Measuring Spirituality and Associated Health Outcomes Across Different Cultural Groups: A Scoping Review

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To inform the development of a measure of non-religious spirituality for Aboriginal and Torres Strait Islander people, this review examined studies utilising scales that assessed non-religious spirituality. We also investigated associations between non-religious spirituality and health and identified the cultural groups in which these instruments had been validated. Across the 115 studies included, 28 spirituality tools were employed. A total of 50 health outcomes pertaining to physical health (34%) and psychological wellbeing (66%) were observed in their relationship to spirituality. The studies were conducted across 32 different countries, with the majority from the USA and involving White populations. Only seven studies used instruments developed for specific cultural groups. Future research is needed to enhance our understanding of how spirituality can be understood and measured in various cultural contexts.

Keywords: spirituality, health outcomes, Indigenous, measurement, scoping review

Aboriginal and Torres Strait Islander people experience considerable health inequity, including a greater burden of disease and lower life expectancy (Australian Institute of Health and Welfare, 2020). To effectively address this disparity, health interventions must conceptualise health from the perspective of Aboriginal and Torres Strait Islander people (Browne et al., 2021). Spirituality, for example, is rarely represented in Western approaches to health (Butler et al., 2019), but is inseparable from Aboriginal and Torres Strait Islander understandings of wellbeing (Gee et al., 2014). While Aboriginal and Torres Strait Islander nations within Australia have different terms, practices and epistemologies that reflect their worldviews; broadly speaking, Aboriginal and Torres Strait Islander spirituality establishes the interconnectedness of all things in creation, including land, water, sky, people and all living things (Grieves, 2008). It is expressed through sacred stories that have been passed down through generations, alongside ritual, ceremony, and cultural practices (Gee et al, 2014; Grieves, 2008). The objective of creation is to live in balance and harmony with all living things, and spiritual laws and practices are directed towards achieving this goal. When lands or waters are not healthy, it affects the health of Aboriginal and Torres Strait Islander people because they are spiritually connected to them (Clyde Rigney, personal communication). This is expressed by Gee et al. (2014) in their widely cited model of Aboriginal and Torres Strait Islander social and emotional wellbeing, which places 'Connection to spirit, spirituality and ancestors' alongside connection to body, mind, family, community, culture and country. Despite its significance, there are not currently any culturally sensitive measures of spirituality to indicate wellbeing and to inform health intervention for Aboriginal or Torres Strait Islander populations.

In comparison, there has been a notable rise in global academic interest regarding the connection between spirituality and health, leading to the development of a wide range of

assessment tools to measure spirituality (Austin et al., 2018; Demir, 2019). Whilst traditionally the term "spirituality" has been used interchangeably with "religiosity", recent trends to delineate between the two emphasise the unique relationship that each construct has to health. More frequently, researchers are opting to use instruments that appraise spirituality as a construct distinct to religiosity (Hammer et al., 2019). For instance, Kim and colleagues (2015) observed a significant negative correlation between spirituality and treatment response in patients with depressive disorders whereas religious affiliation and attendance of religious services were not at all related to treatment outcomes. Similarly, Alvarez and colleagues (2016) reported that patients with ambulatory heart failure who had higher levels of spirituality had better treatment adherence ($r = .26$, $p = .003$), whilst religiosity did not show a significant association with treatment outcomes ($r = .13$, $p = .14$).

Religiosity is commonly defined as an organised system of practices, beliefs and rituals that enable closer transcendence to a higher power or truth. By contract, spirituality is understood to be a universal (secular or religious) human experience (Koenig, 2012). Themes of connectedness (either to the self, others, nature, a higher power or a supreme being); transcendence (the ability to transcend the self); and life meaning, or purpose are often ascribed to definitions of spirituality (Weathers et al., 2016), with reference to awe; sacredness; power; and journey (Sessanna et al., 2011). Conceptualised in this manner, spirituality allows for an individual to identify as both religious and spiritual, or spiritual but not religious, which aligns more closely with the experience of many Aboriginal and Torres Strait Islander people.

The lack of uniformity in how these constructs have been conceptualised over time has resulted in ambiguity over what spirituality instruments actually measure. For instance, some tools purport to measure spirituality but in actuality operationalise religiosity, illustrated through enquiries about specific beliefs such as God (e.g. The Spiritual Assessment Inventory: Hall & Edwards, 2002) or practices such as prayer (e.g. Assessment of Spirituality and Religious Sentiments; Piedmont, 2010; Daily Spiritual Experiences Scale (DSES); Underwood & Teresi, 2002). Such measures thus lack construct validity (Kapuscinski & Masters, 2010; Pargament et al., 2013) and additionally, fail to recognise the unique expression of spirituality across cultures, particularly non-religious forms of spirituality (Büssing, 2017; de Jager Meezenbroek et al., 2012). Acknowledging diversity in spirituality may in turn lead to a more comprehensive understanding of health as rooted in culture (Sessanna et al., 2011; World Health Organization Quality of Life-Spiritual Religiousness and Personal Beliefs (WHOQOL-SRPB) Group, 2006).

