

Review

Measuring Spirituality and Religiosity in Clinical Settings: A Scoping Review of Available Instruments

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Abstract: Aims: Numerous measures exist that assess dimensions of spirituality and religiosity in health, theological and social settings. In this review, we aim to identify and evaluate measures assessing factors relating to spirituality and religiosity in clinical settings. Methods: A systematic literature search was conducted using PubMed, EMBASE and PsycINFO databases with search terms relating to spirituality, religiosity that also included well-being, needs, distress and beliefs used in self-reporting and clinician-administered measures. Only articles relating to the validation and subsequent administration of measures used in clinical settings were eligible for review. Results: Of 75 measures selected for initial screening, 25 had been validated and used in clinical settings and were reviewed for this study. Most measures were validated in oncological and palliative care settings where the Functional Assessment of Chronic Illness Therapy Spiritual Well-being (FACIT-Sp12) and the World Health Organization Quality of Life Spiritual, Religious and Personal Beliefs (WHOQOL-SRPB) were most validated and frequently used. Only six measures were found that assessed spiritual distress and/or the needs of which only two had been investigated more than twice. Two measures assessing spirituality and religious beliefs in healthcare staff were also reviewed. Conclusions: This review provides a current summary of measures evaluating several dimensions of spirituality and religiosity used in clinical settings. Currently there is a lack of reliable measures evaluating spiritual needs and distress.

Keywords: spirituality; spiritual well-being; religiosity; religious beliefs; clinical setting; evaluation; measurement; scoping review

1. Introduction

Recently, associations between spirituality, religion, health and quality of life have been investigated in many areas of healthcare including general medicine, psychology and nursing. Spirituality and religiosity are intricate constructs that describe peoples' fundamental beliefs about existence that form attitudes and behavior across many different cultures (Baumsteiger and Chenneville 2015). Generally, studies show that people with higher levels of spirituality and religiosity have lower levels of depression and anxiety, improved quality of life, a higher pain tolerance and a lower prevalence of chronic disease (Lucchetti et al. 2013; Koenig 2009; Koenig 2012). Additionally, spiritual and religious people show strong humanitarian attitudes while also interacting in large social networks (Becker and Dhingra 2001). Although spirituality and religion are closely related, definitions differ and as such for the purposes of measurement can be considered as two separate constructs. Religiosity is often defined as the adherence to beliefs, doctrines, ethics, rituals, texts and practices associated with a higher power either alone or among organized groups (Hood and Spilka 2003). Alternatively, spirituality is defined as a set of inner experiences and feelings through

which a person inwardly seeks meaning and purpose as well as relationships to self, family, others, society, nature and the significant or sacred (Baumsteiger and Chenneville 2015; Austin et al. 2017). Although there is some overlap in definitions where many believe spirituality to encompass religious practices, studies investigating opinion suggest both religious leaders and laypeople consider religion as beliefs based on rules associated with organized practice whereas spirituality is more personal, internal and independent of communal relationships (Hyman and Handal 2006; Zimmer et al. 2016).

Given these definitions, it is not surprising that religion and spirituality have been identified as important coping resources for patients during times of chronic and terminal illness. Here, patients often think about their life, its meaning and the experience of the disease process especially in times of anxiety, pain, loneliness and deprivation, all which challenge ideals and beliefs (Austin et al. 2017). Recent studies show differences in self-reported spirituality and religiosity towards these negative emotional experiences. For example, MacLeod and colleagues show that strong religious beliefs are associated with high levels of anxiety in people thinking about their own death compared to those with strong spiritual beliefs who show significantly lower levels of anxiety about their own death (MacLeod et al. 2017). Cotton and coworkers also show differences in the meaning of religion and spirituality when characterizing these belief systems in a large and diverse sample of HIV/AIDS patients. Here they found that those patients used their religion/spirituality to cope with difficult situations such as guilt, shame and bereavement associated with the disease that in turn were associated with improvements in life satisfaction and self-rated health (Cotton et al. 2006). Given these findings, it is important to be aware the effect of potentially life-threatening diagnoses can have on a person's ability to cope with religious and spiritual issues during clinical meetings. Thus, health professionals must have the emotional, social and spiritual resources to both evaluate and carry out their work both individually and as part of a multi-disciplinary team.

