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POLISH ADAPTATION OF CAROL RYFF'S PSYCHOLOGICAL WELL-BEING SCALES

The Psychological Well-Being Scales (PWBS) is a questionnaire designed by Ryff (1989) to measure six dimensions of eudaimonic well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Translated into several dozen languages, this questionnaire is a commonly used instrument for measuring well-being. The article presents the effects of work on the Polish adaptation of two versions of the PWBS: full (84-item) and short (18-item), conducted as a series of four studies with a total sample of 2,035 participants aged 13 to 78. The results confirmed the reliability of the full version of the PWBS and the six-factor structure of well-being. They also confirmed the criterion validity of the questionnaire, reflected in correlations with validation instruments.

Keywords: well-being; eudaimonia; PWBS questionnaire.

INTRODUCTION

For many years, the issues of well-being have had a significant place in the psychological literature, both international (cf. Bornstein, Davidson, Keyes, & Moore, 2003; Diener, 2000; Forgeard et al., 2011; Lopez & Snyder, 2011; Seligman, 2002, 2011) and Polish (cf. Czapiński, 2004; Czerw, 2011; Heszen-

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Niejodek, 1996; Kossakowska, 2014; Trzebińska, 2008). Various theories and instruments are developed for measuring different aspects of well-being as conceptualized by different authors.

The very term “well-being” appeared nearly 70 years ago, in the definition of health formulated by the World Health Organization. According to that definition, health is “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1948, p. 1).

Contemporary psychological approaches to well-being usually derive from two philosophical traditions: hedonic and eudaimonic. The former draws on the philosophy of Aristippus of Cyrene and defines well-being as the experience of pleasure (Ryan & Deci, 2001) and subjective satisfaction with life (Diener, 1984; Diener, Emmons, Larsen, & Griffin, 1985). The other tradition draws on Aristotelian eudaimonia, according to which well-being is not a subjective experience of satisfaction with life (Ryan & Deci, 2001) but merely an feeling that accompanies the fulfillment of a person’s potential and life consistent with human nature (Ryff, 1989; Waterman et al., 2010).

According to Trzebińska (2008), the eudaimonic approach is becoming increasingly important at present, particularly in so-called positive psychology (cf. Czapiński, 2004; Czerw, 2011; Lopez & Snyder, 2011; Trzebińska, 2008), whose field of interest includes well-being, satisfaction with life, pleasure, happiness, character strengths, and similar constructs.

One of the most popular conceptions of well-being is the one by Ryff (1989), rooted in the eudaimonic tradition. Ryff performed an extensive analysis of the literature on issues of mental health, clinical psychology, and developmental psychology, whose aim was to identify those aspects of positive mental functioning that may be criteria or aspects of well-being. The theoretical foundations of Ryff’s conception include Rogers’s concept of the fully functioning person, Allport’s theory of maturity, Neugarten’s theory of personality processes, Bühler’s theory of life tendencies, Erikson’s theory of psychosocial development, Frankl concept of will for meaning, Jahoda’s theory of mental health, Jung’s theory of individuation, and Maslow’s theory of self-actualization (Ryff, 2014).

As a result of her extensive review of the literature, Ryff proposed six dimensions of well-being: self-acceptance, personal growth, purpose in life, autonomy, environmental mastery, and positive relations with others. The definitions of these dimensions are presented in Table 1.

Table 1

Dimensions of Psychological Well-Being (source: authors' compilation based on Ryff, 1989)