This scoping review commenced with the consultation of a working group led by Aboriginal and Torres Strait Islander people who had determined that, despite the importance of spirituality for many Aboriginal and Torres Strait Islander people, an assessment tool had not been developed nor validated within this population. In line with their aim to develop a new spirituality tool, research was first required to investigate pre-existing measures used in health settings, and to determine if culturally relevant tools had been developed elsewhere. Although the discussion surrounding spirituality has been amplified in recent times, no reviews have been conducted since Monod and colleagues (2011) explored spirituality measures within the health literature, where spirituality was considered as a concept distinct from religiosity.

This scoping review sought to address three broad objectives:

1. To map the characteristics of studies published since 2011 that utilised non-religious measures of spirituality and reported associated health outcomes;
2. To summarise reported associations of spirituality with health outcomes; and
3. To identify the cultural populations in which these instruments had been validated.

In doing so, this study aims to inform the future development of spirituality measures for Aboriginal and Torres Strait Islander populations, as well as other culturally diverse groups, and to analyse the relationship between spirituality and health.

Methods

A protocol was developed according to the Preferred Reporting Items for Systematic Reviews and Meta-analysis Protocols (PRISMA-P; Shamseer et al, 2015) following the Joanna Briggs Institute (JBI) guidance (Joanna Briggs Institute, 2015). A scoping review was deemed appropriate to meet the research objectives of this study, given we sought to chart concepts and identify gaps and trends in the available data.

Inclusion Criteria

Studies that administered spirituality tools in order to explore associations with health were selected for inclusion. All age groups, cultural groups and countries were included. To capture previously developed measures of spirituality; quantitative, qualitive, mixed-methods studies and grey literature were considered. Meta-analyses, systematic reviews, opinion papers, letters, conference presentations and journal abstracts were omitted. Only studies published in English between 01 January 2011 and 01 February 2021, and using a spirituality tool available in English were included.

Studies were included if they utilised a spirituality tool that conceptualised spirituality as distinct to religiosity (as defined in the introduction), or if the non-religious subscale scores of multi-dimensional tools were reported separately. Further, studies were only considered for inclusion if the tool consisted of more than a single item enquiring about general spirituality or spiritual wellbeing. Finally, studies using spirituality tools that advised substitution of the word "God" for a more relevant divine or holy term, without elaborating on replacements (such as the DSES; Underwood & Teresi, 2002) were excluded. Phrasing items in this way may lead to variation in how questions are interpreted, thus impacting upon the instrument's construct and concurrent validity (Hammer et al., 2013; Hwang, et al., 2011).

Search Strategy

Following the style of Peters and colleagues (2015), this review utilised a three-step search strategy. Both published and unpublished studies were included. An initial search of PubMed and PsycInfo was conducted whereby relevant keywords and index terms were identified. Following this, the text words in the title and abstract, as well as the index terms used to describe the article, were analysed. The second stage involved the use of keywords and index terms identified from the initial search, and in consultation with a research librarian, including, but not limited to, a combination of terms such as: "spirituality", "spiritual*", "survey", "questionnaires" and "assessment tool". Finally, the reference lists of all studies selected for the review were considered in order to capture additional studies not discovered previously. Databases were chosen based on their relevance to the health literature, the availability of psychometric tools, and their inclusion of unpublished studies. The databases used were PubMed, PsycInfo and Embase. The full search strategy for each database is listed in Additional File 1. Where relevant, studies reporting on the initial development of instruments were sourced in order to extract specific information regarding the spirituality tool.

All citations identified from the initial search were uploaded to Endnote (Thomson Reuters, Version X8), where duplicate citations were removed. When the abstract did not contain enough information about the type of spirituality instrument used, the full text was examined. The full text search was peer-reviewed by two additional reviewers (RR, OP), and disagreement on inclusion criteria was resolved through discussion by all three researchers. Articles that did not meet the inclusion criteria following the full text review were excluded, with at least one reason for their omission listed in Additional File 2.

Data Extraction

The data were extracted and charted according to extraction tools designed for this study, which adhered to the specific objectives of this review. Pertinent information from each study regarding the participant characteristics (e.g., demographics), setting (e.g., country or cultural identification), health outcomes measured, name of spirituality instrument, and the correlation and regression coefficients of the relationship between spirituality and health outcomes was extracted (Additional File 3). Characteristics of the spirituality tools identified in the studies were documented, including their names, dimensionality and number of times used in the studies (Additional File 4).

