experience coherence when they are able to observe patterns in their lives in a way that renders the wholeness comprehensible (George & Park, 2016a; Martela & Steger, 2016). The pieces of life fit well together and make sense, engendering clarity. There is an understanding that things happen as they ought to. There is some level of predictability and routine (King et al., 2016). According to the Narrative Identity Theory (McAdams & Cox, 2010), and The Meaning Maintenance Model (Heine et al., 2006), humans have an inherent need to find sense and restore a sense of predictability whenever an event or experience disrupts their "life story" (McAdams & Cox, 2010) or their meaning frameworks of themselves and the world around them (Heine et al., 2006).

Purpose is the "sense of core goals, aims, and direction in life" (Martela & Steger, 2016, p. 534). The same elements of goals and direction in life are also present in George and Park (2016a) and King et al.'s (2006) work. Individuals experience purpose when they have a clear view of and commitment to their future-oriented goals (George & Park, 2016a; Martela & Steger, 2016). There is a sense of engagement, direction, and pull toward these goals. The Self-Regulation Model (Carver & Scheier, 1998) postulates that humans feel a sense of purpose when setting and pursuing "do goals" which serve to carry out actions dedicated to living their "be goals" or values, ideals, and identity.

Significance is the "sense of life's inherent value and having a life worth living" (Martela & Steger, 2016, p. 534). Individuals experience significance when their lives are evaluated as important and worthwhile (King et al., 2006; Martela & Steger, 2016). It is an aspect of meaning easily found in everyday life experiences that people deem intrinsically valuable (King & Hicks, 2021). Such experiences could be mattering in relationships (Hill, 2018), loving someone, being enclosed in nature and culture, or simply finding goodness, truth, and beauty in any moment of life (Frankl, 2006). The Terror Management Theory (Greenberg et al., 1986) offers an evolutionary perspective on significance, positing that humans desire significance as a way of coping with death anxiety. They feel like a significant person in a meaningful world when they are able to live up to the values of their chosen cultural worldview.

Measurements of MIL

Despite growing acceptance of MIL as a tripartite construct, dominant MIL measures tend to be unidimensional, conforming with earlier "purpose" definitions of MIL. Four widely used MIL instruments have no subscales (i.e., Meaning in Life (MLQ) (Steger et al., 2006), Purpose in Life (PIL) (Crumbaugh & Maholick, 1964), Psychological Wellbeing - Purpose Subscale (PWB-PIL) (Ryff, 1989), Functional Assessment for Chronic Illness Therapy-Spiritual Well-Being: Meaning Subscale (FACIT-Sp) (Peterman et al., 2002)). The MLQ is included because it essentially has no subscales when considering only presence of meaning like other measures. For these instruments, MIL is measured as one unidimensional lumped score. When parsing these 4 instruments' items, one sees not only the equating of a single tripartite subconstruct to an overall MIL score (i.e., MLQ, PWB-PIL), but also the conflating of different subconstructs into a lumped score (i.e., PIL, FACIT-Sp: Meaning Subscale). To illustrate the first part of this claim, the PWB-PIL contains a total of 7 items and all 7 items correspond only to purpose (Ryff, 1989). To illustrate the second part of the claim and to take the previous example further, the PIL which produces an aggregate purpose score includes the item, "If I should die today, I would feel that my life has been completely worthless - very worthwhile" (Crumbaugh & Maholick, 1964); this corresponds to the contemporary subconstruct definition of significance (e.g., Martela & Steger, 2016). The issue with this is the resulting simplistic view of a complex construct which prevents detailed study of individual subconstructs (George & Park, 2016b). Additionally, many of these widely used instruments contain items which use the term "meaning" to measure either MIL or the subscales of MIL. For instance, the MLQ includes the items, "I understand my life's meaning" and "I have a good sense of what makes my life meaningful" (Steger et al., 2006). What statements like these require is a reliance on people's intuitive sense of what "meaning" or "meaningful" means, adding unaccounted and uncontrollable variance into the MIL score (George & Park, 2016b).

