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THE INTERNAL STRUCTURE OF THE POLISH ADAPTATION OF THE RELIGIOUS COMFORT AND STRAIN SCALE

The aim of this article is to present the theoretical background and internal structure of the Polish adaptation of the Religious Comfort and Strain Scale (RCSS) by Yali, Exline, Wood, and Worthington. Exploratory Factor Analysis showed that the Polish adaptation of RCSS has four factors: it consists of a one-dimensional *Religious Comfort* subscale and three subscales regarding religious strain: (1) *Negative emotions toward God*, (2) *Fear-Guilt* and (3) *Negative social interactions surrounding religion*. The scale's reliability and construct validity are satisfactory. Although further research is needed, it may be assumed that this tool can be used successfully in research on the functional aspects of religion.

Keywords: religious comfort, religious struggle, measure of religiosity.

INTRODUCTION

People derive various benefits from religion: support and solace, comfort and sense of security (Jonas & Fischer, 2006). Religious life may meet the need for relationships, provide tips for coping with adversities and help to shape sense of life (Kirpatrick, 2004; Park, 2005). Religion encompasses the question about the ultimate truth and addresses the most serious problems regarding life, suffering, and death (Elliott & Hayward, 2007). Religiosity may make it easier for people to understand the world, themselves, and their place in the world; it may provide

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answers to the problems they encounter and the strength needed to face them (Pargament, 1997; Pargament, Koenig, & Perez, 2000). The supportive role of religion becomes particularly clear in difficult, recondite, and borderline situations (Park, 2005).

Although religious life may provide consolation and support, its potential for struggle and internal strain is also considerable (Exline, Yali, & Sanderson, 2000). For example, people may perceive God as distant and punishing (Benson & Spilka, 1973; Coe, 2000). They are not unanimous in basic issues regarding the religious doctrine or they feel disappointed with the religious institution (Krause, Chatters, Meltzer, & Morgan, 2000). Religion may be a source of discomfort if it focuses people's attention on their sinfulness and the prospect of God's punishment (Virkler, 1999). Normative rules in religion happen to be a challenge and oblige people to take actions that evoke discomfort (Exline, 2002). Believing is accompanied by doubts and religious involvement is mixed with the experience of crisis, moving away from and coming back to religion (Streib, Hood, Keller, Csöff, & Silver, 2009). People are angry with God because of their personal disappointments and failures (Pargament, Murray-Swank, Magyar, & Ano, 2004). In this respect, religion is a source of comfort and discomfort, integration and disintegration, uplift and guilt feeling, a source of solace and comfort as well as stress and internal struggle.

Exline, Yali, and Sanderson (2000) constructed a scale for the measurement of religion as a source of comfort and strain (Religious Comfort and Strain Scale – RCSS). The present research shows the factor structure and reliability indicators for the Polish version of RCSS. The article consists of three parts. The first part presents the theoretical and empirical context of religion as a source of comfort and strain. The second part describes the original RCSS version and the procedure of its Polish adaptation. The third part encompasses the factor structure of the method's Polish version and its reliability indicators.

BACKGROUND: RELIGION AS A SOURCE OF COMFORT AND STRAIN

Religion belongs to the group of significant cultural factors which bring structure and meaning to people's experiences and behaviors. In the last thirty years psychologists have discovered and described positive functions of religiosity in various areas of social adaptation, somatic and mental health, well-being and quality of life (see Koenig, 1997; Koenig, McCullough, & Larson,

2001) as well as potential benefits from religion as a coping mechanism (see Pargament, 1997). For example, high frequency of participating in religious services coexisted with a low level of depression and somatic symptoms (Schumacher, Wilz, Gunzelmann, & Brähler, 2000), whereas religious involvement correlated positively with high spirits and the sense of internal consistency (Ellison, 1991; Saraglou, 2002). Internal religious orientation (Allport & Ross, 1967) correlated positively with life satisfaction (Zwingmann, 1991), social adaptation (Koenig, Kvale, & Ferrel, 1988; Watson, Morris, & Hood, 1994), self-control, and better mental functioning (Bergin, Masters, & Richard, 1987). Based on the results of numerous studies, we may indicate the positive role of religiosity in the prevention of illnesses, in coping with them, and in recovering from them (Acklin, Brown, & Mauger, 1983; Mueller, Plevak, & Rummans, 2001; Ryan, Rigby, & King, 1993; Tagay, Erim, Brähler, & Senf, 2006). Taking into account the pragmatic advantages granted by religion, it seems obvious to follow the opinion that religion is a source of comfort and a tool to cope with stress and difficult events in life (Exline, 2002).

