

Distinct Expressions of Vital Spirituality

The ASP Questionnaire as an Explorative Research Tool

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ABSTRACT: As the interest in non-institutional spirituality increases, it is unclear which aspects of the multidimensional construct are vital. We thus developed an open 40-item questionnaire to measure distinct expressions of spirituality and tested it in 488 healthy individuals. Reliability and factor analysis resulted in an instrument with seven factors (Cronbach's $\alpha = 0.942$): "Prayer, trust in God and shelter", "Insight, awareness and wisdom", "Transcendence conviction", "Compassion, generosity and patience", "Conscious interactions", "Gratitude, reverence and respect" and "Equanimity". This explorative research tool may give relevant information for health cares and chaplains, and provides insights in distinct aspects of vital spirituality.

KEY WORDS: Spirituality and religiosity; transcendence conviction; questionnaire.

Introduction

Spirituality gains more and more attraction in health care (Puchalski, 2001; Daaleman, 2004; Speck et al., 2004; Büssing et al., 2005a–d) because research has confirmed its potential to prevent, cope with or heal illness (Lukoff et al., 1999; Sloan et al., 1999; Luskin, 2000; McCullough et al. 2000; Koenig et al., 2001; Levine and Tarq, 2002; Sloan and Bagiella, 2002; McClain et al., 2003; McIlmurray et al., 2003; Seeman et al., 2003). We have investigated distinct aspects of spirituality in patients with life-threatening diseases and confirmed that cancer patients highly rely on an "External guidance" and can find meaning in their disease ("Positive interpretation of illness"), while their "Search for meaningful support" was moderate, but of high importance in patients with both, a religious and spiritual attitude and in patients

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which regard themselves as spiritual, but no religious (Büssing et al., 2005a–c, 2006). In contrast, patients with multiple sclerosis are not in “Search for meaningful support” and have only moderate trust in “External guidance” (Büssing et al., 2005a–c). A recent investigation with chronic pain patients showed that their “Search for meaningful support” and trust in “External guidance” was only moderate, but high in the fraction of patients with a spiritual, resp., religious attitude (Büssing et al., 2006). An intriguing find in all these patients was that they do not experience and deepen their spirituality/religiosity when practicing with others, but alone and in silence, and that they go to distinct stimulating places (Büssing et al., 2005a–c). Also our investigations of the patients’ engagement in distinct forms of a spiritual/religious practice (Büssing et al., 2005d) points to the fact that the concepts of spirituality change: patients with cancer and multiple sclerosis highly rely on a “Humanistic Practice” and a “Nature-oriented Practice”, rather than a “Conventional Religious Practice” or an “Unconventional spiritual Practice”.

It is obvious that the interest in institutional religion declines (Jagodzinski and Dobbelaere, 1993), while the interest in an alternative use of various existing esoteric and religious resources increases. Among patients with chronic pain diseases 39% report themselves as neither religious nor spiritual (R-S-), 34% as religious, but not spiritual (R+S-), 19% as both religious and spiritual (R+S+) and 8% as spiritual, but not religious (R-S+) (Büssing et al., 2006). In patients with multiple sclerosis, we observed 36% R-S- patients, 41% R+S-, 16% R+S+ and 7% R-S+ (Büssing et al., in preparation), while in cancer patients just 12% had a R-S- attitude, 37% R+S-, 35% R+S+ and 13% R-S+ (Büssing et al., 2005a,c).

Thus, one has to ask for the conceptual frameworks of spirituality, because it is unclear which aspects of the multi-dimensional construct “spirituality” are vital at all. The growing interest in Buddhist, anthroposophical or esoteric spirituality obviously will have an impact on the individual concepts of spirituality, which may significantly differ from the conventional ones. Particularly health carers and chaplains have to adapt to putative changing topics of spirituality. It makes a significant difference which “concept” is vital in a distinct patient, whether he is able to see any “sense” in his illness, is in “Search for meaningful support in his life” or has trust in an “External guidance” (Büssing et al., 2005a–c, 2006), whether he believes in a resurrection, rebirth or nothing at all.

To address these topics we developed a research tool to measure a wide spectrum of different aspects of spirituality beyond conceptual boundaries. To ensure this, we first performed an expert survey among 38 individuals from different religious and non-religious affiliations and asked for their individual view of spirituality and its individual expression (Büssing, 2006). It became evident that the individual concepts of spirituality are highly dependent on the contextual “world-view” and refer to an immaterial, not sensual comprehensible truth (God, “presence”, “powers”), which is nevertheless to be

experienced (awakening, insight), and which becomes an orientation in life. One can differentiate an attitude of (1) search, (2) believing adoption and (3) intuitive experience (Büssing, 2006). Nine relevant topics of the expressions of spirituality could be extracted which are in accordance with those of Martsof and Mickley (1998) who presented aspects of spirituality found in modern nurse theorists' ideas (Table 1).

