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Article

Frequency of Spiritual/Religious Practices in Polish Patients with Chronic Diseases: Validation of the Polish Version of the SpREUK-P Questionnaire

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Abstract: In order to measure a wide spectrum of organized and private religious, spiritual, existential and philosophical practices, the SpREUK-P (SpREUK is the German language acronym of "Spirituality/Religiosity and Coping with Illness") questionnaire was developed as a generic instrument. To account for the fact that institutional religiosity declines, not only in Europe, and to explore the alternative use of various existing esoteric and spiritual resources, the instrument also addresses non-religious forms of spiritual practices. Previously, it was tested in a more secular context and was found to be of relevance for atheistic/agnostic individuals. Now we intended to apply the instrument to 275 Polish individuals with chronic diseases (100% Catholics, 74% women, mean age 56 ± 16 years). The factorial structure of the SpREUK-P's Polish version was similar to the primary version, but lacked an exclusive "spiritual (mind-body) practices" subscale. Factor analysis revealed four main factors, which would explain 67% of the variance, *i.e.*, religious practices (Cronbach's alpha = 0.90), humanistic practices (alpha = 0.87),

existentialistic practices (alpha = 0.80) and gratitude/awe (alpha = 0.80). The correlation pattern underlines construct validity. Interestingly, in Polish individuals, existentialistic practices did not significantly differ between religious and non-religious individuals (nor between men and women), while all other forms of spiritual practices did differ significantly.

Keywords: spiritual practices; religiosity; questionnaire; validation; Poland; chronic diseases

1. Background

There are several data that indicate that spirituality/religiosity (SpR) can be associated with better mental and physical health, better coping, higher well-being, *etc.* [1–15]. As mechanisms, one may discuss SpR as a resource of comfort and hope, meaning-making, social support, self-empowerment, health behavior, *etc.* [4,6,16,17].

The interpretation of the underlying studies with respect to health-outcomes is not always easy, because the studies often use a heterogeneous set of instruments to measure complex constructs, such as spirituality and religiosity. Beyond all specific definitions, spirituality is not only the "experiential core" (content) of ritualized religiosity (form), but, in fact, a complex construct, which involves an individual's search for meaning and purpose in life, which can be interpreted either in a religious or in a secular context [18].

For research, it is useful to distinguish between spirituality and religiosity. Spirituality is a complex and multi-dimensional construct and can be defined as an open and individual experiential approach in the search for meaning and purpose in life (content); in contrast, religion is an institutional and culturally determined approach, which organizes the collective experiences of people (faith) into a closed system of beliefs, rituals and practices (form) [18].

In order to research whether or not both constructs, spirituality and religiosity, are different in people's daily life experience, such research has to differentiate specific beliefs (cognition/emotion), well-being and specific practices (behavior/action), either within a specific institutional context or within highly individual approaches, *i.e.*,

(1) Beliefs, attitudes and convictions
- Religious: specific beliefs (*i.e.*, God; resurrection, rebirth, *etc.*)
- Secular: philosophy, humanism, rationalism/scientism, *etc.*

(2) Well-being
- Religious: faith
- Secular: existential/peace

(3) Practices (either private or organized and reactive or interventional)
- Religious: praying, church attendance, *etc.*
- Spiritual: mindfulness-based meditation, *etc.*
- Secular: loving kindness, *etc.*

The differentiation between spiritual/religious *versus* secular within these categories is not only for theoretical reasons of importance, but also due to the fact that in Western societies, we have to state a tendency towards individualization and secularization. In a prior study enrolling German patients with chronic conditions, we found that, in spite of a predominance of participants claiming Christian denominations (82%), 50% would not regard themselves as religious [3], and among them, 42% stated to being neither religious nor spiritual (R−S−).

For health outcome research, the differentiation of actionable aspects of SpR and cognitive attitudes and convictions is of importance, because Chida *et al.* [6] found an association between SpR and reduced mortality in healthy individuals, an association affiliated with organizational activities, while neither non-organizational activities nor intrinsic aspects (*i.e.*, cognitive belief in God, spiritual well-being, spiritual experience or orientation, *etc.*) were effective [6]. It is currently unclear whether only engagement in private and/or organizational religious issues is beneficial or if private engagement in secular forms is also beneficial. To address this, one has to rely on instruments that focus on the determination of the resources and practices that are relevant to individuals, such as formal religiosity and secular practices (for a review, see: [18,19]).

There are currently several instruments to measure religious engagement with varying item numbers, sub-dimensions and quality (overview in [18,19]). Among them, the generic SpREUK-P questionnaire to measure the engagement frequencies of a large spectrum of religious, spiritual, existential, and humanistic practices [20]. The engagement in the different forms of practice was measured first in a secular society [20,21]. Now, we intended to test the SpREUK-P in a society with a still vital religious tradition, *i.e.*, Catholic Poland.

1.1. Religiosity in Poland

Historically, Poland is situated in the sphere of Latin and Greek-Slavonic influence, but also with different influences from former communist ideology and, recently, from the lasting, stronger impact of the secularization processes. Although studies have shown that up to 97% of the population of 38 million inhabitants identify themselves as Roman Catholic [22–24], the situation in Poland started to change, *i.e.*, the religious and spiritual movements became more divergent and polarized, with an increasing devotion and reverence for nature and environment, calling for the creation of eco-spirituality, because that which is ecological and that which is spiritual may become the same [25]. In the New Spirituality movements, holism and monism are ubiquitous [26]. Moreover, a pantheistic understanding of God appears, which includes the forces of nature [27,28]. Sociologists of religion speak of the secularization of Europe which shows distance from a religious dimension of life, a decreasing tendency to declare faith in God and, yet, at the same time, an increasing conviction in the existence of a higher power. This means that Europe's inhabitants started to believe in this process of secularization as a value. Even if one observes an interest in so-called religiosity in the Polish society, it might rather be a specific humanist and pragmatic use of a concept of religiosity/spirituality [29,30].

Apart from these trends, Polish sociologist, Mariański stated that religion becomes primarily a private matter; as a kind of invisible religion [31]. In his opinion, one can observe a shift from heteronomy to autonomy in "faith life"; a transition from institutionalized religion to private religiosity

beyond the church. Nevertheless, for many Catholics, the churches' religiosity deliberately involves them in a personal way.