However, to offer spiritual and religious interventions, evidence-based, valid assessments or measures must be available in clinical settings. Additionally, definitions of religion and more-so spirituality in the context of healthcare vary greatly where in simplistic terms they describe spirituality as good and religion as bad. Such definitions overlook the potentially helpful and harmful effects of religious and spiritual interventions (Hill and Pargament 2003). Moreover, it is also unknown if and what measures are applicable in clinical settings to assess levels of religious and/or spiritual distress and thus appropriate intervention (Puchalski et al. 2009). Although several authors have reviewed the concepts and implications of religion and spirituality in clinical and healthcare research settings (Monod et al. 2011), none have addressed the range, classification or the validity of available measures to reliably assess these constructs. In a systematic review, Monod and colleagues identified 35 measures evaluating general spirituality, spiritual well-being and spiritual coping. However, 35% of selected measures had only been studied within clinical settings with the remaining being investigated in social, theological and psychiatric settings. Thus, the purpose of this study is to provide a scoping review of measures currently used to identify and evaluate levels of spirituality, spiritual well-being, spiritual distress and religion in clinical settings.

2. Methods

Our scoping review was conducted using a framework defined by Colquhoun and colleagues as "a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence and gaps in research related to a defined area or field by systematically searching, selecting and synthesizing existing knowledge (Colquhoun et al. 2014). The research question for this review is "Do current instruments identify and evaluate levels of spirituality, religiosity spiritual needs and distress in clinical settings?" PubMed, EMBASE and PsycINFO databases were searched in December 2017 (Table 1). Eligibility criteria required publications to (a) relate to instrument development and validation and use thereafter; (b) that instruments were applicable to clinical settings and (c) Acceptance of English and non-English articles. Due to the volume of articles describing the use of self-reporting measures relating to our specific areas of interest, and the time-scale allowed for

searching and evaluating located articles, as recommended by Mateen and colleagues we screened for keywords in titles of publications (Mateen et al. 2013). Once measures were selected, we modified our search protocols to search both titles and abstract using the name of the measure to locate and verify the number of investigations within clinical settings.

Table 1. Keywords used in the location of articles investigating the use of measures evaluating spirituality, Spiritual well-being, spiritual distress, religiosity and religious beliefs.

PubMed	EMBASE	PsycINFO
Keywords limits	Keywords limits	Keyword limits
<ul style="list-style-type: none"> Advanced search—"Title" Boolean search—"AND" 	<ul style="list-style-type: none"> Multifield search—"Title" Boolean search—"AND" Exclude Medline journals 	<ul style="list-style-type: none"> Multifield search—"Title" Boolean search—"AND" Peer-review only
AND		
Keywords		Keywords
Spirituality		Scale
Spiritual well-being		Measure
Spiritual distress		Instrument
Spiritual needs		Index
Religiosity		Inventory
Religious beliefs		Questionnaire

3. Results

Using the above search protocols, we located 386 articles relating to the use and validation of measures evaluating spirituality and religiosity /religious beliefs in a variety of settings. We then selected articles for initial screening that related to the development, validation and subsequent use of self-reporting measures specific to spirituality, spiritual well-being, spiritual distress, spiritual needs, religiosity and religious beliefs (n-156). After removing all duplicates, 121 articles were selected for further evaluation. Of remaining articles, 72 investigated spirituality and religiosity in clinical settings, 16 in psychiatric clinical settings and 33 in social settings (Figure 1). Overall, we identified 25 measures used in a variety of clinical settings and 30 measures used in psychiatric, theological and social settings. For the purposes of this study, we shall briefly review measure of spirituality, spiritual well-being, religiosity, religious beliefs, spiritual distress and spiritual needs used in clinical settings (Tables 2 and 3).

