

Measuring Spirituality and Religiosity in Health Research



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Abstract This chapter describes the methodological challenges to measure multidimensional constructs such as spirituality/religiosity. It describes indicators of ‘spirituality’ with respect to core dimensions and related secondary indicators. The underlying layers of distinct aspects of spirituality refer to a person’s experience/faith, attitudes and behaviors. These indicators could all be measured as independent dimensions with standardized instruments. Among the rich number of available questionnaires, some examples to measure specific aspects of spirituality were shortly described. These were categorized according to their themes and topics, i.e., Spiritual attitudes, convictions and activities; Spiritual Wellbeing; Spiritual Struggles; Spiritual Coping; and Spiritual Needs. However, there is not one optimal instrument, but different instruments which might be suited, and all have their pros and cons.

1 Background

The interest in health care and health research in the topic of spirituality as an independent dimension of quality of life is continuously growing, and also the research questions start to change because also the fields of religiosity are changing, becoming more diverse and pluralistic. To address the new topics in health research, one may rely on standardized questionnaires. Several of these new questions cannot be easily answered with the instruments designed for previous questions, and thus new instruments are constantly developed (Büssing 2017a). The number of instruments intended to measure specific aspects of spirituality is growing and it is difficult to value particularly the new ones.

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In fact, there are several attempts to measure multifaceted concepts such as spirituality and/or religiosity in health research. One of the core questions from a theological point of view is whether spirituality *can* be measured at all, while from the point of psychological research there is no doubt that one can, but *how* one should measure spirituality. While psychology measures a person's experiences and behaviors and their interaction, one could similarly measure a person's spiritual experiences and spiritual behaviors and their interaction. However, the problems arise from the fact that despite a rich number of different definitions (see chapter "[Conceptualizing Spirituality and Religiosity](#)"), there are no generally accepted and consented definitions what spirituality is, and whether or not spirituality and religiosity are different or overlapping or similar concepts. Therefore, all attempts to measure 'spirituality' are remain preliminary and 'incomplete'.

In fact, spirituality is a changing concept which may overlap with secular concepts such as humanism, existentialism, and probably also with specific esoteric views (Zwingmann et al. 2011). Each profession and religious group may have its own point of view, which all may be true in the respective context, and not shared by other professions or groups with other world views.

One may therefore consider to use instruments which are rather 'inclusive' (and thus less specific) than 'exclusive' (and thus not suited for varying denominations or a-religious persons). It is much easier to design an instrument measuring indicators of spirituality/religiosity of circumscribed religious groups because they may share the same religious beliefs and practices. But such an instrument might not be applicable to persons who do not share these beliefs and practices or refer to other concepts or world views. A solution for this problem might thus be to use instruments which address different aspects of spirituality, i.e., specific religious practices and attitudes but also secular aspects of spirituality which may be shared by different religious groups. Best would be an instrument which could address also the attitudes and practices of a-religious/non-spiritual persons, because to them different dimensions providing meaning and hope or giving orientation in their lives might be of relevance. This approach is relevant particularly in secular or diverse societies.

2 Conceptualizations

All attempts to measure the various aspects of spirituality are dependent on the underlying definitions. Spirituality is understood today as a comprehensive and more 'open' concept, while religiosity is often rejected as institutionally 'exclusive' and prescriptive. One could differentiate between spirituality in religion (which connotes a more open, individual and pluralistic faith) and spirituality as opposed to religion (which rejects organized religiosity).

Religion is an institutional and culturally determined approach which organizes the collective experiences of people (faith) into a closed system of beliefs and practices ('form') (Büssing 2012), while spirituality refers to the individual experiences of the Sacred which may go beyond the boundaries of a specific

religion. Religiosity can thus be the formal site of an open and diverse field of individual experiences, attitudes, convictions, feelings and behaviors, which all could be measured.

Inclusive definitions state that spirituality is “a search for the sacred” (Pargament 1997), whatever the sacred might be for a given person, or that it is an individual search for meaning and purpose in life (Tanyi 2002; Underwood and Teresi 2002).

A more complex definition of spirituality was presented by Engebretson (2004):

Spirituality is the experience of the sacred other, which is accompanied by feelings of wonder, joy, love, trust and hope. Spirituality enhances connectedness within the self, with others and with the world. Spirituality illuminates lived experience. Spirituality may be expressed in relationships, prayer, personal and communal rituals, values, service, action for justice, connection with the earth. Spirituality may be named in new and redefined ways or through the beliefs, rituals, symbols, values, stories of religious traditions.

Our group (Büssing and Ostermann 2004) used a similar approach and defined:

Spirituality refers to an attitude of search for meaning in life. The searching individual is aware of its divine origin (...), and feels a connection with others, nature and the Divine etc. Because of this awareness one strives towards the realization (either formal or informal) of the respective teachings, experiences or insight, which has a direct impact on conduct of life and ethical commitments.