Religiosity manifests itself differently in Poland than in other European countries. The Polish majority identified their most important aspects of religiosity to be a belief in the existence of God, personal prayer, public practice of their religion, a belief in eternal life and living in accordance with religious commandments [32,33]. However, the concept of religion is often reduced to institutions, practices and symbols associated with a particular religious tradition.

Despite the fact that the majority of Polish people is still religiously very active, there is a lack of empirical research. If religious issues were assessed, they appeared with sociological variables or in psychological studies only as a secondary variable, and in several cases, they were not adequately interpreted. Most of the social medicine studies measure peoples' conviction about the sources to maintain health, *i.e.*, Janocha showed that a majority stated that this source was their faith and trust in God [28]. Moreover, despite the growing interest to investigate interconnections between health and spirituality/religiosity, there is a lack of well-validated, psychometrically sound instruments to measure the specific aspects of spirituality/religiosity with respect to the above described dimensions (*i.e.*, beliefs, attitudes and convictions, on the one hand, and engagement in different forms of spiritual, religious and secular practices, on the other hand.

Some of the already established measures of spirituality/religiosity in Polish research were used in primarily healthy samples, *i.e.*, the scale of religiousness from Prężyna [34], Heszen-Niejodek's and Gruszczyńska's [35] Self-description Questionnaire of Spirituality with its subscales, religious attitudes, ethical sensitivity and harmony, or Jaworski's [36,37] Scale of Personal religiousness, which differentiates personal and a-personal religiousness.

1.2. Aim of This Study

Due to the fact that there is a relative lack of appropriate measures in the Polish language that address specific (1) SpR attitudes and convictions; (2) engagement in spiritual practices and (3) specific spiritual needs to be used in empirical studies enrolling patients with chronic diseases, we started a study on the impact of specific measures of spirituality in Polish patients. We began with the validation of the Spiritual Needs Questionnaire in its Polish version [38], followed by the SpREUK questionnaire, which was developed to investigate whether or not patients with chronic diseases rely on spirituality as a resource to cope with illness [39]. Here, we report the validation of the Polish version of the SpREUK-P questionnaire, as applied among Polish patients with chronic diseases, which was designed to measure the engagement frequencies of a large spectrum of organized and private religious, spiritual, existential and philosophical practices. Moreover, we provide information and relevant associations between their engagement in specific forms of practices and relations to various other measures of spirituality/religiosity, on the one hand, and life satisfaction and the intention to escape from illness, on the other hand.

2. Materials and Methods

2.1. Patients

All individuals were informed of the purpose of the study, were assured of confidentiality and gave informed consent to participate. The patients were recruited consecutively by a psychologist and educators in the Oncology Hospital in Wieliszew and in the Department of Social Welfare in the province of Warsaw. Demographic information of these patients is presented in Table 1.

Table 1. Characteristics of 275 patients. R+S+, religious and spiritual; R+S−, religious, but not spiritual; R−S+, religious, but not spiritual; R−S−, neither religious nor spiritual.

Variables	Mean/% *
Gender, %	
Women	74
Men	26
Age, years (mean, standard deviation)	56 ± 16
Family status, %	
Married	54
Divorced	26
Widowed	20
Educational level, %	
basic	12
professional	20
medium	42
higher	25
Denomination, %	
Christian	100
Spiritual/religious self-categorization, %	
R+S+	78
R+S−	7
R−S+	2
R−S−	13
Underlying diseases, %	
Cancer	35
Chronic pain diseases	10
Diabetes mellitus	16
Other chronic conditions (including asthma bronchiale, multiple sclerosis, *etc*.)	40

Note: * due to rounding reasons, the sums can be either 99%, 100% or 101%.

Individuals provided informed consent to participate by returning a completed questionnaire, which did not ask for names, initials, addresses or clinical details (with the exception of a diagnosis). The internal review boards of the Directorate Institutions and psychologists working in these institutions approved the survey. The study did not provide financial incentives to patients. All completed the questionnaires by themselves.

2.2. Measures

All items of the respective instruments were translated by a bilingual scientist and critically discussed with a committee of Polish psychologists, theologists and medical doctors and the primary author of the SpREUK-P. Because cultural equivalence is not guaranteed, the team decided to avoid the back-translation procedure. Instead, to ensure linguistic equivalence, unclear phrases were discussed and adjusted (with respect to cultural specifics and with reference to the intended construct) with the input of the developing author to achieve the best fitting translation suited for the Polish context. After the start of the validation process, the positive feedback of the patients suggests acceptance of the instruments.

2.2.1. SpREUK-P Scale

The items were taken from the original SpREUK-P 1.1 (Cronbach's alpha = 0.85) [20] and additional items from its optimized and shortened SpREUK-P SF17 (Cronbach's alpha = 0.85) [21], all of which were designed to quantify a person's engagement in different forms of spiritual practices and activities. The original SpREUK-P differentiates 5 categories, *i.e.*,: (1) religious practices (*i.e.*, praying, church attendance, religious events, religious symbols, *etc.*); (2) existential practices (*i.e.*, self-realization, spiritual development, meaning in life, turn to nature, *etc.*); (3) humanistic practices (*i.e.*, help others, consider their needs, do good, connectedness, *etc.*); (4) spiritual mind-body practices (*i.e.*, meditation, rituals, reading spiritual/religious books, *etc.*), and (5) gratitude/awe (*i.e.*, feeling of gratitude, awe, experience beauty). These factors revealed good internal consistency coefficients (Cronbach's alpha ranges from 0.72 to 0.82) [21].

All items were scored on a 4-point scale (0 = never; 1 = seldom; 2 = often; 3 = regularly). The sum scores were referred to a 100% level (3 "regularly" = 100%; transformed scale score), which reflects the degree of engagement in the respective forms of practice ("engagement scores").

To analyze the external validity of the SpREUK-P, the following instruments were used.

