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Religious/Spiritual Well-Being, Personality and Mental Health: A Review of Results and Conceptual Issues

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Abstract The current paper provides background to the development of the Multidimensional Inventory for Religious/Spiritual Well-being and then summarises findings derived from its use with other measures of health and personality. There is substantial evidence for religiosity/spirituality being positively related to a variety of indicators of mental health, including subjective well-being and personality dimensions. Furthermore, religiosity/spirituality can play an important role in the process of recovering from mental illness as well as providing a protective function against addictive or suicidal behaviours. However, further research is needed to examine the mechanisms through which religiosity/spirituality have an impact on health-related conditions.

Keywords Mental health · Personality factors · Religious coping · Spirituality · Subjective well-being

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Introduction

The bio-psycho-social model of health and disease, first proposed by Engel (1977), includes different aspects of health and illness such as biological (e.g. cancer, heart attack), psycho-social (e.g. depressive/anxiety disorders) and socio-economic (e.g. financial problems, divorce) factors. The basic idea of this model is that these dimensions interact as risk factors for health and disease processes. The bio-psycho-social model though comprehensive in principle does not consider a variety of facets that may also play a crucial role in encouraging good health and preventing illness. Specifically, it does not consider religiosity and spirituality, which could be assumed to be important in health and well-being (Marks 2005; Thoresen 1999) as well as in the process of dealing psychologically with a serious or even terminal illness (Smith et al. 2003).

Religiosity and spirituality both relate to the realm of transcendence (Pargament 1999). Religiosity, however, has often been described as being more oriented towards institutions and traditions, while spirituality has been conceptualised as a broader construct, without confessional bonds (Sulmasy 2002). Pargament (1999) provided one of the most influential definitions of religiosity/spirituality from a psychological perspective as a search for meaning in ways related to the sacred. Hence, both religiosity and spirituality can be thought of as an important symbolic dimension of human existence that facilitates the creation of meaning and purpose in life.

While many recognise the implicit importance of religiosity and spirituality, scientific study has been impeded by the lack of development and empirical investigation of reliable and valid measures for the assessment of these constructs. Based on the initial concepts of Intrinsic/Extrinsic Religiosity (Allport and Ross 1967), several approaches have been suggested in this context (e.g. Hill and Hood 1999). Originally, *Intrinsic Religiosity* was described as being more mature in comparison with *Extrinsic Religiosity*: "the extrinsically motivated person uses his religion, whereas the intrinsically motivated lives his religion"(Allport and Ross 1967, p. 434). Moreover, research conducted in the context of mental health and quality of life has shown that religious/spiritual well-being is positively correlated with different parameters of psychological and physiological health (Golub et al. 2010; Thoresen 1999). Furthermore, Piedmont (1999) proposed an extension of the *Big Five* dimensions of personality by considering a sixth factor named Spiritual Transcendence. In addition, Saroglou (2002) reports positive correlations between different parameters of religiosity and three of the *Big Five* dimensions, namely *Extraversion*, *Agreeableness* and *Conscientiousness*. However, *Extrinsic Religiosity* was found to be associated with higher scores on the *Neuroticism* dimension.

The *Spiritual Well-Being* scale (Ellison 1983) became a particularly popular tool in this field of study. The instrument was originally developed by Ellison and Paloutzian (Ellison 1983) with the aim of measuring the quality of one's spiritual health. In this context, spiritual well-being is conceptualised as a two-dimensional construct. On the one hand, religious well-being describes on a vertical axis well-being as it relates to God or even to a transcendent dimension. On the other hand, existential well-being describes on a horizontal axis well-being as it relates to a sense of life, purpose and life satisfaction, without any specific reference to a higher power (Ledbetter et al. 1991). However, there is little research on this scale, and what has been undertaken suggests that this scale is poor psychometrically (i.e. ceiling effects), especially when applied in non-clinical samples (e.g. Ledbetter et al. 1991). However, in the German adaption of this scale, such problems did not occur (Unterrainer et al. 2012a).