Both definitions refer to a ‘core’ dimension of faith, and on resultant attitudes and behaviors.

To exemplify this, Franciscan Spirituality has as central point the intention (or ‘vocation’) to “Live the Gospel” because of an inner resonance with or experience of the Sacred (which also implies specific religious rituals and practices to connect with the Sacred) (Büssing et al. 2017). Its concrete (external) expression is the intention to develop a world-affirming spirituality, to live with respect in Creation and in solidarity with the marginalized, to make peace and meet each other fraternally, being of service to the world and everything that exists, but also to avoid “possessing” things. Here we have a central intention which shapes the attitudes and behaviors. These are not *per se* ‘spiritual’, but with the inspiring ‘core’ they indicate the underlying ‘spirituality’. With this specification it is clear that the religious intentions may influence not only spiritual attitudes and behaviors, their rituals and practices, but also a person’s social behavior.

Spirituality may thus be expressed through formal religious but also other forms of relational engagement, through an individual experience of the divine, and through a connection to others, the creation (environment) and the transcendent Sacred (Büssing 2012).

3 Indicators of Spirituality

Because societies become more and more diverse (i.e., culturally, ethnically, philosophically, politically), attempts to measure a multifaceted construct such as spirituality should be multidimensional not only with respect to the underlying world views and religious orientations, but also with respect to the ‘layers’ of spirituality. One may distinguish core dimensions and secondary effects which all could be measured independently. According to the aforementioned definitions of spirituality by Engebretson (2004) and Büssing and Ostermann (2004), different layers of spirituality could be exemplified, i.e., Faith/Experience, Attitudes and Behaviors (Table 1). Within these main layers one may differentiate several sub-topics. All these layers and sub-topics could be principally addressed independently.

The individual spiritual experience, a person’s encounter with the Sacred, is in most cases difficult to communicate and thus difficult to measure, too (albeit this experience might be addressed in qualitative approaches). Yet, when persons do not have own experiences with the Sacred, they may share the attitudes, convictions and rituals of their parents or a religious community they became familiar with (tradition). This will shape their *Faith* as the core dimension. A person’s faith in turns will have an impact on their *Attitudes*, their (cognitive) beliefs, their (emotional) hopes and also their trust in a transcendent source which may help in times of need. Both faith and associated attitudes influence a person’s *Behavior*, the related ethics, social and health behaviors, and the use of distinct rituals (i.e., prayer, meditation).

These different layers are interconnected, but the respective indicators might not be specific. Charity behaviors for example can be an ethical demand for religious persons, but could also be a matter of empathy and compassion found in a-religious persons too. Prayers could be performed unconditionally to be in contact with the Sacred (which assumes a dedicated religious persons), but also reactively tried to see whether God responds or not (in times of need they can be performed also by sceptic or insecure persons).

The secondary indicators of spirituality are much easier to be measured than the core dimensions (which often remain secret). Yet, these secondary indicators (which could be measured with standardized questionnaires which will be described later on) are only related and not identical with the ‘core’ (Fig. 1): i.e., gratitude and awe

Table 1 Schematic levels of representation of different aspects of spirituality. (Modified according to Büssing 2017b)

<i>Faith/Experience</i>		
tradition (as handed down)		spiritual experience
<i>Attitudes</i>		
Cognition:		Emotion:
Beliefs, afterlife convictions, ideals etc.		Unconditional trust, hope, etc.
<i>Behavior</i>		
Ethics:	Rituals:	Altruism:
Charity	Prayer, meditation, etc.	Charity

Fig. 1 Schematic representation of selected indicators of spirituality, with core dimensions (including the ‘secret’ domain) and related secondary effects (‘outcomes’) in terms of attitudes and behaviors which could be addressed with standardized questionnaires



are not spirituality – but may arise; inner peace is not spirituality – but may develop because of religious trust, altruism is not spirituality – but may be motivated by religious convictions; prayer or meditation are not spirituality – but may be their concrete expression in life. To illustrate this, altruism as a concrete compassionate activity is often regarded as a specific behavioral outcome of religious persons, and indeed it is correlated with several indicators of spirituality. Nevertheless, altruistic behavior can also be found in a-religious/a-theistic persons who are affected by the suffering of other people. Even in religious persons the underlying reasons might be different, i.e. an ethical imperative or a compassionate affection.