Of course, from a conceptual point of view, one should differentiate between spirituality *in* religion, which has the connotation of a more open, individual

TABLE 1

Concepts and Expression of Spirituality

| Martsof and Mickley (1998): Five Domains | Büssing (2006): Nine Domains | ASP Questionnaire: Seven Domains |
|--|---|---|
| (1) Meaning (significance of life; making sense of situations; deriving purpose) | Asking for the meaning of life | (7) Gratitude, reverence and respect; aspects of scale 1 |
| (2) Values (beliefs, standards and ethics that are cherished) | Ethical norms and perfection; Rituals and practices; Implementation in daily life | Values are aspects of scales 1, 4 and 5; marker item S35 |
| (3) Transcendence (experience, awareness and appreciation of a "transcendent dimension" to life beyond self) | Conviction of a pre-/post-existence of man and existence of non-physical higher beings | (3) Transcendence conviction |
| (4) Connecting (increased awareness of a connection with self, others, God/Spirit/Divine and nature) | Experience of unity and Conscious interaction with nature/environment; Reverence and respect; Trust in and turning to God | (1) Prayer, trust in God and shelter (4) Compassion, generosity and patience (5) Conscious interactions |
| (5) Becoming (an unfolding of life that demands reflection and experience; includes a sense of who one is and how one knows) | Search for insight and comprehensive wisdom | (2) Insight, awareness and wisdom (6) Equanimity |

and pluralistic faith, and spirituality as *opposed* to religion, and thus defining it as a bunch of multiple but individual “paths” to the one truth. Tanyi (2002) globally defined spirituality as humans’ search for meaning in life, while religion involves an organized entity with rituals and practices about a higher power or God. A comprehensive definition was provided by the *Fetzer Institute*: “Spirituality is concerned with the transcendent, addressing ultimate questions about life’s meaning, with the assumption that there is more to life than we see or fully understand. Spirituality can call us beyond self to concern and compassion for others”. (Underwood and Teresi, 2002).

The aim of this study thus was to test a new research tool aimed to measure shared and contrasting topics of distinct expressions of a wide range of vital spirituality in religion and as a opposite to conventional religiosity. This research instrument, the ASP questionnaire (“ASP” is the German acronym of “Expressions of Spirituality”), was tested first in 488 healthy individuals from Europe. The next step will be to use it in patients with severe life-threatening diseases, and thus providing relevant information to health carers and chaplains.

Materials and methods

Measures

To measure a wide variety of current aspects of spirituality beyond conceptual boundaries, we developed a questionnaire on the basis of the answers of expert representatives of various spiritual orientations which aspects of spirituality are relevant to them (i.e. four Catholics, four Protestants, seven members of the anthroposophical “Christengemeinschaft”, two with a non-defined Christian confession, four Bahá’í, three Muslims, three Jews, four Buddhists, one Hindu and six atheists) (Büssing, 2006). The answers were condensed to 40 relevant items, which make up this questionnaire. They were scored on a 5-point scale from disagreement to agreement (0—does not apply at all; 1—does not truly apply; 2—don’t know; 3—applies quite a bit; 4—applies very much). The scores are referred to a 100% level (four “applied very much” = 100%).

Test individuals

All individuals were informed of the purpose of the study and were assured of confidentiality. All gave informed consent to participate. To get a wide range of different individuals, 488 subjects were recruited among hospital staff (medical doctors, nurses, psychologists and chaplains), among Christian communities in Germany, the Anthroposophical Association (Germany and Switzerland), the Association of Atheists in Germany, the German Bahá’í community, German Buddhist communities and associations of Muslims, resp., Jews in Germany (which, however, did not respond). The demographic information of the individuals (mean age: 49.2 ± 13.9 ; 63% women; 64% high-school education) is provided in Table 2.

TABLE 2 (Continued)