However, religious life provides not only benefits, but also stress and internal struggle. Religious struggle is a notion which encompasses a wide spectrum of phenomena: guilt feeling because of one's own sin, questions regarding religious doctrine, conflict, doubt, strain related to faith, relationship with God, as well as relationships with religious leaders and with other believers. Although the term "religious struggle" is relatively new in the psychology of religion, numerous phenomena within this category have been explored in the last few decades.

A certain functional resemblance to religious struggle may be found in the concept of religious coping with stress. Pargament (1997) isolated the so called positive and negative religious coping patterns. The former expresses a close and safe religious relationship and appears in behaviors such as: benevolent religious reappraisal, seeking spiritual support, spiritual connection, collaborative religious coping, seeking support from clergy or members, religious forgiving, or religious helping. The latter pattern expresses a weak or no relationship with God and appears in behaviors such as: punishing God reappraisal, reappraisal of God's power, spiritual discontent, self-directing religious coping, interpersonal religious discontent, and demonic reappraisal. It is actually the category of negative coping with stress that is close to the notion of religious strain. This view is confirmed by the results of empirical studies, which, on the one hand, point out that the positive coping pattern correlated positively with the indicators of well-being, mental comfort and mental-social adaptation. On the other hand, negative

coping correlated negatively with the indicators of health and positively with the indicators of discomfort and low quality of life (Manne, Taylor, Dougherty, & Kemeny, 1997; Pargament, Koenig, Tarakershwar, & Hahn, 2001; Rook, 1984; Pargament et al., 1998; Schuster, Kessler, & Aseltine, 1990).

Further empirical research was directed at the exploration of various strain categories (see e.g., Hunsberger, McKenzie, Pratt, & Prancer, 1993; Idler et al., 2003; Kooistra & Pargament, 1999; Krause et al., 2000). For example, the subject of the studies were religious doubts (e.g., Krause, Ingersoll-Dayton, Ellison, & Wulff, 1999), religious guilt feeling (e.g. Exline et al., 2000), and anger toward God (Pargament et al., 2001). The frequency of these phenomena in various samples was tested, and so were their links with the indicators of health, well-being, and quality of life. The results of these studies show that adults (e.g., Nielsen, 1998), students (e.g., Hunsberger, Pratt, & Prancer, 2002; Kooistra & Pargament, 1999), in-patients (e.g., Fitchett, Rybarczyk, DeMarco, & Nicholas, 1999; Pargament et al., 2001), and even religious leaders (e.g., Krause, Ellison, & Wulff, 1998; Pargament et al., 2001) experience religious strain. Empirical data also suggest that the individual categories of religious strain coexist with lower indicators of mental health and religious functioning. For example, religious anxiety and religious guilt feeling correlated positively with suicidality in the clinical population (Exline et al., 2000). Religious doubts correlated negatively with well-being but this effect was stronger in younger study participants than in older ones (Krause et al., 1999). Religious doubts in religious group members correlated negatively with self-assessment and general indicators of psychological adaptation, but also with anxiety and low mood. Similarly, religious doubts in students coexisted with generally lower indicators of psychological and religious functioning and low mood (Pargament et al., 1998). Increasing interest in religious strain and systematic empirical research attempts gradually formed a basis for the new construct.