2.2.2. SpREUK-15 Scale

The contextual SpREUK-15 questionnaire measures SpR attitudes and convictions of patients dealing with chronic diseases [40,41]. The instrument avoids exclusive terms, such as God, Jesus or church, and, thus, is suited particularly to secular societies. It differentiates three factors [41]:

(1) The search scale, or search (for support/access to SpR), deals with the intention of patients to find or have access to a spiritual or religious resource, which may be beneficial for coping with illness and with their interest in spiritual or religious issues (insight and renewed interest), *etc.*
(2) The trust scale, or trust (in higher guidance/source), is a measure of intrinsic religiosity; the factor deals with the conviction of patients that they want to be connected with a higher source and with their desire to be sheltered and guided by that source, whatever may happen to them, *etc.*
(3) The reflection scale, or reflection (positive interpretation of disease), deals with a patient's cognitive reappraisal of his or her life, because of illness and subsequent attempts to change (*i.e.*, reflecting on what is essential in life, changing aspects of life or behavior, looking for opportunities for development, believing that the illness has meaning, *etc.*).

The SpREUK-15 scores items on a 5-point scale from disagreement to agreement (0 = does not apply at all; 1 = does not truly apply; 2, do not know (neither yes nor no); 3 = applies quite a bit; 4, applies very much). The scores were referred to a 100% level (transformed scale score). Scores > 60% indicate higher agreement (positive attitude), while scores < 40% indicate disagreement (negative attitude), and scores between 40 and 60 give the indication of an indifferent attitude.

Within this sample, the 5-item subscales in their Polish version have good to very good reliability coefficients, search (alpha = 0.91), trust (alpha = 0.89) and reflection (alpha = 0.77). Confirmatory factor analysis would indicate the 10 item version of the SpREUK (shortened Polish version = SpREUK-SV) to be more suited in the Polish sample [39]. Because we intended to compare the data of the Polish sample with other patient samples, we will use the respective scales with all items verified by exploratory factor analysis (SpREUK-Polish with 15 items).

2.2.3. SQS Scale

The Self-description Questionnaire of Spirituality (SQS) is an instrument tested first in Polish individuals [35] and was used as an external measure sensitive to the spiritual activities of Polish individuals. The scale originally used 20 items and differentiates 3 factors, *i.e.*, religious attitudes (*i.e.*, faith allows me to survive difficult periods in my life", "while making decisions, I rely on my religious beliefs", *etc.*), ethical sensitivity (*i.e.*, "react when someone is being hurt", "care about other people's situations", *etc.*) and harmony (*i.e.*, "I am part of the world", "while thinking about my life, I experience peace and happiness", *etc.*). However, when testing this scale in our sample, explorative factor analysis indicated four main factors and 4 items that loaded weakly on the respective factors (<0.5); these subscales would explain 68% of the variance. However, to make our data comparable with the few data from Polish studies using this scale, we decided to use the original 20 items included in the three subscales. In this sample, the 7-item religious attitudes subscale had a very good internal reliability coefficient (alpha = 0.94), the 6-item harmony subscale had moderate internal reliability (alpha = 0.78), while the 7-item ethical sensitivity subscale had a weak internal reliability (alpha = 0.67). All were scored on a 5-point Likert scale ranging from "not at all" to "very much". The sum of the subscales indicates overall spirituality.

2.2.4. EtG Scale

To measure positive or negative emotions associated with God (Emotions towards God scale, EtG), we used a 12-item scale, which was not yet validated for the Polish population. The instrument addresses positive emotions with 6 items (*i.e.*, happiness/joy, love, affection, security, shelter, confidence/trust) and further addresses negative emotions first with 5 items (*i.e.*, Guilt, Punishment, Failure, Fear, Anger/Rage) and second with 1 item addressing a person's disinterest in God. Within this sample, the subscale measuring positive emotions has a very good internal reliability (alpha = 0.95), and the subscale measuring negative perceptions has a good internal reliability (alpha = 0.85).

These items, which address love, affection, feeing of emotional security/devotion, protection and trust/faith, were scored on a 5-point scale from disagreement to agreement (0 = does not apply at all; 1 = does not truly apply; 2 = do not know (neither yes nor no); 3 = applies quite a bit; 4 = applies very much). The score was referred to a 100% level (transformed scale score).

2.2.5. Life Satisfaction Scale

Life satisfaction was measured using the Brief Multidimensional Life Satisfaction Scale (BMLSS) [42], which refers to Huebner's "Brief Multidimensional Students' Life Satisfaction Scale" [43,44]. The items of the BMLSS address intrinsic dimensions (myself, life in general), social dimensions (friendships, family life), external dimensions (work situation, where I live) and prospective dimensions (financial situation, future prospects). The internal consistency of the instrument was good (Cronbach's alpha = 0.87) [42]. Here, we included two further items addressing the health situation of patients and their abilities to deal with daily life concerns. Each item was introduced by the phrase "I would describe my level of satisfaction as …" and scored on a 7-point scale from dissatisfaction to satisfaction (0 = terrible; 1 = unhappy; 2 = mostly dissatisfied; 3 = mixed (about equally satisfied and dissatisfied); 4 = mostly satisfied; 5 = pleased; 6 = delighted). The BMLSS-10 sum score refers to a 100% level ("delighted"). Scores >50% indicate higher life satisfaction, while scores <50% indicate dissatisfaction.

2.3. Statistical Analyses

The research team performed reliability (Cronbach's coefficient α) and factor analyses (principal component analysis using oblimin rotation with Kaiser's normalization) and analyses of variance, correlation and regression analyses with SPSS 21.0. The team judged $p < 0.05$ as significant. With respect to the correlation analyses, we regarded $r > 0.5$ as a strong correlation, an r between 0.3 and 0.5 as a moderate correlation, an r between 0.2 and 0.3 as a weak correlation and $r < 0.2$ as either no or negligible correlation.

3. Results

3.1. Patients

As shown in Table 1, the patients' mean age was 56 ± 16; 74% were women and 26% men. Most were married and had a medium educational level. All patients had chronic diseases, predominantly cancer (35%), diabetes mellitus (16%), chronic pain diseases (10%) and other chronic conditions. Polish patients were 100% Catholic; 78% regarded themselves as religious and spiritual (R+S+), 7% as religious, but not spiritual (R+S−), 2% as not religious, but spiritual (R−S+) and 13% as neither religious nor spiritual (R−S−).