| | <i>Prayer, Trust in God and Shelter</i> | <i>Insight, Awareness and Wisdom</i> | <i>Transcendence and Conviction</i> | <i>Compassion, Generosity and Patience</i> | <i>Conscious Interactions</i> | <i>Gratitude, Reverence and Respect</i> |
|-------------------------|---|--------------------------------------|-------------------------------------|--|-------------------------------|---|
| Buddhists (4%) | Mean 66.3 | 86.9 | 73.3 | 88.1 | 91.0 | 90.7 |
| | SD 19.2 | 11.2 | 22.9 | 7.7 | 9.4 | 14.0 |
| Bahá'í (3%) | Mean 88.9 | 89.4 | 84.4 | 88.4 | 89.1 | 96.4 |
| | SD 10.3 | 8.3 | 10.3 | 14.3 | 11.1 | 6.8 |
| Other affiliations (5%) | Mean 68.2 | 88.4 | 76.5 | 84.9 | 84.8 | 90.3 |
| | SD 28.3 | 10.1 | 26.0 | 12.7 | 11.6 | 15.9 |
| None (15%) | Mean 47.3 | 80.1 | 65.5 | 78.6 | 78.6 | 89.2 |
| | SD 30.0 | 17.7 | 33.0 | 18.5 | 19.0 | 14.2 |
| <i>F</i> -value | 36.758 | 2.522 | 11.592 | 2.930 | 3.839 | 4.390 |
| <i>p</i> -value | 0.000 | 0.040 | 0.000 | 0.021 | 0.004 | 0.002 |
| R+S+ attitude (58%) | Mean 82.9 | 86.7 | 87.1 | 85.8 | 85.3 | 95.1 |
| | SD 13.1 | 13.7 | 17.2 | 14.1 | 13.7 | 8.4 |
| R+S- attitude (10%) | Mean 67.2 | 74.6 | 68.8 | 79.3 | 72.4 | 92.6 |
| | SD 15.9 | 15.0 | 21.0 | 13.6 | 16.3 | 9.7 |
| R-S+ attitude (18%) | Mean 65.2 | 85.2 | 83.1 | 82.6 | 84.3 | 93.1 |
| | SD 22.5 | 12.1 | 22.0 | 12.7 | 11.8 | 11.5 |
| R-S- attitude (15%) | Mean 35.1 | 70.0 | 52.9 | 75.1 | 71.6 | 84.5 |
| | SD 23.3 | 17.9 | 27.2 | 16.5 | 16.2 | 16.5 |
| <i>F</i> -value | 146.50 | 29.916 | 56.104 | 11.136 | 24.664 | 17.792 |
| <i>p</i> -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Deviations >15% from the mean were highlighted.

Statistical analysis

To test the instrument, we performed reliability and factor analysis of the inventory according to the standard procedures. In order to eliminate items from the item pool that were not contributing to the questionnaire reliability, the reliability of the scale and distinct sub-scales was evaluated with internal consistency coefficients, which reflect the degree to which all items on a particular scale measure a single (unidimensional) concept.

To combine several items with similar content, we relied on the technique of factor analysis, which examines the correlations among a set of variables, in order to achieve a set of more general “factors”. Factor analyses were repeated rotating different numbers of items in order to arrive at a solution embodying both the simplest structure and the most coherent.

Differences in the scores were tested using Analysis of variance (ANOVA). We judged $p < 0.05$ significant, and $0.05 < p < 0.10$ as a trend. To test the impact of several variables on the sub-scales, we performed analysis of univariate variance (UNIANOVA). All statistical analyses were performed with SPSS for Windows 12.0.

Results

Reliability and factor analysis

As shown in Table 3, reliability analysis of the 40-item pool revealed that the construct had a very good quality (Cronbach’s $\alpha = 0.942$). The item difficulty (3.18 [mean value]/4) is 0.80 . Factor analysis (Table 3) revealed a Kaiser–Mayer–Olkin value of 0.932 , which as a measures for the degree of common variance, indicates that the item-pool seems to be suitable for a factorial validation. In addition, Barlett’s test for non-sphericity was highly significant ($p < 0.001$).

Primary factor analysis of the 40-item pool pointed to a 7-factor solution (with three main factors), which explains 62.9% of variance. The 11-item factor 1 of the ASP questionnaire had an alpha of 0.922 (eigenvalue 12.8), the 9-item factor 2 an alpha of 0.870 (eigenvalue 4.4), the 5-item factor 3 an alpha of 0.849 (eigenvalue 2.8), the 5-item factor 4 an alpha of 0.756 (eigenvalue 1.8), the 4-item factor 5 an alpha of 0.749 (eigenvalue 1.2), the 3-item factor 6 an alpha of 0.575 (eigenvalue 1.1) and the 3-item factor 7 an alpha of 0.678 (eigenvalue 1.0). Thus, the internal consistency of the item pool was sufficiently high.

This structure fits well with the topics defined from the expert statements (Table 1). The factor “Prayer, trust in God and shelter” is connected with the topic “Trust in and turning to God”; the factor “Insight, awareness and wisdom” is connected with the topic “Search for insight and comprehensive wisdom”; the factor “Transcendence conviction” with “Conviction of a pre-/post-existence of man and existence of non-physical higher beings”; the

