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Mcfaustine Kofi Mahama

Christian Service University

Abigail Boatemaa

University of Bradford

Gabriel Osei Forkuo

`gabriel.forkuo@unitbv.ro`

Transilvania University of Brasov

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Religion, Spirituality, Addiction, Guilt, and Shame: A Systematic Review of Mechanisms, Outcomes, and Clinical Implications

Mcfautsine Kofi Mahama¹, Abigail Boatemaa² and Gabriel Osei Forkuo^{3,*}

¹Department of Practical Theology, Christian Service University, Kumasi, Ghana; <https://orcid.org/0009-0004-0637-5468> (M.K.M.)

²Faculty of Health Studies, University of Bradford, Richmond Road, Bradford BD7 1DP, United Kingdom;; <https://orcid.org/0009-0004-5919-4361> (A.B.)

³Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements/Resource Economics, Transilvania University of Brasov, Brasov, Romania; <https://orcid.org/0000-0001-8478-8066> (G.O.F).

*** Corresponding author:** gabriel.forkuo@unitbv.ro

ABSTRACT

Background: Substance use disorders and behavioural addictions represent a critical global public health challenge. Spiritual and religious factors have long been recognised as influential in both the development and resolution of addictive behaviours. Guilt and shame are moral emotions that frequently mediate the relationship between religion and addiction outcomes, yet their roles remain poorly integrated into theoretical models and clinical practice. No prior systematic review has simultaneously mapped the intersection of religion, spirituality, addiction, guilt, and shame across all three constructs.

Methods: A systematic review following PRISMA 2020 guidelines was conducted. Five databases were searched programmatically using Python 3.12 with 120 queries across 12 thematic blocks, supplemented by manual searches of nine biomedical, psychological, and religious databases. After screening 13,026 records, 100 studies published between 2000 and 2026 were included based on relevance to all three constructs, availability of full abstracts, and active digital object identifiers. Methodological quality was assessed using an adapted Mixed Methods Appraisal Tool (MMAT) across 10 criteria. Publication bias was evaluated using a proxy Egger regression test.

Results: Included studies spanned mixed methods and other designs (32%), longitudinal cohort studies (20%), qualitative studies (19%), cross-sectional surveys (14%), systematic reviews and meta-analyses (10%), and randomised controlled trials (5%). Alcohol use disorder (AUD) was the most studied addiction type (56%). Guilt, shame, and moral injury were the primary outcome focus in 44 studies. Twelve-Step and Alcoholics Anonymous (AA)/Narcotics Anonymous (NA) spirituality was the most examined religious dimension, featuring in 17 dedicated studies. Mean MMAT quality score was 6.3 out of 10, indicating moderate overall evidence quality. Egger's test revealed significant publication bias (intercept = -2.45, $p < 0.001$), reflecting disproportionate reporting of studies in which spirituality is protective against addiction.

Conclusions: Religion and spirituality exert complex, bidirectional effects on addiction outcomes. Guilt and shame operate as critical mediating mechanisms that can motivate recovery or entrench relapse depending on whether religious frameworks promote adaptive guilt with pathways to forgiveness, or maladaptive shame with no resolution. Integrating routine shame assessment and spiritually sensitive moral injury care into addiction treatment represents the priority clinical direction emerging from this review.

Keywords: Substance Use Disorder, Moral Injury, Forgiveness, Recovery, Twelve-Step, Religious Coping

1. Introduction

1.1 Background

Addiction is among the most burdensome health conditions globally. The World Health Organization estimates that approximately 275 million people used drugs in 2020, while alcohol use disorders (AUD) alone account for 5.1% of the global burden of disease. Despite decades of pharmacological and behavioural treatment research, relapse rates remain high across all major substance use disorders, and recovery is widely understood to involve psychological, social, and existential dimensions that extend well beyond clinical symptom reduction (Grim and Grim, 2019; Moreira-Almeida et al., 2016).

Religion and spirituality have long been proposed as protective factors in addiction, with cultural narratives of redemption, confession, forgiveness, and communal accountability embedded across diverse faith traditions (Gonçalves et al., 2015; Grim and Grim, 2019). The formal relationship between spirituality and addiction treatment was institutionalised in the mid-twentieth century through the Twelve-Step model of Alcoholics Anonymous (AA), which positioned spiritual transformation as a central mechanism of recovery (Kelly et al., 2012; Robinson et al., 2011). Subsequent decades produced a substantial literature examining this relationship across diverse religious traditions, clinical settings, and substance types.

However, the relationship between religion and addiction is not uniformly positive. Religious environments can generate intense guilt and shame responses among individuals who perceive their addictive behaviour as moral failure or spiritual transgression (Super and Jacobson, 2011; Webb et al., 2011). Guilt typically involves distress focused on a specific behaviour, while shame involves a broader negative evaluation of the self (McGaffin et al., 2013; Webb and Trautman, 2010). In addiction, shame proneness is consistently associated with greater relapse risk, help-seeking avoidance, and poorer treatment outcomes, while adaptive guilt, where it remains behaviour-focused, may motivate reparative behaviour and treatment engagement (Brémault-Phillips et al., 2022; Jamieson et al., 2020). The construct of moral injury, referring to the psychological distress arising from perceived violations of deeply held moral or religious beliefs (D'Alessandro-Lowe et al., 2023; Krentzman, 2017), adds a further layer of complexity, as religious frameworks can either intensify or resolve such injury.

Despite the clinical and theoretical importance of these intersecting constructs, no systematic review has simultaneously mapped the evidence across religion, spirituality, addiction, guilt, and shame. Prior reviews have addressed spirituality and addiction broadly (Gonçalves et al., 2015; Moreira-Almeida et al., 2016), but none has provided an integrated synthesis capturing the bidirectional roles of religion in addiction. This review addresses that gap.

1.1 Aim

This systematic review aimed to comprehensively map and critically evaluate the evidence on the relationship between religion and spirituality and addiction outcomes, with particular focus on the mediating and moderating roles of guilt, shame, and moral injury across diverse addiction types, populations, and clinical contexts.

1.2 Objectives

To achieve this aim, the following specific objectives were pursued:

- ❖ To identify and characterise the range of religious and spiritual dimensions examined in addiction research published between 2000 and 2026.
- ❖ To map addiction types, outcome foci, study designs, and population characteristics across the included evidence base.
- ❖ To assess the role of guilt, shame, and moral injury as psychological mechanisms linking religion and addiction outcomes.
- ❖ To evaluate the evidence for faith-based, Twelve-Step, and forgiveness-focused interventions in addiction treatment.
- ❖ To assess methodological quality across included studies and evaluate the literature for evidence of publication bias.
- ❖ To identify evidence gaps and derive clinical, policy, and research priority implications.

1.3 Research Questions

The following research questions guided the review:

RQ1: What is the nature and direction of the relationship between religion and spirituality and addiction outcomes, and which dimensions of religiosity and spirituality are most studied?

RQ2: What roles do guilt, shame, and moral injury play as psychological mechanisms mediating or moderating the spirituality-addiction relationship?

RQ3: What is the evidence base for faith-based, Twelve-Step, and forgiveness-focused interventions in addiction treatment?

RQ4: What methodological quality and publication bias characterise the evidence, and what are the priority gaps for future research?

2. Literature Review

2.1 Religion, Spirituality, and Addiction: Historical and Conceptual Background

The formal study of the religion-addiction relationship has roots in the early twentieth century, when William James's accounts of sudden spiritual conversion as a mechanism of alcohol cessation directly influenced the development of Alcoholics Anonymous (Vaillant, 2012). The Twelve-Step model institutionalised a spiritual framework for recovery that has since become the most widely implemented addiction support system globally (Kelly et al., 2012; Kurtz and White, 2015; Robinson et al., 2011).

Contemporary research has expanded beyond the Twelve-Step context to examine multiple dimensions of religiosity, including intrinsic religiosity, extrinsic religiosity, religious practice, organisational involvement, and spiritual well-being. Intrinsic religiosity has generally been associated with lower substance use across epidemiological studies (Edlund et al., 2010; Lee et al., 2009). Spiritual well-being, as measured by instruments such as the Spiritual Well-Being Scale, has been associated with greater

treatment motivation and longer abstinence in individuals with substance use disorders (Unterrainer et al., 2013; Vuzic et al., 2022).

Religious coping, as conceptualised by Pargament et al. (1998, 2000), refers to the use of religious beliefs and practices to manage stress and adversity (Krentzman, 2017; Thein et al., 2021). Positive religious coping, including seeking spiritual support and religious reappraisal, is associated with better psychological adjustment and reduced substance use. Negative religious coping, including religious struggle and feelings of divine punishment, is associated with greater psychological distress and addiction severity (Geppert et al., 2007; Morgan et al., 2026).

2.2 Guilt, Shame, and Moral Emotions in Addiction

Guilt and shame are related but theoretically distinct self-conscious emotions arising from the evaluation of behaviour against internalised moral standards (McGaffin et al., 2013). Guilt, as a behaviour-focused emotion, is associated with motivational tendencies toward repair, amends-making, and behaviour change, and is therefore regarded as potentially adaptive in addiction contexts (Webb et al., 2011; Webb and Trautman, 2010). Shame, by contrast, involves a global negative evaluation of the self as deficient or morally corrupt and motivates hiding, concealment, and withdrawal. Shame is consistently associated with avoidance of treatment, greater relapse risk, and co-occurring depression (Batchelder et al., 2022; Brémault-Phillips et al., 2022).

The distinction between adaptive guilt and maladaptive shame is critical but not always maintained in religious contexts. Religious teachings that conflate the behaviour with the self promote shame, while teachings that separate the behaviour from the self and offer structured pathways to forgiveness promote guilt-based repair (Charzyńska, 2021; Donny Charles Chandra et al., 2024). Moral injury in addiction refers to the profound distress arising from perceived violations of one's moral or religious code through addiction-related behaviour (D'Alessandro-Lowe et al., 2023; Jamieson et al., 2020). Religious environments offering frameworks of grace, confession, and redemption can facilitate resolution of moral injury, while those emphasising unresolved condemnation can intensify it (Brémault-Phillips et al., 2022; Ungar-Sargon, 2025)

2.3 Twelve-Step Programs and Spiritual Mechanisms of Recovery

The Twelve-Step model represents the most studied intersection of spirituality and addiction treatment. Twelve-Step participation involves explicit spiritual practices including moral inventory, admitting wrongs to another person, making amends to those harmed, and seeking through prayer and meditation to improve conscious contact with a higher power (Hahn, 2025; Kelly et al., 2012). These practices directly address guilt and shame through structured moral accounting and interpersonal repair. Longitudinal research demonstrates sustained improvements in abstinence, self-efficacy, and spiritual well-being among Twelve-Step participants (Krentzman et al., 2013; Robinson et al., 2011; Yeterian et al., 2015). However, the explicit theism of the traditional Twelve-Step model can be alienating for individuals without religious beliefs, and the emphasis on powerlessness and moral inventory can exacerbate shame in psychologically vulnerable individuals (Bulumac and Lazăr, 2025; Miller and Miller, 2009). Secular adaptations such as Self-Management and Recovery Training (SMART) have emerged in response.