Three other widely used MIL instruments are multidimensional, containing at least 2 subscales of MIL (i.e., Quality of Life Scale (QOLS) (Burckhardt & Anderson, 2003; Flanagan, 1978), Life Attitude Profile Revised (LAP-Revised) - Personal Meaning Index (Reker, 1992), Life Regard Index (LRI) - Revised (Debats, 1996)). Unfortunately, these multi-faceted measures do not correspond well to the tripartite model and accepted conceptualizations of coherence, purpose, and significance (George & Park, 2016b). For instance, the QOLS has five subscales representing the different domains of life and items pointing to activities or sources of meaning rather than facets of meaning (e.g., Material and Physical Well-being: "Health - being physically fit and vigorous") (Burckhardt & Anderson, 2003; Flanagan, 1978). One item in the scale alludes to coherence ("Understanding yourself - knowing your assets and limitations - knowing what life is about"). The same can be seen with the LRI-Revised which contains 2 subscales, Framework and Fulfillment, and a mix of items corresponding to the tripartite subconstructs within both subscales (e.g., Framework: "I

have a clear idea of what I'd like to do with my life." - alludes to purpose) (Debats, 1996). Unfortunately, even with measures containing subscales that correspond well to accepted tripartite conceptualizations, these subscales include items that crossover among the tripartite subconstructs (George & Park, 2016b). For instance, the LAP-Revised with the subscales of purpose and coherence has, under the coherence subscale, items pertaining to significance (e.g., Coherence: "I have a philosophy of life that gives my existence significance." - alludes to significance) (Reker, 1992).

In Thailand, a review of MIL assessment tools used in Thai research studies identified 4 MIL instruments, two of which are part of the review above: The Purpose in Life-Part A (PIL-Part A), The Seeking of Noetic Goals (SONG), The Meaning in Suffering Test-Part 1 (MIST-Part1), and The Meaning in Life Questionnaire (MLQ) (Nilchantuk, 2020). Not as widely used is the College Student Meaning in Life Test (CSMLT) recently developed by Sangaroon (2019).

To date, three instruments capture the accepted tripartite MIL conceptualization and measure coherence, purpose, and significance separately. The first of these scales is the aforementioned CSMLT (Sangaroon, 2019). This scale was developed specifically for the college student population. Although the instrument has good psychometric properties, it contains items which use the term "meaning," similar to its unidimensional predecessors. One example is, "My life is meaningless." Such items create ambiguity in the relevant subscale and relies on people's sense of what "meaning" entails. As the study did not provide subscale labels, the ambiguous items also make it difficult to correctly assign the items to each subscale. The second instrument is the Multidimensional Existential Meaning Scale (MEMS) (George & Park, 2016a, 2016b). The MEMS was developed to address the lack of existing measures that support the contemporary tripartite view and was designed to operationalize George and Park's (2016a) own definition of MIL using the terms comprehension, purpose, and mattering. The third instrument corresponding to the MIL trichotomy is the Multidimensional Meaning in Life Scale (MMILS) (Costin & Vignoles, 2019). The scale is a proposed improvement of the MEMS with one of its key objectives being to address the lack of reversed-phrased items in the MEMS which may lead to an acquiescent response style.

As for the MEMS and MMILS, although both have good psychometric properties, either measure cannot be utilized as-is because the "mattering" scale does not adequately capture the present study's definition of the significance subconstruct. In these instruments, significance is conceptualized as "existential mattering" and includes items such as "Whether my life ever existed matters even in the grand scheme of the universe," and "Even considering how big the universe is, I can say that my life matters" (Costin & Vignoles, 2019; George & Park, 2016b). This conceptualization of significance neglects everyday experiences which can make a person feel valuable, inherent in Martela and Steger's (2016) definition and in alignment with the views of other scholars and psychologists (e.g., Frankl, 2006; Hill, 2018; King & Hicks, 2021). Because the scope of significance in this paper is limited to quotidian experiences which can engender value and worth in one's life, the researcher has developed an instrument that corresponds to a more tangible tripartite conceptualization of MIL.

Present Study

The purpose of this present study was to develop a reliable and valid instrument that captures MIL as a tripartite model with coherence, purpose, and significance as its dimensions.

RESEARCH METHODOLOGY

The researcher constructed the TMLS based on a literature review of theories and research studies from books and scholarly journal articles, as well as existing MIL instruments. This resulted in an initial 24-item instrument divided into 3 subscales (8 items per subscale) with a

7-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (7). Three subject matter experts (SMEs) assessed the TMLS, following the Index of Item-Objective Congruence (IOC) protocol. The researcher then conducted in-depth interviews with two of the three SMEs. The TMLS was administered online to a sample of 30 undergraduate students from a public university in Bangkok, Thailand. Reliability tests (i.e., Index of Item-Objective Congruence (IOC), Cronbach Alpha's coefficient) were conducted. The final TMLS contains 23 items, with 8 items in the coherence subscale, 7 items in the purpose subscale, and 8 items in the significance subscale. All items are positively phrased, except for 2 negatively phrased items in the coherence subscale.