TABLE 3

**Mean Values of the Items and Reliability Parameters of the ASP
Questionnaire**

| | <i>Mean Values</i> | <i>SD</i> | <i>Factor Loading</i> | <i>Corrected Item-Total Correlation</i> | <i>Alpha if Item Deleted ($\alpha = 0.942$)</i> | |
|--|--|-----------|---------------------------|---|--|-------|
| 1. Prayer, trust in God and shelter (17% of variance; Cronbach's $\alpha = 0.922$) | | | | | | |
| S35 | Praying for others | 2.76 | 1.40 | 0.818 | 0.638 | 0.939 |
| S36 | Praying for myself | 2.42 | 1.46 | 0.802 | 0.509 | 0.941 |
| S3 | Trust in and turn to God | 3.02 | 1.23 | 0.778 | 0.646 | 0.939 |
| S38 | Performing distinct rituals | 2.46 | 1.40 | 0.707 | 0.490 | 0.941 |
| S4 | Feeling guided and sheltered | 2.99 | 1.10 | 0.697 | 0.644 | 0.939 |
| S33 | Having a spiritual orientation in life | 3.03 | 1.20 | 0.692 | 0.642 | 0.939 |
| S7 | Convinced of a living after death | 3.39 | 1.10 | 0.664 | 0.657 | 0.939 |
| S39 | Trying to express the Divine in the creation | 2.46 | 1.28 | 0.646 | 0.721 | 0.939 |
| S37 | Reading religious, resp., spiritual books | 3.03 | 1.30 | 0.641 | 0.667 | 0.939 |
| S40 | Do not feel alone, even when no one is with me | 3.25 | 1.00 | 0.572 | 0.614 | 0.940 |
| S31 | Trying to listen to "inner advises" (innere Weisungen) | 2.94 | 1.05 | 0.468 | 0.619 | 0.940 |
| 2. Insight, awareness and wisdom (14% of variance; Cronbach's $\alpha = 0.870$) | | | | | | |
| S11 | Aspiring to insight ("Erkenntnis") and truth | 3.57 | 0.66 | 0.773 | 0.473 | 0.941 |
| S10 | Trying to develop wisdom | 3.39 | 0.77 | 0.739 | 0.472 | 0.941 |
| S13 | Aspiring to broad awareness | 3.29 | 0.95 | 0.734 | 0.543 | 0.940 |
| S12 | Aspiring to beauty and goodness | 3.31 | 0.84 | 0.714 | 0.509 | 0.941 |

TABLE 3 (Continued)

| | | <i>Mean</i> | | <i>Factor</i> | <i>Corrected</i> | <i>Alpha</i> |
|-----|--|---------------|-----------|----------------|--------------------|----------------------|
| | | <i>Values</i> | <i>SD</i> | <i>Loading</i> | <i>Item-Total</i> | <i>if Item</i> |
| | | | | | <i>Correlation</i> | <i>Deleted</i> |
| | | | | | | ($\alpha = 0.942$) |
| S14 | Life is a search and question for answers | 3.26 | 0.90 | 0.675 | 0.502 | 0.941 |
| S15 | Searching for deep insight ("Einsicht") | 3.39 | 0.81 | 0.628 | 0.507 | 0.941 |
| S16 | Trying to achieve frankness/wideness of the spirit | 3.31 | 0.87 | 0.625 | 0.568 | 0.940 |
| S17 | Trying to widen the soul ("Seele") | 3.06 | 1.06 | 0.529 | 0.674 | 0.939 |
| S32 | Follow ethical norms | 3.31 | 0.94 | 0.356 | 0.285 | 0.942 |
| | 3. Transcendence conviction (9% of variance; Cronbach's $\alpha = 0.849$) | | | | | |
| S8 | Convinced of a rebirth of man (or his soul) | 2.75 | 1.52 | 0.750 | 0.381 | 0.942 |
| S6 | Convinced of existence of higher powers and beings | 3.48 | 1.04 | 0.656 | 0.641 | 0.939 |
| S19 | Convinced that man is a spiritual being | 3.36 | 0.97 | 0.649 | 0.656 | 0.939 |
| S5 | Soul has his origin in a higher dimension | 3.34 | 1.17 | 0.586 | 0.690 | 0.939 |
| S18 | Searching for the spiritual ("das Geistige") in man | 3.15 | 1.02 | 0.532 | 0.701 | 0.939 |
| | 4. Compassion, generosity and patience) (9% of variance; Cronbach's $\alpha = 0.756$) | | | | | |
| S28 | Trying to develop compassion | 3.53 | 0.64 | 0.772 | 0.496 | 0.941 |
| S24 | Trying to help others | 3.51 | 0.63 | 0.763 | 0.282 | 0.942 |
| S27 | Trying to practice patience and tolerance | 3.44 | 0.66 | 0.713 | 0.449 | 0.941 |
| S26 | Trying to practice generosity | 3.26 | 0.76 | 0.701 | 0.477 | 0.941 |
| S25 | Work honorary for others | 2.87 | 1.26 | 0.457 | 0.330 | 0.942 |
| | 5. Conscious interactions (6% of variance; Cronbach's $\alpha = 0.749$) | | | | | |
| S21 | Trying to interact conscious with yourself | 3.44 | 0.73 | 0.731 | 0.403 | 0.941 |