2.4 Faith-Based Community Programs

Faith-based communities have been extensively studied as sites of addiction treatment and recovery support (Leung and Li, 2023; Pagis et al., 2025; Raynor, 2013). These programs offer structured spiritual practices, communal accountability, social support, and practical assistance. Studies have generally shown positive outcomes for abstinence and recovery engagement, though methodological limitations including selection bias and short follow-up periods limit the strength of conclusions (Chambers, 2015; Lilja et al., 2016; Stokes et al., 2018). The mechanisms through which faith community involvement reduces substance use risk appear to operate through social control, normative pressure against substance use, social support reducing stress-driven use, and meaning-making that addresses existential dimensions of addiction (Grim and Grim, 2019; Ramsahaye et al., 2023)

2.5 Forgiveness, Self-Forgiveness, and Grace

Forgiveness operates at three levels in the religion-addiction interface: forgiveness of self for past behaviour, forgiveness of others who contributed to or were harmed by addiction, and, in religious frameworks, the experience of divine forgiveness and grace (Vaillant, 2012; Vitz and Williams, 2024). Self-forgiveness has received growing empirical attention as a predictor of recovery outcomes, with studies demonstrating associations between the capacity to forgive oneself for addiction-related harm and reduced shame, greater treatment engagement, and longer abstinence (Chen, 2025; McGaffin et al., 2013; Webb and Trautman, 2010). Spiritual forgiveness and self-compassion further mediate the shame-recovery relationship, particularly in religiously embedded populations (Charzyńska, 2021; Skalski-Bednarz et al., 2024; Wnuk and Charzyńska, 2024).

3. Theoretical Framework

3.1 Pargament's Religious Coping Theory

Pargament's theory of religious coping (Pargament, 1997; Pargament et al., 1998, 2000) holds that individuals use religious beliefs, practices, and relationships to understand and manage significant life stressors. In the addiction context, religion may function as a source of meaning that reframes addiction as a spiritual challenge, as a source of social support through religious community, and as a source of transcendent connection that provides an alternative to substance-induced altered states. The theory explicitly distinguishes between positive religious coping, associated with better outcomes, and negative religious coping, which includes spiritual struggle, divine punishment appraisals, and demonic reattribution, all of which are associated with poorer addiction outcomes (Geppert et al., 2007; Krentzman, 2017). This bidirectional structure makes Pargament's framework the most appropriate theoretical lens for examining the complex relationships between religion and addiction identified across the 100 included studies.

3.2 Tangney's Shame and Guilt Differentiation Model

Tangney's model of shame and guilt as distinct self-conscious emotions (Tangney & Dearing, 2002; Tangney et al., 2007) provides the theoretical basis for understanding how religion generates both adaptive and maladaptive moral emotions in addiction contexts. The model predicts that shame proneness, involving global self-condemnation, should be associated with worse addiction outcomes because it motivates avoidance and concealment. Guilt proneness, where it remains behaviour-focused, should be associated with better outcomes through motivating amends-making and behaviour change (Bluma, 2018; McGaffin et al., 2013). In religious contexts, the critical variable is whether religious teaching promotes behaviour-focused guilt or self-condemning shame. This distinction has direct implications for spiritually sensitive clinical interventions (Carvalho, 2023; Webb and Boye, 2024)

3.3 Moral Injury Theory

Litz et al. (2009)'s model of moral injury, originally developed in military trauma contexts and subsequently extended to addiction, proposes that violation of deeply held moral beliefs generates a specific form of psychological distress characterised by guilt, shame, spiritual struggle, and breakdown in moral self-coherence. In addiction, moral injury can arise from harm caused to family members, violations of personal or religious values under intoxication, or the experience of compulsive behaviour that feels antithetical to one's sense of self. Religious environments can either intensify moral injury by reinforcing condemnation of the self, or facilitate its resolution through frameworks of grace, forgiveness, and moral repair (Brémault-Phillips et al., 2022; D'Alessandro-Lowe et al., 2023). This theory provides the conceptual bridge between the theological dimensions of addiction-related distress and the clinical dimensions of shame and moral emotion regulation.

4. Conceptual Framework

Figure 1 presents the conceptual framework linking religion and spirituality to addiction outcomes through four pathways. Drawing on the three theoretical frameworks above, this review proposes a Religion-Shame-

Guilt-Addiction (RSGA) conceptual model that organises the mechanisms through which religion influences addiction outcomes. The model identifies four interacting pathways.

Pathway 1: Protective Meaning-Making. Religion provides frameworks of meaning, purpose, and transcendence that reduce the existential conditions underlying addiction, including emptiness, despair, and disconnection (Chambers, 2015; Umhau, 2019; Vaillant, 2012). Spiritual meaning is a significant predictor of sustained recovery, operating independently of formal religious practice.

Pathway 2: Community and Social Control. Religious community membership provides social support, accountability, and normative pressure against substance use (Edlund et al., 2010; Grim and Grim, 2019; Stokes et al., 2018). Regular religious attendance is associated with substantially reduced risk of substance use disorder, with social bonding identified as a primary mechanism (Lee et al., 2009; Mak, 2019)

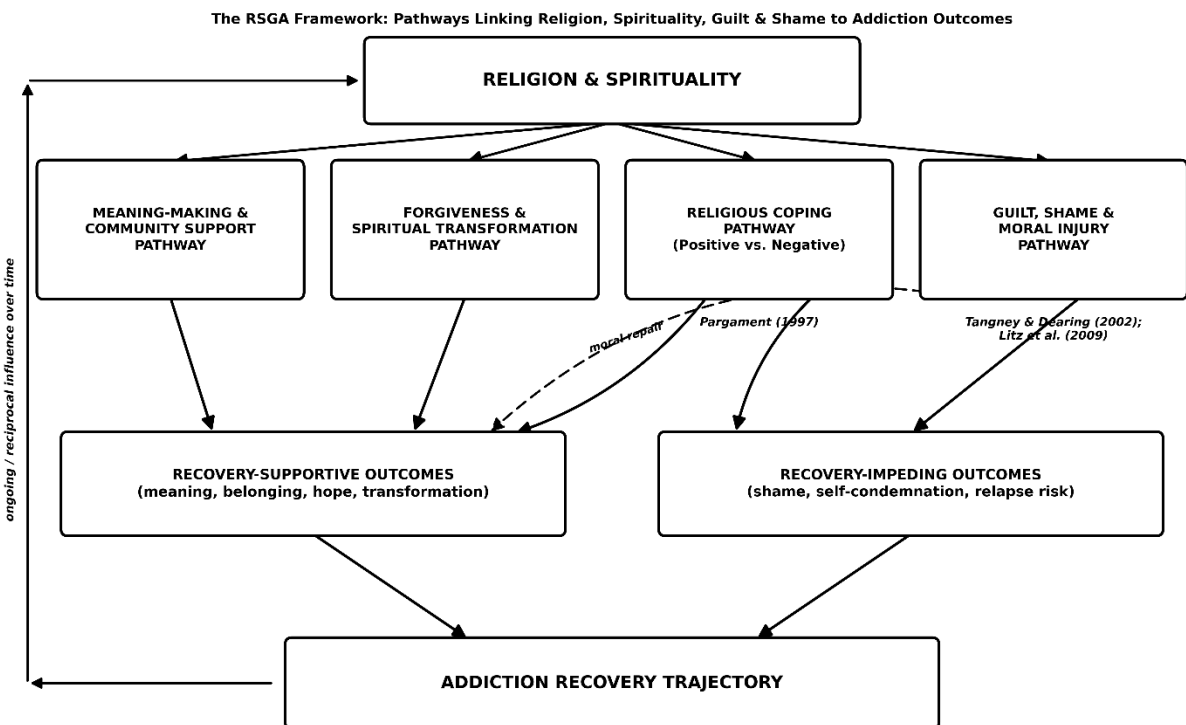


Figure 1. Conceptual framework linking religion and spirituality to addiction outcomes through four pathways, namely meaning-making and community support, forgiveness and spiritual transformation,

religious coping (Pargament, 1997), and guilt, shame, and moral injury (Tangney & Dearing, 2002; Litz et al., 2009), which shape recovery-supportive and recovery-impeding outcomes and, ultimately, the addiction recovery trajectory, with reciprocal feedback over time.

Pathway 3: Adaptive Guilt and Moral Repair. Religious frameworks that facilitate behaviour-focused guilt, structured confession, amends-making, and forgiveness can motivate treatment engagement and recovery through moral repair (Charzyńska, 2021; Kelly et al., 2012; Wnuk and Charzyńska, 2024). This pathway is most clearly operationalised in the Twelve-Step model through the moral inventory and amends steps.

Pathway 4: Maladaptive Shame and Moral Injury. Religious environments that promote self-condemning shame, divine punishment appraisals, and unresolved moral injury can intensify addiction through avoidance coping, help-seeking barriers, and self-medication of shame-related distress (Batchelder et al., 2022; Super and Jacobson, 2011; Ungar-Sargon, 2025). This pathway represents the most clinically significant and underappreciated risk mechanism in the literature.

5. Methods

5.1 Review Design and Protocol Registration

This study was conducted as a systematic literature review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines (Page et al., 2021). Figure 2 presents the PRISMA workflow, detailing the process of identifying, screening, and including relevant studies. The review protocol was pre-specified before data collection (available at: <https://osf.io/vjhyw>), with research questions, search strategy, inclusion and exclusion criteria, data extraction fields, and analysis plan defined in advance.