3.2. Reliability and Factor Analysis

Items with a poor corrected item-scale correlation were removed (*i.e.*, I recite distinct (holy) texts). The 17-item construct had a very good quality (Cronbach's alpha = 0.90) (Table 2). With respect to the item difficulty (mean value of a given single items within the sample divided by 3 (Likert scale scores 0–3), all values were in the acceptable range from 0.2 to 0.8; all this means there are no bottom or ceiling effects in the responses.

Table 2. Factorial structure of the SpREUK-P in its Polish version and the mean values of respective items.

Items (with identifying item umbers)	**Mean ± Standard deviation**	**Item difficulty index ***	**Corrected item—Scale correlation**	**α if item deleted** (α = 0.887)	**Factor loading**				**Original SpREUK-P Factors**
					1	**2**	**3**	**4**	
Religious practices (α = 0.90; eigenvalue, 6.0; 35% explained variance)									
(p1) pray (for myself, for others)	1.97 ± 0.99	0.66	0.656	0.875	0.848				RP
(p2) go to church	1.93 ± 1.04	0.64	0.616	0.877	0.835				RP
(p19) religious symbols are important in private area	1.99 ± 1.03	0.66	0.613	0.877	0.830				RP
(p8) perform distinct rituals	1.46 ± 1.00	0.49	0.585	0.878	0.781				SP
(p6) read religious/spiritual books	1.17 ± 0.97	0.39	0.672	0.875	0.730				SP
(p20) participate in religious events	1.07 ± 1.16	0.36	0.593	0.879	0.686				RP
(p4) meditate	0.83 ± 1.02	0.28	-	-	-				SP
(p7) work on a mind-body discipline	0.66 ± 0.85	0.22	-	-	-				SP
Humanistic practices (α = 0.87; eigenvalue, 2.7; 16% explained variance)									
(p22) help others	2.02 ± 0.72	0.67	0.509	0.881		0.831			HP
(p23) consider the needs of others	2.13 ± 0.63	0.71	0.485	0.882		0.796			HP
(p25) to do good	2.15 ± 0.58	0.72	0.550	0.881		0.760			HP
(p24) thoughts are with those in need	2.15 ± 0.85	0.72	0.564	0.880		0.644			HP
Existential practices (α = 0.80; eigenvalue, 1.5; 9% explained variance)									
(p11) try to get insight (also into myself)	1.96 ± 0.62	0.65	0.389	0.885			0.844		EP
(p10) reflect upon the meaning of life	1.91 ± 0.72	0.64	0.301	0.888			0.814		EP
(p13) work on my self-realization:	1.89 ± 0.78	0.63	0.283	0.889			0.758		EP
(p15) try to achieve a higher level of consciousness	1.72 ± 0.82	0.57	0.515	0.881			0.600		EP
Gratitude/Awe (α = 0.80 ; eigenvalue, 1.2; 7% explained variance)									
(p29) feeling of great gratitude	1.74 ± 0.78	0.58	0.560	0.879				0.847	GR
(p31) have learned to experience and value beauty	1.96 ± 0.78	0.65	0.470	0.883				0.758	GR
(p30) feeling of wondering awe	1.39 ± 0.86	0.46	0.642	0.876	0.470			0.689	GR

Notes: extraction of the main components (eigenvalue > 1) oblimin rotation with Kaiser's normalization (rotation converged in five iterations); 65% explained variance; factor loadings <0.30 were not depicted; * difficulty index of all items (mean value/3) = 1.69/3 = 0.56.

Factor analysis revealed a Kaiser–Mayer–Olkin value of 0.87, which, as a measure for the degree of common variance, indicates that the item-pool is suitable for a factorial validation. Primary factor analysis (oblimin rotation with Kaiser's normalization) pointed to a 4-factor solution (all with initial eigenvalues >1), which would explain 67% of the variance (Table 2), *i.e.*, the six-item subscale, religious practices (alpha = 0.90), the four-item scale, humanistic practices (alpha = 0.87), the four-item scale, existential practices (alpha = 0.80), and the three-item scale, gratitude/awe (alpha = 0.80).

All scales remained stable; however, the items of the original factors, religious practices and spiritual (mind-body) practices, would form one single factor with eight items (alpha = 0.898). Because items, item p4 (meditation) and item p7 (working on a mind-body discipline), loaded the weakest on this factor and had very low engagement scores, because they address practices derived from Eastern religious traditions, they were not used for the final factor, religious practices. Cronbach's alpha of this six-item scale was 0.897 and is, thus, similar.

3.3. External Validity

Particularly, the factor, gratitude/awe correlated strongly with religious practices, moderately with existential practices and humanistic practices, while religious practices and existential practices correlated only weakly (Table 3).

Concerning the external measures, we found significant correlations with respect to specific measures of SpR attitudes and convictions and emotions towards God (Table 3).

Table 3. Correlation analyses.

	Religious/spiritual practices	**Humanistic practices**	**Existential practices**	**Gratitude/ Awe**
Spiritual practices (SpREUK-P SF17)				
Religious practices	1	0.374 **	0.194 **	0.496 **
Humanistic practices		1	0.374 **	0.395 **
Existential practice			1	0.386 **
Gratitude/awe				1
Spirituality/Religiosity and Coping (SpREUK-Polish)				
Search	**0.718** **	0.334 **	0.274 **	0.493 **
Trust	**0.658** **	0.364 **	0.272 **	0.466 **
Reflection	**0.654** **	0.364 **	0.274 **	**0.504** **
Emotions towards God (EtG)				
Positive	**0.578** **	0.210 **	0.082	0.420 **
Negative	−0.070	−0.057	0.052	0.049
Self-description of Spirituality(SQS)				
Religious attitudes	**0.802** **	0.269 **	0.152	0.484 **
Ethical sensitivity	0.375 **	0.421 **	0.289 **	0.335 **
Harmony	0.329 **	0.277 **	0.305 **	0.429 **
Life satisfaction (BMLSS)	0.133	0.256 **	0.157 **	0.269 **

Notes: ** $p < 0.01$ (Pearson); strong correlations (r > 0.5) were highlighted (bold).

Religious practices were strongly associated with SpREUK's trust, search and reflection scales, with SQS's religious attitudes, and with positive emotions associated with God; ethical sensitivity and

reflection were only moderately associated. Existential practices were best and moderately associated with SQS's harmony scale and weakly with the SpREUK scales, but not significantly with emotions towards God. Humanistic practices and gratitude/awe were moderately to strongly associated with all components of SpREUK, gratitude/awe moderately also with all SQS subscales.