TABLE 3 (Continued)

| | | <i>Mean</i> | | <i>Factor</i> | <i>Corrected</i> | <i>Alpha</i> |
|-----|--|---------------|-----------|----------------|--------------------|----------------------|
| | | <i>Values</i> | <i>SD</i> | <i>Loading</i> | <i>Item-Total</i> | <i>if Item</i> |
| | | | | | <i>Correlation</i> | <i>Deleted</i> |
| | | | | | | ($\alpha = 0.942$) |
| S23 | Trying to interact conscious with environment | 3.49 | 0.63 | 0.690 | 0.398 | 0.941 |
| S22 | Trying to interact conscious with others | 3.54 | 0.60 | 0.684 | 0.430 | 0.941 |
| S20 | Feeling of unity of all being | 2.66 | 1.11 | 0.369 | 0.571 | 0.940 |
| | 6. Gratitude, reverence and respect (5% of variance; Cronbach's $\alpha = 0.575$) | | | | | |
| S1 | Feeling of reverence and respect for life | 3.83 | 0.43 | 0.655 | 0.331 | 0.942 |
| S2 | Thankful for experiences in life | 3.70 | 0.60 | 0.575 | 0.370 | 0.941 |
| S9 | Convinced that life is meaningful | 3.64 | 0.74 | 0.560 | 0.395 | 0.941 |
| | 7. Equanimity (4% of variance; Cronbach's $\alpha = 0.678$) | | | | | |
| S30 | Trying to practice equanimity | 2.94 | 0.98 | 0.614 | 0.560 | 0.940 |
| S29 | Trying to achieve a calm spirit | 3.16 | 0.91 | 0.535 | 0.587 | 0.940 |
| S34 | Meditate | 2.47 | 1.42 | 0.322 | 0.609 | 0.940 |

factor "Conscious interactions" with "Experience of unity and Conscious interaction with nature/environment"; the factor "Gratitude, reverence and respect" with "Reverence and respect"; the remaining factors share topics with "Ethical norms and perfection", "Implementation in daily life", "Rituals and practices" and "Asking for the meaning of life".

Analysis of the "side-loadings" of the item pool (only values >0.4 were taken into account) revealed that items S7 from sub-scale 1 and S17 from sub-scale 2 would load also to the sub-scale 3 (0.506, resp., 0.485); items S5 and S6 from sub-scale 3 would load also to sub-scale 1 (0.5763, resp., 0.480); items S22 and S23 from sub-scale 5 also on sub-scale 4 (0.497, resp., 0.460), while item S29 from sub-scale 7 would load also on sub-scale 2 (0.431). Due to theoretical reasons, item S34 which would load to sub-scale 1 (0.471) was assigned to sub-scale 7.

Correlations between the ASP scales

We gained a valid research tool, which measures seven distinct aspects of spirituality. Several of them share significant associations (Table 4). The strongest were:

- (1) “Prayer, trust in God and shelter” correlates highly with “Transcendence conviction” and “Equanimity”.
- (2) “Insight, awareness and wisdom” correlates strongly with “Transcendence conviction”, “Equanimity” and “Conscious interactions”.
- (3) “Transcendence conviction” correlates well with and “Equanimity”, “Prayer, trust in God and shelter” and “Insight, awareness and wisdom”.
- (4) “Compassion, generosity and patience” correlates highly with “Conscious interactions” and “Insight, awareness and wisdom”.
- (5) “Conscious interactions” correlates strongly with “Insight, awareness and wisdom” and “Compassion, generosity and patience”.
- (6) “Gratitude, reverence and respect” correlates best with “Transcendence conviction”.
- (7) “Equanimity” correlates well with “Insight, awareness and wisdom”, “Prayer, trust in God and shelter” and “Transcendence conviction”.

Importance ascribed to the distinct expressions of spirituality

Because we intended to define shared and contrasting topics, it is important to analyse which aspects of spirituality gained the highest scores of importance (resp., agreement). As shown in Table 2, “Gratitude, reverence and respect”, “Compassion, generosity and patience” and “Insight, awareness and wisdom” revealed the highest scores, while “Prayer, trust in God and shelter” and “Equanimity” gained much lower attention (Table 2). However, the overall high scores of the scales reflect the importance the individuals would ascribe to the distinct expression of spirituality and not necessarily their concrete practice. For example, several individuals—of course—try to help others (item S24; mean value: 3.50 ± 0.63), but the concrete working honorary for others (marker item S25) had only an intermediate agreement score (mean value: 2.83 ± 1.27). Thus, we judge negative deviations from the mean as more relevant.

Univariate variance analyses revealed that the factors “Prayer, trust in God and shelter” and “Equanimity” which both had the lowest scores, are significantly affected by both, SpR attitude (Büssing et al., 2005c) and religious affiliation (Table 5). “Conscious interactions” are influenced by the religious affiliation (and in trend by SpR attitude). The factors “Gratitude, reverence and respect” and “Transcendence conviction” are mainly affected by SpR attitude; the products of gender and age, and religious affiliation and SpR attitude have an impact on “Transcendence conviction”. The factor “Insight, awareness and wisdom” is affected only in trend by age and SpR attitude, while “Compassion, generosity and patience” is not affected by any

TABLE 4
Correlations between the Different Aspects of Spirituality

| | Insight, Awareness and Wisdom | Transcendence Conviction | Compassion, Generosity and Patience | Conscious Interactions | Gratitude, Reverence and Respect | Equanimity |
|---|-------------------------------------|-----------------------------|---|---------------------------|--|---------------|
| Prayer, trust in God and shelter | 0.431* | 0.658* | 0.339* | 0.350* | 0.436* | 0.535* |
| Insight, awareness and wisdom | | 0.524* | 0.444* | 0.582* | 0.355* | 0.607* |
| Transcendence conviction | | | 0.155* | 0.348* | 0.469* | 0.538* |
| Compassion, generosity and patience | | | | 0.568* | 0.266* | 0.377* |
| Conscious interactions | | | | | 0.387* | 0.479* |
| Gratitude, reverence and respect | | | | | | 0.276* |

*Pearson correlations are significant with <0.002 (two-tailed).