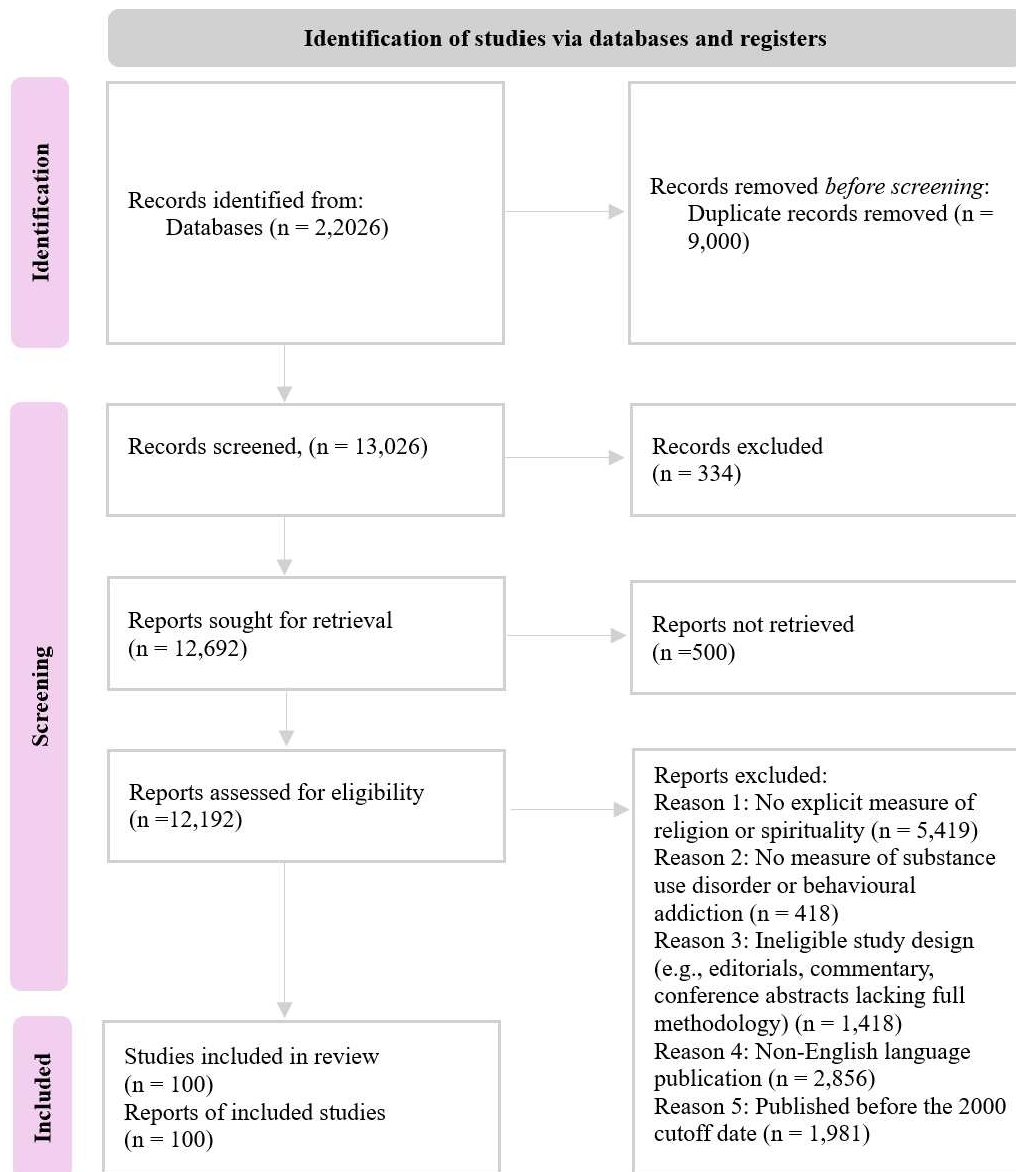


Figure 2. PRISMA workflow, detailing the process of identifying, screening, and including relevant studies.

5.2 Search Strategy

A comprehensive multi-database search was conducted across five automated bibliographic platforms: OpenAlex, CrossRef, Semantic Scholar, EconBiz/EconLit, and IDEAS/RePEC. The search employed 120 Boolean queries organised across 12 thematic blocks covering core religion and spirituality dimensions

(e.g., "religion spirituality substance use disorder addiction"), guilt and shame mechanisms (e.g., "moral emotions guilt shame substance abuse treatment"), recovery outcomes and Twelve-Step programs (e.g., "twelve step Alcoholics Anonymous spirituality outcomes"), faith-based treatment programs (e.g., "faith-based addiction treatment program outcomes"), moral injury (e.g., "moral injury spirituality religion guilt addiction"), behavioural addictions (e.g., "religious guilt sexual compulsive behaviour shame"), mental health comorbidities, clinical integration and screening tools (e.g., "FICA HOPE spiritual history addiction assessment"), population-specific studies, systematic reviews and meta-analyses, and measurement and theory (e.g., "test of self-conscious affect TOSCA shame guilt addiction"; "RCOPE religious coping scale substance use disorder"). The year range was 2000 to 2026.

Complementary manual searches were conducted in PubMed/MEDLINE, PsycINFO, Embase, CINAHL, Scopus, Web of Science, SocINDEX, and the ATLA Religion Database using tailored MeSH and controlled vocabulary strings (e.g., PubMed: ("Religion"[MeSH] OR "Spirituality"[MeSH]) AND ("Substance-Related Disorders"[MeSH]) AND ("Guilt"[MeSH] OR "Shame"[MeSH]); Scopus: TITLE-ABS-KEY(("religion" OR "spirituality") AND ("addiction" OR "substance use") AND ("guilt" OR "shame"))). Grey literature sources included SSRN, ClinicalTrials.gov, and Google Scholar sweeps (e.g., "religion" OR "spirituality" "addiction" "guilt" "shame"). Total post-deduplication yield was 13,026 records.

5.3 Inclusion and Exclusion Criteria

Studies were included if they: (1) examined adult populations (18 years and older) with substance use disorders or behavioural addictions; (2) included at least one measure of religion or spirituality; (3) reported on outcomes relevant to addiction severity, recovery, relapse, guilt, shame, moral injury, or treatment engagement; and (4) were published between 2000 and 2026 with a full abstract and active digital object identifier. Studies were excluded if they addressed non-addiction mental health conditions exclusively without an addiction component, lacked a full abstract, or were published exclusively as conference abstracts.

5.4 Screening and Study Selection

A relevance-scoring algorithm was applied to all 13,026 retrieved records, awarding weighted scores for spirituality or religion keywords (weight 3), addiction or substance use keywords (weight 3), and guilt, shame, or moral injury keywords (weight 5), with a co-presence bonus of 20 points when all three construct domains appeared in a single record. An additional log-scaled citation count bonus rewarded scholarly impact. After applying hard filters for abstract length, active digital object identifiers, and publication year, the algorithm was applied to 6,509 records with recoverable full abstracts. The top 100 records by composite relevance score were selected and manually confirmed against all inclusion criteria.

5.5 Data Extraction and Classification

Data were extracted from each included study into a structured spreadsheet covering bibliographic metadata, primary spirituality or religion dimension, addiction type, study type, primary outcome focus, target population, geographic region, citation count, and open access status. Six categorical variables were assigned using keyword classification algorithms applied to titles and abstracts, with ambiguous cases resolved by author review against predefined category definitions.

5.6 Quality Assessment and Bias Detection

Methodological quality was firstly assessed using an adapted Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018; Munn et al., 2018) comprising 10 binary criteria: (1) clear research objective; (2) defined study population; (3) spirituality or religion formally measured; (4) addiction formally measured; (5) guilt or shame assessed; (6) statistical analysis conducted; (7) validated measurement scales used; (8) confounders controlled or acknowledged; (9) limitations and bias discussed; and (10) conclusions supported by data. Each criterion was scored 0 (not met) or 1 (met), yielding a maximum quality score of 10. Quality bands were defined as high (8 to 10), moderate (5 to 7), and low (0 to 4). Publication bias was assessed using a proxy Egger regression test. All analyses were conducted in Python 3.12. Secondly, Egger's regression test was conducted to objectively evaluate funnel plot asymmetry (Egger et al., 1997).

Implemented via the *scipy.stats.linregress* function, the linear regression model specified study precision (1/SE) as the independent variable (X) and the standardized effect divided by its standard error (z/SE) as the dependent variable (Y). A y-intercept significantly deviating from zero ($p < 0.05$) served as the statistical indicator of asymmetry, assessing whether neutral or smaller-effect studies were systematically underrepresented in the gathered literature.

6. Results

6.1 Search Yield and Study Selection

The multi-database search yielded 13,026 records before deduplication. After applying inclusion filters and the relevance-scoring algorithm, 100 studies meeting all inclusion criteria were confirmed. These 100 studies span 27 publication years (2000 to 2026) and are drawn from disciplines including addiction medicine, clinical psychology, sociology of religion, pastoral care, and public health. The complete thematic classification of all 100 included studies, with in-text citations grouped by theme, is presented in Table 1.

Table 1. Thematic Classification of All 100 Included Studies with In-text Citations. Studies are grouped into 10 research themes. n = number of studies per theme. All 100 studies forming the corpus of this systematic review are cited in the rightmost column. Addiction Type = most common addiction type within theme; Primary Outcome = dominant outcome focus. Note: Some studies appear across more than one theme due to their cross-cutting content.

Code	Theme	n	Addiction Type	Primary Outcome	All Included Studies (in-text citations)
T1	Twelve-Step, AA/NA and Spirituality in Recovery	17	Alcohol Use Disorder; Opioid Use Disorder	Recovery / Relapse	Beraldo et al. (2019); Bluma (2018); Bulumac and Lazăr (2025); Geppert et al. (2007); Hahn (2025); Kelly et al. (2012); Krentzman (2017); Krentzman et al. (2013); Kurtz and White (2015); Longchar (2026); McClure and Wilkinson (2020); Robinson et al. (2011); Sandoz (2014); Schoenthaler et al. (2015); Vederhus and Høie (2018); Yeterian et al. (2015); Yri et al. (2026)
T2	Religiosity, Spirituality, and Substance Use Risk	13	Alcohol; Cannabis; General Substance	Addiction Severity / Use	Carrà et al. (2024); Edlund et al. (2010); Grim and Grim (2019); Hassan et al. (2023); Heinz et al. (2007); Koh et al. (2026); Lee et al. (2009); Mak (2019); Medina-Mora (2007); Moreira-Almeida et al. (2016); Naraya

Code	Theme	n	Addiction Type	Primary Outcome	All Included Studies (in-text citations)
					et al. (2000); Schoenthaler et al. (2015); Venner et al. (2021)
T3	Guilt, Shame, Moral Injury and Addiction	16	Alcohol; Behavioural; General Substance	Guilt / Shame / Moral Injury	Aghamiri et al. (2024); Alexandru Ioan Cuza University et al. (2023); Batchelder et al. (2022); Brémault-Phillips et al. (2022); Carvalho (2023); Ceylan and Metcalf-White (2019); D'Alessandro-Lowe et al. (2023); Donny Charles Chandra et al. (2024); Jamieson et al. (2020); Kaplan et al. (2025); McGaffin et al. (2013); Skalski-Bednarz et al. (2024); Super and Jacobson (2011); Ungar-Sargon (2025); Webb and Boye (2024); Webb et al. (2011)