Results

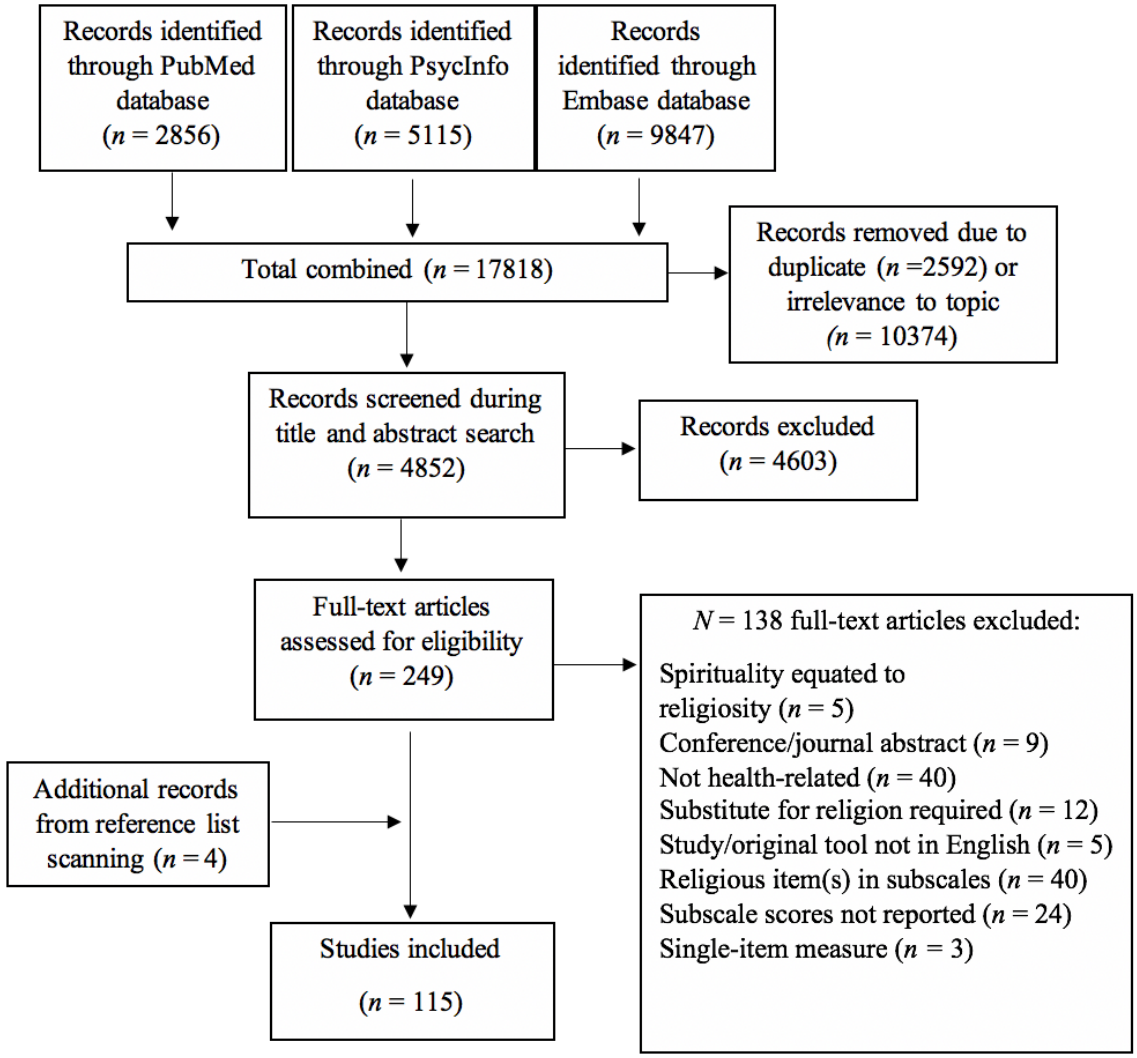
Description of Studies

The literature search initially retrieved 17,818 citations that were published between 2011 and February 2021. After 2,592 duplicates and 10,374 irrelevant citations were screened and discarded by the primary reviewer (AM), a title and abstract search removed 4,603 further citations that did not meet the inclusion criteria. Following this, the full texts of 249 studies were screened to determine eligibility, and a further 138 were excluded, leaving 111 articles. During this stage, two additional reviewers (RR, OP) examined 20% of the studies at random to ensure the exclusion criteria were being applied consistently.

Notably, we found that tools use vernacular conventionally associated with religion to define subscales, for instance the “Faith” and “Prayer” subscales of the FACIT-Sp and STS, respectively. However, the question items within these subscales allow for responses that do not necessarily pertain to religion and for this reason were included. For example, the “Faith” domain of the FACIT-Sp includes questions that enquire, “I find strength in my faith or spiritual beliefs”, thus accounting for people who are religious; or spiritual but not religious. As such, articles that presented the initial development of spirituality tools were sourced to provide information regarding their definition of spirituality and the content of assessment items.