It was Julie Exline who made an effort to describe religiosity synthetically and operationalize it as a source of comfort and strain (Exline et al., 2002; Exline & Rose, 2005). She described religious comfort in terms of potential benefits that people can derive from religion, i.e.: (1) positive relationship with God and (2) benefits of religious faith. The difficulties that people encounter were described in terms of three strain categories, referred to as: (1) disappointment, anger, and mistrust toward God, (2) inner struggle to believe, and (3) distaste toward religious groups or persons. In cooperation with Yali, Sanderson, Wood, and Worthington, Exline constructed a questionnaire to measure religious comfort and strain.

THE CONSTRUCTION OF THE RELIGIOUS COMFORT AND STRAIN SCALE

Religious Comfort and Strain Scale was first published in 2000 as a set of 20 face-valid items designed to encompass both religious comfort and religious strain (see Exline et al., 2000). Participants were asked the following question: "To what extent are you currently having each of these experiences?" Items were rated on a 4-point scale (0 = *not at all*; 3 = *extremely*). RCSS consisted of four subscales: one seven-item subscale for religious comfort and three subscales (which could also be combined and scored as a single 13-item subscale) for religious strain. The *Religious Comfort* subscale accounted for 31.2% of the variance, had an eigenvalue of 6.2 and a reliability of $\alpha = .87$. The religious strain subscales were the following: *Alienation from God* (eigenvalue 2.7, 13.4% of variance, $\alpha = .77$), *Fear-Guilt* (eigenvalue 1.6, 8.1% of variance, $\alpha = .72$), and *Religious Rifts* (eigenvalue 1.2, 5.9% of variance, $\alpha = .67$). All subscales were scored by averaging across items. The four subscales jointly accounted for 55% of the total variance in religiosity (see Exline et al., 2000).

The analysis of psychometric values of RCSS allowed the authors to determine the need for correcting some of the items and adding new ones to the scale. Then the authors continued testing the method. The results served as data for the Exploratory Factor Analysis (EFA), which showed that RCSS has a 5-factor structure. It consists of two subscales which measure religious comfort and three subscales for the measurement of religious strain. The authors described the subscales of religious comfort as follows (J. J. Exline, personal communication, February 17, 2009):

1. *Positive relationship with God* (GOD-POS): a sense of trust toward God, perceiving God as almighty, supportive, and caring for people;
2. *Benefits of religious faith* (aside from specific relationship with God) (FAITH-POS): perceiving faith as the source of strength, peace, harmony, sense of meaning and purpose in life.

Similarly, they described the subscales of religious strain as follows (J. J. Exline, personal communication, February 17, 2009):

1. *Negative emotions toward God* (UNEG-GOD): negative feelings toward God; perceiving God as unfair, untrustworthy, cruel, and abandoning people;
2. *Negative social interactions surrounding religion* (SOC-NEG): negative emotions and relationships with other believers;
3. *Fear-Guilt*: preoccupation with own sin, guilt; a sense of being unforgiven by God.

The updated RCSS version consisted of 24 items and it was given an 11-point answer format (0 = *not at all*; 10 = *extremely*). This version served as the basis for the Polish adaptation.

The Polish Adaptation of RCSS

The original English version of RCSS was delivered to the Polish team and translated into Polish in 2009. The translation was done in accordance with the guidelines of the International Test Commission (Hambleton, 2001). The applied translation procedure included the possibility of introducing necessary modifications if the language specificity of the original would cause an inequivalence of the tool (Drwal, 1995). Three English studies graduates translated the scale's items from English into Polish. Based on their work, the initial form of the Polish version of the method was determined. Then, this version was handed over to another English graduate who translated it back into English. Based on the comments provided by the translators, the first experimental version of the Polish RCSS was compiled. Later, it was applied in research which served as a basis for determining the internal structure of RCSS.

Sample

The research was conducted in 2009-2011 on a sample of three adult groups. Altogether, there were 995 respondents, 512 women and 483 men, aged between 18 and 79 ($M = 35.75$; $SD = 16.30$). Table 1 shows the characteristics of the sample. The data from all three groups were used to determine the RCSS factor structure and the reliability of individual subscales.