But what about persons who regard themselves as non-religious/non-spiritual (R–S–), what is their resource proving meaning, orientation and hope in their lives? In a sample of persons with multiple sclerosis from Germany, 54% regarded themselves as neither religious nor spiritual (R–S–), 16% as not religious but spiritual (R–S+), while 19% were religious but not spiritual (R+S–) and 12% both religious and spiritual (R+S+) (Wirth and Büssing 2016). Those with a R–S– attitude had significantly lower engagement in specific religious or spiritual (mind-body) practices, but also in existentialistic practices and gratitude/awe compared to R+S+/R+S–/R–S+ persons, but did not significantly differ with respect to prosocial-humanistic practices (Wirth and Büssing 2016). When for most of them faith is not a source of relevance, what do they rely on? With an open question all of these patients were therefore asked about their personal resource which gives meaning, orientation, hope and inspiration to their life. These responses were categorized as Faith/Religion (10%), Family, Partner, Children (22%), other sources of meaning (16%; i.e., nature, creativity, individual fulfilment, appreciation, happiness, animals,

and love), or no answer (53%) (Wirth and Büssing 2016). This means, there can be large groups of persons who do not exhibit conventional indicators of spirituality, and researchers may have difficulties to define what their important source giving “meaning, orientation and hope” is at all.

4 Quantification of the Numinous

In empirical research, standardized and validated questionnaires are widely used to assess the subjective attitudes, perceptions and behaviors of respondents. This subjective perspective reflects the life situation of a person with specific experiences, expectations and biographic background at a given time. One has to be aware of the inherent problems related to such an approach, i.e., standardized questionnaires may not detect the specific individuality (superficiality), the statements are often driven by social desirability (reliability), opinion and behavior often diverge (objectifiability), opinions and attitudes may change (validity).

Similar to the complex operationalizations of quality of life measures, which at least differentiate physical, emotional and social components of functioning and/or wellbeing, spirituality as an independent topic of quality of life research should be measured multidimensionally, too. There is not one, but there are several ‘spiritualities’ with different expressions, aspects and underlying level. Therefore, one has to deal with a large number of instruments to measure varying and specific aspects of spirituality (overview in Zwingmann et al. 2011; Büssing 2012, 2017b). However, several of these instruments might be too general and unspecific. Moreira-Almeida and Koenig (2006) critically commented that some of the widely-used instruments include items which are rather indicators of psychological wellbeing and mental health than spirituality, and thus misinterpretations and false positive correlations are inevitable. The multidimensional *WHOQOL-SRPB BREF* for example measures in its 8-facet version (Skevington et al. 2013) not only Faith, Connection with spiritual Being/Force and Spiritual Strength (which may represent a religious coping factor), but also Meaning of Life, Experience of Awe, Wholeness, Inner Peace/Harmony and Hope/Optimism (which are unspecifically associated with quality of life and are assumed to represent a factor of “spiritual quality of life”) (Krägeloh et al. 2015). However, perceptions of Inner Peace/Harmony and having Hope/Optimism are not necessarily measures of spirituality but indicators of psycho-emotional wellbeing – which may nevertheless have its cause in a person’s religious convictions/faith. The instrument’s Connectedness sub-scale was in fact only weakly related with the Hope sub-scale ($r = .28$) and moderately with its Inner Peace sub-scale ($r = .37$), but strongly with more strict indicators of spirituality such as Faith ($r = .82$) and Spiritual Strength ($r = .84$) (Krägeloh et al. 2015).

Further, one has to be aware which layers and dimensions of spirituality should be related with psychosomatic health or life satisfaction. In a sample of Catholic priests and non-ordained Catholic pastoral workers from Germany, which all are assumed to have a vital religious life, we analyzed associations between the

frequency of their religious engagement (i.e., Holy Eucharist, Prayer of Hours, Sacramental Confession, private prayers) and perception of the transcendent (as measured with the *Daily Spiritual Experience Scale*) on the one hand and depression, anxiety, somatization, stress perception and life satisfaction on the other hand (Büssing et al. 2016a). Here, their religious engagement was either not at all or only marginally related with indicators of psychosomatic health, while the perception of the transcendent as an experiential dimension was moderately associated with life satisfaction and inversely with stress perception and lower depression (Büssing et al. 2016a). Yet, the 6-item version of the *Daily Spiritual Experience Scale* includes an item on the perception of “inner peace”, and this item correlated best (moderately to strongly) with Catholic priests’ life satisfaction, depression and stress, while “feeling God’s presence” or “being touched by the beauty of creation” were related only marginally to weakly with these quality of life indicators (Büssing et al., unpublished data). This means, although the scale measures a relevant topic of spirituality and is sound from a theoretical point of view, it is nevertheless contaminated with a ‘wellbeing’ measure.

These examples may underline that even instruments with good psychometric quality indicators which are well-recognized and widely used may have intrinsic pitfalls. For health research and adequate interpretation of results it is thus essential to choose instruments which are (1) not contaminated with indicators of psychological health and wellbeing and (2) which address different layers and aspects of spirituality with independent sub-scales or different instruments (instead of condensed sum-scores). However, this does not argue against the use of such instruments which have their place in health research, but underlines that a profound knowledge of the pros and cons of the available instruments is essential.