At the final stage, four additional articles were identified from the reference lists of included studies, as outlined in Figure 1, bringing the total number of studies to 115.

Figure 1
PRISMA Flowchart for the Scoping Review Selection Process (Moher et al., 2009)



Note. A comprehensive review of the article retrieval and screening process according to the PRISMA reporting guidelines.

Study Characteristics

Articles included in the final review were published between 2011 and 2021. These studies collectively involved a total of n = 102, 701 participants ranging in age range from 10 to 104 years. The most prevalent population sampled was individuals with cancer (38 articles, comprising 33% of the total). University students accounted for 8.7% (n = 10), while individuals with a mental health disorder were represented in 8 studies (7%). Members of the general public, people who used substances, participants with cardiovascular disease and individuals with kidney disease each accounted for 5.2% (6 studies), while school students and participants with spinal cord injury each made up 4.3% (5 studies) of the included studies. Individuals in hospital or healthcare settings, and those involving older people, each made up 3.5% of included studies (n = 4), while patients in palliative care, members of nursing homes, and people who had attempted suicide were each represented twice (1.7%). Other populations individually accounted for 0.87% (n = 1) of the total review sample in areas of: HIV/AIDS; stroke; people without housing; sexual minorities; multiple sclerosis; counsellors; government

employees; surfers; war veterans; and nursing students. Most studies employed the use of cross-sectional, correlational designs (80.9%), and the remainder used prospective, longitudinal designs.

Spirituality Instrument Information and Characteristics

Within the 115 studies included in this review, 29 distinct spirituality instruments were used, with 48.3% (n = 14) developed between the years 2010 - 2021, 31% (n = 9) between 2000 – 2009, and 20.7% (n = 6) prior to 2000, as noted in Table 1. Spirituality was operationalised according to two classification types: general spirituality (62.1%, n = 18) and spiritual wellbeing (37.9%, n = 11).

Although some studies conceptualised spiritual wellbeing as a component of quality of life, others defined it as synonymous to general spirituality (Davison & Jhangri, 2013). As reported in Table 1, 75.9% of instruments utilised a multidimensional approach to measure spirituality, with subscales most commonly including the following themes: meaning or purpose (31%); connection (31%); transcendence (27.6%); and existentialism (20.7%). Table 1 further illustrates that 55.2% (n = 16) of instruments included the words "spiritual" or "spirituality" in at least one question/item when operationalising spirituality. For example, one of the ten WHOQOL-SPRB items that uses such terminology questions; "To what extent do you have spiritual beliefs?" (WHOQOL SPRB Group, 2006).

The most commonly utilised instruments were the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-Sp: Peterman et al., 2002; 44.3%), the SWBS (20%), the WHOQOL-SPRB (7%), the FACIT-Sp-Expanded version (FACIT-Sp-Ex: Brintz et al., 2017; 2.6%) and the Intrinsic Spirituality Scale (ISS: Hodge, 2003; 2.6%). The majority of studies featured previously validated measures.

Table 1
Characteristics of Spirituality Instruments and Health Outcomes Explored

Instrument name	Scale type (*n* of items, *n* of subscales)	Non-religious subscales (*n* of items)	Studies utilising instrument
General spirituality			
BENEFIT Scale (Büssing & Koenig, 2008)	5-point Likert scale (6, 1) U	-	Xue et al. (2016)
Cultural Connectedness Scale – Short Version (CCS-S; Snowshoe et al., 2015)	Dichotomous response scale of no/yes; 5-point Likert scale (10, 3) M, R, S	Identity (4); Traditions (3); Spirituality (3)	Snowshoe et al. (2017)
Existential Spirituality (ES; Jang, 2016)	4-point Likert scale (2, 1) U	-	Jang (2016)
Expressions of Spirituality Inventory (ESI; MacDonald, 2000)	5-point Likert scale (98, 5) M, B, P, S	Cognitive Orientation to spirituality (40) Existential Wellbeing (9)	Mendez & MacDonald (2012)