Table 1
Gender and Age of the Sample

Group		Population			Age			
		Women	Men	Total	<i>M</i>	<i>SD</i>	Min.	Max.
Group 1	Adults	331	301	632	41.73	16.82	18	79
Group 2	Adults	132	134	266	25.00	7.53	19	61
Group 3	Adults	50	47	97	25.77	8.99	18	60
Total		513	482	995	30.83	11.11	18	79

The Internal Structure of RCSS

Principal Component Analysis with Varimax rotation was applied to explore the RCSS factor structure. The application of the factor analysis was preceded by checking whether there were any correlations between the variables used in the study. A strong correlation between variables would have indicated a high probability that they would form factors that were strong and easy to interpret. The techniques which enable us to evaluate the adequacy of the sample are the Kaiser-Meyer-Olkin Test and the measure of sampling adequacy for each item (MSA). The KMO coefficient takes values ranging from 0 to 1. The higher the value, the stronger the grounds for applying factor analysis in the evaluation of links among the observable variables. Next, the MSA indicator allows us to eliminate individual variables from the study. MSA values below .5 suggest that correlations of a given variable cannot be accounted for by other variables and that it should be excluded from further analysis. The values for the present data set are as follows: KMO = .94, and the lowest MSA = .82. These results mean that sample adequacy is high.

A series of component number analyses was conducted for the determination of the number of subscales in the Polish version of RCSS. Following the Kaiser criterion, it was necessary to identify the components with eigenvalues exceeding 1. Thus, four components should be distinguished in RCSS (see Table 2).

Table 2
Eigenvalues and the Percentages of Explained Variance for the Suggested RCSS Factor Structures

Component	Extraction			Rotation Sums of Squared Loadings					
	Initial Eigenvalues	Sums of Squared Loadings	% of Variance	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.85	36.89	36.89	8.85	36.89	36.89	7.44	31.00	31.00
2	4.08	16.99	53.88	4.07	16.98	53.88	3.82	15.93	46.93
3	1.44	6.01	59.89	1.44	6.01	59.89	2.70	11.24	58.18
4	1.05	4.37	64.26	1.04	4.36	64.26	1.45	6.07	64.26

The Kaiser criterion has a number of limitations; for example, it tends to overestimate the number of components and it is viewed as quite arbitrary (Hayton, Allen, & Scarpello, 2004). This is why five additional criteria were applied to evaluate the number of RCSS components: Cattell's Scree Plot, Parallel Anal-

ysis, Optimal Coordinates Analysis, Acceleration Factor, and the method based on multiple regression. Only the Acceleration Factor showed that only one component should be distinguished. All other methods indicated that four components should be distinguished (see Table 3).

Table 3
The Analysis of the Number of RCSS Components by Graphical and Numerical Criteria

Criterion	Number of Components
Eigenvalue >1	4
Scree Plot	4
Parallel Analysis	4
Optimal Coordinates	4
Acceleration Factor	<2
Multiple Regression	4

In addition, the quality of restoring the original correlation matrix was verified on the basis of the four-component solution. The Pearson correlation coefficient between the original and the restored correlation matrix amounted to .99, which confirms the validity of the adopted solution.

Principal Component Analysis revealed four position sets which jointly account for 64.24% of the total variance (see Table 4).

The resulting components were named as follows:

Religious Comfort, component 1, encompasses 10 items which explain almost 37% of the total variance. It includes all the statements that originally made up two factors: *Positive relationship with God* and *Benefits of religious faith*.

Negative emotions toward God (UNEG-GOD), component 2, encompasses six items which explain almost 17% of the total variance. Quite unexpectedly, apart from the five items which formed this subscale in the original RCSS, item 19 (*Believe that God disapproves of you*), which belonged to the *Fear-Guilt* factor in the English version, also fell into this component.

Fear-Guilt, component 3, encompasses six items which explain 6% of the total variance. Item 6 (*Believe that God sees you as a bad person*), which originally belonged to this factor, has a high loading in two factors: *Fear-Guilt* and *Negative emotions toward God*. Quite unexpectedly, item 5 (*Fear that religious people will condemn you for your mistakes*), which belonged to the *Negative social interactions surrounding religion* factor in the original version, also fell into this category.