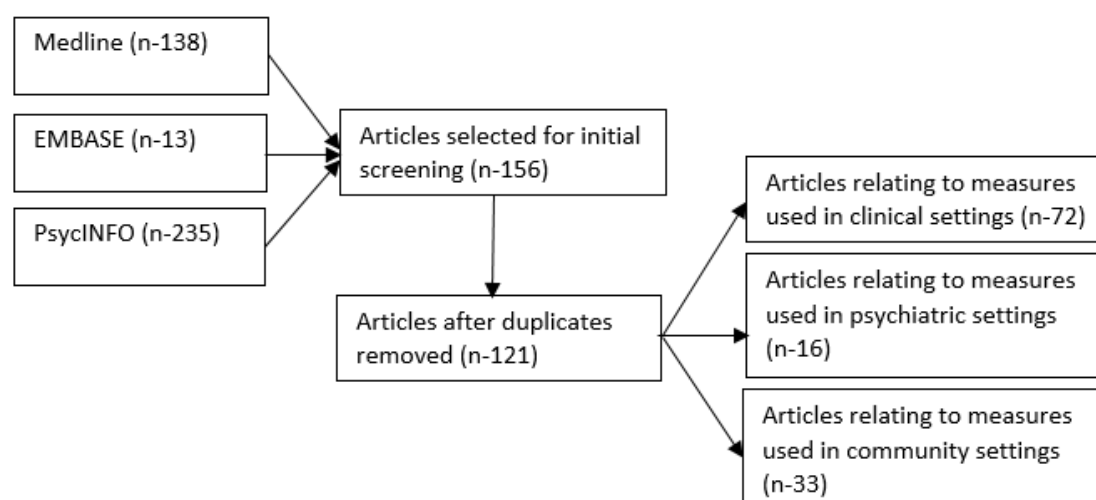


Figure 1. Search flow chart showing total numbers of articles located and screen for review.

Table 2. Spirituality, spiritual well-being, religiosity and religious beliefs measures used in clinical settings.

Authors	Instrument Name	Sample Size	Type of Study	Findings
Daaleman and Frey 2004	The Spirituality Index of Well-Being (SIWB)	523 outpatients from family practice	Factor analysis/test-retest reliability	Correlations with quality of life, health status and depression
Kaczorowski 1989	The Spiritual Well-Being Scale	114 cancer patients	Cross-sectional	Inverse correlations between low levels of spiritual well-being and high levels of anxiety
Peterman et al. 2014	The Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being (FACIT-Sp)	2923 cancer and HIV patients	Factor analysis and Observational	Strong internal consistency and moderate to strong correlations between FACIT-Sp and quality of life, especially meaning and peace
De Camargos et al. 2015	WHOQOL-SRPB	525 oncology patients / 525 health professionals	Cross-sectional	Daily use of spiritual and religious resources positively effects patient perceptions of QOL
Bussing and Koenig 2008	BENEFIT Scale	229 chronic pain patients	Reliability and validation	The BENEFIT scale correlates uniquely with spiritual and religious attitudes in clinical studies
Vivat et al. 2017	EORTIC QLC-SWB32	451 palliative care patients from 14 countries	Validation	The EORTIC QLC-SWB32 measures distinct aspects of QOL
Bussing et al. 2016	SpREUK	275 cancer patients	Factor analysis and reliability	A valid measure of important aspects of spirituality and religious attitudes
Kreitzer et al. 2009	Brief Serenity Scale	87 post solid organ transplant patients	Factor analysis and reliability	The Brief Serenity Scale captures dimensions of spirituality, a state of acceptance, inner haven and trust that is distinct from other spirituality instruments
Delaney 2005	The Spirituality Scale	226 patients with chronic illness	Reliability and validation	The Spirituality Scale provides a 3-factor framework (self-discovery, relationships and eco-awareness) that help with nursing care
Ironson et al. 2002	The Ironson–Woods Spirituality/Religiosity Index	279 HIV positive patients and long-term AIDS survivors	Reliability and validation	Long-term survival related to frequency of positive prayer and non-judgmental attitudes
Johnstone et al. 2016	The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS)	109 traumatic brain injury patients	Factor analysis	The BMMRS is a valid measure of emotional connectedness with higher power and social support among different spiritual and religious variables
Hatch et al. 1998	The Spiritual Involvement and Beliefs Scale	50 primary care patients and 23 family practice educators	Factor analysis	The SIBS shows that included terms avoid cultural and religious bias in both beliefs and actions
McBride et al. 1998b	The Brief Pictorial Instrument for Assessing Spirituality	442 family practice patients	Reliability and validation	The pictorial instrument provides a quick assessment of intrinsic spirituality correlating with other spirituality measures
VandeCreek et al. 1995	The Index of Core Spiritual Experience (INSPIRIT)	371 medical and surgical outpatients	Reliability and validation	INSPIRIT assessment reflects intrinsic religiosity and spirituality
Kimura et al. 2012	The Daily Spiritual Experience Scale DSES)	179 surgical patients	Cultural adaptation and validation	The DSES shows evidence of reliability and validity in assessing spiritual experiences among hospitalized patients
Gherghina et al. 2014	The Spiritual Distress Assessment Index (SDAT)	72 elderly eriooperative patients	Validation	The SDAT appears to be a reliable and valid instrument to assess spiritual distress in elderly hospitalized patients
Chiang et al. 2017	The Religious Belief Scale	619 clinical nurses	Factor analysis	A reliable and valid scale for measuring religious beliefs of nurses
McSherry et al. 2002	The Spirituality and Spiritual Care Rating Scale	549 ward-based nurses	Factor analysis	Factors identified: spirituality, spiritual care, religiosity and personal care
Kouloulis et al. 2017	The QRFPC-25	156 cancer patients undergoing radiotherapy	Reliability and validation	A reliable and valid gauge for assessment of religiosity in cancer patients

