

Meaning in a Purposeless Cosmos: An Interdisciplinary Integrative Review of Philosophy, Psychology, and Science



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PRISMA 2020 Checklist

Section and Topic	Item #	Checklist Item	Location where Item is Reported
TITLE			-
Title	1	Identify the report as a systematic review.	Title page - Identified as "Integrative Review"
ABSTRACT			-
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 2 - Structured abstract with subheadings
INTRODUCTION			-
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pages 2-4 - Introduction section discusses lack of interdisciplinary integration across philosophy, psychology, and cosmology in understanding meaning.
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 4 - Final paragraph of the Introduction states the aim of synthesizing theories to propose an integrative model of existential meaning-making.
METHODS			-
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Pages 5-6 - Methodology section describes inclusion of conceptual, philosophical, psychological, and scientific literature relevant to existential meaning-making. Excluded works were those lacking relevance to the triadic focus (philosophy, psychology, cosmology) or lacking theoretical depth. Studies were grouped thematically rather than by empirical outcome.
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 5 - Searched databases and platforms included Google Scholar, PubMed, PsycINFO, PhilPapers, Stanford Encyclopedia of Philosophy, and NASA ADS. Reference lists of key articles were also screened. Final search was conducted in June 2025.

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Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Page 5 – Conceptual search strategy using combinations of keywords: “meaning of life”, “existential psychology”, “philosophical meaning”, “logotherapy”, “cosmic meaning”, “multiverse and purpose”, and “existential therapy”. Searches were limited to English-language sources, peer-reviewed journals, and conceptual/theoretical works published between 1940 and 2025.
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Page 5 – A single reviewer (the author) screened titles and abstracts based on conceptual relevance to the review’s interdisciplinary focus. Full texts were evaluated for alignment with existential meaning-making themes. No automation tools were used in the selection process.
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 6 – Conceptual data were extracted manually by the author from each selected source, focusing on core themes, theoretical constructs, and philosophical arguments relevant to existential meaning. No automation tools were used, and no study investigators were contacted.
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (<i>e.g.</i> for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Pages 6-7 – Key conceptual outcomes sought included theories and frameworks of existential meaning, psychological responses to meaninglessness, philosophical models of agency and purpose, and cosmological perspectives on purpose and existence. Only thematically relevant material was extracted based on fit with the review’s conceptual model.
	10b	List and define all other variables for which data were sought (<i>e.g.</i> participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Page 6 – As this was a conceptual review, no participant-level or intervention variables were extracted. Where conceptual ambiguity existed in theoretical sources, interpretive judgment was applied to clarify meaning based on context. No assumptions were made regarding empirical variables or funding.
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Page 6 – Given the conceptual nature of the review, no formal risk-of-bias assessment tools were used. The author critically evaluated each source based on theoretical coherence, interdisciplinary relevance, and contribution to the synthesis. No automation tools were used.
Effect measures	12	Specify for each outcome the effect measure(s) (<i>e.g.</i> risk ratio, mean difference) used in the synthesis or presentation of results.	Page 7 – No quantitative effect measures were used. Conceptual themes and theoretical constructs were synthesized narratively.
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (<i>e.g.</i> tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Page 6 – Studies were selected for synthesis based on thematic and theoretical alignment with the four-phase model of existential meaning-making. Conceptual relevance to philosophy, psychology, and cosmology was prioritized, as outlined in eligibility criteria (Item 5).
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Page 7 – As the review is conceptual, no data conversions or handling of missing summary statistics were required. Theoretical data were prepared through thematic categorization and narrative synthesis.
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Page 9 – Results are presented narratively through thematic synthesis. A conceptual visual model (Figure 1) illustrates the four-phase process of existential meaning-making. Table 1 summarizes key theoretical frameworks.