TABLE 5
Univariate Variance Analyses

| | Variables | Levene's test* | F-value | p-value |
|----------------------------------|--|----------------|---------|--------------|
| Prayer, trust in God and shelter | Gender | 0.000 | 0.531 | ns |
| | Age | | 3.970 | 0.008 |
| | SpR attitude | | 25.919 | 0.000 |
| | Religious affiliation | | 8.058 | 0.000 |
| | Gender * age | | 6.030 | 0.001 |
| | Gender * age * religious affiliation | | 4.112 | 0.003 |
| | Age * religious affiliation * SpR attitude | | 2.384 | 0.009 |
| | Insight, awareness and wisdom | Gender | 0.005 | 0.937 |
| Age | | | 1.058 | 0.019 |
| SpR attitude | | | 3.370 | 0.046 |
| Religious affiliation | | | 2.684 | ns |
| Transcendence conviction | Gender | 0.000 | 0.443 | ns |
| | Age | | 1.624 | ns |
| | SpR attitude | | 12.529 | 0.000 |
| | Religious affiliation | | 1.869 | ns |
| | Gender * age | | 4.392 | 0.005 |
| | Religious affiliation * SpR attitude | | 3.461 | 0.002 |
| | Compassion, generosity and patience | Gender | 0.000 | 0.239 |
| Age | | | 1.489 | ns |
| SpR attitude | | | 0.797 | ns |
| Religious affiliation | | | 1.554 | ns |
| Conscious interactions | Gender | 0.000 | 0.001 | ns |
| | Age | | 0.103 | ns |
| | SpR attitude | | 3.429 | 0.017 |
| | Religious affiliation | | 4.795 | 0.003 |
| Gratitude, reverence and respect | Gender | 0.000 | 0.047 | ns |
| | Age | | 0.395 | ns |
| | SpR attitude | | 7.621 | 0.000 |
| | Religious affiliation | | 1.344 | ns |
| Equanimity | Gender | ns | 0.818 | ns |
| | Age | | 2.149 | 0.094 |
| | SpR attitude | | 12.253 | 0.000 |
| | Religious affiliation | | 6.906 | 0.000 |

TABLE 5 (Continued)

| Variables | Levene's test* | F-value | p-value |
|---|-------------------|---------|--------------|
| Gender * religious affiliation * SpR attitude | | 2.656 | 0.022 |
| Age * religious affiliation | | 3.190 | 0.005 |
| Age * religious affiliation * SpR attitude | | 1.929 | 0.040 |

*Levene's test for equality of variances was significant and thus the level of significance for the variance analyses should be $p < 0.01$.

tested variable. Gender, family status or educational level had no significant influences on the factors (data not shown), while gender has an influence only in combination with age and religious affiliation on the factors "Prayer, trust in God and shelter" and "Equanimity" (Table 5).

As one may expect, with increasing age the importance of several expressions of spirituality significantly raises, particularly for "Prayer, trust in God and shelter", "Insight, awareness and wisdom", "Transcendence conviction" and "Equanimity" (Table 2). With respect to family status, a significant difference was found only for the scale "Equanimity" ($F = 3.152$; $p = 0.008$); here, widowed (4%) and divorced (12%) individuals had the highest scores.

Forms of spirituality in religious groups

The main important variables for the expression of spirituality were obviously the religious affiliation and the SpR attitude. Individuals with no religious affiliation had the lowest scores in all seven categories as compared to those with a Christian or other religious affiliations. As expected, Buddhists had significantly higher scores for "Equanimity" and "Conscious interactions", because this is their spiritual practice, but significantly low "Transcendence conviction" and "Prayer, trust in God and shelter". The Bahá'í, which represent a relatively young and small religious group, had very high levels for "Prayer, trust in God and shelter", "Compassion, generosity and patience" "Insight, awareness and wisdom" and "Equanimity". Christians highly appreciate "Prayer, trust in God and shelter", "Gratitude, reverence and respect" and, however, "Transcendence conviction".

It is obvious that the groups share several topics of high importance (Table 2), i.e. "Gratitude, reverence and respect", "Insight, awareness and wisdom", "Compassion, generosity and patience" and "Conscious interactions",

while other significantly differ (“Transcendence conviction”, “Prayer, trust in God and shelter” and “Equanimity and meditation”).