Life satisfaction was weakly associated with humanistic practices and gratitude/awe (Table 3).

3.4. Influencing Socio-Demographic Variables

Various aspects of spirituality (cognitive, emotional, behavioral) are known to be influenced by factors, such as gender, age, educational level and family status. Therefore, we have also tested these putative influences in this sample.

With the exception of existential practices, engagement in spiritual forms of practice was significantly higher in women than in men (Table 4).

Table 4. Mean values of SpREUK-P factors with respect to gender.

		Religious practices	**Humanistic practices**	**Existential practices**	**Gratitude/ Awe**
All patients	mean	53.0	70.4	62.2	56.5
	SD	26.3	18.7	19.1	22.8
Gender					
Women	mean	58.0	72.4	63.3	59.0
	SD	26.3	18.5	18.5	22.4
Men	mean	40.2	64.7	59.2	49.6
	SD	28.4	18.3	20. 7	22.6
F-value		**23.4**	**9.0**	2.5	**9.2**
p-value		**<0.0001**	**0.003**	n.s.	**0.003**
Age					
<41 years	mean	43.6	67.4	64.5	48.8
	SD	25.8	17.8	20.2	21.5
41–50 years	mean	48.1	69.9	60.5	47.5
	SD	27.8	20.4	16.5	25.3
51–60 years	mean	57.9	70.2	64.8	59.7
	SD	29.4	18.1	19.8	21.4
61–70 years	mean	53.9	71.9	61.6	58.5
	SD	27.9	19.3	18.3	21.3
>70 years	mean	58.4	71.7	59.3	63.4
	SD	26.2	18.5	20.3	21.8
F-value		**2.7**	0.5	0.9	**4.9**
p-value		**0.033**	n.s.	n.s.	**0.001**
Religious self-perception					
Religious	mean	61.2	71.5	62.5	59.3
(R+S+or R+S−)	SD	22.1	18.6	18.6	21.6
Non-religious	mean	8.9	63.6	60.5	41.2
(R−S+or R−S−)	SD	10.7	17.9	22.1	23.4
F-value		**218.5**	**6.4**	0.4	**23.9**
p-value		**<0.0001**	**0.012**	n.s.	**<0.0001**

Note: significant correlations were highlighted (bold).

Age had a significant influence on gratitude/awe and religious practices (Table 4), while the educational level had a significant influence only on the mean score of existential practices (F = 3.1; $p = 0.028$); the highest scores were found in the older patients. Living with or without a partner and, also, the underlying disease (cancer *versus* non-fatal chronic diseases) had no significant influence on patients' engagement in spiritual practices (data not shown).

Interestingly, engagement in humanistic practices and also gratitude/awe was significantly higher in patients with a religious self-perception (either R+S+ or R+S−) when compared to their non-religious counterparts (either R−S+ or R−S−), while existential practices did not differ between both groups (Table 4). As can be expected, engagement in religious practices was more or less absent in non-religious patients.

3.5. Regression Analyses

Because many variables may have an impact on patients' engagement in the respective forms of SpR practices (*i.e.*, gender, age and spiritual attitudes), we performed stepwise regression analyses to identify significant predictors of such patient engagement and included the respective variables (Table 5).

Table 5. Predictors of patients' engagement in spiritual practices (stepwise regression analyses).

Dependent variables (SpREUK-P SF17)	Predictors *	R^2	Beta	t	*p*	Collinearity statistics **	
						Tolerance	VIF
Religious practices	(constant)	0.67		−4.812	0.000		
	Religious attitudes (SQS)		0.564	9.179	0.000	0.322	3.104
	Reflection (SpREUK)		0.143	2.780	0.006	0.460	2.172
	Search (SpREUK)		0.151	2.436	0.016	0.319	3.139
	Male gender		−0.072	−1.990	0.048	0.931	1.074
Humanistic practices	(constant)	0.24		1.022	0.308		
	Ethical sensitivity (SQS)		0.303	5.143	0.000	0.811	1.233
	Reflection (SpREUK)		0.208	3.539	0.000	0.815	1.227
	Life satisfaction (BMLSS)		0.149	2.713	0.007	0.938	1.066
Existential practices	(constant)	0.16		2.591	0.010		
	Harmony (SQS)		0.201	3.157	0.002	0.768	1.301
	Ethical sensitivity (SQS)		0.176	2.678	0.008	0.723	1.382
	Reflection (SpREUK)		0.244	3.343	0.001	0.585	1.708
	Positive emotions (EtG)		−0.195	−2.734	0.007	0.616	1.623
Gratitude/awe	(constant)	0.39		−3.819	0.000		
	Reflection (SpREUK)		0.243	3.531	0.000	0.479	2.089
	Harmony(SQS)		0.187	3.400	0.001	0.749	1.336
	Age groups		0.181	3.667	0.000	0.932	1.074
	Life satisfaction (BMLSS)		0.169	3.233	0.001	0.835	1.197
	Search (SpREUK)		0.206	2.945	0.004	0.465	2.152

Notes: * the table presents only the strongest prediction model (disease categories were not in the respective models); ** as the regression coefficients may be compromised by collinearity, we checked the variance inflation factor (VIF) as an indicator for collinearity; VIF > 10 is indicative for high collinearity.

Religious practices can be predicted best by SQS's religious attitudes, with a further influence by the patients' ability to reflect on life (SpREUK's reflection scale), to search for a source of support (SpREUK's search scale) and a weak negative influence of male gender (R^2 = 0.67). Humanistic practices were predicted best (with lower power) by SQS's ethical sensitivity, SpREUK's reflection, and life satisfaction (R^2 = 0.24). Existential practices were predicted (with low power) by various variables, best by SQS's harmony and SpREUK's reflection scale (R^2 = 0.16). Gratitude/awe was predicted best by SpREUK's reflection, SQS's harmony, SpREUK's search, life satisfaction and age (R^2 = 0.39).

4. Discussion

The research team confirmed the Polish version of the SpREUK-P as a valid and reliable instrument that measures a spectrum of religious and secular forms of spirituality.