Table 4
PCA With Varimax Rotation: Factor Loadings for the Resulting Components and the Percentages of Explained Variance

Item number	Subscale	Item	Components			
			1	2	3	4
RCSS14	FAITH-POS04	Feel energized by your faith.	.88	-.06	.01	-.11
RCSS21	GOD-POS04	Feel supported by God.	.87	-.25	.00	.00
RCSS22	GOD-POS05	Feel nurtured or cared for by God.	.85	-.22	.01	.03
RCSS18	FAITH-POS05	Find that your religion/spirituality gives you peace of mind.	.85	-.11	-.00	-.13
RCSS04	FAITH-POS01	Find that your beliefs give you a sense of meaning or purpose.	.85	-.10	.06	-.16
RCSS01	GOD-POS01	Trust God to protect and care for you.	.84	-.18	.09	.00
RCSS20	GOD-POS03	Feel loved by God.	.84	-.21	-.04	.00
RCSS08	FAITH-POS02	See your beliefs as a source of strength.	.83	-.11	.02	-.17
RCSS13	FAITH-POS03	See your faith as a source of peace and harmony.	.79	-.12	.04	-.14
RCSS15	GOD-POS02	View God as all-powerful and all-knowing.	.73	-.20	.09	-.01
RCSS09	UNEG-GOD03	Feel that God has let you down.	-.19	.76	.16	.14
RCSS23	UNEG-GOD05	Feel abandoned by God.	-.25	.75	.25	.07
RCSS07	UNEG-GOD02	See God's actions as unfair.	-.22	.74	.07	.11
RCSS12	UNEG-GOD04	View God as unkind.	-.12	.73	.06	.14
RCSS03	UNEG-GOD01	Feel angry at God.	-.15	.72	.06	.17
RCSS19	FEAR-GUILT05	Believe that God disapproves of you.	-.19	.49	.39	.06
RCSS10	FEAR-GUILT02	Fear that God will condemn you for your mistakes.	-.00	.24	.72	.06
RCSS17	FEAR-GUILT04	Feel excessive guilt about your sins and mistakes.	.32	-.05	.68	.05
RCSS11	FEAR-GUILT03	Believe that sin has caused your problems.	.21	-.07	.67	-.10
RCSS24	FEAR-GUILT06	Believe that you have committed a sin too big to be forgiven.	-.05	.28	.65	.10
RCSS06		Believe that God sees you as a bad person.	-.12	.48	.54	.00
RCSS05	SOC-NEG02	Fear that religious people will condemn you for your mistakes.	-.04	.19	.50	.29
RCSS02	SOC-NEG01	Feel resentment toward others in your religious group.	-.09	.19	.11	.82
RCSS16	SOC-NEG03	Have bad memories of past experiences with religion or religious people.	-.20	.31	.08	.68
Explained Variance			36.89	16.98	6.01	4.36

Note. GOD-POS = Positive relationship with God; FAITH-POS = Benefits of religious faith; UNEG-GOD = Negative emotions toward God; SOC-NEG = Negative social interactions surrounding religion; FEAR-GUILT = Preoccupation with own sin, guilt, and a sense of being unforgiven by God.

Negative social interactions surrounding religion (SOC-NEG), component 4, encompasses only two items which explain a little over 4% of the total variance. In contrast to the original, there is no item 5 (*Fear that religious people will condemn you for your mistakes*) in this category in the Polish version.

RCSS Reliability

RCSS reliability was estimated using the internal consistency method. As Cronbach's α is not an optimal index of unidimensionality, Guttman's λ_6 was additionally calculated (Sijtsma, 2009). Table 5 shows the descriptive statistics and reliability indicators for the subscales.