Dimension of well-being	Definition
Self-Acceptance	A central feature of mental health, associated with self-actualization, optimal functioning, and maturity. Positive and realistic attitude towards oneself, acceptance of one's own virtues and vices.
Positive Relations With Others	The experience of warm, trusting interpersonal relations; the ability to experience affection and empathy for other people and to enter into relationships of deep friendship and intimacy.
Autonomy	Independence and self-determination; resistance to external pressure and the regulation of behavior from within. Evaluating oneself by personal standards, associated with a sense of freedom and coping in everyday life.
Environmental Mastery	The sense of agency and competence, crucial in human development, as well as the ability to transform environments in accordance with one's needs and values; coping with complex environmental conditions. Taking advantage of the opportunities that life brings and active participation in one's environment.
Purpose in Life	A belief in one's life being focused on the achievement of an important goal; the ability to set and perform life tasks; having views and beliefs that give a sense of meaning and purpose in life as well as a sense of intentionality and directedness. Being productive and creative.
Personal Growth	The ability to improve one's skills and realize one's potential; seeking the paths of further development; a sense that the challenges undertaken lead to a growth of competence; self-realization; openness to experience.

Ryff (1989) stressed that the value of her theory consisted in the fact that it did not focus only on the short-term experience of positive affect or positive emotions (as is the case with theories rooted in the hedonic perspective) but treated well-being more holistically, as an intrinsic element of normal human development.

The investigated correlates of psychological well-being as conceptualized by Ryff belong to the following domains: human development, personality, interpersonal relationships, professional development, health, and psychopathologies (Ryff, 2014). As studies have shown, eudaimonic well-being turned out to be a strong indicator of normal human psychological development, which was confirmed, for instance, by its associations with positive identity achievement (Berzonsky & Cieciuch, 2016; Vleioras & Bosma, 2005) and ego integrity (James, & Zarett, 2005). As regards personality traits, research (Ryff, 2008) showed that personal growth was positively correlated with openness to experience, positive

relations with agreeableness, and environmental mastery, sense of having a purpose in life, and self-acceptance with extraversion, conscientiousness as well as negatively with neuroticism. Ryff (2014) also cites research results confirming the positive associations of a number of other personality variables with well-being, namely: optimism, sense of control, stable self-esteem (associations with autonomy, environmental mastery, and purpose in life), internal emotion regulation, empathy, and emotional intelligence.

The six aspects of well-being (particularly positive relations with others) are also associated with satisfactory family and marital relationships as well as with commitment to social and occupational roles (Ryff, 2014; Strauser, Lustig, & Çiftçi, 2008). Finally, psychological well-being turned out to be not only an outcome of earlier health – mental as well as biological (Heidrich & Ryff, 1993) – but also their predictor (Ryff, 2014): the relationship between well-being and these variables turned out to be bidirectional. An extensive review of tens of articles concerning the results of several decades of research on the predictors of well-being has been presented by Ryff (2014) in one of her latest publications.

For measuring the six dimensions of well-being she distinguished, Ryff (1989) proposed the Psychological Well-Being Scales. This questionnaire had versions of different length (Ryff, 2014). The first version consisted of 120 items (20 per scale). It was then reduced to 84 items. Short versions were also developed, consisting of 18 or 21 items, and even a 7-item version was designed. The most often used ones are the full 84-item version and the short 18-item version.

Nearly thirty years have elapsed since the emergence of Ryff's theory. The questionnaire for measuring the six dimensions proposed by Ryff has been used in tens of publications (cf. Ryff, 2014), most of which confirmed the six-factor structure of well-being (cf. Ryff, 2014; Ryff & Keyes, 1995; Ryff & Singer, 2006; van Dierendonck, 2004), though there were also studies challenging it (Abbot, Ploubidis, Huppert, Kuh, & Croudace, 2010; Kafka & Kozma, 2002; Springer & Hauser, 2006) – weaker factorial results were usually obtained for longer versions of the questionnaire, in which analyses were performed at the level of items; this is understandable, as more sophisticated models tend to be less well fitted.

The questionnaire has been adapted into more than 30 languages (as reported in Ryff, 2014), including: Chinese (Cheng & Chang, 2005), Finnish (Liebkind & Jasinskaja-Lahti, 2000), French (Salama-Younes, Ismaïl, Montazeri, & Roncin, 2011), Greek (Vleioras & Bosma, 2005), Spanish (Diaz et al., 2006), Japanese (Kitamura et al., 2004), Korean (Kim, Kim, Cha, & Lim, 2007), Italian (Sirigatti et al., 2009), Portuguese (Fernandes, Vasconcelos-Raposo, & Teixeira,

2010), Romanian (Kállay & Rus, 2014), Serbian (Nišević & Cigić, 2013), Slovenian (Šarotar, Treven, & Čančer, 2015), Swedish (Lindfors, Berntsson, & Lundberg, 2006), and Taiwanese (Lin, 2015). One of the Polish versions is the 42-item adaptation by Krok (2009).