5 Categorization of Questionnaires

There are several options to categorize the available questionnaires to measure specific aspects of spirituality. In the following some examples among a rich number of instruments are shortly described (without any attempts of completeness), and pragmatically categorized with respect to their themes and topics:

1. Spiritual attitudes, convictions and activities
2. Spiritual Wellbeing
3. Spiritual Struggles
4. Spiritual Coping
5. Spiritual Needs

Some of the instruments’ items refer to Theistic religious beliefs and name God. Here, persons from multiple-gods traditions could easily respond to these items, too. However, persons from religious traditions which lack circumscribed God concepts (i.e. Buddhism, Taoism) cannot respond positively to such God-items, but to all other items in case it is a multidimensional instrument. Only in few cases,

there are *a-theistic* variant versions of distinct questionnaires (i.e. Buddhist version of the RCOPE).

5.1 *Spiritual Attitudes, Convictions and Activities*

5.1.1 DUKE Religion Index (DUREL)

The generic 5-item instrument (Koenig et al. 1997; Koenig and Büssing 2010) assesses organized and non-organized religious activities with two single items (frequency of religious attendance, i.e., church/religious meetings, and private religious activities, i.e., praying, meditation, bible reading) and intrinsic religiosity with three items (Cronbach's alpha = .75) derived from Hoge's 10-Item *Intrinsic Religiosity Scale* (i.e., experience presence of good, religious beliefs are what lies behind whole approach in life, carry religion over into all other dealings in life).

The scale's benefit is its brevity which facilitates its implementation in large health service studies, while it is a less specific indicator of spirituality.

5.1.2 Daily Spiritual Experience Scale (DSES)

The generic scale was developed to assess a person's perception of the transcendent in daily life (Underwood and Teresi 2002; Underwood 2011), and thus the items measure experience rather than particular beliefs or behaviors. The 16-item version Cronbach's alpha = .94 addresses the relation to God (i.e., feel God's presence, guided by God, feel God's love, joy when connecting with God etc.), peace and harmony (i.e., feel inner peace and harmony; touched by beauty of creation; connecting to all life etc.) and selfless caring and accepting others,

The 6-item short version (Cronbach's alpha = .91) addresses:

- feeling God's presence
- feeling close to God
- finding strength in my faith (religion)
- feeling deep inner peace
- feeling God's love
- being touched by the beauty of creation

The benefit of this short scale (DSES-6) is its focus on the experiential aspect of spirituality, yet, it requires a belief in God and thus it is not applicable to a-religious persons. Further, including feelings of "inner peace" is sound from a theoretical point of view, but makes the short scale prone to positive associations with mental health indicators. The author of the instrument recommends to use the full 16 item version instead of the 6 item short version.

5.1.3 Gratitude/Awe Questionnaire (GrAw-7)

The scale is an extended version of the 3-item Gratitude/Awe subscale of the SpREUK-P and was developed to measure the emotional reactions towards an immediate and ‘captive’ experience (i.e., being moved and touched by certain moments and places/nature) and subsequent feelings of ‘undirected’ gratefulness (Büssing et al. 2018a). These perceptions of being ‘touched’ could be seen as a secular form of spirituality which does not require beliefs in God.

The generic 7 item GrAw-7 scale (Cronbach’s alpha = .82) addresses

- feeling of wondering awe
- pausing and staying ‘spellbound’ at the moment
- being quiet and devout in certain places
- stopping and being captivated by the beauty of nature
- stopping and then thinking of so many things for which one is grateful
- having learned to experience and value beauty
- feeling of great gratitude

The scale is not contaminated with specific religious topics or quality of life issues (and thus wellbeing was weakly only related). As an experiential aspect of spirituality, the GrAw-7 scales is strongly correlated with the perception of the sacred in life (DSES-6) in religious persons. Nevertheless, also non-religious persons may have these feelings and it thus suited also in secular societies.

5.1.4 Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ)

The generic 10 (alpha = .95) or 5-item instrument (Plante and Boccaccini 1997; Plante et al. 2002) measures the strength of a person’s religious faith. Specific items are:

- religious faith is important
- daily praying
- faith as a source of inspiration
- faith as providing meaning and purpose
- active in faith/church
- faith is an important part of who I am as a person
- relationship with God is extremely important
- enjoy being around with others who share my faith
- faith as a source of comfort
- faith impacts decisions

The scale uses as an ‘overall score’ and is not contaminated with wellbeing or character trait items which makes it a good candidate to focus on the strength (or centrality) of a person’s faith.