GES Questionnaire (Benito et al., 2014)	5-point Likert scale (8, 3) M	Intrapersonal (4) Transpersonal (2) Interpersonal (2)	Benito et al. (2014)
The Intrinsic Spirituality Scale (ISS; Hodge, 2003)	11-point phrase completion (6, 1) U, S	-	Bhattarai et al. (2018); Davino (2013); Stern & Wright (2018)
Native American Spirituality Scale (NASS; Greenfield et al., 2015)	5-point Likert scale (2, 12) M, S	Spiritual behaviours (8) Spiritual beliefs (4)	Greenfield et al. (2015)
The NonReligious-NonSpiritual Scale (NRNSS; Cragun et al., 2015)	5-point Likert scale (17, 2) M, S	Individualistic Spirituality (9)	Tiggemann & Hage (2019)
The Ritualistic, Theistic, Existential measure of Spirituality (RiTE; Webb et al., 2014)	5-point Likert scale (30, 3) M, B, P	Existential spirituality (10)	Chang et al. (2015); Hall et al. (2020)
The Spiritual Assessment Scale (SAS; Howden, 1992)	5-point Likert scale (28, 4) M, S	Purpose/meaning in life (4) Interconnectedness (9) Inner resources (9) Transcendence (6)	Amrhein et al. (2016);
The Spiritual Attitude and Involvement List (SAIL; de Jager Meezenbroek et al., 2012)	6-point Likert scale (26, 7) M, S	Meaningfulness (3) Acceptance (4) Caring for Others (4) Connectedness with Nature (2) Transcendent Experiences (5) Spiritual Activities (3) Trust (5)	Visser et al. (2018)
Spiritual Intelligence Self-Report Inventory (SISRI-24; King, 2008)	5-point Likert scale (24, 4) M	Critical Existential Thinking (7) Personal Meaning Production (5) Transcendental Awareness (7) Conscious State Expansion (5)	Chan & Siu (2016)
Spiritual Meaning Scale (SMS; Mascaro et al., 2004)	5-point Likert scale (15, 1) U, S	-	Felker (2011)

Spiritual Orientation Inventory (SOI; Elkins et al., 1988)	7-point Likert scale (85, 9) M, S	Transcendent Dimension Meaning and Purpose in Life Mission in Life Sacredness of Life Material Values Altruism Idealism Awareness of the tragic Fruits of Spirituality	Koessel (2012)
Spirituality measure (Kulis et al., 2012)	4-point Likert scale (2, 1) U, S	Two questions on importance of spirituality to life	Kulis et al. (2012)
25-item Sky Spirituality Scale (SS-25; Kimura et al., 2016)	5-point Likert scale (25, 4) M, P, B	Social Connections (8) Life Satisfaction (4) Other (5)	Kimura et al. (2016)
Spirituality Transcendence Scale (STS; Piedmont, 1999)	5-point Likert scale (24, 3) M, B, S	Prayer fulfilment (9) Connectedness (6)	Bauer (2016)
Tribal Cultural Spirituality Measure (Bear et al., 2018)	Dichotomous response scale of agree/disagree (8, 1) U	-	Bear et al. (2018)
<u>Spiritual wellbeing</u>			
European Organisation for Research and Treatment of Cancer Measure of Spiritual Well-Being (EORTC QLQ-SWB32; Vivat et al., 2017)	4-point Likert Scale (32, 4) M, S	Existential (4) Relationship with Self (5) Relationship with Others (6)	Chen et al. (2021)
Functional Assessment of Chronic Illness Therapy-Spiritual Wellbeing Scale (FACIT-Sp; Peterman et al., 2002; Canada et al., 2008)	5-point Likert scale (12, 3) M, S	Meaning (4) Peace (4) Faith (4)	Agli et el. (2017); Allanson (2019); Bai et al. (2014); Bamishigbin et al. (2020); Bernard et al. (2017); Bormann et al. (2011); Bovero et al. (2019); Cha et al. (2019); Chaar et al. (2018); Cheng et al. (2019); Davis et al. (2017); Davis et al.

			(2018); Douglas & Daly (2013); Eggleston (2015); Flint et al. (2019); Fradelos et al. (2017); Frost et al. (2013); Gonzalez et al. (2014); Goyal et al. (2019); Gudenkauf et al. (2019); Hasegawa et al. (2017); Haugan et al. (2014); Johnson et al. (2011); Jones et al. (2019); Kamijo & Miyamura (2019); Kelly (2011); Kim et al. (2011); Kim et al. (2015); Kandasamy et al. (2011); Leeson et al. (2015); Lewis et al. (2014); Loureiro et al. (2018); Lucchetti et al. (2015); Mills et al. (2015); Mollica et al. (2016); Nsamenang et al. (2016); Panati et al. (2020); Salmoirago-Blotcher et al. (2012); Salsman et al. (2011); Samuelson et al. (2012); Sansone et al. (2012); Sansone et al. (2013); Scheffold et al. (2019); Shin et al. (2018); Song et al. (2016); Song et al. (2018); Wachelder et al. (2016); Washburn (2012); Whitford & Olver (2012); Wilson et al. (2017); Yilmaz & Cengiz (2020)
FACIT-Sp Expanded Version (FACIT-SP-Ex; Brintz et al., 2017)	5-point Likert scale (23, 4) M, S	Meaning (4) Peace (4) Faith (4) Additional Spiritual Concerns (11)	Holt-Lunstad et al. (2011); Johnson (2011); Siddall et al. (2017)
Hua Oranga (Durie & Kingi, 1999; Harwood et al., 2012)	5-option response: Much worse; worse; no change; better; much	Spiritual (4)	Harwood et al. (2012)