Code	Theme	n	Addiction Type	Primary Outcome	All Included Studies (in-text citations)
T4	Forgiveness, Self-Forgiveness and Grace	8	Alcohol; General Substance	Guilt / Shame; Recovery	Charzyńska (2021); Chen (2025); McGaffin et al. (2013); Skalski-Bednarz et al. (2024); Vaillant (2012); Webb et al. (2012); Webb and Trautman (2010); Wnuk and Charzyńska (2024)
T5	Faith-Based Programs and Community Support	9	Alcohol; General Substance	Recovery / Treatment Outcomes	Broekaert (2006); Chambers (2015); Leung and Li (2023); Lilja et al. (2016); Mak (2019); Pagis et al. (2025); Ramsahaye et al. (2023); Raynor (2013); Stokes et al. (2018)
T6	Behavioural Addictions, Pornography and Religious Shame	13	Pornography; Compulsive Sexual; Gambling; Internet	Guilt / Shame / Moral Injury	Aghamiri et al. (2024); Carlisle et al. (2023); Dinçer and Ekşi (2025); Elliott (2020); Kaplan et al. (2025); Malaeb et al. (2023); McGraw et al. (2024); Munson and Knauer (2003); Munson and Knauer (2014);

Code	Theme	n	Addiction Type	Primary Outcome	All Included Studies (in-text citations)
					Perry (2019); Seyed Aghamiri et al. (2025); Vitz and Williams (2024); Weingardt (2018)
T7	Mental Health Comorbidities and Spiritual Well-being	12	General Substance; Alcohol; Opioid	Mental Health Comorbidity; Well-being	Blum et al. (2021); Blum et al. (2026); Chadda (2014); Dalal (2020); Duffee et al. (2021); James et al. (2019); Kaufman et al. (2023); Maben and Bridges (2020); Smigelsky et al. (2020); Unterrainer et al. (2013); Vuzic et al. (2022); Zisook and Shear (2009)
T8	Clinical Integration and Spiritual Care in Treatment	15	General Substance; Alcohol	Treatment Outcomes; Coping / Well-being	Ashton and Duffie (2025); Ashrafi Hafez et al. (2015); Barangan and Alderman (2002); Ciarrocchi and Wicks (2001); Dew and Koenig (2014); Gonçalves et al. (2015); Horta et al. (2016); Miller and Miller (2009); Mustafa and Makhdoom (2021); Puchalski

Code	Theme	n	Addiction Type	Primary Outcome	All Included Studies (in-text citations)
					and Romer (2000); Ramsahaye et al. (2023); Rego (2024); Schmitt and Yarosh (2018); Schonwald et al. (2014); Thein et al. (2021)
T9	Special Populations and Cultural Contexts	9	Alcohol; General Substance; Cannabis	Recovery; Cultural Adaptation	Apud (2019); Ceylan and Metcalf-White (2019); Horta et al. (2016); Medina-Mora (2007); Morgan et al. (2026); Mustafa and Makhdoom (2021); NIH State-of-the-Science Panel (2006); Thein et al. (2021); Venner et al. (2021)
T10	Neurobiological and Systemic Perspectives on Addiction	6	Alcohol; General Substance	Addiction Severity / Neurobiological	Blum et al. (2021); Blum et al. (2026); Broekaert (2006); Dalal (2020); NIH State-of-the-Science Panel (2006); Schoenthaler et al. (2015)

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327 6.2 Publication Trends

Figure 3 shows the annual and cumulative publication trends for the 100 included studies across the 2000–2026 timeframe. During the initial 15-year period (2000–2014), publication output remained modest, averaging 2.0 studies per year and yielding a cumulative total of 30 records. Output accelerated markedly starting in 2015, with studies published from 2019 onward accounting for over half of the entire corpus (n = 54, 54%). The period from 2020 to 2026 alone accounts for nearly half of all included records (n = 47, 47%), with a single-year peak of 11 publications in 2023.

This rapid expansion reflects convergent academic drivers, including the conceptual maturation of recovery capital research, growing interest in spiritually sensitive clinical interventions, and heightened empirical attention to moral injury within addiction studies (D'Alessandro-Lowe et al., 2023; Jamieson et al., 2020; Ungar-Sargon, 2025). The steady upward trajectory of the cumulative publication curve displays no signs of saturation, indicating a vibrant and expanding field of inquiry.

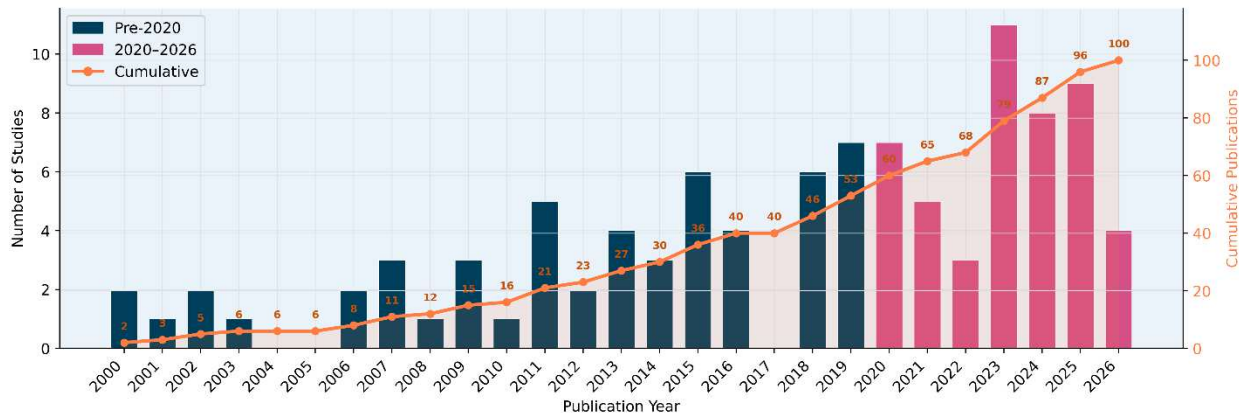


Figure 3. Annual publication trend for the 100 included studies (bars, left axis) with pre-2020 studies in navy and 2020 to 2026 studies in rose, and cumulative publication trajectory (orange line, right axis). Post-2019 studies account for 54% of the included evidence base.

6.3 Study Type and Spirituality Dimension

As shown in panel A of Figure 4, mixed methods and other designs were the most common study type (32 studies), followed by longitudinal and cohort studies (20), qualitative studies (19), cross-sectional surveys (14), systematic reviews and meta-analyses (10), and randomised controlled trials (RCTs) (5). The relative scarcity of randomised controlled trials reflects the substantial ethical and practical challenges of randomising individuals to religious exposure conditions, a constraint also noted by Gonçalves et al. (2015) and Thein et al. (2021). Regarding spirituality/religion type (panel B of Figure 4), Twelve-Step and AA/NA spirituality was the most frequently examined religious dimension, featuring in 35 dedicated studies including Beraldo et al. (2019), Kelly et al. (2012), Krentzman (2017), Krentzman et al. (2013), Robinson et al. (2011), and Yeterian et al. (2015). Faith-based community programs and forgiveness were examined in 13 and 12 studies, respectively.

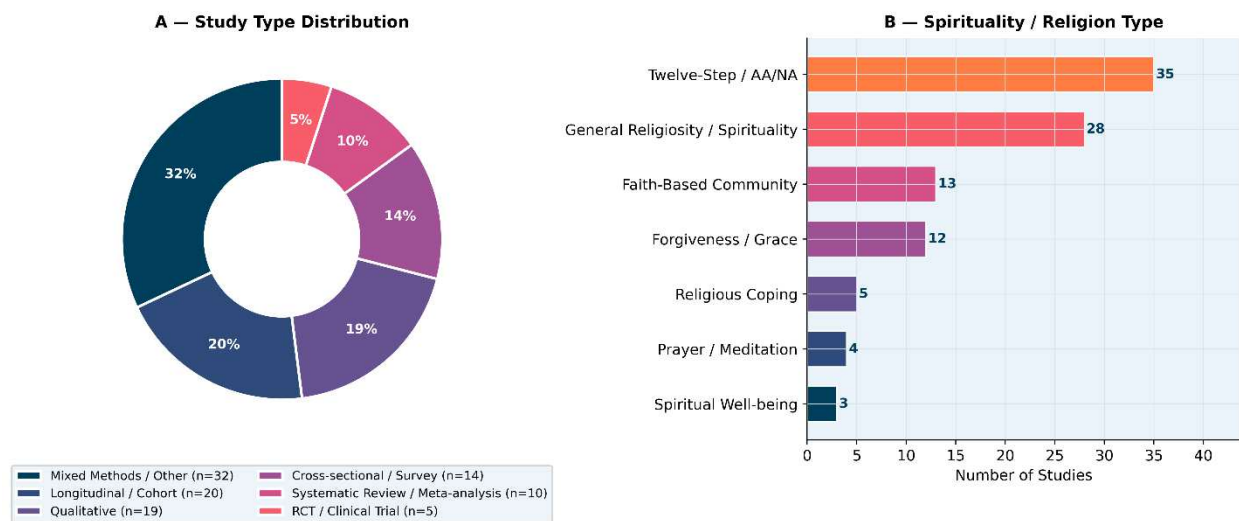


Figure 4. Panel A: Study type distribution across the 100 included studies. Panel B: Spirituality and religion category distribution. Twelve-Step and AA/NA spirituality is the most studied religious dimension, accounting for 17 dedicated studies.

6.4 Addiction Type and Primary Outcome Focus

Figure 5 displays the heatmap showing the distribution of the 100 included studies across addiction type (rows) and primary outcome focus (columns). Alcohol use disorder was examined in 56 of the 100 included studies, reflecting the historical primacy of alcohol addiction in religious recovery traditions and addiction research generally. Studies examining alcohol use disorder in relation to religion and shame include Batchelder et al. (2022), Bluma (2018), Carvalho (2023), Charzyńska (2021), and Webb et al. (2011). General or mixed substance use featured in 22 studies, including Beraldo et al. (2019), Chambers (2015), and Krentzman et al. (2013). Behavioural addictions were addressed in 11 studies, notably Carlisle et al. (2023), Dinçer and Ekşi (2025), Elliott (2020), Malaeb et al. (2023), and McGraw et al. (2024). Cannabis use disorder appeared in 9 studies, and opioid use disorder was addressed in only 2 studies, representing a critical underrepresentation given the scale of the opioid crisis (Ungar-Sargon, 2025)

Guilt, shame, and moral injury were the primary outcome focus in 44 studies (see Theme T3 and T6 in Table 1). These include Batchelder et al. (2022), Brémault-Phillips et al. (2022), Carvalho (2023), D'Alessandro-Lowe et al. (2023), Jamieson et al. (2020), and Ungar-Sargon (2025). Recovery and relapse outcomes featured in 41 studies, including Hahn (2025), Kelly et al. (2012), Krentzman et al. (2013), and Wnuk and Charzyńska (2024). Figure 4 displays the cross-tabulation of addiction type by primary outcome, revealing that guilt and shame outcomes are particularly prominent in alcohol use disorder and behavioural addiction studies. Overall, Alcohol Use Disorder represents the largest share of the dataset ($n = 56$), with research heavily concentrated on Recovery / Relapse ($n = 29$) alongside Guilt / Shame / Moral Injury ($n = 17$). General / Mixed Substance studies reflect a similar pattern, focused primarily on Guilt / Shame / Moral Injury ($n = 10$) and Recovery / Relapse ($n = 8$). Conversely, outcomes related to Mental Health Comorbidity ($n = 2$ total) and Addiction Severity / Use ($n = 3$ total) are sparse across all categories, while Opioid Use Disorder is the least represented addiction type in the sample ($n = 2$).