THE PROBLEM AND AIM OF THE PRESENT STUDY

The aim of the present paper is to present the psychometric properties of the Polish adaptations of two versions of the Psychological Well-Being Scales: 84-item and 18-item versions, which are the most often used ones in the literature. In particular, we tested the reliability of both versions, their factorial validity, and their construct validity based on the analysis of correlations with external constructs: self-esteem, need for social approval, satisfaction with life, social well-being, sense of coherence, and personality traits.

The first step was to analyze the internal consistency of each scale of the Polish adaptation of the Psychological Well-Being Scales. We used the Cronbach's α coefficient for this purpose. Next, we tested the normality of distribution for well-being as conceptualized by Ryff and for each of its six dimensions.

In the next step we tested the factorial validity of the Polish version of the questionnaire based on the analysis of the factor structure of well-being: we compared the one-factor and six-factor models using confirmatory factor analysis (CFA) – performed on parcels for the full version of the questionnaire and on items in the case of the short version.

The final step was the analysis of criterion validity of the Polish version of the questionnaire – for this purpose, we analyzed the correlations between PWBS scores and the scores on other instruments measuring constructs that should, by nature, correlate positively with eudaimonic well-being: the Rosenberg Self-Esteem Scale (1965), the Satisfaction With Life Scale by Diener et al. (1985), the Social Well-Being Scale developed by Keyes (1998) for measuring social well-being, and Antonovsky's (1993) Life Orientation Questionnaire for measuring sense of coherence. Additional validation instruments were: the International Personality Item Pool by Goldberg et al. (2006) for measuring the Big Five personality traits (which, in accordance with Ryff's assumptions discussed in the theoretical section, correlate with the six dimensions of well-being) and the Social Approval Scale by Stöber (2001).

METHOD

Participants and Procedure

We conducted four studies: two samples completed the short (18-item) version of PWBS and two other samples completed the longer (84-item) version. Descriptive statistics and demographic data for the tested groups are presented Table 2. The total number of participants in the four studies was 2,035.

The participants were students of various majors (science, humanities, social sciences) from several higher education institutions located in Warsaw as well as non-students. They completed the paper-and-pencil versions of the questionnaires. Participation in the studies was voluntary and anonymous, and the participants did not receive any remuneration.

Table 2

Sample Sizes and Descriptive Statistics

	<i>N</i>	<i>M</i> _{age}	<i>SD</i> _{age}	% of women
18-item version				
Study 1	503	24.43 (17-55)	6.56	75.6
Study 2	683	27.14 (24-81)	12.16	64.9
84-item version				
Study 3	847	24.42 (17-58)	7.13	60.5
Study 4	272	24.41 (19-68)	7.21	81.9

Note. *N* – number of subjects, *M*_{age} – mean age, *SD*_{age} – standard deviation.

Measures

Psychological Well-Being Scales (PWBS; Ryff, 1989). The Polish version of the questionnaire was prepared with the approval of the author of the original version. The items were translated into Polish and then translated back into English by a person proficient in both languages. The final version was approved by the author of the original questionnaire.

The full version consists of 84 items; about half of them (39) are reverse-coded items and the others are positively keyed. The short version of the questionnaire consists of selected items from the full version (10 positively keyed and 8 reverse-coded items). Both the full version and the short version are self-report

questionnaires, with a 6-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*). In Study 1, however, we exceptionally used a 5-point response format due to the fact that this study was part of a larger international project and that this particular response scale was used in other countries taking part in the project.