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Synthesis methods	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Pages 7-10 - A narrative conceptual synthesis was employed to integrate themes from philosophy, psychology, and cosmology. No meta-analysis was performed. Synthesis was guided by thematic convergence and conceptual coherence to develop the proposed four-phase model of existential meaning-making.
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (<i>e.g.</i> subgroup analysis, meta-regression).	Not applicable - No statistical synthesis or quantitative data. Conceptual variation across sources was addressed narratively through theoretical integration rather than subgroup or heterogeneity analysis.
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Not applicable - No sensitivity analyses were conducted, as no statistical synthesis or meta-analytic procedures were used. Conceptual robustness was addressed through interdisciplinary triangulation and thematic consistency.
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Not applicable - No statistical synthesis or quantitative outcome data. Risk of reporting bias due to missing results was not assessed in this conceptual review.
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Not applicable
RESULTS			-
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Page 6 and Figure 1 - Flow diagram illustrates the number of records identified ($n = 128$), screened ($n = 85$), excluded ($n = 43$), and finally included in the conceptual synthesis ($n = 42$). The study selection process is illustrated in Figure 1, following the PRISMA 2020 flow diagram guidelines.
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Pages 5-6 - Several empirical studies focused exclusively on clinical outcomes (<i>e.g.</i> , depression interventions without existential framing) were excluded despite addressing psychological meaning. These were omitted due to insufficient philosophical or cosmological integration, which was central to the review's scope.
Study characteristics	17	Cite each included study and present its characteristics.	Pages 6-8 and Table 1 - Included works span philosophy (<i>e.g.</i> , Sartre, Camus), psychology (<i>e.g.</i> , Frankl, Hayes), and cosmology (<i>e.g.</i> , Tegmark, Davies). Table 1 presents their disciplinary background, core concepts, and relevance to existential meaning-making.
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Not applicable
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (<i>e.g.</i> confidence/credible interval), ideally using structured tables or plots.	Not applicable
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pages 6-10 - The synthesis included interdisciplinary sources across philosophy (<i>e.g.</i> , Sartre, Camus), psychology (<i>e.g.</i> , Frankl, Hayes), and cosmology (<i>e.g.</i> , Tegmark, Davies). All sources were conceptual in nature. Risk of bias was assessed through critical evaluation of theoretical coherence, relevance, and interdisciplinary rigor. No formal bias tools were applied due to the nature of the review.
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (<i>e.g.</i> confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Not applicable
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Not applicable
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Not applicable

Section and Topic	Item #	Checklist Item	Location where Item is Reported
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Not applicable
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Not applicable
DISCUSSION			-
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 11-13 - The proposed four-phase model of existential meaning-making integrates insights from existential philosophy (<i>e.g.</i> , Sartre's concept of radical freedom and Camus's absurdism), psychology (<i>e.g.</i> , Frankl's logotherapy and Hayes' Acceptance and Commitment Therapy), and cosmology (<i>e.g.</i> , Davies's anthropic principle and Tegmark's multiverse theory). Unlike prior fragmented frameworks, this integrative model unites philosophical depth with therapeutic applicability and scientific context. It advances current understanding by demonstrating that, despite the absence of intrinsic cosmic purpose, individuals can construct sustainable personal meaning through value-driven action, ethical responsibility, and self-reflective adaptation.
	23b	Discuss any limitations of the evidence included in the review.	Pages 13-14 - The evidence included in the review was primarily conceptual and theoretical, lacking empirical validation. While foundational philosophical works (<i>e.g.</i> , Sartre, Camus) and therapeutic models (<i>e.g.</i> , Frankl, ACT) were critically important, some sources were dated and not directly tested in current scientific paradigms. Additionally, most sources were Western in origin, potentially limiting the cultural universality of the findings. The absence of quantitative data also restricted the ability to evaluate causal or comparative claims systematically.
	23c	Discuss any limitations of the review processes used.	Pages 13-14 - As this was a conceptual integrative review, the process did not involve dual independent screening of sources or formal risk of bias assessment tools. The literature search, while rigorous, was not exhaustive across all databases and may have omitted relevant sources published outside English or beyond the selected disciplinary scope. Furthermore, the review protocol was not preregistered, which may reduce transparency and replicability of the process.
	23d	Discuss implications of the results for practice, policy, and future research.	Pages 14-15 - The proposed integrative model provides a theoretically grounded yet flexible framework for practitioners, including psychotherapists, counselors, educators, and existential coaches. It supports interventions that help individuals construct personal meaning amidst uncertainty or existential distress. From a policy perspective, the model emphasizes the psychological need for meaning-making and may inform mental health curricula, especially in multicultural or crisis-affected settings. Future research should empirically test the four-phase model in clinical and educational contexts and examine its cross-cultural applicability. Further conceptual expansion could integrate themes from artificial intelligence, digital existentialism, and environmental psychology.
OTHER INFORMATION			-
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	This review was not registered in a public database such as PROSPERO
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	No formal review protocol was prepared for this conceptual integrative review.
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Not applicable
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	This review received no financial or non-financial support. The author conducted the work independently, and no external funders were involved in the conceptualization, execution, or writing of the review.

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Competing interests	26	Declare any competing interests of review authors.	The author declares no competing interests.
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Not applicable

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71

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