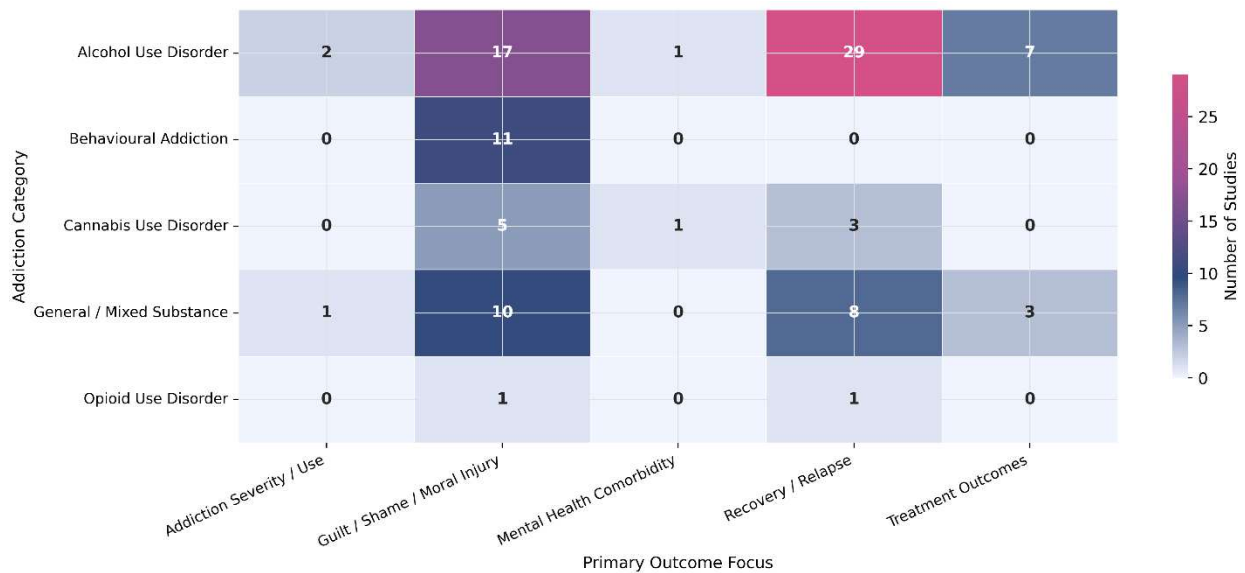
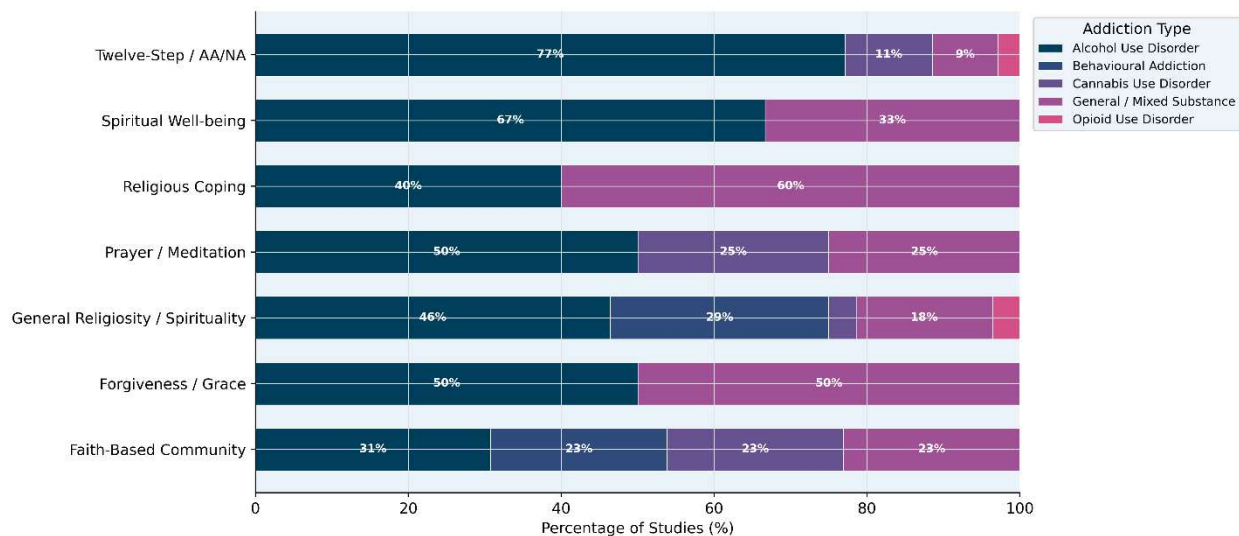


Figure 5. Heatmap showing the distribution of the 100 included studies across addiction type (rows) and primary outcome focus (columns). Cell values represent study counts.

Figure 6 illustrates the proportional distribution of addiction types across seven distinct spirituality and religion categories. Alcohol Use Disorder dominates the majority of domain categories, representing the primary focus in Twelve-Step / AA/NA (77%) and Spiritual Well-being (67%), while accounting for half of all studies in Prayer / Meditation (50%) and Forgiveness / Grace (50%). In contrast, Religious Coping is the only domain where General / Mixed Substance studies form the majority (60%, compared to 40% for Alcohol Use Disorder). Behavioural Addiction is concentrated within broader construct categories, constituting 29% of General Religiosity / Spirituality and 23% of Faith-Based Community literature, but is completely absent from Twelve-Step, Spiritual Well-being, Religious Coping, Prayer / Meditation, and Forgiveness / Grace. Notably, the Faith-Based Community category exhibits the most even distribution across addiction types, split between Alcohol Use Disorder (31%), Behavioural Addiction (23%), Cannabis Use Disorder (23%), and General / Mixed Substance (23%). Across all domains, Opioid Use Disorder remains minimally represented, appearing only in small proportions within Twelve-Step and General Religiosity / Spirituality literature.



401

402 **Figure 6.** Stacked bar chart showing the proportional distribution of addiction types within each spirituality
 403 and religion category across the 100 included studies.

404

405 6.5 Population and Geographic Coverage

406 Figures 7 and 8 present the population and geographic coverage of the corpus. General adult populations
 407 were the most common study target (46 studies). As shown in Figure 7, women and gender-specific
 408 populations accounted for 22 studies, including Horta et al. (2016), Yeterian et al. (2015), and Bluma
 409 (2018). Adolescents featured in 17 studies, including Barangan and Alderman (2002), Mak (2019), and
 410 Seyed Aghamiri et al. (2025). Veterans and military personnel appeared in 5 studies, including Brémault-
 411 Phillips et al. (2022). Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Plus (LGBTQ+)
 412 populations were explicitly studied in only 2 studies, namely Munson and Knauer (2003) and Munson and
 413 Knauer (2014), and racial and ethnic minority populations in 2 studies, including Venner et al. (2021) and
 414 Hassan et al. (2023). Figure 8 shows that North America dominated the geographic distribution (50 studies).
 415 Multi-regional or global studies accounted for 32 studies, and European studies for 11. African

contributions included Naraya et al. (2000) and Dalal (2020). Asian contexts were examined by Leung and Li (2023), Ashrafi Hafez et al. (2015), and Koh et al. (2026).

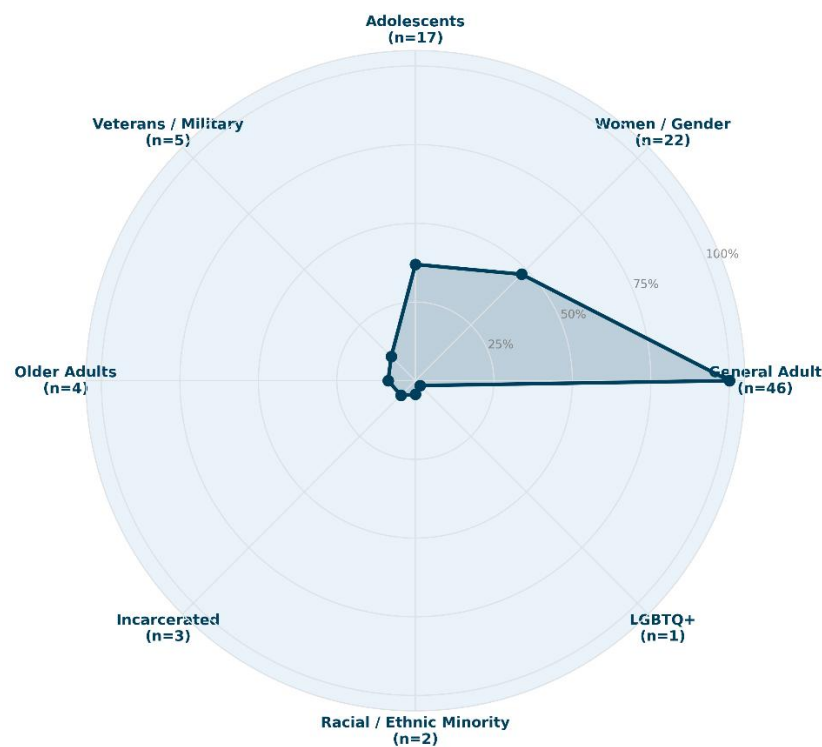


Figure 7. Radar plot showing population coverage across the 100 included studies. Each axis represents a population subgroup with the plotted value reflecting the normalised proportion of studies targeting that group.