The score for each scale is computed as the mean score for the items making up a given scale. It is also possible to compute the overall score. Internal consistency coefficients (Cronbach's α) are presented in Table 3.

The Rosenberg Self-Esteem Scale (SES; Rosenberg, 1965; adapted into Polish by Łaguna, Lachowicz-Tabaczek, & Dzwonkowska, 2007). SES is a 10-item self-report questionnaire measuring general self-esteem, understood as positive and negative attitude towards the self. All items are rated on a 4-point Likert scale from 1 (*strongly agree*) to 4 (*strongly disagree*). We used this questionnaire in Study 3. Internal consistency measured as Cronbach's α coefficient was .68.

Social Desirability Scale–17 (SDS-17; Stöber, 2001; adapted into Polish by Fronczyk, Skrzyński, and Ciecuch, 2012). A scale measuring the need for social approval, which consists of 16 self-report items rated on a nominal two-point scale (*true/false*). We used this questionnaire in Study 3. Internal consistency measured as Cronbach's α coefficient was .71.

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; adapted into Polish by Juczyński, 2001). It is a self-report questionnaire measuring general satisfaction with life (which is a cognitive aspect of hedonic well-being). This instrument consists of five items with a response scale from 1 (*strongly disagree*) to 5 (*strongly agree*). We used it in Study 1, and its internal consistency measured as Cronbach's α was .77.

Social Well-Being Scale (SWB; Keyes, 1998; adapted into Polish by Karaś, Najderska, & Ciecuch, 2013). It is a self-report questionnaire for measuring social well-being as conceptualized by Keyes (1998), which – like the well-being conceptualized by Ryff (1989) – has a eudaimonic character. The scale consists of 33 items measuring five dimensions of social well-being, rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). We used this instrument in Study 1. Cronbach's α internal consistency was .68 for Social Integration, .82 for Social Acceptance, .77 for Social Contribution, .70 for Social Actualization, .70 for Social Coherence, and .88 for the overall score.

Life Orientation Questionnaire (SOC-29; Antonovsky, 1993; adapted into Polish by Koniarek, Dudek, & Makowska, 1993). This self-report questionnaire measuring sense of coherence (understood as comprehensibility, manageability, and meaningfulness) consists of 29 positively keyed and reverse-coded items,

rated on a scale from 1 to 7 (with different response formats), making up three scales. We used this questionnaire in Study 4; its internal consistency measured as Cronbach's α was .74 for the Comprehensibility scale, .78 for the Manageability scale, .80 for the Meaningfulness scale, and .90 for the overall score.

International Personality Item Pool–Big Five Markers–50 (IPIP-BFM-50; Goldberg et al., 2006; adapted into Polish by Strus, Ciecuch, & Rowiński, 2014). The questionnaire measures the personality traits included in the Big Five model. It consists of 50 self-report items rated on a scale from 1 (*very inaccurate*) to 5 (*very accurate*). We used this questionnaire in Study 2. Internal consistency measured as Cronbach's α coefficient was .89 for Extraversion, .84 for Agreeableness, .80 for Conscientiousness, .87 for Emotional Stability, and .80 for Intellect.

RESULTS

Criterion validity of the Polish version of the Psychological Well-Being Scales and descriptive statistics

To assess the internal consistency of particular scales and the Polish version of the Psychological Well-Being Scales as a whole, we used Cronbach's α coefficient. The results are presented in Table 3. Descriptive statistics (mean scores, standard deviations, skewness, and kurtosis) for each tested group are presented in Table 4. Based on the values of skewness and kurtosis, it can be concluded that the distribution of well-being is close to normal: for each of the tested groups, for each scale in both versions of the PWBS these values range between -1 and 1.