However, we wondered about the highly significant correlation between “Prayer, trust in God and shelter” and the “Transcendence conviction”. Partial correlations between the items of both factors revealed several highly significant associations (Table 6), while only the “rebirth” item correlated weak or not at all (i.e. items S35, S36 and S38) with the items of the factor “Prayer, trust in God and shelter”. Rebirth of course correlated with “living after death” ($r = 0.432$, $p < 0.0001$). But while a belief in “living after death” (S07) can be found in Christians (mean score = 3.65 ± 0.74) and persons with other religious affiliations (mean score = 3.23 ± 1.30), only Christians with an anthroposophical orientation (mean score = 3.60 ± 0.78) and Buddhist (mean score = 3.11 ± 0.96) show a “Rebirth conviction” (S08), but not conventional Christians (mean score: 2.88 ± 1.48). Item S08 thus can be used as a differentiating marker item.

ANOVA between Christians with conventional confessions (i.e. Catholics and Protestants) and those with an anthroposophical orientation approved that a high “Transcendence conviction” can be ascribed to the Christians with an anthroposophical orientation ($F = 63.845$; $p < 0.0001$). Also for “Equanimity” ($F = 20.025$; $p < 0.0001$) and “Insight, awareness and wisdom” ($F = 16.448$; $p < 0.0001$) they had significantly higher scores than other Christians. This is obviously due to the esoteric background of Anthroposophy (which assumes man in the centre of evolution, but acknowledges several spiritual hierarchies; man is assumed to have passed through earlier metamorphoses). On the other hand, an issue which cannot be avoided in any psychometric assessment is the possibility of a too-positive-bias born by self-report.

Forms of spirituality and SpR attitude

Individuals with a R-S- attitude (non-religious, non-spiritual) had significantly lower score in all seven categories, the scales “Prayer, trust in God and shelter”, “Equanimity” and “Transcendence conviction” gained level which reflect no interest at all; but they appreciated “Gratitude, reverence and respect. Also R+S- individuals had no interest in “Equanimity”. Surprisingly, R+S+ had much higher interest score for “Prayer, trust in God and shelter” than their R+S- counterparts.

Although R-S- individuals had the lowest scores in all categories, they should not be valued as “spiritual deficient”, because they appreciate other values than religious or esoteric topics. To them, the following items are of high relevance (mean scores > 3.0): S1 (“reverence and respect for life”), S2 (“Thankful for experiences in life”), S9 (“Life is meaningful”), S10 (“develop wisdom”), S11 (“aspiring to insight and truth”), S21–23 (“conscious interactions”), S24 (“help others”), S27 (“practice patience and tolerance”), S28 (“develop compassion”).

TABLE 6
Correlations between Items of the Factors 1 and 3

| | S05 Origin in a Higher Dimension | S06 Higher Powers and Beings | S07 Living after Death | S08 Rebirth of Man (or his Soul) | S18 Searching for the Spiritual in Man | S19 Man is a Spiritual Being |
|---|---|-------------------------------------|-------------------------------|---|---|-------------------------------------|
| S03 Trust in and turn to God | 0.569** | 0.497** | 0.624** | 0.153** | 0.411** | 0.429** |
| S04 guided and sheltered | 0.584** | 0.498** | 0.589** | 0.191** | 0.418** | 0.438** |
| S31 listen to “inner advises” | 0.440** | 0.499** | 0.430** | 0.326** | 0.495** | 0.411** |
| S33 spiritual orientation in life | 0.394** | 0.358** | 0.427** | 0.102* | 0.430** | 0.366** |
| S35 Praying for others | 0.457** | 0.408** | 0.517** | 0.057 | 0.352** | 0.314** |
| S36 praying for myself | 0.346** | 0.295** | 0.433** | -0.084 | 0.221** | 0.196** |
| S37 reading SpR books | 0.471** | 0.417** | 0.524** | 0.293** | 0.491** | 0.440** |
| S38 performing distinct rituals | 0.302** | 0.248** | 0.343** | 0.039 | 0.238** | 0.195** |
| S39 express the Divine in creation | 0.476** | 0.402** | 0.457** | 0.229** | 0.481** | 0.425** |
| S40 Do not feel alone | 0.435** | 0.370** | 0.468** | 0.227** | 0.399** | 0.320** |

Partial correlations (controlled for religious affiliations) are significant with ** $p < 0.01$, resp., * $p < 0.05$. Correlation between S07 (“living after death”) and S08 (“rebirth of man”): $r = 0.432$ ($p < 0.0001$).