5.1.5 Centrality of Religiosity Scale (CRS)

The generic instrument measures the intensity of 5 theoretical defined dimensions and uses 15 (alpha = .92 to .96), 10 (alpha = .89 to .94) or 5 items to describe the relevance (centrality) of a person's religiosity in life (Huber 2008, Huber and Huber 2012). These five dimensions are:

- **Intellect:** think about religious issues, interested in learning more about religious topics, keep informed about religious questions through media
- **Ideology:** believe that God or something divine exists, belief in an after-life, how probable is it that a higher power really exists
- **Public practice:** take part in religious services, importance to take part in religious services, importance to be connected to a religious community
- **Private practice:** praying, importance of personal prayer, spontaneous praying when inspired by daily situations
- **Experience:** experience of situations in which God or something divine seems to intervene in life; feeling that God or something divine wants to communicate or to reveal something, experience situations in which God or something divine seems to be present

The instrument uses an 'overall score'. Its benefit is the theoretical foundation. Special items for different religious groups are available.

5.1.6 Aspects of Spirituality (ASP)

The generic instrument measures a variety of vital aspects of spirituality beyond conventional conceptual boundaries also in secular societies. It was shortened in multiple steps from 40 items (Büssing et al. 2007) to finally 20 items (Büssing et al. 2016b), and was applied so far in healthy adults but also in adolescents. It differentiates four factors:

- **Religious orientation** (alpha = .93/.91): praying, guided and sheltered, trust in and turn to God, spiritual orientation in life, distinct rituals, reading spiritual/religious books, etc.
- **Search for Insight/Wisdom** (alpha = .88/.82): insight and truth, develop wisdom, beauty/goodness, frankness/wideness of the spirit, broad awareness. etc.
- **Conscious interactions/Compassion** (alpha = .83/.73): conscious interactions with others, environment, compassion, generosity
- **Transcendence conviction** (alpha = .85/.75): existence of higher beings, rebirth of man/soul, soul origins in higher dimensions

The subscales are scored independently from each other and not as an 'over-all' score. A benefit of the instrument is its suitability for both, religious and also in non-religious persons.

5.1.7 Spiritual Practices (SpREUK-P)

The generic instrument measures the frequency and in a variant version the importance of a wide spectrum of religious, existential and philosophical forms of practice (Büssing et al. 2005a, 2012a). It uses either 24 items or in its shortened version 17 items (SpREUK-P SF17) and differentiates five factors:

- **Religious practices** (alpha = .84/.82): private praying, church/mosque/synagogue attendance, participate religious events, importance of religious symbols etc.
- **Existentialistic practices** (alpha = .83/.77): self-realization, spiritual development, meaning in life, turn to nature etc.
- **Prosocial-humanistic practices** (alpha = .76/.79): help others, consider their needs, do good, connectedness etc.
- **Gratitude/Awe** (alpha = .76/.77): feeling of gratitude, awe, experience beauty
- **Spiritual (Mind-Body) practices** (alpha = .80/.72): meditation, working on a mind-body discipline (i.e., yoga, qigong, mindfulness etc.), distinct rituals (from other religious/spiritual traditions), etc.

The multidimensional instrument is suited for religious but also for non-religious persons. The five dimensions are scored independently from each other and not as an ‘over-all’ score. Additional items for specific religious groups (i.e. Catholics and Muslims) are available.

5.1.8 Attitudes Toward God Scale-9 (ATGS-9)

The 9-item instrument measures feelings of anger towards God, but also to be comforted by God (Wood et al. 2010). Factor analyses identified two sub-constructs:

- **Positive Attitudes toward God** (alpha = .96): feel supported by God, feel loved by God, feel nurtured or cared for by God, trust God to protect and care for you, view God as all-powerful and all-knowing
- **Disappointment and Anger with God:** (alpha = .85) i.e., feel angry at God, view God as unkind, feel that God has let you down, feel abandoned by God

Because of the negative sub-scale the instrument could also be categorized in the “Spiritual Struggle” section, and because of the positive sub-scale also in the “Spiritual Wellbeing” section.

5.2 *Spiritual Wellbeing*

5.2.1 **Functional Assessment of Chronic Illness Therapy Spiritual (FACIT-Sp)**

The 12-item instrument ($\alpha = .87$) was developed to measure a person's spiritual well-being (Peterman et al. 2002; Bredle et al. 2011). It differentiates three core dimensions:

- **Meaning:** i.e., have reason for living, life has been productive, purpose in life, life lacks meaning and purpose
- **Peace:** i.e., feel peaceful, trouble feeling peaceful, feel comfort, harmony with myself
- **Faith:** i.e., find comfort/strength in faith, difficult times has strengthened spiritual beliefs, whatever happens with illness things will be ok

The Faith scale is contextual and refers to the experience of illness, while Meaning and Peace are generic scales (Canada et al. 2008). The instrument avoids traditional religious terminology and can thus be used also in non-religious persons. However, in the absence of a religious belief low Faith scores may not necessarily indicate low wellbeing but could reflect disinterest in this topic.