	better (4, 1) U, S		
Multidimensional Inventory for Religious/Spiritual Well-Being (MI-RSWB; Unterrainer et al., 2012a)	6-point Likert scale (48, 6) M, B	Hope Imminent (8) Forgiveness (8) Sense of Meaning (8)	Unterrainer et al. (2012b);
Spiritual Health and Life-Orientation Measure/Spiritual Well-Being Questionnaire (SHALOM/SWBQ; Gomez & Fisher, 2003)	5-point Likert scale (20, 4) M	Personal (5) Communal (5) Environmental (5)	Riklikienė et al. (2020); Stern & Wright (2018)
Spiritual Health Module (adapted for brevity from SHALOM/SWBQ; Michaelson et al., 2016)	5-point Likert scale (8, 4) M, S	Personal (2) Communal (2) Environmental (2) Transcendental (2)	Brooks et al. (2018); Michaelson et al. (2019)
Spiritual Index of Well-Being (SIWB; Daaleman et al., 2002)	5-point Likert scale (12, 2) M	Self-Efficacy (6) Life Scheme (6)	Wu et al. (2017); Spatuzzi et al. (2019)
Spiritual Wellbeing Scale (SWBS; Ellison, 1983)	6-point Likert scale (20, 2) M, B	Existential Wellbeing (10)	Alshraifeen et al. (2020); Davison & Jhangri (2013); Diaz et al. (2014); Florez et al. (2018); Hajiaghababaei et al. (2018); Hardiman & Simmonds (2013); Hirsch et al. (2014); Holzer (2011); Hurlbut et al. (2011); Ibrahim et al. (2019); Jacobs et al. (2012); Kannai (2019); Lee (2014); Li et al. (2012); Khumalo et al. (2014); Martinez & Custodio (2014); McCaffrey (2015); Miller & Saunders (2011); Mohebbifar et al. (2015) ; Piacentine (2013); Staton-

			Tindall et al. (2013); Tudder et al. (2017); Velasco-Gonzalez & Rioux (2014)
World Health Organisation Quality of Life-100 (WHOQOL-100; Power et al., 1999)	5-point Likert scale (4, 1) U	Spirituality (4)	González-Celis & Gómez-Benito (2013)
World Health Organisation Quality of Life-Spirituality, Religion and Personal Beliefs (WHOQOL-SRPB; WHOQOL SRPB Group, 2006)	5-point Likert scale (32, 8) M, S	Connectedness Meaning of life Awe Wholeness and Integration Spiritual Strength Inner peace/serenity/harmony Hope and optimism Faith	Alvarez et al. (2016); da Rocha & da Almeida Fleck (2011); Das et al. (2018); de Camargos et al. (2015); Giovagnoli et al. (2019); Mihaljevic et al. (2015); Mihaljevic et al. (2016); Turke et al. (2020);

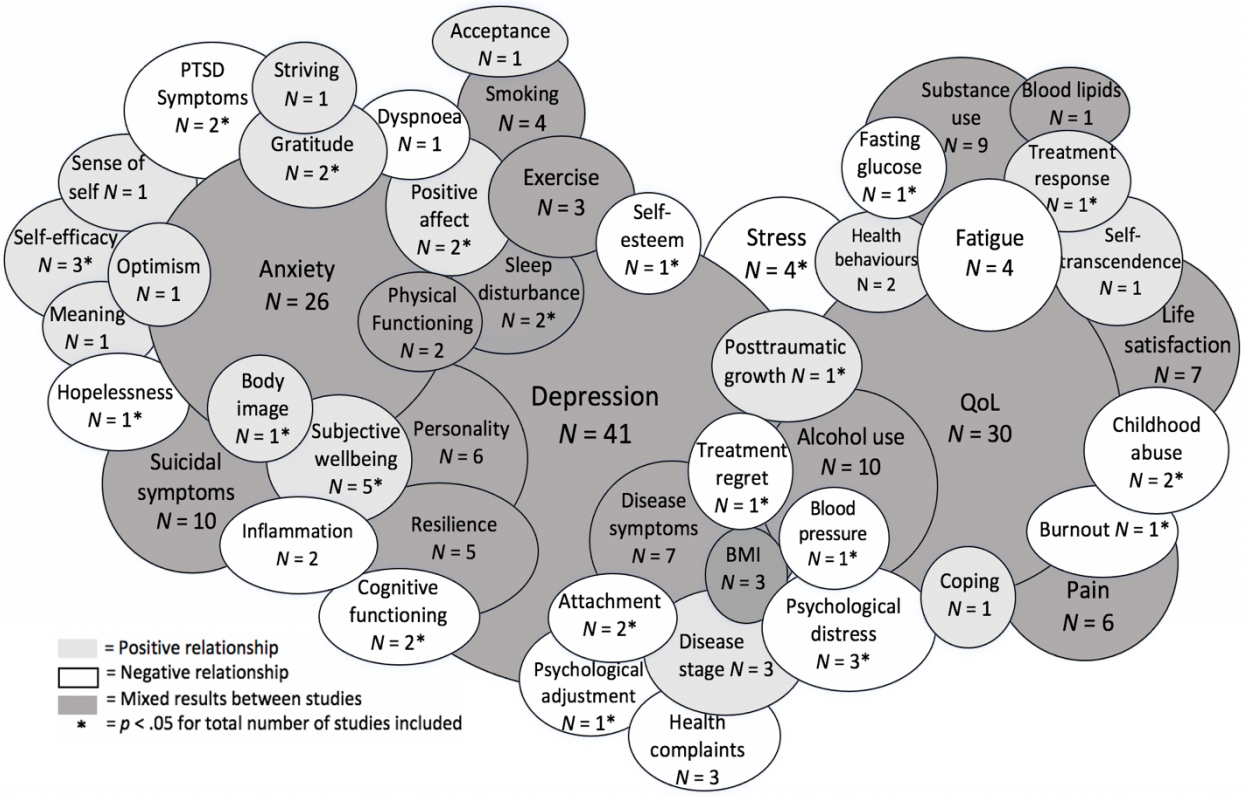
Note. **M = multi-dimensional spirituality instrument; U = uni-dimensional spirituality instrument; B = at least one subscale excluded due to reference to specific religious/spiritual belief; P = at least one subscale excluded due to reference to specific religious/spiritual practice; R = at least one subscale excluded as not relevant to spirituality; S = contains terms "spiritual" or "spirituality" in at least one scale item.**