The Development of the Multidimensional Inventory for Religious/Spiritual Well-Being

Motivated by our positive experiences with the *Spiritual Well-Being* scale (SWB-S) in several research projects, we then decided to develop a multidimensional version of the SWB-S (Unterrainer et al. 2010a) that covers several aspects of psychological well-being, particularly focusing on an immanent/transcendent area of perception. It is important to note that the SWB-S was originally developed in the United States, and as such, it measures a distinct set of religious/spiritual orientations as compared to Europe reflecting different cultural and historical contexts (Belzen 2010). Hence, another important goal of this research described in this paper was to develop a scale based on the European religious/spiritual background.

As a first step in the development of the Multidimensional Inventory for Religious/Spiritual Well-being (MI-RSWB), five dimensions were conceptualised on a theoretical level, based on the results of relevant research literature, expert interviews and interdisciplinary discussion groups: "Hope", "Forgiveness", "Rituals and Symbols", "Experiences of Sense and Meaning" and "Acceptance of Death and Dying". In addition, a differentiation between an immanent ("bio-psycho-social") and a transcendent ("spiritual") field of perception was made (Unterrainer et al. 2010a). Finally, a six-factor solution ($n = 48$ items) that accounted for 49.24 % of the variance was accepted. The factors were labelled *General Religiosity*, *Connectedness*, *Forgiveness*, *Experiences of Sense and Meaning*, *Hope Immanent* and *Hope Transcendent* (for further details on the development of the scale, see Unterrainer et al. 2010a, b). As shown by Unterrainer et al. (2010a, b), the scale always performed well psychometrically with cronbach's $\alpha > .88$ for the total scale and at least $\alpha > .7$ for all the sub-scales (see also Unterrainer et al., 2013; for the first results of the English version of the scale, see Unterrainer et al., 2012c).

Based on further interdisciplinary discussion, the scale was labelled *Multidimensional Inventory for Religious/Spiritual Well-Being* (MI-RSWB) in order to consider both concepts of religiosity and spirituality in equal measure. Furthermore, this multidimensional approach could also be understood as a potential option to stimulate methods that, although currently only covering the immanent state of health, leave the door open for the integration of a transcendent component (cf. Antonovsky's Sense of Coherence assumption as the core of the salutogenesis concept). Based on the work developing this scale, we defined RSWB as "the ability to experience and integrate meaning and purpose in existence through a connectedness with self, others or a power greater than oneself." (Unterrainer et al. 2011a, p.1).

Dimensions such as *Hope*, *Forgiveness* or *Experiences of Sense and Meaning* were always found to be substantially related to varying indicators of subjective well-being and might therefore be conceptualised as either religious/spiritual dimensions or as general personality dispositions without necessarily having religious/spiritual connotations (Unterrainer et al. 2010a). These three dimensions are not necessarily religious, but bear strong relationships with both religiosity and subjective well-being. For instance, very recently, forgiveness has been confirmed as a mediating variable of the relationship between religiosity and health (Lawler-Row 2010). In addition, two different kinds of beliefs are covered by the concepts of *General Religiosity* and *Connectedness*. *General Religiosity* can best be described as a person's faith being linked to institutions or bound to specific organised religious communities and traditions, whereas *Connectedness* can be conceived as a more deinstitutionalized form of religious belief (e.g. the belief in a higher power; see also Piedmont 1999). Moreover, *Hope Transcendent* can be described as consisting of facets such as the belief in "a better life after death", which might be associated with a lower amount of existential fear or death anxiety (Greenberg et al. 1986).

Additionally, marker items are given as examples in order to illustrate the meaning of the different dimensions: *General Religiosity*: "My faith gives me a feeling of security"; *Connectedness*: "I have experienced the feeling of being absorbed into something greater"; *Forgiveness*: "There are things which I cannot forgive" (coded reversely); *Experiences of Sense and Meaning*: "I have experienced true (authentic) feelings"; *Hope Immanent*: "I view the future with optimism"; *Hope Transcendent*: "I often think about the fact that I will have to leave behind my loved ones" (coded reversely).