5.2.2 **Spiritual Well-Being Questionnaire (SWBQ)/Spiritual Health and Life-Orientation Measure (SHALOM)**

The generic 20-item instrument to measure a person's well-being (Gomez and Fisher 2003, 2005; Fisher 2010) differentiates four main dimensions:

- **Personal** ($\alpha = .89$), i.e., sense of identity, self-awareness, joy in life, inner peace, meaning in life
- **Transcendental** ($\alpha = .86$), i.e., relation with the Divine/God, worship of Creator, oneness/peace with God, prayer life
- **Environmental** ($\alpha = .76$), i.e., connect to nature, awe at a breath-taking view, oneness with nature, harmony with environment, sense of 'magic' in environment
- **Communal well-being** ($\alpha = .79$), i.e., love of others, forgiveness, trust between individuals, respect for others, kindness towards others

A conceptual benefit of the instrument is that it compares each person's ideals with their lived experiences, and is thus an indicator of spiritual harmony or dissonance.

5.3 *Spiritual Struggles*

5.3.1 **Religious and Spiritual Struggles Scale (RSS)**

The 26-item instrument was developed to assess “supernatural, interpersonal and intrapersonal struggles” (Exline et al. 2014). It differentiates six domains:

- **Divine** (alpha = .93): negative emotions associated with beliefs about God or a person’s relationship with God
- **Demonic** (alpha = .93): influence of evil spirits causing negative situations and events
- **Interpersonal** (alpha = .85): negative experiences with religious people or institutions; conflicts around religious issues
- **Moral** (alpha = .88): problems to follow moral principles; worries about perceived offenses by the self
- **Ultimate meaning** (alpha = .89): concern about not perceiving deep meaning in life
- **Doubt** (alpha = .90): perception of troubles associated with doubts or questions about beliefs

A benefit of this scale is its strict focus on the experience of spiritual/religious struggles rather than on strategies to cope with these. It can be used in persons who do believe in supernatural forces/spirits, but also in those who do not.

5.3.2 **Spiritual Dryness (SDS)**

The 6-item instrument) addresses whether or not religious individuals experience phases of ‘spiritual dryness’ as a form of spiritual crisis (Büssing et al. 2013). The items refer to statements in writings of mystics, i.e., experiences of spiritual dryness, darkness, loneliness or desolation. These phases of spiritual dryness are much more a process of loss or even ‘separation’ from God and are thus in contrast to St. John of the Cross’ “Dark Night of the Soul” which is a process to become closer to God in terms of an ‘attraction’.

The unidimensional Spiritual Dryness Scale (alpha = .87) assesses:

- feelings that God is distant (regardless of efforts to draw close to him)
- feelings that God has abandoned me completely
- experience times of ‘spiritual dryness’
- feeling that prayers go unanswered
- feelings to be ‘spiritually empty’
- feeling of not being able to give any more

Such feelings can be associated with an identity crisis and with symptoms of emotional exhaustion and psychological depression.

The instrument is extended by three additional items which are answered when these feelings and perceptions were already experienced. These address whether the interviewees have found ways to deal with these feelings, and then their reactions when these phases were overcome, i.e., being more engaged to help others and greater spiritual serenity and depth.

However, the instrument is not applicable to persons who do not believe in God as a source of hope, trust and orientation in life.

5.4 *Spiritual Coping*

5.4.1 **Religious Coping (RCOPE)**

The Brief RCOPE is a shortened version of the longer RCOPE and was developed to operationalize religious coping strategies to deal with religious struggles and life stressors (Pargament et al. 2000, 2011). It uses 14 items and two sub-scales:

- **Positive religious coping:** i.e., stronger connection with God, sought God’s love and care, sought help from God in letting go of anger, put plans into action together with God, focused on religion to stop worrying about problems, forgiveness of sins, etc.
- **Negative religious coping:** i.e., God had abandoned me, punished by God for lack of devotion, wondered why for God to punish me; questioned the power of God, questioned God’s love, devil made this happen, wondered whether church had abandoned me, etc.

Because of the negative sub-scale it could be also be categorized in the “Spiritual Struggle” section.

The Brief RCOPE is widely used and became an important instrument in health research. A disadvantage is the use of specific terms such as ‘God’, ‘sin’ or ‘devil’ which makes it less suitable for non-religious persons or adherents of non-theistic religions. To overcome the problem, Zwingmann et al. (2006) tested a 16-item version avoiding such phrases. Further, Phillips et al. (2009) developed the Buddhist BCOPE with 66 items across 14 subscales.