In contrast to the more secular patients in Germany, in the Polish sample, the items of the former factors religious practices and spiritual (mind-body) practices would load on one single factor (alpha = 0.90). This factor addresses public and private religious practices, but also spiritual mind-body practices (*i.e.*, meditation) and performance of distinct rituals (which were not mentioned in detail). However, two items address practices found in Eastern religious traditions (*i.e.*, meditation, working on a mind-body discipline (such as yoga)), and in fact, the engagement scores of these items were completely different when compared to items measuring the frequency of practices from the Christian religion (*i.e.*, praying, church attendance). Thus, these two items were not used in the scale, religious practices. On the one hand, it could be argued that particularly non-religious individuals will meditate and work on a mind-body discipline, such as yoga, as an alternative to ritualized religious activities of the church (*i.e.*, church attendance, praying, *etc.*). Nevertheless, on the other hand, detailed analyses showed that meditation (item p4) was lowest in non-religious individuals (mean 0.10 ± 0.30) and significantly higher in religious individuals (mean 0.97 ± 1.04); this difference was statistically significant ($F = 28.2$; $p < 0.0001$). Similar differences were found for working on a mind-body discipline (item p7) ($F = 16.9$; $p < 0.0001$). It might be that true a-religious individuals from Catholic Poland have no interest in any kind of formalized spirituality, while non-religious persons from secular societies might be interested particularly in Eastern forms of spirituality as an alternative to Christianity.

Moreover, for Polish individuals, reading religious/spiritual books (item p6) and performing distinct rituals (item p8) have to be seen in a religious context instead of a non-religious context, as found in German individuals [21]. With respect to construct validity, the scale, religious practices, correlated strongly with patients' religious attitudes, religious trust, search for spiritual support, positive emotions towards God, their ability to reflect on what is essential in life and subsequent attempts to change attitudes and behavior (SpREUK's reflection scale). In fact, the best predictor of religious practices was patients' religious attitudes. These associations are sound from a conceptual point of view and underline construct validity.

The scale humanistic practices (alpha = 0.87) addresses secular forms of humanistic spirituality, *i.e.*, helping others, considering the requirements of those in need, *etc.* These practices were predicted best by ethical sensitivity, the ability to reflect life concerns and patients' life satisfaction. One could

suggest that, albeit a central motif found in all religious traditions and highly expressed in the Polish sample, humanistic practices are not necessarily a religious, but an ethical issue.

The scale, existential practices (alpha = 0.80), addresses patients' intention to get insight, to work on their self-realization, their attempts to achieve "higher level" of consciousness and to reflect on the meaning of life. This scale does not address specific "religious" activities, yet the respective activities could be relevant for both religious and non-religious persons, because there was weak association with patients' religious trust, on the one hand, and the experience of peace and happiness (SQS's peace/harmony scale), on the other. The six variables included in the regression model explain only 21% of the variance, indicating that other variables are of relevance for this factor. Interestingly, positive emotions towards God were a weak negative predictor, which further underlines that this scale should be regarded as a non-religious measure.

The scale gratitude/awe (alpha = 0.80) addresses feelings of gratitude, wondering awe and the ability to experience and value beauty (both as an ideal and also in nature and individuals). These unique practices can be predicted best by patients' ability for reflection, peace/harmony, patients' life satisfaction, higher age and search for support/access to SpR. One may suggest that perhaps these activities and perceptions become more and more important with life experience and life esteem at an older age, when people may perceive a connection with the "numinous", and perhaps that gratitude and awe are also a response to value life concerns more consciously in response to illness.

Although it is difficult to compare German and Polish patients with chronic diseases directly, one can nevertheless state that in German patients with chronic diseases investigated with the German version of the SpREUK-P, engagement in spiritual (mind-body practices and religious practices was low, while gratitude/awe and existential practices scored moderately high, and engagement in humanistic practices scored the highest [21]. Somewhat parallel results occurred in Polish patients with chronic diseases. Engagement in humanistic practices and existential practices scored highest, followed next by gratitude/awe, while religious practices also scored lowest. Keeping in mind that both samples differ not only with respect to the underlying diseases, but also with the fact that the Polish patients investigated herein would regard themselves as predominantly religious (85%), compared to only 52% of the German sample [21], one must conclude the principal pattern of engagement in the specific form of practices to be quite similar. In both samples, caring for others was of highest relevance.

Both in this sample and also in German patients [20,21], we found a significant impact of gender with higher engagement scores for women than men. Similarly, results of Krok who has used the Self-description Questionnaire of Spirituality (SQS, which was used in this study, too) in a sample of 208 Polish students, found that women scored significantly higher on ethical sensitivity, religious attitudes and harmony [45]. Thus, these data confirm the well-known fact that women have a higher interest and engagement in SpR issues.

With respect to the conceptual equivalence of the Polish SpREUK-P version, we can state that both the meaning and dimensional structure of the Polish version did not differ significantly from the primary version. The main difference refers to the combined factors, religious practices and spiritual (mind-body) practices, which were separate factors in the more secular German sample. While in Poland, the Roman-Catholic denomination is prevalent, a relatively large fraction of German individuals are offended by institutional religiosity and may regard themselves as not religious, albeit they may have an interest in other forms of spirituality (*i.e.*, Eastern forms of religiosity, including

meditation, yoga, *etc.*). However, the fact that all patients were Catholics in the Polish sample makes it difficult to draw conclusions to religious minorities and atheist/agnostics. Among the 15% non-religious patients within the sample (either R–S− or R–S+), one can at least state that, apart from their evident lack of religious practices, they also have low gratitude/awe and lower humanistic practices. Particularly, these low levels of the ability to be grateful, to value life and to care for others are important aspects to be addressed in future studies, for it is possible that, because they lack these basic experiences and perceptions, non-religious persons may require further support. In other words, whether or not these low abilities have an influence on their quality of life or abilities to cope remains to be investigated.

What about other instruments to measure specific forms of religious and secular forms of spirituality? A further candidate in this context could be the Daily Spiritual Experience Scale (DSES), which measures a person's perception of the transcendence in daily life, and thus, the items measure experience rather than particular beliefs or behaviors [46]. This scale was used also by Wnuk *et al.* to analyze the connection between religious/spiritual variables, the meaning of life and the strength of hope in Polish persons [47]. The 16-item DSES addresses an individual's relationship to God (*i.e.*, feeling God's presence, guidance and love; joy when connecting with God, *etc.*) and includes a secular scale: peace and harmony (*i.e.*, feel inner peace and harmony; feel touched by the beauty of creation; connected to all life; *etc.*) [46].