Table 3. Spiritual needs and spiritual distress measures used in clinical settings.

Bussing et al. 2018	Spiritual Needs Questionnaire	627 chronic disease patients 940 elderly ill patients 1468 healthy adults	Factor analysis and reliability	This large study provides evidence for a cultural and religious sensitive measure that evaluates peoples spiritual needs
Ku et al. 2010	The Spiritual Distress Scale (SDS)	85 cancer patients	Factor analysis	The SDS is both reliable and valid in assessing patients in oncological settings and aids nurses in the assessment of spiritual distress
Astrow et al. 2015	The Spiritual Needs Assessment for Patients (SNAP)	727 haematology and cancer patients	Observational and validation	SNAP is reliable and valid in measuring spiritual needs in patients from different cultural and religious backgrounds
Buck and McMillan 2012	The Spiritual Needs Inventory (SNI)	410 cancer patient caregivers	Reliability and Validity	Use of the SNI in hospice caregivers can aid nurses in the identification of patients' spiritual needs
Monod et al. 2010	The Spiritual Needs Assessment Tool (SDAT)	203 Geriatric rehabilitation patients	Reliability and Validity	The SDAT shows adequate reliability and validity in assessing levels of spiritual distress
Fischbeck et al. 2013	The Advanced Cancer Patients' Distress Scale	168 advanced cancer patients	Factor analysis	Initially shown to be reliable in identifying patients spiritual needs

4. Self-Reporting Measures (Spiritual and Religious Well-Being)

Nearly all measures were validated in oncological and palliative care settings. The instrument validated in the largest clinical population was the FACIT-Sp12. This 12-item measure consists of three factors, those being meaning, peace and faith and has been designed to be used specifically in healthcare settings in people with chronic and life-threatening conditions. The FACIT-Sp12 was initially validated in a population of 1617 cancer patients to determine structure and initial validity of the questionnaire and second in 131 cancer patients to establish reliability (Peterman et al. 2002). More recently, in a larger study, the FACIT-Sp12 has also been used to examine spiritual well-being in nearly 9000 cancer survivors across the United States (Munoz et al. 201). Overall, the FACIT-Sp12 one of the most commonly used is shown to be a brief, reliable and probably the most valid measure of spirituality in quality of life in both religious and nonreligious people.

Although the WHOQOL-SRPB has been well-validated in social settings across 18 different countries (WHOQOL SRPB Group 2006), it has only recently been validated and used regularly within clinical settings. Here we found one study where Rusa and colleagues evaluated both the WHOQOL-SRPB and its short-form version; the WHOQOL-SRPB BREF in 110 chronic kidney disease patients undergoing hemodialysis (Rusa et al. 2014). The authors found that most participants showed high spirituality, religion and personal belief scores, especially in those where their disease was well-controlled. Patients whose disease hemodialysis was not well controlled showed lower scores and, thus less able to cope with chronic kidney failure.

The Spiritual Well-Being Scale (SWBS) was initially validated among social (Genia 2001) and psychiatric settings (Fernander et al. 2004). However, this measure is now being used within clinical settings and has been translated into several different languages such as Persian and Thai. Recently, for example, Ghodsbini and coworkers used the SWBS to show improvements in spiritual well-being in 90 coronary artery disease patients during a positive thinking training compared to a control group (Ghodsbini et al. 2015).