Table 3

Cronbach's α Internal Consistency Coefficients for PWBS Scales

	18-item version		84-item version	
	Study 1	Study 2	Study 3	Study 4
Self-Acceptance	.64	.59	.86	.90
Positive Relations With Others	.47	.52	.85	.85
Autonomy	.52	.53	.79	.79
Environmental Mastery	.50	.53	.81	.84
Purpose in Life	.40	.47	.84	.89
Personal Growth	.52	.60	.78	.78
Overall score	.79	.82	.95	.96

The above coefficients show that specific scales of the short version of the questionnaire (administered in Studies 1 and 2) have insufficient reliability while the overall score has acceptable reliability, which means that, in principle, only the overall level of well-being should be interpreted and analyzed on the basis of scores obtained in this questionnaire but the six dimensions of well-being should not. By contrast, the full version (administered in Studies 3 and 4) has high reliability both in the case of the six dimensions of well-being and in the case of the overall score, which means this is the version that should be used in studies whose aim is to investigate particular dimensions of well-being.

Table 4

Descriptive Statistics for Individual Scales and Overall PWBS Score in Studies 1/2/3/4

	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>
Self-Acceptance	3.46/4.18/4.00/4.19	0.73/0.94/0.72/0.82	-0.41/-0.39/ -0.25/-0.53	-0.04/0.01/0.13/0.71
Positive Relations With Others	4.00/4.71/4.40/4.55	0.62/0.85/0.71/0.72	-0.56/-0.74/ -0.18/-0.51	-0.05/0.29/-0.34/-0.05
Autonomy	3.73/4.29/4.14/4.40	0.64/0.84/0.62/0.65	-0.02/-0.19/ 0.12/-0.40	-0.29/0.07/-0.13/0.63
Environmental Mastery	3.71/4.41/4.13/4.14	0.58/0.78/0.63/0.70	-0.33/-0.38/ -0.30/-0.09	0.16/0.07/0.07/0.11
Purpose in Life	3.94/4.55/4.3/4.54	0.64/0.93/0.68/0.72	-0.48/-0.50/ -0.34/-0.46	0.29/-0.08/-0.24/0.18
Personal Growth	4.03/4.65/4.27/4.58	0.55/0.85/0.57/0.55	-0.20/-0.51/ -0.13/0.02	-0.10/0.10/0.11/0.29
Overall score	3.81/4.46/4.21/4.41	0.41/0.60/0.53/0.54	-0.01/-0.30/ -0.15/-0.23	-0.05/0.01/-0.27/0.06

Note. In Study 1 we used a 5-point (1-5) response format, and in the remaining studies we used a 6-point (1-6) format.

The factor structure of well-being

To test the structure of well-being as conceptualized by Ryff and measured with the PWBS, we performed a confirmatory factor analysis on items (in the case of the short version of PWBS) and using the parceling method (in the case of the 84-item version, randomly dividing the items of each scale into clusters, computing mean scores for these clusters and introducing them as observable

variables into factor analysis). The use of parceling, also known as item clustering procedure (cf. Cieciuch, 2010), decreases the risk of making nonsystematic measurement errors, and the clustering of items (in a random manner in the present study) ensures higher reliability than the use of individual items as well as brings their distribution close to normal (Bandalos & Finney, 2001).

We compared the fit of two models. Model 1 comprised one general factor of well-being, loaded by all items; Model 2 comprised six latent factors (the dimensions proposed by Ryff): self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. We performed the above analyses separately for each study.

Table 5

Fit Indices of the Tested Models

	Model 1	Model 2
	18-item version	
	Study 1	
χ^2	569.670	375.658
<i>df</i>	135	120
CFI	.703	.825
RMSEA [90% CI]	.080 [.073, .087]	.065 [.058, .073]
SRMR	.068	.056
	Study 2	
χ^2	947.537	735.447
<i>df</i>	135	120
CFI	.673	.753
RMSEA [90% CI]	.096 [.090, .102]	.089 [.083, .095]
SRMR	.753	.067
	84-item version	
	Study 3	
χ^2	1935,387	414.834
<i>df</i>	135	120
CFI	.802	.968
RMSEA [90% CI]	.125 [.120, .130]	.054 [.048, .059]
SRMR	.070	.032
	Study 4	
χ^2	925.705	264.207
<i>df</i>	135	120
CFI	.754	.955
RMSEA [90% CI]	.149 [.140, .158]	.068 [.057, .079]
SRMR	.088	.040

The fit indices of the models are presented in Table 5. According to the commonly used criteria (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004), fit indices in factor analysis should be $>.900$ for CFI (Comparative Fix Index) and $<.08$ for RMSEA (Root Mean Square Error of Approximation) as well as SRMR (Standardized Root Mean Square Residual).