The religious domain, however, has an exclusive focus on God and, thus, may make it less suitable for non-theistic denominations. The advantage of the SpREUK-P is that specific religious terms are avoided (with the exception of the term "church" in one item) and is thus applicable also in secular societies [20,21]. Moreover, because it avoids the intermingling of attitudes and convictions, on the one hand, and specific forms of practices/activities, on the other hand, it therefore is a more useful tool for deriving definite and precise results in an important field of research.

5. Conclusions

The findings show that the Polish version of the SpREUK-P is suited to measure a wide spread of specific features of both religious and secular forms of practices, even in a predominantly Catholic society. The measurement equivalence, validity and reliability of the instrument are similar to the primary version of the SpREUK-P. Compared to other instruments (*i.e.*, the Daily Spiritual Experience Scale), it has the advantage of measuring a wide range of specific religious, non-religious, existential and humanistic forms of practice/activities and is not contaminated with exclusive religious wordings.

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Author Contributions

AB and JS conceived the study, performed statistical analyses, and have drafted the manuscript. KF and JS recruit the patients. All authors read and approved the final manuscript.

Conflicts of Interest

The authors disclose any direct conflict of interest. The work was neither funded by religious, governmental nor non-governmental organizations.

References

1. Marie-José H.E. Gijsberts, Michael E. Echteld, Jenny T. van der Steen, Martien T. Muller, René H.J. Otten, Miel W. Ribbe, and Luc Deliens. "Spirituality at the end of life, conceptualization of measurable aspects-a systematic review." *Journal of Palliative Medicine* 14 (2011): 852–63.
2. Anja Visser, Bert Garssen, and Ad Vingerhoets. "Spirituality and well-being in cancer patients: A review." *Psychooncology* 19 (2010): 565–72.
3. Arndt Büssing, Andreas Michalsen, Hans-Joachim Balzat, Achim Grünther, Thomas Ostermann, Edmund A. Neugebauer, and Peter F. Matthiessen. "Are spirituality and religiosity resources for patients with chronic pain conditions?" *Pain Medicine* 10 (2009): 327–39.
4. Harold G. Koenig. "Research on religion, spirituality, and mental health: A review." *Canadian Journal of Psychiatry* 54 (2009): 283–91.
5. Amy B. Wachholtz, and Michelle J. Pearce. "Does spirituality as a coping mechanism help or hinder coping with chronic pain?" *Current Pain and Headache Reports* 13 (2009): 127–32.
6. Yoichi Chida, Andrew Steptoe, and Lynda H. Powell. "Religiosity/spirituality and mortality. A systematic quantitative review." *Psychotherapy and Psychosomatic* 78 (2009): 81–90.
7. Jacquelyn N. Crane. "Religion and cancer, examining the possible connections." *Journal of Psychosocial Oncology* 27 (2009): 469–86.
8. Anita M. Unruh. "Spirituality, religion, and pain." *Canadian Journal of Nursing Research* 39 (2007): 66–86.
9. David R. Williams, and Michelle J. Sternthal. "Spirituality, religion and health, evidence and research directions." *The Medical Journal of Australia* 186 (2007): S47–50.
10. Alexander Moreira-Almeida, Francisco Lotufo Neto, and Harold G. Koenig. "Religiousness and mental health: A review." *Revista Brasileira de Psiquiatria* 28 (2006): 242–50.
11. Basak Coruh, Hana Ayele, Meredith Pugh, and Thomas Mulligan. "Does religious activity improve health outcomes? A critical review of the recent literature." *Explore: Journal of Science and Healing* 1 (2005): 186–91.
12. Lyn Rew, and Y. Joel Wong. "A systematic review of associations among religiosity/spirituality and adolescent health attitudes and behaviors." *Journal of Adolescent Health* 38 (2006): 433–42.
13. Branka Aukst-Margetić, and Branimir Margetić. "Religiosity and health outcomes: Review of literature." *Collegium Antropologicum* 29 (2005): 365–71.
14. Y. Joel Wong, Lynn Rew, and Kristina D. Slaikeu. "A systematic review of recent research on adolescent religiosity/spirituality and mental health." *Issues in Mental Health Nursing* 27 (2006): 161–83.
15. Teresa E. Seeman, Linda Fagan Dubin, and Melvin Seeman. "Religiosity/spirituality and health. A critical review of the evidence for biological pathways." *American Psychologist* 58 (2003): 53–63.