The Spirituality Index of Well-Being (SIWB) is also considered one of the more valid measures for the assessment of patients' current spiritual state (Monod et al. 2011). This measure is a 20-item instrument consists of two subscales relating to religious and existential well-being (Daaleman and Frey 2004). However, although this measure was initially validated in 509 adult

outpatients at 10 city primary care clinics, it is not widely used. The SIWB shows associations in health and well-being constructs across primary care and geriatric outpatient settings (Daaleman et al. 2002) and has recently been translated into Chinese (Wu et al. 2017).

The 26-item Spiritual Involvement and Beliefs Scale (SIBS) was initially validated in primary care settings to assess levels of spiritual beliefs and practice (Hatch et al. 1998). However, the SIBS has been mostly been used in palliative care settings. Here, for example in the same cohort of 82 cancer patients, Mystakidou and colleagues produced four studies investigating relationships between spirituality and mood disorders (Mystakidou et al. 2007), predictors of spirituality in advanced cancer (Mystakidou et al. 2006, 2008a) and at the end of life (Mystakidou et al. 2008b).

5. Self-Reporting Measures (Spiritual Needs and Distress)

Our search protocols show The Spiritual Needs Questionnaire (SpNQ) to be the most widely used measure assessing patients' spiritual needs. Büssing and colleagues developed this measure in a heterogeneous sample of 210 German patients with chronic pain conditions and cancer (Büssing et al. 2010). However, at the time of writing our review, Büssing and colleagues further published an article increasing the validity of this measure by examining the structure of the SpNQ in a large sample of ill and healthy younger and elderly adults (n=2095) (Büssing et al. 2018). The SpNQ has also been translated into several languages including Chinese (Bussing et al. 2013a) and Persian (Moeini et al. 2018).

The Spiritual Distress Scale was the only self-reporting measure we located evaluating levels of spiritual distress in clinical settings. Originally developed in Chinese by Ku and colleagues in 2010 (Ku et al. 2010), it has since been translated and validated into Portuguese (Simao et al. 2016). Although only two studies have used this questionnaire, both sets of authors suggest that an internationally validated self-reporting measure assessing spiritual distress is needed, especially in the recognition of this phenomenon in clinical practice.

The Spiritual Needs Assessment for Patients (SNAP) is a 23-item instrument with domains assessing psychosocial, spiritual and religious needs. Here Sharma and colleagues initially validated SNAP in 47 ambulatory cancer patients from many different religious and cultural backgrounds and shown to be a valid measure of spiritual needs diverse patient populations (Sharma et al. 2012). Recently, SNAP has been translated into Chinese (Astrow et al. 2012) and Portuguese (De Araujo Toloi et al. 2016a, 2016b).

Several other spirituality/spiritual well-being/spiritual needs/spiritual distress measures have also been used within clinical setting, but only on three or less occasions. These include:

- The BENEFIT Through spirituality/religiosity scale (chronic diseases and spinal cord injury) (Bussing and Koenig 2008; Xue et al. 2016),
- The Brief Pictorial Instrument for Assessing Spirituality (primary care patients) (McBride et al. 1998b),
- The Spirituality Scale (cardiovascular disease and chronic disease patients) (Delaney 2005; Delaney et al. 2011),
- The Index of Core Spiritual Experience (primary care and hospital outpatients) (McBride et al. 1998a; VandeCreek et al. 1995),
- The Ironson–Wood Spirituality/Religiosity Index (HIV and chronic heart failure patients) (Bekelman et al. 2010; Ironson et al. 2002; Mistretta et al. 2017)
- The Brief Multidimensional Measure of Religion and Spirituality (hospital inpatients) (Curcio et al. 2015; Johnstone et al. 2009)
- The Daily Spiritual Experience Scale (surgical, hospice care and HIV patients) (Kimura et al. 2012; Oji et al. 2017; Steinhauser et al. 2008)
- The Brief Serenity Scale (post-transplant patients) (Kreitzer et al. 2009)
- The Spiritual Needs Inventory (Hermann 2006; Buck and McMillan 2012)
- The Spiritual Distress Assessment Tool (SDAT) (Monod et al. 2010, 2012a)

- The Advance Cancer Patients' Distress Scale ([Fischbeck et al. 2013](#))
- The Spiritual Care Competence Scale ([Van Leeuwen et al. 2009](#))

Very recently, just before the application of our search protocols, two spirituality/religiosity measures gained validation, both in cancer care. First the QRFPC25, a measure of religiosity and spirituality was validated and shown to be reliable in 156 people with neoplastic disease ([Kouloulas et al. 2017](#)). In a larger study, the European Organization for Research and Treatment of Cancer Quality of Life Group Spiritual Well-being-32 (EORTC QLQ-SWB32) was validated in 451 palliative care patients from 14 countries ([Vivat et al. 2017](#)).