Table 5
Descriptive Statistics and Reliability Indicators (α , λ_6) for RCSS Subscales

RCSS	<i>M</i>	<i>SD</i>	α	λ_6
Religious Comfort	7.14	2.37	.96	.96
Fear-Guilt	3.04	1.81	.74	.73
Negative emotions toward God	1.63	1.53	.86	.84
Negative social interactions surrounding religion	2.80	1.99	.56	.41

The *Religious Comfort* subscale had a high reliability indicator ($\alpha / \lambda_6 = .96$). The result was also high for the two religious strain subscales: from .84 (λ_6) to .86 (α) for *Negative emotions toward God* and from .73 (λ_6) to .74 (α) for *Fear-Guilt*. Yet, for the *Negative social interactions surrounding religion* subscale indicator values lower than .70 were observed: α was .56, and λ_6 was even lower: only .41. However, the authors of the original version also obtained low internal consistency values for the *Negative social interactions surrounding religion* subscale. There may be two reasons that account for low reliability of this subscale. Firstly, it consists of only two items. Secondly, the items that form the SOC-NEG subscale refer to different aspects of social strain.

Internal Validity

Following the adopted theoretical model, positive correlations were assumed among the three subscales of religious strain (UNEG-GOD, SOC-NEG, and Fear-Guilt). Negative correlations were also expected between the *Religious Comfort* subscale and the two religious strain subscales: NEG-GOD and SOC-

-NEG. Finally, the *Fear-Guilt* subscale should not correlate with the *Religious Comfort* scale.

The observed pattern reflected our expectations. Positive correlations were observed among the three types of religious strain: the *Negative emotions toward God* subscale correlated positively with the *Negative social interactions surrounding religion* and *Fear-Guilt* subscales. Positive correlation was also reported between the *Negative social interactions surrounding religion* and the *Fear-Guilt* subscales. As regards *Religious Comfort*, it correlated negatively with *Negative emotions toward God* and with *Negative social interactions surrounding religion*, but did not correlate with the *Fear-Guilt* subscale (see Table 6).

Table 6
Subscale Intercorrelations in the Polish Version of RCSS (Pearson's r)

RCSS	Religious Comfort	Fear-Guilt	UNEG-GOD
Fear-Guilt	.04		
UNEG-GOD	-.42***	.42***	
SOC-NEG	-.27***	.37***	.51***

Note. * $p < .05$ ** $p < .01$ *** $p < .001$. UNEG-GOD = Negative emotions toward God; SOC-NEG = Negative social interactions surrounding religion.

SUMMARY AND CONCLUSIONS

The article presents the factor analysis of the Polish adaptation of the Religious Comfort and Strain Scale. The results of our work failed to confirm the five-factor RCSS structure. The Polish version's structure has four factors, with three well-distinguished religious strain subscales: *Negative emotions toward God*, *Negative social interactions surrounding religion* and *Fear-Guilt*. The *Religious Comfort* subscales proved to be one-dimensional and it encompassed all the items that formed two subscales in the original version: *Positive relationship with God* and *Benefits of religious faith*. Internal consistency measure characteristics were satisfactory for three subscales (*Religious Comfort*, UNEG-GOD, *Fear-Guilt*). A lower reliability indicator was obtained for SOC-NEG because this subscale consisted of only two items which referred to different aspects of interpersonal strain. This is why, at this adaptation stage, it is recommended to take into account each item separately in determining the results for this sub-

scale, and treating the general result with caution. This subscale needs correction in further research, perhaps even expansion.

Two items: item 19 (*Believe that God disapproves of you*) and item 5 (*Fear that religious people will condemn you for your mistakes*) fell into factors other than their own. And item 6 (*Believe that God sees you as a bad person*) obtained a high loading in two factors: *Fear-Guilt* and *UNEG-GOD*. These items were corrected and their psychometric value will be verified in further research. Subsequent works on RCSS will also need more insightful analyses of the scale's validity and the determination of its stability.

The observed psychometric values let us hope that the Religious Comfort and Strain Scale may become a valid, reliable, easy to use, and thus valuable tool for the measurement of religiosity in terms of comfort and strain. At the present stage of the adaptation process, it may be applied in academic studies regarding the functional aspects of religiosity.

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