RESEARCH RESULTS

The Index of Item-Objective Congruence (IOC) scores of the original 24-item TMLS were above .5 for all except for 2 items. In-depth interviews with SMEs resulted in the amendment of the 2 items and the fine-tuning of 12 additional items. Table 1 displays the original 24-item IOC results. The original Corrected Item-Total Correlation (CITC) ranged from .212-.508, .094-.724, and .452-.718 for coherence, purpose, and significance, respectively, leading to the removal of 1 item from the purpose subscale. As a result, the CITC for purpose increased to .427-.729. Prior to the item removal, the overall Cronbach Alpha's coefficient was .884; post item removal, the score for the final 23 items increased to .892. Prior to the item removal, subconstruct Cronbach Alpha's coefficients were .632, .786, and .866 for coherence, purpose, and significance, respectively. Post item removal, the score for purpose increased to .841. Table 2 displays the final 23-item TMLS and its reliability statistics.

Table 1 Index of Item-Objective Congruence (IOC) of the original 24-item TMLS

No.	Item	Item Direction	IOC	Interpretation
Coherence subscale				
1	When going through a life change, I take time to understand that change.	+	1	Include (fine-tune)
2	I can accept the uncertainties in my life.	+	1	Include
3	I believe that I can overcome obstacles in life.	+	1	Include (fine-tune)
4	I self-reflect on the things that happen in my life.	+	1	Include
5	I can tell what my identity is.	+	1	Include (fine-tune)
6	I have not found my identity.	-	0.67	Include (fine-tune)
7	When problems arise in life, I extract life lessons from them for myself.	+	1	Include
8	I view my life as very chaotic.	-	0.33	Amend
Purpose subscale				
9	I have goals in life that are of value to me.	+	1	Include
10	I am living my life according to the vision I have drawn.	+	1	Include (fine-tune)
No.	**Item**	**Item Direction**	**IOC**	**Interpretation**
11	I know what I have to do to reach my goals.	+	1	Include

12	I put my heart and soul into pursuing my goals.	+	1	Include	
13	I procrastinate taking action to reach my goals.	-	0.67	Include	(fine-tune)
14	I am motivated to achieve my goals.	+	1	Include	
15	I periodically assess myself to see whether the values I hold in my life have changed.	+	1	Include	
16	I am ready to adjust my goals to align them with the values I live by in life.	+	1	Include	
Significance subscale					
17	I feel valued when I do something well.	+	0.33	Amend	
18	I like that I can live my life the way I want.	+	1	Include	
19	I have beliefs that guide how I live my life.	+	0.67	Include	(fine-tune)
20	I believe that what I do contributes to others.	+	1	Include	(fine-tune)
21	I feel like I am valued in the eyes of others.	+	0.67	Include	(fine-tune)
22	The people around me value me.	+	0.67	Include	(fine-tune)
23	I enjoy living every day.	+	1	Include	(fine-tune)
24	I feel that my day-to-day life has meaning.	+	1	Include	(fine-tune)

Table 2 Reliability statistics of the final 23-item TMLS

No.	**Items**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**	**Cronbach's Alpha**
Coherence subscale				
1	When going through a life change, I learn to understand that change.	.361	.593	.632
2	I can accept the uncertainties in my life.	.240	.626	
3	I am confident that I can overcome obstacles in life.	.352	.595	
4	I self-reflect on the things that happen in my life.	.508	.579	
5	I can tell what my key traits are.	.387	.584	
6	I have not found myself.	.367	.590	
7	When problems arise in life, I extract life lessons from them for myself.	.212	.628	
8	I view my life as full of meaningless chaos.	.320	.608	
Purpose subscale				
9	I have goals in life that are of value to me.	.660	.809	.841
10	I am living my life, moving toward the vision I have drawn.	.608	.817	
11	I know what I have to do to reach my goals.	.650	.810	
12	I put my heart and soul into pursuing my	.729	.805	

	goals.			
No.	**Items**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**	**Cronbach's Alpha**
13	I am motivated to achieve my goals.	.601	.819	.841
14	I periodically assess myself to see whether the values I hold in my life have changed.	.561	.829	
15	I am ready to adjust my goals to align them with the values I live by in life.	.427	.843	
Significance subscale				
16	I am satisfied with how I live my life.	.697	.841	.866
17	I like that I can live my life the way I want.	.628	.850	
18	I have beliefs that I use to guide the way I live life.	.718	.838	
19	I believe that what I do contributes to society.	.667	.844	
20	I take pride in contributing to society.	.626	.850	
21	I feel like I am important to other people.	.695	.841	
22	I enjoy my daily life.	.452	.866	
23	I feel that my life is worth living.	.492	.864	