6. Clinician-Administered Measures

Monod and colleagues developed an a spiritual distress assessment tool (SDAT) designed to evaluate spiritual distress in hospitalized older patients using the hypothesis that the greater the degree to which spiritual needs are not met, the greater the level of spiritual distress ([Monod et al. 2012b](#)). This measure has four factors, those being meaning (orientation in life), transcendence (relationships with an external foundation), values (determination of goodness and trueness) and psycho-social identity (patient's environment). This clinician administered measure has so far showed to be reliable and valid in both hospital rehabilitation and perioperative hospital settings ([Monod et al. 2012b](#); [Gherghina et al. 2014](#)).

7. Self-Reporting Tools Assessing Healthcare Staff Understanding of Spirituality and Spiritual Care

We located two measures that establish how people working in health care perceive spirituality and spiritual care. The Spirituality and Spiritual Care Rating Scale (SSCRS) was developed by McSherry and colleagues to evaluate how nurses perceive spirituality and spiritual care ([McSherry et al. 2002](#)). However, this measure has now been translated into several languages ([Fallahi Khoshknab et al. 2010](#); [Wu and Lin 2011](#)) and has also been evaluated amongst clinicians, physiotherapists and ancillary workers who have regular contact with patients ([Austin et al. 2017](#)). The second measure was validated at the time of writing up this review. Here, the Religious Belief Scale was developed to assess religious beliefs of nurses in order to determine their competence in providing spiritual care to patients. Exploratory factor analysis showed a 17-item scale with four factors: religious effects, divine, religious query and religious stress and was provisionally reliable and valid in measuring religious beliefs in Taiwanese nurses ([Chiang et al. 2017](#)).

8. Discussion

This scoping review identified 25 measures used to evaluate levels of spirituality, spiritual well-being, spiritual distress, spiritual needs, religiosity and religious beliefs in clinical settings. This review aimed to continue the earlier work of Monod and colleagues ([Monod et al. 2011](#)) in identifying more recently validated measures, while also refining the location of measures to those specifically validated and used in clinical settings. The latter aim of this review is relevant as many more (n=30) spiritual and religious measures were located but were validated and applied in psychiatric, theological and social settings and thus it is not known if they are reliable or valid in clinical settings.

Nearly all measures assess patients' current spiritual state or current levels of religiosity, the most widely utilized being the FACIT-Sp 12, the WHOQOL-SRPB, the SIWB and more recently, the EORTC QLQ-SWB32. However, from our results, of the 25 accepted measures, only six assess spiritual needs or distress, where only two have been applied in clinical studies twice or more, those being the Spiritual Needs Questionnaire ([Büssing et al. 2010](#)) and the Spiritual Distress Scale ([Ku et al. 2010](#)). These findings raise important questions as to the relevance of measures assessing current levels of spirituality/religiosity and the relevance of outcomes determined as a result. Puchalski partially answers these questions in her paper describing the role of spirituality in health care ([Puchalski 2001](#)). Here, she describes how spirituality is shown to reduce mortality, aids in the ability to cope with

illness, pain and life stresses, while also helping to boost recovery from illness and surgery. However, probably the most important statement from her article relates to the importance of understanding patients' spirituality in relation to whole patient care and subsequent health care decisions.