Research Aims

This paper represents a synoptic overview of the most important results that were gathered by applying the MI-RSWB to different personality dimensions and to different facets of subjective well-being and mental health in several studies. Specifically, we present the recent research findings of our group that allowed us to investigate the potential links between religiosity/spirituality and different indicators of mental health. As summarised in Table 1, the MI-RSWB has now been utilised in a series of studies, in both clinical and non-clinical samples of participants, and employed with a broad range of different measures (e.g. Big Five personality factors, Sense of Coherence, etc.) to assess different facets of personality and well-being often considered to be relevant indicators of health-related behaviours and mental health.

Methods

Participants and Procedure

The MI-RSB has been applied in several research projects by utilising many different non-clinical as well as clinical samples (e.g. addiction/depressive inpatients). The total duration of an individual test session ranged from 30 to 60 min (including varying measures for validation). Table 1 provides an overview of the studies (including information about participants and measures) that are reviewed in this paper.

Measures

Various measures have been applied: firstly for MI-RSWB validation purposes and secondly as a means of investigating the relationship between dimensions of RSWB, personality factors and indicators of mental health and illness. In order to assist in the interpretation of the main results, we provide a brief summary of the main measures used.

Table 1 Dimensions of RSWB in relation to different parameters of mental health and illness (overview)

Study	*n*	Sample	Mental health and illness related parameters
Unterrainer et al. (2010b)	200	Normal population	Personality factors
Unterrainer et al. (2011a)	263	Normal population	Sense of coherence
Unterrainer et al. (2011b)	102	Students	Magical thinking
Unterrainer et al. (2012b)	200	Anxious/depressive inpatients	Anxiety, depression, suicidal ideation
Unterrainer et al. (2012d)	60	Addiction inpatients	Coping styles

The *Sense of Coherence Scale* (*SOC-13*; short form of the 29-item version) is based on the concept of salutogenesis by Antonovsky (1987). The concept was introduced to describe whether or to what extent a person finds his or her environment and life circumstances understandable, manageable and predictable. The total scale (SOC 13) shows satisfying psychometric properties (Cronbach's $\alpha > .7$).

The *Six-Factors-Test* (*SFT*; Schneider 1997) is based on the Big Five model of personality types. The SFT provides scores for "Extraversion", "Neuroticism", "Openness" and "Conscientiousness". The dimension "Agreeableness" was modified into "Aggressiveness". Additionally, a sixth dimension, "Piety", was included. In the SFT, the phrasing of the items was slightly simplified in order to be reasonably applicable in samples of psychiatric patients. The internal consistencies (Cronbach's α) of these different scales (4–12 items) vary between .6 and .8.

The *Brief Symptom Inventory (BSI)* is a concise psychological self-report symptom scale (a shorter version of the SCL 90 R) with 53 items. A psychometric evaluation of the BSI showed that it is an acceptable alternative to the complete SCL 90 R. Nine dimensions of psychiatric symptoms, namely Psychoticism, Hostility, Anxiety, Somatization, Phobic Anxiety, Interpersonal Sensitivity, Paranoid Ideation, Depression and Obsessive–Compulsive, can be measured. It is also possible to calculate a Global Severity Index (GSI) by summing up all the subscales (Franke 2000; Cronbach's $\alpha > .7$ for all the sub-scales and $> .8$ for the GSI).

In addition, the *Beck Depression Inventory (BDI)* was applied, which is considered a well-established instrument in this field for measuring the behavioural manifestations of depression. Many authors have pointed out the excellent properties of the 21-item instrument for the purposes of research and therapy evaluation. Suicidal Ideation was separately assessed using the BDI single-item "thoughts of killing myself" (Hautzinger et al. 1994; Cronbach's $\alpha > .8$ for the total score).

The *Magical Ideation Scale* was developed by Eckblad and Chapman (1983) and consists of 30 items. Magical ideation in this particular context can be described as a belief in a number of supernatural influences (e.g. thought transmission or reincarnation, among others). A few items tap magical beliefs that receive little or no support (e.g. believing in the presence of a secret message in the behaviours of others). According to Eckblad and Chapman (1983), people who score very high on the magical ideation scale also report more psychotic ideation. The scale showed convincing psychometric properties (Cronbach's $\alpha > .81$ in different samples). The items for the English version of the scale can be found in Eckblad and Chapman (1983). We used a German translation of the scale for the present study (Cronbach's $\alpha = .81$; see Unterrainer et al. 2011b for further information).