5.4.2 **Spiritual/Religious Attitudes in Dealing with Illness (SpREUK-15)**

The contextual instrument measures the impact of spirituality/religiosity on patients’ ways to cope with illness, specifically whether they have trust in a transcendent source of help, whether they are in search for such a source, and whether the experience of illness may change their attitudes and behaviors in terms of an ‘spiritual transformation’ (Büssing et al. 2005b; Büssing 2010). The items refer to motifs found in counseling interviews. The instrument is available as a 15-item

version (SpREUK-15) or a shortened 10-item version (SpREUK-10) and differentiates three dimensions:

- **Trust** (alpha = .90): trust in a higher power which carries through, trust in spiritual guidance in life, feel connected with higher source, etc.
- **Search** (alpha = .90/.84): searching for an access to spirituality/religiosity, renewed interest, finding access to a spiritual source can have a positive influence on illness, urged to spiritual/religious insight whether disease may improve or not, etc.
- **Reflection (Positive Interpretation of Disease)** (alpha = .82/.74): illness encourages to get to know myself better, reflect on what is essential in life, hint to change life, etc.

The instrument avoids specific religious terms and is suited also for non-religious persons. The three dimensions are scored independently from each other and not as an ‘overall-score’.

5.4.3 Reliance on God’s Help (RGH)

This contextual 5-item scale (alpha = .90 to .96) is intended as a short measure of a patient’s reliance on God’s help in difficult times (Büssing et al. 2015). It was originally derived from the AKU questionnaires which measures adaptive coping strategies referring to external or internal loci of health control. The following topics are covered by this unidimensional short-scale:

- Unconditional trust (“Whatever happens, I will trust in a higher power that carries me through”)
- Hopeful belief (“I have strong belief that God will help me”)
- Faith as a resource (“My faith is a strong hold, even in hard times”)
- Connection and effect/function (“I pray to become healthy again”)
- Behavioral correspondence (“I try to live in accordance with my religious convictions”)

The benefit of this scale is its brevity and the fact that it is not per se associated with indicators of well-being or quality of life. The underlying topics differ from Pargament’s concept of Religious Coping (Pargament 1997), which addresses the function of problem solving.

5.5 *Spiritual Needs*

5.5.1 **Spiritual Needs Questionnaire (SpNQ)**

The questionnaire was developed to address unmet existential and spiritual needs of patients with chronic diseases and of healthy adults and elderly (Büssing et al. 2010, 2012b). The instrument uses 28 diagnostic items; 19 items of these are allocated to differentiate four factors for SpNQ Version 1.2 (Cronbach's alpha = .93):

- **Religious needs** (alpha = .92): praying for and with others, participate at a religious ceremony, reading religious/spiritual books, turning to a higher presence, etc.
- **Inner Peace needs** (alpha = .82): wish to dwell at places of quietness and peace, plunge into the beauty of nature, finding inner peace, talking with other about fears and worries, etc.
- **Existential needs** (alpha = .82): reflect back on life, find meaning in illness and/or suffering, talk with someone about meaning in life/suffering, dissolve open aspects in life, talk about the possibility of a life after death, to forgive someone from a distinct period of your life, etc.
- **Giving/Generativity needs** (alpha = .74): active and autonomous intention to solace someone, to pass own life experiences to others, be assured that your life was meaningful and of value, etc.

The most recent and reduced version was validated with persons having various chronic diseases and palliative care patients, but also with healthy elderly and healthy mothers with sick newborns (Büssing et al. 2018b). Including healthy persons in the data pool of chronically diseased persons resulted in a slight decrease of the SpNQ's alpha coefficient (alpha = .89). This 20-item version (SpNQ-20) revealed 4 factors:

- **Religious needs** (alpha = .87): praying for and with others, participate at a religious ceremony, reading religious/spiritual books, turning to a higher presence
- **Existential needs** (alpha = .74): reflect back on life, find meaning in illness and/or suffering, talk with someone about meaning in life/suffering, dissolve open aspects in life, talk about the possibility of a life after death, forgive others and be forgiven
- **Inner Peace needs** (alpha = .73): wish to dwell at places of quietness and peace, plunge into the beauty of nature, finding inner peace, talk with someone about fears and worries
- **Giving/Generativity needs** (alpha = .71): be assured that your life was meaningful and of value, pass own life experiences to others, give solace to someone, give away something from yourself

A benefit is the standardized quantification of the strength of a person's unmet needs, whether the interviewees are religious or a-religious persons. The respective dimensions are scored independently from each other.