Although, these observations help to gain insight toward correlations between levels of spiritual and religious well-being and the ability to cope and understand their illness from a spiritual/religious perspective, most measures do not assess spiritual needs and levels of spiritual distress. Our observations are similar to Monod and colleagues who rightly suggest that an absence of spiritual well-being is unlikely to equate to a state of spiritual distress (Monod et al. 2011). Furthermore, we found no clinician-administered measures evaluating behaviors associated with spiritual distress. This is also an important finding as although several measures exist evaluating healthcare professionals' understanding of spirituality and spiritual care (Chiang et al. 2017; McSherry et al. 2002), none contain items describing behavior associated with spiritual needs and distress. This deficit was highlighted by Highfield and Carson who found that nurses recognized only five of 31 behaviors, where four of the five contained direct references to God. More recently, Austin and colleagues in a study investigating the ability of clinical and non-clinical staff to recognize patients' spiritual needs showed that although participants were able to recognize written examples of spiritual needs, the majority felt unable to neither recognize nor deal with such needs (Austin et al. 2016, 2017). Such findings suggest that although acquiring information on different areas of spirituality and religiousness in clinical settings is useful, the practical application of this information remains unclear. Thus, as suggested by several authors, in order to make best use of these data concerning effective patient care, spiritual care training is required for both health care staff who administer such measures and staff who have regular contact with patients (Cetinkaya et al. 2013; Balboni et al. 2013; Rasinski et al. 2011).

Interestingly, several measures have recently been developed that examine more specific forms of spiritual distress that may be beneficial for application in clinical settings. Here, constructs such as "spiritual struggle" developed by Exline and colleagues (Exline et al. 2014), a form of inner crisis known as "spiritual dryness" conceived and developed by Büssing and colleagues (Büssing et al. 2013b) and Koenig's "moral injury" (Koenig et al. 2017) have been validated in a number of social settings but may also have relevance in clinical settings when attempting to more accurately identify specific forms of spiritual distress such as burnout and inner peace needs.

Our review, like that of Monod and colleagues in 2011 shows that although there is an abundance of available spiritual and religious measures, there is inadequate data on the psychometric properties for most. This is due mainly to the lack of test-retest reliability and subsequently, predictive validity due to the seldom use of many questionnaires. Additionally, sample size in many validation and factor analysis studies were small, thus lowering the statistical power and the true outcome of these measures. Moreover, most measures evaluate a combination of both spiritual and religious factors while only one measure uniquely assessed religiosity (Chiang et al. 2017). Given the differences in definition and significant differences in attitudes between people who are spiritual compared to those who are religious, we suggest the development of novel religious measures or the validation of those previously used in psychiatric, theological and social settings in clinical settings are required.

Our scoping review had two limitations. First, our search protocols were limited to multiple field searching of keywords in titles only using three databases. Before committing to these search methods, we validated our approach by following the work of Mateen and colleagues who show a titles-only approach to be an efficient method for screening articles in a systematic review (Mateen et al. 2013). However, we, like Mateen and colleagues found that although there was lower search precision, the number of measures located were acceptable. Second, we searched databases associated with clinical and medical research data and thus missed relevant journals whose main focus are religion and spirituality. Here, for example we located two studies investigating the use of the BENEFIT scale and SpNQ, however, several further articles (Büssing and Recchia 2016; Büssing and Koenig 2010; Büssing et al. 2013c) were published in journals not cited by PubMed, EMBASE and PsycINFO. Additionally, several measures although not used

in clinical settings were evaluated in samples such as stressed soldiers, mothers of sick children and elderly people in care homes whose data would have benefited our review (Büssing and Recchia 2016; Erichsen and Büssing 2013; Büssing et al. 2017). Our scoping review also had several strengths. First, our literature search was focused only on those measures used in clinical settings and thus useful for physicians when trying to determine which instruments to use during clinical assessment. Although, measures validated and applied in psychiatric, social and theological settings may be useful in clinical settings, they were excluded from this review. Second, once measures were accepted, we expanded our protocols to search the name of each measure using “titles and abstracts” to identify and given an indication of validity and reliability, the number of translations to different languages and the number times applied within clinical settings.

9. Conclusions

This scoping review provides a current summary on self-reporting and clinician-administered measures used in clinical settings. These measures evaluate several dimensions of spirituality and religiosity that include well-being, beliefs, needs and distress. Importantly, we show a current lack of reliable measures evaluating spiritual needs and distress where outcomes will assist in the spiritual care of patients. Here, our findings suggest that studies are required to develop (a) clinician-administered measures evaluating spiritual needs and distress and (b) further develop self-reporting measures evaluating spiritual needs and distress.

Author Contributions: Philip Austin and Roderick MacLeod conceived and designed the scoping review; Philip Austin and Jessica Macdonald performed the scoping review; Philip Austin and Jessica Macdonald analyzed the data; Philip Austin wrote the paper.

Conflicts of Interest: The authors declare no conflict of interest.

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