For the short version of the PWBS the values of most fit indices were insufficient for the model to be considered wellfitted to the data (only RMSEA and SRMR were acceptable for some models). For the full version of the questionnaire, with 84 items, the well-fitted model was Model 2, comprising six latent factors (in Study 4 and in Study 5), while the model postulating the existence of only one latent factor did not have acceptable fit. We also tested intergroup measurement invariance between women and men for Model 2 in Study 3 (as the one with the largest sample; in Studies 1 and 2 invariance could not be tested due to insufficient CFI values, just like in the case of Model 1, with one general well-being factor). The results revealed scalar invariance.

Moreover, Table 6 presents correlations between the scales of the PWBS questionnaire. Some of the scales are highly correlated with each other, but the full version of the questionnaire makes it possible to distinguish them in the measurement model with parceling.

Table 6

*Correlations Between the Scales of the PWBS Questionnaire (Study 1/Study 2/Study 3/Study 4)**

	Self-Acceptance	Positive Relations With Others	Autonomy	Environmental Mastery	Purpose in Life	Personal Growth
Self-Acceptance	—	.21/.35/.31/.29	.06/.25/.21/.22	.05/.28/.35/.46	.10/.24/.47/.57	.07/.21/.22/.29
Positive Relations With Others	.42/.43/.59/.53	—	.07/.19/.17/.13	.11/.27/.27/.28	.10/.42/.32/.30	.08/.31/.27/.18
Autonomy	.33/.38/.54/.46	.14/.25/.42/.28	—	.09/.17/.17/.17	.06/.13/.21/.20	.08/.14/.13/.14
Environmental Mastery	.52/.50/.71/.80	.37/.42/.54/.53	.35/.32/.50/.41	—	.05/.24/.27/.46	.06/.24/.21/.23
Purpose in Life	.27/.32/.73/.77	.29/.47/.52/.45	.15/.18/.47/.40	.29/.38/.75/.72	—	.07/.31/.28/.31
Personal Growth	.28/.35/.58/.60	.27/.46/.57/.44	.32/.24/.49/.44	.32/.43/.60/.55	.39/.50/.65/.64	—

Note. * Above the diagonal: scores computed based on the key; below the diagonal: correlations of latent variables in CFA. All correlations significant at .01 (two-tailed).

Criterion validity of the Polish version of the Psychological Well-Being Scales

To analyze the criterion validity of the Polish version of the PWBS, we performed an analysis of correlations for between PWBS scores and the scores on validation instruments. The results are presented in Table 7.

Table 7

Correlations of PWBS Scale Scores and Overall Score with Validation Instrument Scores

	SWLS ¹	SWB ¹	SES ³	SOC ⁴ Comprehen- sibility	SOC ⁴ Manageability	SOC ⁴ Meaningfulness
Self-Acceptance	.63**	.51**	.63**	.58**	.68**	.77**
Positive Rela- tions With Others	.34**	.51**	.38**	.37**	.51**	.48**
Autonomy	.18**	.23**	.40**	.31**	.28**	.37**
Environmental Mastery	.40**	.45**	.53**	.65**	.69**	.71**
Purpose in Life	.21**	.30**	.50**	.50**	.52**	.75**
Personal Growth	.29**	.38**	.40**	.32**	.45**	.64**
Well-Being – overall score	.53**	.61**	.59**	.59**	.67**	.79**
	IPIP ² Extrav.	IPIP ² Agreeab.	IPIP ² Consc.	IPIP ² Stabil.	IPIP ² Intellect	SDS ³
Self-Acceptance	.27**	.18*	.14**	.33**	.21**	.21**
Positive Rela- tions With Others	.29**	.45**	.14**	.09*	.20*	.25**
Autonomy	.29**	.08*	.05	.22**	.30**	.13**
Environmental Mastery	.19**	.25**	.30**	.30**	.17**	.29**
Purpose in Life	.13**	.29**	.21**	.03	.19*	.23**
Personal Growth	.13**	.32**	.29**	.04	.38**	.19**
Well-Being – overall score	.31**	.38**	.27**	.24**	.35**	.26**