Health Outcomes Associated with Spirituality

Among the studies included in this review, 50 different health outcomes and their associations with spirituality were identified, as charted in Figure 2. Of these, 34% focused on physical health outcomes, whilst the remainder examined factors relating to psychological wellbeing. Depression, followed by quality of life, and anxiety, were the three most frequently reported health outcomes. Quality of life as an outcome measure tended to trend in a positive direction with spirituality, however this was not reported for all studies, as displayed in Figure 2. In contrast, depression and anxiety mostly exhibited inverse and significant correlations, with only a few studies reporting otherwise. As highlighted in Additional file 3, the correlations between health outcomes and spirituality were mostly small to moderate.

Figure 2

Types of health outcomes associated with spirituality, number of studies exploring these associations, and the directions of the relationships



Note. BMI = body mass index; HD = hastened death; PTSD = Posttraumatic stress disorder; QoL = quality of life.

Validation of Spirituality Instruments in Different Countries or Cultural Groups

The majority of studies were conducted in the USA (n = 54), followed by Brazil (n = 6), Australia (n = 5), South Korea (n = 5), Canada (n = 3), China (n = 3), India (n = 3), Italy (n = 3) and Japan (n = 3). Populations from Croatia, France, Iran, the Netherlands, South Africa, Taiwan and the UK were each sampled twice, whilst those in Austria, Germany, Greece, Jordan, Lebanon, Lithuania, Malaysia, Mexico, Nepal, New Zealand, Norway, Puerto Rico, Spain, Sri Lanka, Switzerland and Turkey were each represented once.

Seven studies utilised spirituality measures for specific cultural groups, including the Hua Oranga tool, adapted for use with Maori and Pacific People (Harwood et al., 2012); the Cultural Connectedness Scale (CC-S: Snowshoe et al., 2017) used within the Saskatchewan population in Southwestern Ontario; the Native American Spirituality Scale (NASS; Greenfield et al., 2015), developed for Native Americans in a Southwestern tribe; the Spirituality measure (Kulis et al., 2012), used by Native American youth in a Southwestern city of the USA; the Tribal Cultural Spirituality Measure (Bear et al., 2018), for Northern Plains tribes in the USA; the GES Questionnaire (Benito et al., 2014); and the SS-25, for Spanish and Japanese populations, respectively.

Where First Peoples across the globe (Including Aboriginal or Torres Strait Islander people) were represented, their participation did not exceed 5.5% of the total sample size,

excluding the five studies that examined the relationship between spirituality and health exclusively to Maori and Pacific people; Native American; or First Nations populations (Bear et al., 2018; Greenfield et al., 2015; Harwood et al., 2012; Kulis et al., 2012; Snowshoe et al. 2017). No measures have been specifically developed and validated with Aboriginal and Torres Strait Islander people.