In addition to this, the short version of the *Freiburger Coping Questionnaire* (FCQ-LIS) was applied in order to assess coping styles. The short version of the scale consists of 35 items covering five different ways of coping: Active, Problem focused Coping, Depressive Coping, Religiosity and Search for Meaning, Trivialisation/Wishful Thinking and Deflection/Self Confirmation. The scale displays good psychometric properties (at least $\alpha > .7$) as obtained in a variety of clinical samples (Muthny 1989).

Results

Personality Dimensions

As shown in Table 2, different dimensions of RSWB turned out to be substantially related to distinctive personality factors as well as *Sense of Coherence*. *Hope Immanent*,

Table 2 Dimensions of RSWB in relation to different indicators of personality structure and subjective well-being

	n	Sample	HI	FO	SM	GR	CO	HT	RSWB
Extraversion[a]	200	np	.44***	.30***	.24**	.07	.15*	.10	.34***
Neuroticism[a]	200	np	−.46***	−.25***	−.05	.04	.11	−.35***	−.24**
Conscientiousness[a]	200	np	.09	.02	.12	.20**	.06	−.21**	.10
Aggressiveness[a]	200	np	−.17*	−.54***	−.08	−.21**	−.10	−.18*	−.39***
Openness[a]	200	np	.16*	−.03	.23**	.23**	.17*	−.10	.12
Piety[a]	200	np	−.01	.25***	.22**	.79***	.36***	−.15*	.52***
Sense of Coherence[b]	263	np	.48***	.42***	.26**	.22**	.07	.34***	.43***

HI Hope Immanent, *FO* Forgiveness, *SM* Experiences of Sense and Meaning, *GR* General Religiosity, *CO* Connectedness, *HT* Hope Transcendent, RSWB Religious/Spiritual Well-Being total score, *np* normal population

[a] Unterrainer et al. (2010a)

[b] Unterrainer et al. (2011a)

* $p < .05$; ** $p < .01$; *** $p < .001$

Forgiveness and the total score of the RSWB were positively correlated (ranging from .34 to .44) with the personality dimension *Extraversion*, the respective correlations of *Experiences of Sense and Meaning* and *Connectedness* were lower (.24 and .15, respectively), while no significant correlations with extraversion were found with respect to the remaining RSWB dimensions *General Religiosity* and *Connectedness*.

The dimension *Neuroticism* was mostly negatively correlated with *Hope Immanent* ($r = -.46$), *Forgiveness* ($r = -.25$), *Hope Transcendent* ($r = -.35$) and the total RSWB score ($r = -.24$). The remaining RSWB dimensions were not significantly correlated with *Neuroticism*. Interestingly, with respect to the personality dimension *Conscientiousness*, only weak (but significant) correlations were found, involving the RSWB dimensions *General Religiosity* and *Hope Transcendent* (see Table 2). As expected, there were significant negative correlations between different facets of RSWB and the personality dimension *Aggressiveness* (as an inverse correlate of *Agreeableness*), particularly with *Forgiveness* ($r = -.54$, see Table 2).

A number of significant, albeit small to moderate, correlations (up to .23) were found between the personality dimension *Openness to Experience* and the RSWB dimensions *Hope Immanent*, *Experiences of Sense and Meaning*, *General Religiosity* and *Connectedness*. It appears particularly worth mentioning that all of these correlations were positive. The strongest correlation was found between the sixth personality dimension *Piety* and the RSWB dimension *General Religiosity* ($r = .79$), suggesting that these dimensions may be multicollinear. *Piety* was, moreover, significantly positively associated with *Forgiveness*, *Experiences of Sense and Meaning*, *Connectedness* and the RSWB total score, and weakly negatively with *Hope Transcendent.* Furthermore, there were several positive correlations (ranging from .22 to .48) found between *Sense of Coherence* (as an indicator of subjective well-being) and the RSWB dimensions *Hope Immanent*, *Forgiveness*, *Experiences of Sense and Meaning*, *General Religiosity*, *Hope Transcendent* and the RSWB total score (see Table 2). In addition, *Magical Thinking* turned out to be substantially positively related with *Connectedness* ($r = .46$).