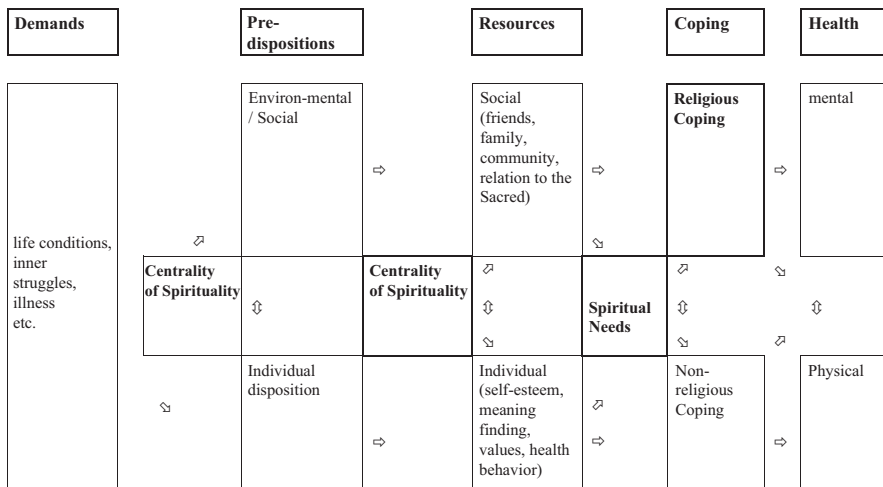
6 Selection of Instruments

To address the impact of a person’s spirituality/faith in their life concerns, one could either refer to modified Resource-Demand model (Table 2) as a theoretical concept or to aforementioned the model of spirituality level (Table 1).

Within the modified Resource-Demand model (Table 2) spirituality can be both, a source of resilience or adaptability which influences a person’s predispositions and resources, but also a reactive strategy to cope. To address the relevance of spirituality as a resource in times of need and life in general (‘centrality’), different questionnaires might be applicably (i.e., CRS, DUREL, ASP, RGH, SpREUK-P). Spiritual needs may arise when persons lack something which is important to them (Expectation) compared with their current situation (Perception), i.e. inner peace, forgiveness, meaning. The instruments described above measure at varying points along the hypothetical path between stressors and health as depicted in Table 2. Religious Coping could be addressed with the RCOPE but also with the SpREUK-15, spiritual needs might be addressed with the SpNQ. Spiritual wellbeing could be addressed either as a health outcome or a predisposition, and thus the FACIT-Sp or the SHALOM might be applicable.

With respect to the model of different layers of spirituality (i.e., Faith/Experience, Attitudes and Behaviors) (Table 1), the Experience level could be addressed with the DSES, GrAw-7 and SDS. Emotion-related attitudes could be assessed with the RGH scale, while cognition-related attitudes can be addressed with the RCOPE or SpREUK-15. On the Behavioral level, different forms of practices and rituals might be measured with the SpREUK-P. Other instruments may refer to different layers, i.e., CRS, DUREL, ASP, SpNQ, RSS).

Table 2 Spirituality in the context of a modified Resource-Demand model. (Modified according to Zwingmann et al. 2011)



For health research, one has to clearly define the intention of the assessment and to specify primary and secondary end points. Then one may select appropriate instruments which fit to these intentions. Further, when selecting instruments one has to find a balance between overachievement to please the researcher on the one hand (too many and too long instruments), and feasibility and reasonability on the other hand (using only a limited number of basic items, and thus several important aspects remain unaddressed). Of relevance is also to consider who will respond to the chosen questionnaires, i.e., healthy adults, adolescents, patients with a chronic disease, persons with cognitive deficits, etc., and also whether one assesses a religiously diverse population (including a-religious persons) or religiously more conform samples. Not all instruments are similarly suited for all persons: Some instruments are inappropriate for healthy persons because their items refer to an experience of illness, while other questionnaires might be too complicated for persons with cognitive deficits or too long for persons with attention deficits. For diverse populations, multidimensional instruments should cover also aspects of secular spirituality (i.e., measure the diversity of spiritual, existential and philosophical forms of practice and engagement), while in specific groups with similar beliefs it might be appropriate to apply more circumscribed instruments (i.e., to measure strength of religious belief). Further, one has to reflect on the modalities of the assessment, i.e., self-administered questionnaires, assistance to fill the questionnaires required, or assessment by external persons (via telephone).

In conclusion, there is not one optimal instrument to measure spirituality, but different instruments which might be suited, and all have their pros and cons. To check the instruments' quality criteria (reliability, validity, etc.) is a prerequisite in health research, and most of the established questionnaires (even in their shortened versions) have good psychometric quality indices. It is essential to reflect which instruments may ensure conceptually clear-cut operationalizations which fit to the aims of intended study. Because spirituality is a multidimensional construct, the different aspects and nuances should be measured with either multi-scale instruments or with divergent specific instruments to address the different layers and aspects of spirituality as independent dimensions (instead of condensed 'sum-scores'). Also short single-factor instruments have their importance when a specific dimension is intended to be measured. When 'contaminated' instruments are applied, because they are of relevance for the topic, then one should add a further instrument which measures a specific and circumscribed aspect of spirituality/religiosity to adjust the findings with the former one.

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