Discussion

This scoping review mapped studies published between 2011 and 2021 that utilised non-religious spirituality instruments to measure spirituality and its correlation with health outcomes. We note that there is an overwhelming preference within the health literature to use the FACIT-Sp and the SWBS. Interestingly, the SWBS, comprised of Religious Wellbeing and Existential Wellbeing subscales, was employed even when authors explicitly delineated spirituality from religiosity (Holzer, 2011). Despite increased discussion within the literature about the need for more inclusive spirituality tools that capture non-religious experiences (O'Connell & Skevington, 2010), this review highlights that in addition to alternative tools not being used, few are being developed. This may be viewed as a significant gap given increasing trends for people to identify as non-religious (Australian Bureau of Statistics, 2022), or as spiritual but not religious (Ammerman, 2013; Mercadante, 2020).

Koenig (2008) has suggested that scales measuring spiritual wellbeing, including the FACIT-Sp and SWBS, operationalise general wellbeing as opposed to spirituality. For example, spiritual wellbeing may include items inquiring about positive psychological states, such as a sense of meaning and gratitude (Koenig, 2008; O'Connell & Skevington, 2010). In this way, a person with depression, in responding to the item "my life lacks meaning and purpose" in the FACIT-Sp, may inaccurately reflect low spirituality (Koenig, 2008). By contract, in their factor analysis of the WHOQOL-SRPB (WHOQOL-SRPB Group, 2006) amongst 285 sick and well people in the UK, O'Connell & Skevington (2010) found that spiritual quality of life was distinct from the psychological, physical and social domains suggesting it to be a separate construct.

In relation to objective 2, numerous health outcomes were observed to relate significantly to spirituality, providing strong evidence for a relationship between spirituality (as distinct from religion) and health. Current practice in health promotion, however, does not commonly account for spirituality as a contributing factor to health (Michaelson et al., 2019). For example, evidence suggests that psychologists are disinclined to discuss spirituality with clients (Hage, 2006; Hathaway et al., 2004; Holzer, 2011). This is significant given the preference for clients to talk about spirituality with mental health professionals over other health practitioners (Curlin et al., 2007). Interestingly, barriers to discussing spirituality include unfamiliarity with the evidence-base surrounding spirituality and health (Moreira-Almeida et al., 2014). By providing an overview of the associations between spirituality and various health outcomes, this review may guide mental health professionals in seeking further information within the literature and thus learning more about this relationship.

Regarding objective 3, this review underscores the scarcity of tools available to assess spirituality outside of a Euro-centric context, which limits the ability to capture diverse expressions of spirituality. For Aboriginal and Torres Strait Islander communities, spirituality is not only integral, but fundamental to understandings of daily life and wellbeing (Dudgeon & Walker, 2015; Grieves, 2009). Additionally, during the development of spirituality tools, there appears to be a prevalent assumption that spirituality as assessed in one population can be generalised across all populations (Benito et al., 2014). However, when assessing spirituality using two distinct tools (one more generalised, and one specific to the spiritual beliefs and practices of Native American Northern Plains tribes), Bear and colleagues (2018) concluded

that significant associations with mental health indicators were only detected with use of the tribal spirituality scale. It was thus surmised that general spirituality instruments would not adequately capture Native American spirituality (Bear et al., 2018).

For Aboriginal and Torres Strait Islander people, spirituality is a core feature of health, and therefore should be included in assessment and intervention tools (Grieves, 2009). This idea is echoed by research conducted within Native American cultures (Greenfield et al., 2015; Kulis et al., 2012) and First Nations people (Snowshoe et al., 2017). Culturally appropriate spirituality assessments are thus integral to understanding the link between spirituality and health (Hodge & Limb, 2011). As highlighted in this review, there is a need for future research to investigate and conceptualise the meaning of spirituality with greater consideration of cultural variability, in order to more accurately explore its relationship to health, and thus health intervention cross-culturally.

Limitations

In an attempt to exclude measures of religiosity, only non-religious subscale scores were reported, and for some studies, only the subscale scores were provided (Haugan et al., 2014; Leeson et al., 2015). The reporting of subscales may limit the construct validity of the reported measures. For instance, a negative association observed between the Hope Immanent subscale of the Multidimensional Inventory for Religious/Spiritual Well-Being (MI-RSWB) and suicidal ideation (Unterrainer et al., 2012b) may only pertain to the construct of hope as opposed to spirituality in general. This review was also limited to studies and tools published in English and associated with health outcomes, which may have excluded valuable information about the operationalisation of spirituality in non-health contexts and published in other languages.

Conclusions

Consistent with prior literature, this review illustrates that there is a limited number of spirituality instruments designed to measure spirituality as distinct from religion (O'Connell & Skevington, 2010). However, where studies do employ use of such tools, associations between spirituality and a broad range of health outcomes have been observed, highlighting the significance of spirituality as a distinct construct in health. Finally, this review emphasises that current tools lack consideration for cultural diversity in the experience of spirituality. These findings have implications for the role of spirituality in health assessment, intervention, and healthcare. Further research is needed that conceptualises and operationalises spirituality within diverse cultural groups, to enhance our understanding of the relationship between spirituality and health for distinct populations.

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