Mental Health

Also in line with our expectations, substantial negative associations were found between different dimensions of RSWB and symptoms of mental illness among mood-disordered patients (Unterrainer et al., 2012b). For instance, feelings of *Anxiety* turned out to be significantly negatively correlated with *Hope Immanent*, *Forgiveness*, *General Religiosity* and the RSWB total score (in the range between $-.22$ and $-.42$; see Table 3). *Anxiety* was not significantly associated with *Experiences of Sense and Meaning*, *Connectedness* and *Hope Transcendent*. A similar pattern of results emerged with respect to symptoms of *Depression* (see Table 3). And finally, *Suicidal Ideation* was also found to be negatively correlated with several RSWB dimensions (in the range between $-.19$ and $-.56$), especially with *Hope Immanent* ($r = -.56$, see Table 3). Only *Experiences of Sense and Meaning* displayed no significant correlation with *Suicidal Ideation*.

Furthermore, RSWB dimensions were found to be substantially correlated with more adequate coping among addiction patients, as for instance the RSWB total score turned out to be substantially positively correlated with *Active, Problem focused Coping* ($r = .50$) as well as negatively correlated with *Depressive Coping* ($r = .31$). Higher religious/spiritual addiction patients were also found to use *Religion/Meaning based Coping styles* ($r = .46$) more often (Table 3).

Table 3 Dimensions of RSWB in relation to different indicators of mental illness and coping

	n	Sample	HI	FO	SM	GR	CO	HT	RSWB
Magical Thinking[a]	102	st	−.12	.17	.08	.07	.46***	.02	.20*
Anxiety (BSI)[b]	200	dp	−.42***	−.22**	−.03	−.22**	−.13	−.04	−.28***
Depression (BDI)[b]	200	dp	−.55***	−.32***	−.10	−.05	−.14	−.14	−.37***
Suicidal Ideation ($^{\#}$BDI)[b]	200	dp	−.56***	−.23**	−.10	−.19*	−.24**	−.19*	−.39***
Active CS[c]	60	ap	.48**	.17	.39*	.33*	.29	.12	.50**
Depressive CS[c]	60	ap	−.37*	−.44*	−.16	−.01	.00	−.31*	−.31*
Religious/Meaning based CS[c]	60	ap	.10	.17	.15	.58**	.50**	.03	.46**
Trivialisation CS[c]	60	ap	−.34*	−.21	−.19	.04	−.03	−.28	−.24
Deflection CS[c]	60	ap	.52**	.18	.28	.22	.23	−.04	.37*

HI Hope Immanent, *FO* Forgiveness, *SM* Experiences of Sense and Meaning, *GR* General Religiosity, *CO* Connectedness; *HT* Hope Transcendent; *RSWB* Religious/Spiritual Well-Being total score, *BSI* Brief Symptom Inventory, *Depr* Depression, *BDI* Beck Depression Inventory, $^{\#}$*BDI item* "Thoughts about killing myself", *CS* Coping style, *st* students, *dp* psychiatric inpatients, *ap* addiction inpatients

[a] Unterrainer et al. (2011a)

[b] Unterrainer et al. (2012b)

[c] Unterrainer et al. (2012d, in press)