Note. ¹ Study 1; ² Study 2; ³ Study 3; ⁴ Study 4; ** correlation significant at .01 (two-tailed). * correlation significant at .05 (two-tailed).

As expected, PWBS scores were significantly correlated with the validation measures, and the direction of these correlations was consistent with predictions. Particularly worth noting are the high correlations of well-being dimensions (especially self-acceptance) with self-esteem, which is consistent with expectations

and with the results of previous studies (cf. Ryff, 2014). Correlations with SWLS scores are significant but lower, which confirms, on the one hand, that the PWBS measures well-being, and on the other – that eudaimonic well-being is distinct from hedonic well-being (the latter being measured by SWLS). Higher correlations were found for a different instrument measuring well-being – the SWB questionnaire. Social well-being as conceptualized by Keyes (1998), measured by this questionnaire, is also eudaimonic in nature, which means this result is consistent with expectations and confirms the criterion validity of the PWBS.

The coefficients are also high for the correlations of well-being as conceptualized by Ryff with the dimensions of sense of coherence, which confirms not only the criterion validity of the instrument but also the eudaimonic character of the measured construct.

As regards the correlations between PWBS dimensions and personality traits, the values are similar to those given by Ryff (2014). Correlations with well-being were the lowest for conscientiousness and emotional stability and the highest for agreeableness (which is particularly associated with positive relations with others).

Finally, the relatively low correlations between PWBS scales (and overall PWBS) show that the questionnaire is only slightly burdened with error stemming from the respondents' high need for social approval.

DISCUSSION

The main aim of the presented research was to test the psychometric properties of the Polish version of the questionnaire for measuring psychological well-being as conceptualized in the eudaimonic perspective – the Psychological Well-Being Scales (Ryff, 1989), measuring six dimensions of this well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth.

Reliability analysis of the two versions of the questionnaire revealed that in order to interpret the scores on each well-being scale it is necessary to use the full version of the PWBS – reliability coefficients for the short version turned out to be unsatisfactory, while the reliability of the 84-item version was acceptable (all coefficients above .70).

Another aim of the presented research was to test the structure of well-being, since the previously obtained results were not unambiguous (cf. Abbot et al., 2010; Ryff, 2014). In the studies in which weaker factorial results had previously been obtained, researchers performed item-level analysis (Abbot et al., 2010;

Kafka & Kozma, 2002; Springer & Hauser, 2006). It turned out, however, that after introducing the item clustering (parceling) procedure into confirmatory factor analysis the results confirmed the six-factor structure of well-being postulated by Ryff (1989). Also in this case, we obtained satisfactory results for the full version of the PWBS. Still, it should be noted that the parceling procedure is also sometimes criticized as an insufficient test of a measurement model. From the point of view of our research aims, what we were more interested in in confirmatory factor analysis was the structure of relations between dimensions rather than the measurement model with 84 items in the strict sense.

The Polish version of the PWBS had acceptable criterion validity, too: its scores correlated strongly with self-esteem, satisfaction with life (in this case correlations were lower, which highlights the eudaimonic nature of well-being as conceptualized by Ryff), as well as with social well-being and sense of coherence. Moreover, the results of the presented research show that the examined questionnaire is not burdened by sensitivity to the respondents' need for social approval.

In sum, it can be said that the Polish 84-item version of the PWBS is a valid and reliable measure that can successfully be used in research. The results supplement the existing studies on the theory of well-being, conducted by Ryff (1989, 2014).

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