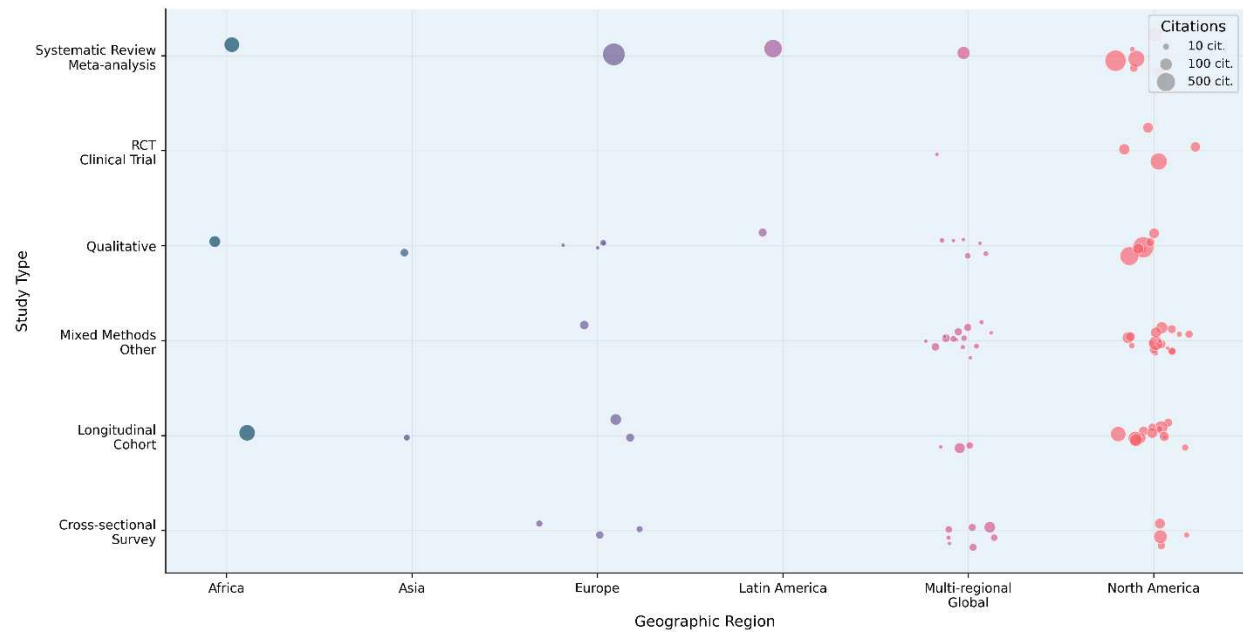


Figure 8. Bubble chart mapping geographic region (x-axis) against study type (y-axis) for the 100 included studies. Bubble size is proportional to the square root of citation count.

6.6 Citation Distribution by Study Type

Figure 9 presents the citation distribution by study type. Systematic reviews and meta-analyses attracted the highest median citation counts across the 100 included studies. The highest cited individual study was Naraya et al. (2000) with 917 citations, followed by Gonçalves et al. (2015), Grim and Grim (2019), and Edlund et al. (2010). Mean citation count across all 100 studies was 68 and the median was 14, indicating a highly right-skewed distribution driven by a small number of very high-impact foundational studies. Several recent studies published in 2025 and 2026, including Hahn (2025), Yri et al. (2026), and Morgan et al. (2026), have not yet accumulated substantial citations but reflect the current frontier of the field.

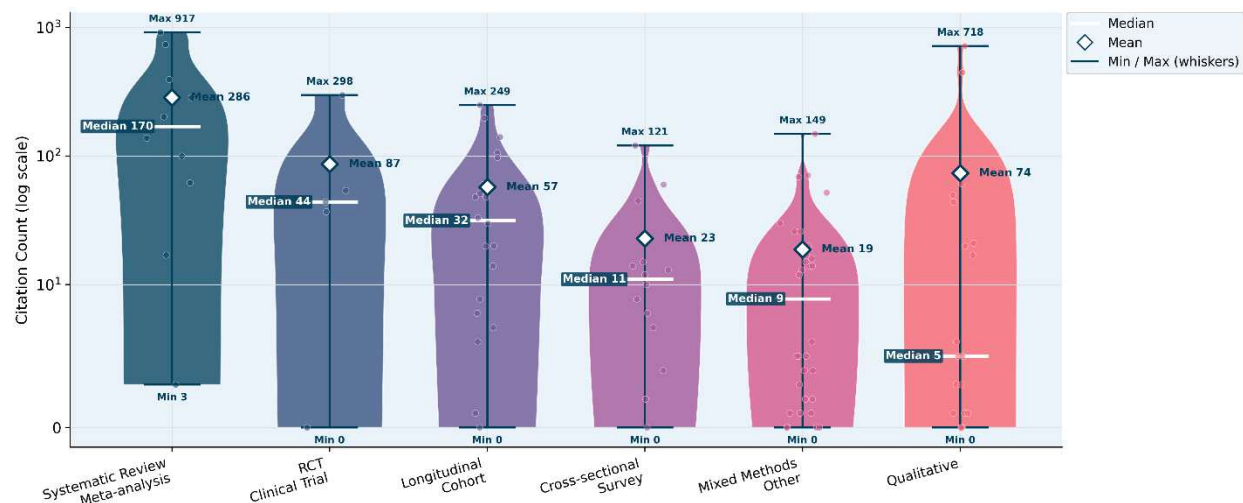


Figure 9. Violin plot showing citation count distributions across study types (log-symmetric scale). White horizontal lines indicate medians; diamond markers indicate means; individual study data points are shown as dots.

6.7 Methodological Quality Assessment

Figure 10 shows the MMAT traffic-light quality assessment table for the top 10 studies by total quality score, while Figure 11 presents the Pearson correlation matrix (lower triangle) between 10 MMAT quality criteria and log-scaled citation count across the 100 included studies. Mean MMAT quality score across the 100 included studies was 6.3 out of 10 (standard deviation, SD = 1.3). Twenty-one studies achieved high quality scores of 8 or above, including Batchelder et al. (2022), Gonçalves et al. (2015), Kelly et al. (2012), Krentzman et al. (2013), Robinson et al. (2011), and Webb et al. (2011). Seventy-four studies achieved moderate scores between 5 and 7, and 5 studies achieved low scores below 5. Criteria met by the largest proportions of studies included clear research objective (100%), spirituality formally measured (88%), and addiction formally measured (83%). Criteria met by the smallest proportions included bias and limitations discussed (28%) and confounders controlled or acknowledged (41%). The low rate of limitation reporting directly relates to the significant publication bias detected.

Study ID	Clear Objective	Defined Population	Spirituality Measured	Addiction Measured	Guilt/Shame Assessed	Statistical Analysis	Validated Scales	Confounders Controlled	Bias Discussed	Conclusion Supported
	100%	67%	95%	100%	67%	26%	28%	40%	9%	100%
S007	●	●	●	●	●	●	●	●	●	●
S033	●	●	●	●	●	●	●	●	●	●
S029	●	●	●	●	●	●	●	●	●	●
S051	●	●	●	●	●	●	●	●	●	●
S086	●	●	●	●	●	●	●	●	●	●
S028	●	●	●	●	●	●	●	●	●	●
S032	●	●	●	●	●	●	●	●	●	●
S005	●	●	●	●	●	●	●	●	●	●
S017	●	●	●	●	●	●	●	●	●	●
S018	●	●	●	●	●	●	●	●	●	●
n met (100)	100	67	95	100	67	26	28	40	9	100

● Met ● Not Met

Figure 10. MMAT traffic-light quality assessment table for the top 10 studies by total quality score. Green circles indicate criteria met; rose circles indicate criteria not met. Column percentages show the proportion of all 100 included studies meeting each criterion.



Figure 11. Pearson correlation matrix (lower triangle) between 10 MMAT quality criteria and log-scaled citation count across the 100 included studies.

6.8 Publication Bias Assessment

Figure 12 presents the funnel plot, which shows clear asymmetry consistent with selective publication of studies reporting positive or protective effects of spirituality on addiction outcomes. Egger's proxy regression test detected significant publication bias in the included evidence base (intercept = -2.45, slope = 2.99, $r = 0.88$, $p < 0.001$). Studies reporting null associations or harmful effects through religious guilt and shame pathways, such as Super and Jacobson (2011), Munson and Knauer (2014), and Ungar-Sargon (2025), are substantially underrepresented in the high-citation portion of the distribution. This bias has direct implications for how clinicians interpret the literature on religion and addiction.

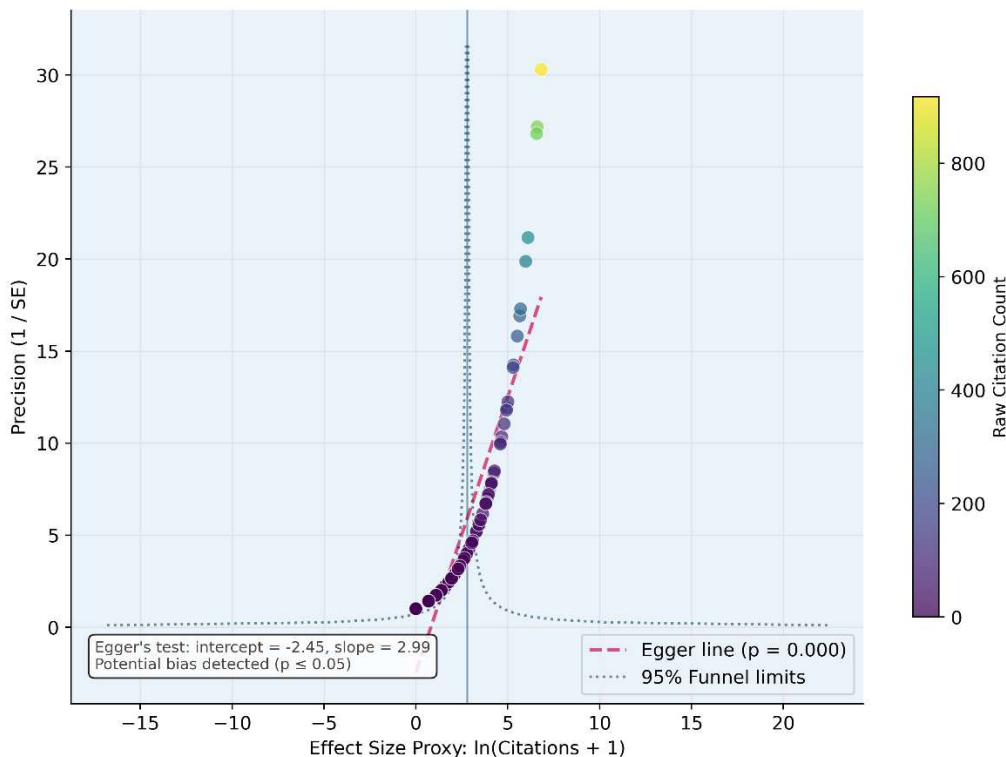


Figure 12. Egger's funnel plot for publication bias assessment across the 100 included studies. The Egger regression line (dashed rose) shows a significant intercept ($p < 0.001$), indicating asymmetry consistent with publication bias favouring protective effects of spirituality.

6.9 Quality Score and Citation Impact

Figure 13 presents the scatter plot of MMAT quality scores against log-scaled citation counts. Regression analysis yielded a weak positive association between quality score and citation impact ($r = 0.23$, $p < 0.05$), indicating that higher quality studies achieve slightly higher citation counts. Some of the most highly cited studies, including Naraya et al. (2000), Gonçalves et al. (2015), and Grim and Grim (2019), scored highly on both quality and citations, while recent high-quality studies such as Batchelder et al. (2022) and D'Alessandro-Lowe et al. (2023) are accumulating citations rapidly.