16. Donia Baldacchino, and Peter Draper. "Spiritual coping strategies: A review of the nursing research literature." *Journal of Advanced Nursing* 34 (2001): 833–41.
17. Crystal L. Park. "Religiousness/spirituality and health, a meaning systems perspective." *Journal of Behavioral Medicine* 30 (2007): 319–28.
18. Arndt Büssing. "Measures of Spirituality in Health Care." In *Oxford Textbook of Spirituality in Healthcare*. Edited by Mark Cobb, Christina Puchalski and Bruce Rumbold. Oxford: Oxford University Press, 2012, pp. 323–31.
19. Christian Zwingmann, Constantin Klein, and Arndt Büssing. "Measuring Religiosity/Spirituality, Theoretical Differentiations and Categorization of Instruments." *Religions* 2 (2011): 345–57.
20. Arndt Büssing, Peter F. Matthiessen, and Thomas Ostermann. "Engagement of patients in religious and spiritual practices, confirmatory results with the SpREUK-P 1.1 questionnaire as a tool of quality of life research." *Health and Quality of Life Outcomes* 8 (2005): 53. Available online: http://www.hqlo.com/content/3/1/53.
21. Arndt Büssing, Franz Reiser, Andreas Michalsen, Anne Zahn, and Klaus Baumann. "Engagement of patients with chronic diseases in spiritual and secular forms of practice: Results with the shortened SpREUK-P SF17 Questionnaire." *Integrative Medicine: A Clinician's Journal* 11 (2012): 28–38.
22. Beata Zarzycka. "Tradition or Charisma—Religiosity in Poland." In *Religion Monitor 2008. Europe Overview of Religious Attitudes and Practices*. Gütersloh: Bertelsmann Stiftung, 2008, pp. 26–29. Available online: http://www.bertelsmann-stiftung.de/cps/rde/xbcr/SID-8D335224-48508547/bst/ReligionsMonitor_Europa_engl.pdf.
23. Centrum Badania Opinii Społecznej (CBOS). "Dwie dekady przemian religijności w Polsce." Abvailable online: http://docs6.chomikuj.pl/409099551,PL,0,1,Dwie-dekady-przemian-religijno%c5%9bci-w-Polsce.pdf. (In Polish)
24. Rafał Boguszewski. "Polak—Na zawsze katolik? Polska religijność w latach 1989–2008 na podstawie badań CBOS." Available online: http://laboratorium.wiez.pl/teksty.php?polak_na_zawsze_katolik&p=1 (accessed on 22 March 2014). (In Polish)
25. Henryk Skolimowski. "Nowe oblicze Boga w dobie ekologicznej." In *Religia a Ruchy Ekofilozoficzne.* Editd by Jan Dębowski. Olsztyn: Wydawnictwo Wyższej Szkoły Pedagogicznej, 1996. (In Polish)
26. Adam Zamoyski. *New Age. Filozofia, Religia i Paranauka.* Kraków: Nomos, 2002. (In Polish)
27. Zbigniew Pasek, and Agnieszka Dyczewska. "Man and Nature. A New Project on New Spirituality." *Problemy Ekorozwoju—Problems of Sustainable Development* 2 (2012): 67–76.
28. Witold Janocha. "Wierzenia i praktyki parareligijne w percepcji rodziny z osobą niepełnosprawną." *Annals of Family Studies* 4 (2012): 51–66. (In Polish)
29. Ewa Stachowska. "Między instrumentalizacją a teologizacją, czyli miejsce i rola religii w sekularyzowanych społeczeństwach." *Przegląd Religioznawczy* 3 (2009): 58–65. (In Polish)
30. Ryszard Wójtowicz. "Nowa ewangelizacja—odpowiedź na redukcję sacrum." *Przegląd Religioznawczy* 4 (2012)*:* 65–76.
31. Janusz Mariański. "Kościół katolicki w Polsce a środki społecznego przekazu w." In *Kościół i religijność Polaków, 1945–1999: Praca Zbiorowa*. Edited by Witold Zdaniewicz and Tadeusz Zembrzuski. Warszawa: Instytut Statystyki Kościoła Katolickiego SAC, 2000. (In Polish)

32. Maria Libiszowska-Żółtkowska, and Stella Grotowska. *Religijność i Duchowość—Dawne i Nowe Formy*. Kraków: Nomos, 2010. (In Polish)
33. Jakub Pawlikowski "Problemy metodologiczne w badaniach nad związkiem pomiędzy religijnością a zdrowiem." *Studia Metodologiczne* 30 (2013): 123–44. (In Polish)
34. Władysław Prężyna. "Skala postaw religijnych." *Roczniki Filozoficzne* 4 (1968): 75–89. (In Polish)
35. Irena Heszen-Niejodek, and Ewa Gruszczyńska. "Wymair duchowy człowieka, jego znaczenie w psychologii zdrowia i jego pomiar." *Przegląd Psychologiczny* 1 (2004): 15–31. (In Polish)
36. Romuald Jaworski. *Psychologiczne Korelaty Religijności Personalnej*. Lublin: Władysław Prężyna promotora, 1985. (In Polish)
37. Romuald Jaworski. "Sposoby radzenia sobie z trudnościami u osób o różnym typie religijności." *Studia Płockie* 32 (2004): 139–54.
38. Arndt Büssing, Iwona Pilchowska, and Janusz Surzykiewicz. "Spiritual Needs of Polish patients with chronic diseases." *Journal of Religion and Health*, 2014. doi:10.1007/s10943-014-9863-x.
39. Arndt Büssing, Kazimierz Franczak, and Janusz Surzykiewicz. "Spiritual and Religious Attitudes in Dealing with Illness in Polish Patients with Chronic Diseases: Validation of the Polish Version of the SpREUK Questionnaire." *Journal of Religion and Health*, 2014, submitted for publication.
40. Arndt Büssing, Thomas Ostermann, and Peter F. Matthiessen. "Role of religion and spirituality in medical patients, Confirmatory results with the SpREUK questionnaire." *Health and Quality of Life Outcomes* 3 (2005): 10. Available online: http://www.hqlo.com/content/3/1/10.
41. Arndt Büssing. "Spirituality as a resource to rely on in chronic illness. The SpREUK questionnaire." *Religions* 1 (2010): 9–17.
42. E. Scott Huebner, Shannon M. Suldo, Robert F. Valois, J. Wanzer Drane, and Keith Zullig. "Brief multidimensional students' life satisfaction scale, sex, race, and grade effects for a high school sample." *Psychological Reports* 94 (2004): 351–56.
43. Keith J. Zullig, E. Scott Huebner, Rich Gilman, Jon M. Patton, and Karen A. Murray. "Validation of the brief multidimensional students' life satisfaction scale among college students." *American Journal of Health Behavior* 29 (2005): 206–14.
44. Arndt Büssing, Julia Fischer, Almut Haller, Thomas Ostermann, and Peter F. Matthiessen. "Validation of the Brief Multidimensional Life Satisfaction Scale in patients with chronic diseases." *European Journal of Medical Research* 14 (2009): 171–77.
45. Dariusz Krok. "The role of spirituality in coping: Examining the relationships between spiritual dimensions and coping styles." *Mental Health, Religion & Culture* 11 (2008): 643–53.
46. Lynn G. Underwood, and Jeanne A. Teresi. "The Daily Spiritual Experience Scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health related data." *Annals of Behavioral Medicine* 24 (2002): 22–33.
47. Marcin Wnuk, Jerzy Tadeusz Marcinkowski, Mateusz Hędzelek, and Sylwia Świstak-Sawa. "Religijno-duchowe korelaty siły nadziei oraz poczucia sensu życia pacjentów onkologicznych." *Psychoonkologia* 1 (2010): 14–20.