DISCUSSION & CONCLUSION

The study's objective was to develop an instrument to measure MIL as a tripartite model, in alignment with current scholarly consensus on what constitutes MIL. The resulting TMLS instrument contains 23 items divided into 3 subscales with 8 items in the coherence subscale, 7 items in the purpose subscale, and 8 items in the significance subscale. The items are consistent with the tripartite MIL definition of Martela & Steger (2016), with the coherence subconstruct adhering to the concepts derived from the Narrative Identity Theory (McAdams & Cox, 2010) and The Meaning Maintenance Model (Heine et al., 2006), purpose adhering to the Self-Regulation Model (Carver & Scheier, 1998), and significance adhering to the Terror Management Theory (Greenberg et al., 1986) and the insights of Hill (2018), King and Hicks (2021), and Frankl (2006). Moreover, some items were synthesized from existing MIL instruments, namely the CSMLT (Sangaroon, 2019), the MEMS (George & Park, 2016a, 2016b), and the MMILS (Costin & Vignoles, 2019).

The original 24 items had final IOC scores that were above .5, indicating good content validity. This aligns with the CSMLT (Sangaroon, 2019) which included items that had IOC scores above .5 and amended items that had IOC scores below .5. After running reliability tests on the data collected from the TMLS, CITC results showed 1 item in the Purpose subscale having a coefficient of less than .2, suggesting that the item had to be removed. After removing the low-CITC item, the CITC coefficients for all final 23 items were above .2, suggesting that these items could be included in the scale. Likewise, the CSMLT included the 40 items with CITC greater than .2. The final 23-item TMLS had an overall Cronbach's Alpha coefficient of .892, indicating good internal consistency or reliability. This is a lower score than the CSMLT's .91 which indicates excellent internal consistency. Individually, the Cronbach's Alpha coefficient of .632 for the coherence subscale indicates acceptable internal consistency and the Cronbach's Alpha coefficients of .841 and .866 for the purpose and significance subscales, respectively, indicate good internal consistency. Although this is a

favorable range, it is still lower than the Cronbach's Alpha ranges of the MEMS' .84-.90 (George & Park, 2016a, 2016b) and the MMILS' .77-.92 (Costin & Vignoles, 2019).

The results from this study demonstrate that the final TMLS has favorable psychometric properties and thus, can be used to measure MIL from a tangible tripartite approach. The TMLS can allow meaningful and systemic progress to be made within the MIL field. Future research can be done on the individual subconstructs of MIL to add to the budding literature on MIL as a three-dimensional construct. As this study was conducted using a preliminary sample of 30 undergraduate students, future studies may look to administer the scale on a larger sample size to confirm the reliability and validity of the scale. Other studies may seek to strengthen the scale, particularly the Coherence subscale, using statistical tools such as the Confirmatory Factor Analysis (CFA). Within the intervention space, mental health practitioners may use the TMLS as an assessment tool in interventions or counseling programs designed to enhance MIL.

ACKNOWLEDGMENTS

The registration fee for presenting and publishing this research in the proceedings of the 17th National and International Conference on Humanities and Social Sciences was funded by the Graduate School of Srinakharinwirot University, Thailand.

REFERENCES

Burckhardt, C., & Anderson, K. L. (2003). The quality of life scale (QOLS): Reliability, validity, and utilization. *Health and Quality of Life Outcomes*, *1*(60). https://doi.org/10.1186/1477-7525-1-60

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781139174794

Costin, V., & Vignoles, V. L. (2019). Meaning is about mattering: Evaluating coherence, purpose, and existential mattering as precursors of meaning in life judgments. *Journal of Personality and Social Psychology*, *118*(4), 864-884. https://doi.org/10.1037/pspp0000225

Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology*, *20*(2), 200-207. https://doi.org/10.1002/1097-4679(196404)20:2<200::AID-JCLP2270200203>3.0.CO;2-U

Damasio, B. F., & Koller, S. H. (2015). Complex experiences of meaning in life: Individual differences among sociodemographic variables, sources of meaning and psychological functioning. *Social Indicators Research*, 123(1), 161-181. https://doi.org/10.1007/s11205-014-0726-3

Damon, W., Menon, J., & Bronk, K. C. (2003). The development of purpose during adolescence. *Applied Developmental Science*, 7(3), 119-128. https://doi.org/10.1207/S1532480XADS0703_2

Debats, D. L. H. M. (1996). *Meaning in life: psychometric, clinical and phenomenological aspects* [Doctoral dissertation, University of Groningen]. Research output: Thesis › Thesis fully internal (DIV). https://research.rug.nl/en/publications/meaning-in-life-psychometric-clinical-and-phenomenological-aspect

Flanagan, J. C. (1978). A research approach to improving our quality of life. *American Psychologist*, *33*(2), 138-147. https://doi.org/10.1037/0003-066X.33.2.138

Frankl, V. E. (2006). *Man's search for meaning*. Beacon Press.