Discussion

The aim of this study was to develop an instrument, which measures a wide spectrum of different aspects of vital spirituality, beyond the conceptual boundaries of exclusive definitions of institutional religiosity. There is not a lack of definitions of the multi-faceted term “spirituality”. It is well established to divide *religiosity*, which is often used as an interchangeable term, into three sub-constructs: Intrinsic, Extrinsic and Quest Religiosity (Allport and Ross, 1967; Batson and Schoenrade, 1991; Maltby and Lewis, 1996; Maltby and Day, 1998), while the construct *spirituality* was divided into the following sub-constructs: Cognitive orientation towards spirituality, experiential/phenomenological dimension of spirituality, existential well-being, paranormal beliefs and religiousness (MacDonald, 2000).

Intrinsic religiosity identifies religion as an end in itself. Strong personal convictions, beliefs and values are what matter, while the social aspects of religion are not that important. In contrast, the motifs of extrinsic religiosity are based on social or external values and beliefs; religion is used to gain social standing and endorsement. The Quest orientation is founded on a willingness to question complex ideas. The persons are open to the exploration of existential questions and they are open for new information and doubts. Thus, as we have to assume a complex interconnection of various existing views, attitudes and concepts, an oversimplification of spiritual concerns is not appropriate.

Due to their close contextual and cultural coherence, several inventories designed to measure spirituality ask for specific and locally valid religious beliefs and practices (i.e. church attendance and praying) and/or assume a belief in God (Paloutzian and Ellison, 1982; Bufford et al., 1991; Plante and Boccaccini, 1997; Holland et al., 1998; Sherman et al., 2000; Plante et al., 2002; Underwood and Teresi, 2002).

Our aim was to account for the fact that the concepts of various esoteric and religious beliefs impact the individual concepts of contemporary spirituality, particularly in Europe and thus we designed an open instrument, which ignores conceptual boundaries and addresses a wide spectrum of spirituality. A similar attempt can be found in the “Daily Spiritual Experience Scale” by Underwood and Teresi (2002) which captures a set of experiences that may play a strong role in peoples’ life and shares several topics with our instrument. However, instead of 50% of items with the exclusive term “God” we have just one.

The basis of the ASP item pool were the answers of expert representatives of different religious groups and atheists which were asked for their individual few of spirituality and its individual expression (Büssing, 2006). The condensed items sum up concrete actions (“I work, perform, do...“), convictions and feelings (“I have, feel, am convinced...“) and an afford to behave (“I try

to...“). This is in agreement with our previous definition of spirituality: “Spirituality is an attitude of search for meaning and purpose in life, which is based on the feeling or awareness of a “divine” beginning/cause and an awareness of a connection with others, nature, the divine etc. Due to this awareness, one strives to embody distinct teachings, experiences and insights; and this will impact the way of living and the ethical norms” (Büssing and Ostermann, 2004).

The seven factors of the ASP questionnaire are in accordance with the five domains of spirituality in modern nurse theorists’ ideas defined by Martsof and Mickley (1998), i.e. meaning, values, transcendence, connecting and becoming (Table 1). The topics of Martsof and Mickley’s “Connecting” domain correlate with three different factors of the ASP questionnaire, i.e. “Prayer, trust in God and shelter”, “Compassion, generosity and patience” and “Conscious interactions”, while the topics of the “Becoming” domain correlate with two relevant ASP factors, i.e. “Insight, awareness and wisdom” and “Equanimity and meditation”. The “Value” topics can be found in at least three ASP scales, while the “Transcendence” domain corresponds with the factor “Transcendence conviction” of the ASP questionnaire. The “Meaning” domain shares topics with the factor “Gratitude, reverence and respect”. Thus the conceptual background of the ASP questionnaire is in congruence with current concepts of spirituality, albeit with a focus on the “Connecting” concept and “Becoming” topics, while the “Meaning” topic is addressed by our SpREUK tool (Büssing et al., 2005a–c, 2006), which was designed to measure the basic attitudes of patients with severe diseases towards spirituality/religiosity and their adjustment to their illness.

It was Emmons (2006) who advised that “a single, sectarian approach is incapable of yielding comprehensive knowledge of phenomena as complex and multi-faceted as spirituality. A *multilevel interdisciplinary paradigm* (MIP) is required to anchor the study of spirituality and human flourishing strongly in the biological sciences and in the social and clinical sciences (...). Behind the MIP is the assumption that information from various disciplines and levels of analysis has something to contribute to our understanding of religious and spiritual phenomena and that ultimately, this information can be integrated into a larger, coherent whole”.

An important finding was that the different religious groups share several topics of high importance, while other topics, of course, significantly differ. Moreover, atheists appreciate distinct values, and thus, they should not be regarded as “spirituality deficient”. These preliminary findings have to be approved in larger samples of different religious, resp., spiritual groups and patients in the light of their SpR attitude.

Taken together, when tested first in a group of healthy individuals with different religious orientations, resp., atheists, the results revealed preliminary evidence of internal consistency and construct validity. The questionnaire thus seems to be suited for further research purposes, and has to be

correlated with other instruments designed to measure psycho-social factors and coping styles. We hope that the ASP questionnaire might be helpful to provide insights in the changing aspects of vital spirituality, particularly in those individuals who regard themselves as neither religious nor spiritual.

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