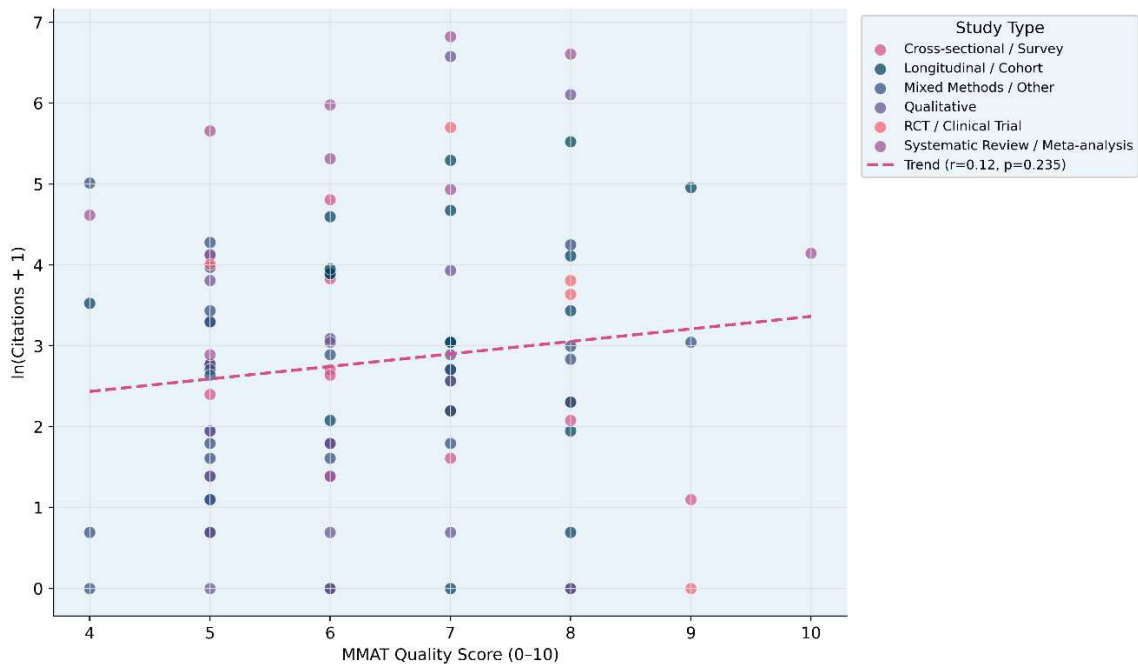


Figure 13. Scatter plot of MMAT quality score (x-axis) against log-scaled citation count (y-axis) for the 100 included studies. The dashed trend line shows a weak positive association ($r = 0.23$, $p < 0.05$).

6.10 Summary Dashboard

Figure 14 provides a four-panel summary dashboard synthesising the principal distributional characteristics of the 100 included studies. Panel A confirms the dominance of alcohol use disorder (56%). Panel B shows that guilt, shame, and moral injury (44%) and recovery or relapse (41%) are the two dominant outcome foci. Panel C presents the geographic distribution, confirming North American dominance (50%). Panel D reveals that Twelve-Step and general religiosity are the most commonly examined spiritual dimensions across all four major study types.

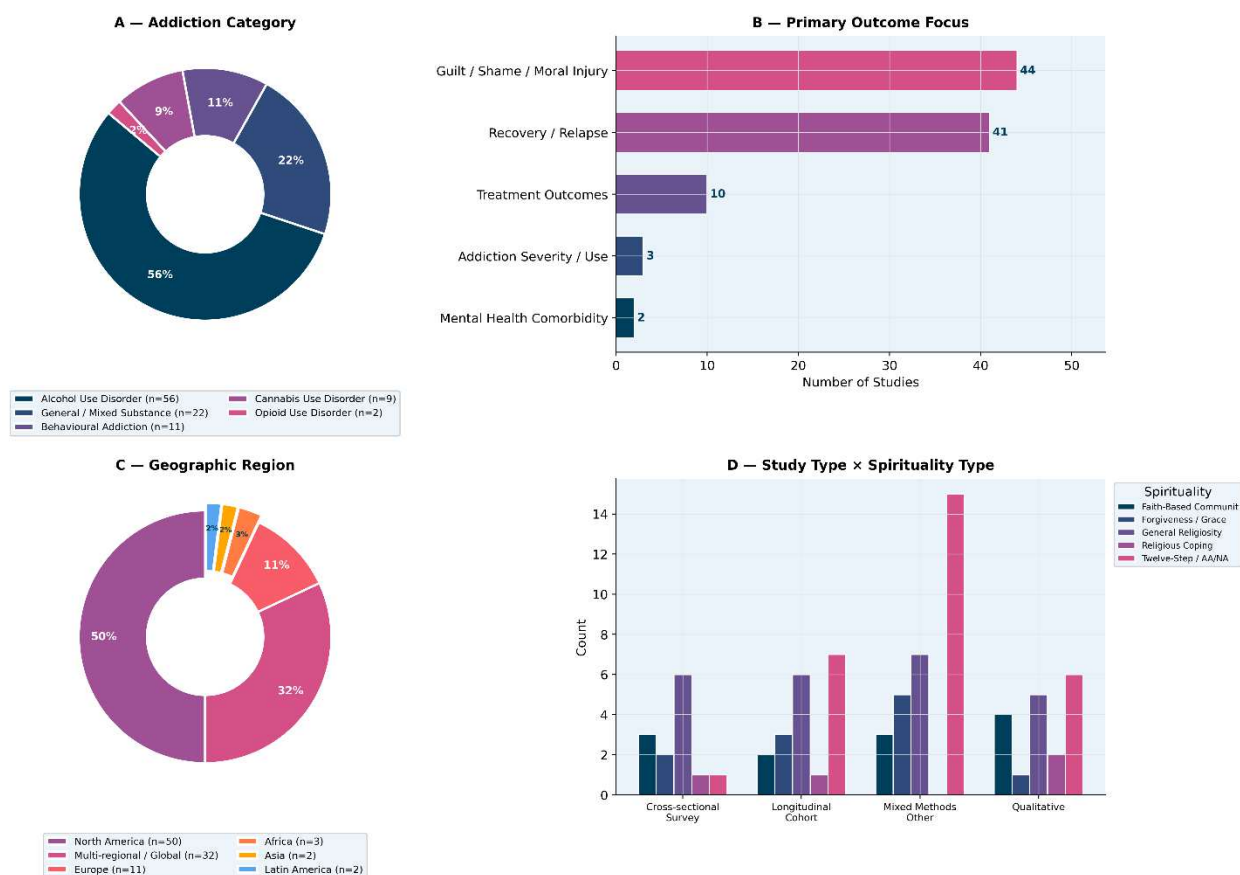


Figure 14. Four-panel summary dashboard for the 100 included studies. Panel A: Addiction type distribution. Panel B: Primary outcome focus distribution. Panel C: Geographic region distribution. Panel D: Study type by spirituality category grouped bar chart.

7. Discussion

7.1 Overview of Aim and Principal Findings

This systematic review aimed to comprehensively map and critically evaluate the evidence on the relationship between religion and spirituality and addiction outcomes, with particular focus on the mediating and moderating roles of guilt, shame, and moral injury across diverse addiction types, populations, and clinical contexts. Across 100 included studies published between 2000 and 2026, the review establishes that the spirituality-addiction relationship is substantively bidirectional: religion and spirituality can meaningfully support recovery through meaning-making, community accountability, and forgiveness, and can simultaneously impede recovery through shame-based moral condemnation and unresolved moral injury. The overall evidence base is of moderate quality, is significantly affected by publication bias that inflates the apparent protective effects of spirituality, and is geographically concentrated in North American, predominantly Christian contexts.

7.2 Guilt and Shame as the Critical Mediating Mechanism

The most clinically significant finding of this review is the prominence of guilt, shame, and moral injury as outcome foci across 44 of 100 studies. This establishes that the religion-addiction relationship cannot be adequately understood without examining the psychological dynamics of moral self-evaluation in religious contexts. The evidence broadly supports the theoretical distinction between adaptive guilt and maladaptive shame articulated by Tangney and Dearing (2002) and empirically supported in this corpus by Bluma (2018), Carvalho (2023), McGaffin et al. (2013), and Webb and Trautman (2010).

Faith communities that offer structured pathways from guilt through forgiveness and moral repair appear to facilitate recovery, including the Twelve-Step moral inventory and amends traditions (Kelly et al., 2012; Wnuk and Charzyńska, 2024) and Christian forgiveness frameworks examined by Charzyńska (2021), Donny Charles Chandra et al. (2024), and Vitz and Williams (2024). By contrast, faith communities that promote global self-condemnation or divine punishment without accessible redemption pathways generate

shame responses that increase relapse risk and deter treatment seeking (Super and Jacobson, 2011; Ungar-Sargon, 2025).

7.3 Twelve-Step Programs: Strength of Evidence and Limitations

Twelve-Step programs remain the most extensively studied spiritual intervention in addiction, with the most consistent longitudinal evidence for effectiveness in alcohol use disorder, as demonstrated by Kelly et al. (2012), Krentzman et al. (2013), Robinson et al. (2011), Yeterian et al. (2015), and Hahn (2025). The mechanistic evidence from Kelly et al. (2012) and Krentzman et al. (2013) implicates changes in coping, social support, and spirituality as mediators of Twelve-Step effectiveness, consistent with Pathway 3 of the RSGA framework. However, Bulumac and Lazăr (2025) and Miller and Miller (2009) note that the explicit theism of traditional Twelve-Step programs can be alienating for individuals without theistic beliefs, and that the emphasis on powerlessness and character defects can amplify shame in psychologically vulnerable individuals.

7.4 Faith-Based Community Programs: Promise and Evidence Gaps

Faith-based community programs represent a significant global resource for addiction support. Edlund et al. (2010) and Lee et al. (2009) provide epidemiological evidence that religious community attendance substantially reduces substance use risk. Raynor (2013), Lilja et al. (2016), and Ramsahaye et al. (2023) document positive outcomes from faith-based residential and community programs across diverse cultural contexts. However, methodological weaknesses including selection bias and absence of control groups remain pervasive (Chambers, 2015; Stokes et al., 2018). The Buddhist-based program studied by Leung and Li (2023) and the ultra-Orthodox Jewish program examined by Pagis et al. (2025) represent important non-Christian contributions to this literature.