García-Alandete, J., Rosa Martínez, E., Sellés Nohales, P., & Soucase Lozano, B. (2018). Meaning in life and psychological well-being in Spanish emerging adults. *Acta Colombiana de Psicología*, 21(1), 196-205. https://doi.org/10.14718/ACP.2018.21.1.9

George, L. S., & Park, C. L. (2016a). Meaning in life as comprehension, purpose, and mattering: Toward integration and new research questions. *Review of General Psychology*, *20*(3), 205-220. https://doi.org/10.1037/gpr0000077

George, L. S., & Park, C. L. (2016b). The multidimensional existential meaning scale: A tripartite approach to measuring meaning in life. *The Journal of Positive Psychology*, *12*(6), 613-627. http://dx.doi.org/10.1080/17439760.2016.1209546

Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189-212). Springer-Verlag. https://doi.org/10.1007/978-1-4613-9564-5_10

Hedayati, M., & Khazaei, M. (2014). An Investigation of the Relationship between Depression, Meaning in Life and Adult Hope. *Procedia - Social and Behavioral Sciences*, 114, 598-601. https://doi.org/10.1016/j.sbspro.2013.12.753

Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The Meaning Maintenance Model: On the Coherence of Social Motivations. *Personality and Social Psychology Review*, 10(2), 88-110. https://doi.org/10.1207/s15327957pspr1002_1

Hill, C. E. (2018). Definition of meaning in life. In C. E. Hill (Ed.), *Meaning in life: A therapist's guide.* (pp. 19-38). American Psychological Association. https://doi.org/10.1037/0000083-003

King, L. A., & Hicks, J. A. (2021). The Science of Meaning in Life. *Annual Review of Psychology*, 72(1), 561-584. https://doi.org/10.1146/annurev-psych-072420-122921

King, L. A., Heintzelman, S. J., & Ward, S. J. (2016). Beyond the Search for Meaning:A Contemporary Science of the Experience of Meaning in Life. *Current Directions in Psychological Science*, *25*(4), 211-216. https://www.doi.org/10.1177/0963721416656354

King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90(1), 179-196. https://doi.org/10.1037/0022-3514.90.1.179

Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology*, 11(5), 531-545. https://doi.org/10.1080/17439760.2015.1137623

McAdams, D. P., & Cox, K. S. (2010). Self and identity across the life span. In M. E. Lamb, A. M. Freund, & R. M. Lerner (Eds.), *The handbook of life-span development, Vol 2: Social and emotional development*. (pp. 158-207). John Wiley & Sons, Inc. https://doi.org/10.1002/9780470880166.hlsd002006

Nilchantuk, C. (2020). Assessment tools for measuring meaning in life. *Ratchaphruek Journal*, *18*(3), 1-10. https://so05.tci-thaijo.org/index.php/Ratchaphruekjournal/article/view/242220

Peterman, A. H., Fitchett, G., Brady, M. J., Hernandez, L., & Cella, D. (2002). Measuring spiritual well-being in people with cancer: The functional assessment of chronic illness therapy—spiritual well-being scale (FACIT-Sp). *Annals of Behavioral Medicine*, *24*(1), 49-58. https://doi.org/10.1207/S15324796ABM2401_06

Reker, G. T. (1992). *Manual for the Life Attitude Profile-Revised*. Student Psychologists Press.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069-1081. https://www.doi.org/10.1037/0022-3514.57.6.1069

Sangaroon, S. (2019). Development of College Student Meaning in Life' Test. *ARIT Academic Collection*. http://aritbooks.nrru.ac.th/?q=/public/viewcourse/takebook/92/

Seligman, M. E. P. (2013). Flourish: A visionary new understanding of happiness and well-being. Atria Paperback.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologis*t, 55(1), 5-14. https://www.doi.org/10.1037/0003-066X.55.1.5

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of counseling psychology*, *53*(1), 80-93. https://www.doi.org/10.1037/0022-0167.53.1.80

Steger, M. F., Oishi, S., & Kashdan, T. B. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. *The Journal of Positive Psychology*, 4(1), 43-52. https://doi.org/10.1080/17439760802303127

Thoits, P. A. (2012). Role-Identity Salience, Purpose and Meaning in Life, and Well-Being among Volunteers. *Social Psychology Quarterly*, 75(4), 360-384. https://doi.org/10.1177/0190272512459662

Yalom, I. D. (1980). Existential psychotherapy. Basic Books.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.