* $p < .05$; ** $p < .01$; *** $p < .001$

Discussion

This paper focuses on the relationship between different dimensions of RSWB and varying indicators of personality as well as subjective well-being, mental health and coping. The interpretation of RSWB as having six dimensions, as well as the total score of RSWB, was confirmed in a series of empirical studies employing a large number of participants in both clinical and non-clinical environments (Tables 2, 3). As shown in Table 2, RSWB dimensions were shown to be correlated with different *Big Five* personality dimensions (expanded by a sixth dimension, *Piety*) in a meaningful pattern. Interestingly, *Hope* and *Forgiveness* always turned out to be positively related to *Extraversion*, which could be understood as an indicator in personality of mental health (see also Unterrainer et al. 2010b). Moreover, there were consistently negative correlations between *Hope*, *Forgiveness* and *Neuroticism*. Additionally, as shown in Table 2, *Hope* and *Forgiveness* were found to be related positively to *Sense of Coherence*. Collectively, these results suggest that *Hope* and *Forgiveness* are the stronger indicators for mental health in general. In addition, there is also a negative association between *Neuroticism* and *Hope Transcendent* as one of these dimensions of well-being, which represent the transcendent area in our model. This adds weight to our conjecture that general *Hope Transcendent* is characterised by the absence of death anxiety (Unterrainer et al. 2010b).

Furthermore, *Forgiveness* turned out to be quite strongly and negatively correlated with *Aggressiveness* (an inverse correlate of *Agreeableness*). This result is consistent with the positive outcomes that have been reported for Forgiveness Therapy with traumatised or embittered patients (McCullough et al. 2000). By contrast, we observed less significant results for *Experiences of Sense of Meaning* (SM) with regards to mental health subjective well-being, as for instance SM was found to be poorly correlated with Sense of Coherence. This may be attributed to the fact that *SM* might be considered a broader concept, which could be approached more adequately by a multidimensional assessment. However, there was a positive correlation between SM and *Active Coping* among addiction patients (Table 3).

Furthermore, apart from *Hope Transcendent*, the other two transcendent dimensions, *General Religiosity* as well as *Connectedness*, were found to be rather weakly correlated with some aspects of mental health and subjective well-being. For instance, highly religious individuals were shown to be less aggressive and more open to experience (at least in a sample coming from the normal population; see Table 1). In addition, we observed a similar pattern of results for *Connectedness*, which was shown to be relatively weakly correlated with the personality factors of *Extraversion* and *Openness to Experience* as a predisposition of psychological well-being. Interestingly, by inspecting Table 3, we find *Connectedness* to be strongly associated with *Magical Thinking*. In fact, *Magical Thinking* might bear positive (e.g. creativity) as well as negative (e.g. being prone to schizotypal features) aspects within the human personality structure (see Unterrainer et al. 2011a for further discussion).

These findings for personality are almost the mirror image of our findings on psychiatric symptoms. Again, *Hope* and *Forgiveness* were the most prominent negative indicators of symptoms of mental illness. Moreover, all transcendent dimensions show a negative correlation with *Suicidal Ideation*. In addition, a higher amount of *General Religiosity* was found to be correlated with a lower amount of *Anxiety*. Furthermore, the total score on RSWB reflects the findings for the sub-scales and provides a good general summary: We found total RSWB to be positively associated with the personality dimensions *Extraversion* and *Piety* as well as being negatively correlated with *Neuroticism* and *Aggressiveness*

(Table 3). In addition, RSWB was found to be positively associated with *Sense of Coherence* and more adequate *Coping Styles* as indicators of subjective well-being and also negatively with symptoms of mental illness (Table 3; see also Unterrainer et al., 2012e).

In conclusion, based on our results, we emphasise the idea of considering a religious/spiritual or the transcendent dimension in personality and health research. This means that we support the idea of a bio-psycho-socio-spiritual model of health and disease. However, as already noted by Sloan et al. (1999), there might be aspects of religiosity and spirituality which could have a salutogenetic function, but far more (especially longitudinal) research is necessary to help identify and describe these mechanisms more clearly as health and illness always might be conceived as a processual event (Antonovsky 1987). This also relates to the fact that religious/spiritual issues could act as an aggravating factor. Notably, under the condition of accepting religiosity/spirituality as an additional dimension relevant for the human personality structure, we ought to keep in mind that these religious/spiritual facets remain relevant when it comes to personality disorder (Piedmont 2009). As a result, this might also be an interesting starting point for future research in order to learn more about the many facets of religiosity and spirituality.

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