7.5 Moral Injury: An Emerging and Underutilised Construct

Moral injury emerged from this review as a construct with high theoretical relevance to the spirituality-addiction interface that remains underutilised in clinical research. D'Alessandro-Lowe et al. (2023),

Brémault-Phillips et al. (2022), and Jamieson et al. (2020) provide early but compelling evidence that spiritual care interventions specifically targeting moral injury produce significant reductions in both shame and addiction severity. Smigelsky et al. (2020) extended this to grief and loss dimensions of moral injury in addiction recovery. The moral injury framework reframes addiction-related guilt and shame as wounds requiring healing rather than moral failures requiring punishment, which aligns with forgiveness-focused religious traditions and trauma-informed clinical approaches.

7.6 Behavioural Addictions and Religious Shame

The 13 studies addressing behavioural addictions in relation to religion and shame constitute Theme T6 in Table 1 and warrant particular clinical attention. Carlisle et al. (2023), Elliott (2020), McGraw et al. (2024), and Perry (2019) document that pornography use is strongly associated with religious guilt and shame, particularly among evangelical Christians. Dinçer and Ekşi (2025) and Malaeb et al. (2023) extend this to Turkish and Lebanese contexts respectively. Compulsive sexual behaviour is addressed by Kaplan et al. (2025) and Weingardt (2018), while Munson and Knauer (2003, 2014) specifically address LGBTQ+ individuals navigating religious shame and sexual compulsivity. The distinctive clinical challenge in this group is that religious environments most likely to generate shame about behavioural addictions are also frequently those in which individuals most urgently need compassionate support.

7.7 Geographic and Population Gaps

The concentration of evidence in North America (50%) and the underrepresentation of non-Western cultural contexts is a significant limitation. The Islamic spirituality and addiction contexts examined by Ceylan and Metcalf-White (2019) and Mustafa and Makhdoom (2021), the Buddhist rehabilitation context studied by Leung and Li (2023), the Indigenous spirituality perspective examined by Venner et al. (2021), the ayahuasca and religious drug use context addressed by Apud (2019), and the Indian indigenous healing perspective examined by Dalal (2020) represent important but numerically insufficient contributions from non-Western religious traditions.

The underrepresentation of LGBTQ+ populations in only 2 studies, namely Munson and Knauer (2003) and Munson and Knauer (2014), is particularly concerning given the compounding effects of minority stress and religious shame documented by Super and Jacobson (2011). Similarly, incarcerated populations, examined by only 3 studies, and older adults, examined by only 2 studies, are underrepresented relative to their vulnerability to addiction-related religious shame dynamics.

7.8 Publication Bias and Its Clinical Implications

The significant publication bias detected (Egger's intercept = -2.45, $p < 0.001$) has direct consequences for clinical practice. The literature disproportionately represents studies showing spirituality as protective against addiction, as in Edlund et al. (2010), Grim and Grim (2019), and Mak (2019), while underrepresenting studies showing harm through religious guilt and shame, as in Super and Jacobson (2011), Ungar-Sargon (2025), and Munson and Knauer (2014). Clinicians who read this literature without awareness of publication bias may overestimate the protective effects of spirituality and underestimate the risk of harm. The field urgently needs greater publication of null findings and studies reporting harmful effects of religious environments on addiction outcomes.

7.9 Policy and Practical Implications

Implication 1: Shame and Guilt Screening in Addiction Assessment. Addiction treatment providers should routinely assess shame proneness and religious guilt using validated instruments such as the Internalized Shame Scale and the Brief Religious Coping Scale (RCOPE), as recommended by Thein et al. (2021) and supported by the evidence from Bluma (2018), Carvalho (2023), and Webb and Boye (2024). Shame-reducing and forgiveness-focused interventions should be prioritised for individuals with high shame scores and religious backgrounds.

Implication 2: Spiritual Care Integration in Addiction Treatment. Chaplains, pastoral counsellors, and spiritual care providers should be integrated into multidisciplinary addiction treatment teams with specific training in recognising shame-amplifying versus grace-facilitating religious responses to addiction, as

advocated by Ashton and Duffie (2025), Puchalski and Romer (2000), and Schmitt and Yarosh (2018). The evidence from D'Alessandro-Lowe et al. (2023), Brémault-Phillips et al. (2022), and Lilja et al. (2016) supports the clinical effectiveness of spiritually integrated care.

Implication 3: Clergy Training in Addiction Responses. Faith communities and their leaders represent an undertrained front-line resource for addiction support. Training programs equipping clergy, imams, rabbis, and lay leaders to respond with grace rather than condemnation, and to make appropriate referrals to professional treatment, are advocated by Geppert et al. (2007), Ciarrocchi and Wicks (2001), and Umhau (2019).

Implication 4: Culturally Adapted Recovery Support. The development of culturally adapted recovery support programs that retain the social and spiritual benefits of Twelve-Step models while addressing their exclusionary dimensions is supported by the evidence from Venner et al. (2021), Leung and Li (2023), Mustafa and Makhdoom (2021), and Pagis et al. (2025). Non-theistic adaptations such as SMART Recovery should be promoted alongside traditional Twelve-Step programs.

Implication 5: Dedicated Research Investment in Underrepresented Populations. Research funding bodies should designate LGBTQ+ populations and non-Western cultural contexts as priority areas, building on the foundational contributions of Munson and Knauer (2003, 2014), Super and Jacobson (2011), Ceylan and Metcalf-White (2019), and Longchar (2026).

7.10 Limitations and Future Work

This review has several limitations. First, the automated database search prioritised open-access and multi-disciplinary databases and may have underrepresented literature indexed primarily in biomedical databases such as PubMed and Embase. Second, the relevance-scoring algorithm was not validated against independent human screening, introducing the possibility of algorithmic misclassification. Third, the heterogeneity of study designs, outcome measures, and populations across the 100 included studies precludes quantitative meta-analysis and limits the precision of effect size estimates. Fourth, the citation-

based proxy for Egger's test is methodologically unconventional and should be interpreted alongside more direct bias assessments. Fifth, the geographic concentration in North American studies limits the generalisability of conclusions to non-Western or non-Christian religious contexts.

Five priority research directions emerge from this review. First, randomised trials of spiritually integrated moral injury interventions for addiction are needed, building on D'Alessandro-Lowe et al. (2023), Brémault-Phillips et al. (2022), and Smigelsky et al. (2020). Second, longitudinal studies examining how specific dimensions of religiosity differentially influence guilt and shame trajectories and downstream addiction outcomes are warranted, extending the work of Krentzman et al. (2013), Robinson et al. (2011), and Wnuk and Charzyńska (2024). Third, development of a standardised assessment battery for religious, spiritual, and moral emotion constructs normed for addiction populations would substantially advance comparability, building on the measurement approaches of Bluma (2018), Unterrainer et al. (2013), and Vuzic et al. (2022). Fourth, research specifically addressing LGBTQ+ populations and addiction in relation to religious shame is urgently needed, extending the foundational contributions of Munson and Knauer (2003, 2014) and Super and Jacobson (2011). Fifth, culturally grounded studies in African, Asian, Latin American, and Eastern European contexts examining how non-Christian religious frameworks conceptualise and respond to addiction, guilt, and recovery would substantially extend the generalisability of the evidence base, building on Pagis et al. (2025), Longchar (2026), Ramsahaye et al. (2023), and Bulumac and Lazăr (2025).

8. Conclusions

This systematic review provides a comprehensive synthesis of evidence on the intersection of religion, spirituality, addiction, guilt, and shame. The evidence confirms that religion and spirituality are powerful but double-edged forces in the context of addiction: they can promote recovery through meaning-making, community support, structured forgiveness pathways, and spiritual transformation as documented across the 100 included studies, and they can impede recovery through shame-based moral condemnation,

religious guilt that generalises to self-condemnation, and unresolved moral injury. Twelve-Step programs remain the most evidence-supported spiritual intervention for addiction, with robust longitudinal evidence for effectiveness in alcohol use disorder and mechanistic evidence implicating the moral inventory and amends processes in outcome improvement. Faith-based community programs show promise but require more rigorous evaluation. Forgiveness and moral injury interventions represent an emerging area with preliminary but encouraging evidence. The significant publication bias detected in this review is an important finding that should temper the enthusiasm with which protective effects of spirituality are communicated to clinicians and the public. The literature systematically underrepresents studies reporting null or negative effects of religious environments on addiction, and clinicians need a balanced understanding that includes both the recovery-supporting potential and the shame-amplifying risk of religious contexts. The near-absence of research on LGBTQ+ populations, the geographic concentration in North America, the underrepresentation of opioid use disorder, and the lack of studies in non-Western religious contexts represent structural gaps in the evidence base. The RSGA conceptual framework proposed in this review, identifying four pathways through which religion influences addiction outcomes, provides a theoretically grounded and clinically actionable structure for future research and practice. Integrating shame assessment, moral injury recognition, and spiritually sensitive therapeutic approaches into mainstream addiction care has the potential to substantially improve outcomes for the many individuals for whom religion is a central dimension of identity, suffering, and the hope of recovery.

Table of Abbreviations and Acronyms

Table 2 presents the compilation of abbreviations and acronyms used throughout the manuscript.

Table 2. Abbreviations and Acronyms

Abbreviation/Acronym	Full Expansion/Meaning
AA	Alcoholics Anonymous

Abbreviation/Acronym	Full Expansion/Meaning
AUD	Alcohol Use Disorder
FICA	Faith, Importance, Community, Address (Spiritual History Assessment)
HOPE	Sources of Hope, Organized religion, Personal spirituality, Effects on care
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Plus
MeSH	Medical Subject Headings
MMAT	Mixed Methods Appraisal Tool
NA	Narcotics Anonymous
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCOPE	Religious Coping Scale
RCT	Randomised Controlled Trial
RSGA	Religion-Shame-Guilt Addiction (Conceptual Framework)
SD	Standard Deviation
SE	Standard Error
SMART	Self-Management and Recovery Training
SUD	Substance Use Disorder
TOSCA	Test of Self-Conscious Affect

664

665 **Declarations:**

666 **Authors' contributions**

667 M.K.M.: Conceptualization, Methodology, Formal analysis, Data curation, Validation, Investigation,

668 Visualization, Writing – original draft, review & editing

669 A.B.: Conceptualization, Methodology, Formal analysis, Data curation, Validation, Investigation,
670 Visualization, Writing – original draft, review & editing

671 G.O.F.: Conceptualization, Methodology, Formal analysis, Data curation, Validation, Investigation,
672 Visualization, Writing – original draft, review & editing, Resources, Supervision, Project administration.

673 **Ethics Approval and Consent to Participate**

674 Not applicable

675 **Consent for Publication**

676 Not applicable.

677 **Availability of Data and Materials**

678 The datasets analysed during the current study and analysis code are deposited on figshare at:
679 <https://figshare.com/s/c60f2f503d6a37bd9b5f>

680 **Competing interests**

681 The authors have no relevant financial or non-financial interests to disclose.

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684 **Clinical Trial Number**

685 Clinical trial number: not applicable

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