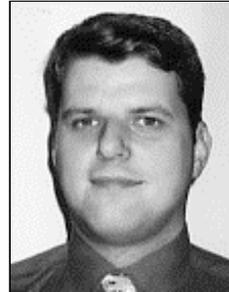


## **THE PIL TEST IN A SLOVAK SAMPLE: INTERNAL CONSISTENCY AND FACTOR STRUCTURE**

***Peter Halama***

*(ABSTRACT) The Purpose in Life (PIL) test was psychometrically analyzed in a sample of Slovak University students. The analysis of the Slovak version of the PIL showed good internal consistency (Alpha = .85), with one item lowering the Alpha value. Factor analysis revealed three factors, which were named Excitement in Life, Contentedness with Life, and Purpose and Goals.*



The Purpose in Life Test (PIL) was published by Crumbaugh and Maholick.<sup>4</sup> The aim of the test is to quantify the existential concept of meaning in life or, in other words, Frankl's idea of existential vacuum. The test has 20 items, each in a 7-point format, that are designed to evoke responses related to the degree the individual experiences purpose in life. Besides the part consisting of these 20 items, named part A, the original version also contains parts B and C based on qualitative principles. In current research, usually only part A is used.

The PIL can have the overall score from 20 (indicating presence of existential vacuum) to 140 (indicating high sense of meaning and purpose in life). The average scores in various non-clinical samples were around 112 (from 106 to 118); psychiatric patients scored less (on average from 80 to 108 in samples with various diagnoses).<sup>3</sup>

The PIL is a popular and widely used logotherapeutic instrument that has been employed in many research studies and in many psychological contexts (clinical, personality psychology, etc.). It has been translated into many languages, including Eastern European (e.g., Czech, Polish,) as well as Asiatic (e.g., Chinese).<sup>6,9,14</sup> It has been subjected to extensive psychometric analyses. Crumbaugh found a split-half coefficient, Spearman-Brown corrected, of .92; Reker and Cousins found .87.<sup>11</sup> Satisfactory internal consistency has been confirmed also by computing Cronbach's Alpha coefficients, routinely ranging from the high .70s to the low .90s (cf., Reker & Fry).<sup>12</sup>

The PIL was developed to be uni-dimensional; however, this idea has been questioned by several researchers. For example, Reker and Cousins, when factoring the PIL with another logotherapeutic instrument (Seeking Of Noetic Goals), found as many as six factors, namely: Purpose in Life, Contentedness with Life, Goal Achievement, Self-fulfillment, Internal-External

Locus of Control, and Life View.<sup>11</sup> Chamberlain and Zika identified four first-order factors described as: Commitment and Goal Achievement, Excitement and Enthusiasm in Life, Control, and Contentedness with Life – however, all had moderate loadings on a second-order factor, suggesting a general meaning dimension underlying these components.<sup>2</sup> Sometimes two dominant factors are reported by researchers, called: the PIL Happiness and the PIL Meaning, or Quality of Existence and Purpose in Existence – the first factor deals with having positive feelings toward life; the second deals with having aims and goals in life.<sup>8,14</sup>

The PIL was translated into the Slovak language in early 90s by M. Košč for use in clinical settings. There is no paper describing the translation process, although it has been used in clinical assessment and several research studies. Psychometric evaluation of the PIL in the Slovak language has not been done. The following article focuses on internal consistency and factor structure of the Slovak version of the PIL.

### **Sample**

The Slovak version of the PIL was administered to 168 university students (55 males, 113 females). Their age ranged from 18 to 31 ( $M = 20.1$ ,  $SD = 1.51$ ). These university students studied at universities in Bratislava and Trnava, Slovakia.

The students were recruited in their on-going classes. Participation was voluntary, and no compensation or class credit was given to participants. Students were informed about the goal of the research, and opportunity was given for questions. Persons who agreed to participate responded to the questionnaire anonymously. They were informed that data would be used only for research purposes.

### **Results**

Data analyses were conducted using SPSS. The PIL scores in this research ranged from 49 to 139. Average value for the whole sample was 105.9 ( $SD = 14.1$ ). No statistically significant difference was found between males and females.

Internal consistency was tested by computing Cronbach's Alpha coefficient. The value of Alpha was at a very satisfactory level of .85, meeting the general criterion that item variances should be attributed to common source (e.g. DeVellis, 2003). Subsequently, item analysis was conducted through testing how the items contribute to internal consistency. The analysis showed that item 15 (regard to death) had very low corrected item-total correlation and did not contribute to overall consistency. This fact may have been caused by the age of the participants in the study, with young people feeling perhaps unprepared for death even though they experience meaning in their life.

Factor analysis of the PIL items was conducted by Principal Component Analysis. The Scree Plot Test,<sup>1</sup> together with parallel analysis,<sup>7</sup> were used to

determine the number of factors to extract. The scree plot showed one strong factor, and small decrease in eigenvalues after three other factors. However, parallel analysis, based on factoring random data with the same characteristics as original data, showed that the fourth factor had smaller eigenvalue than the average eigenvalue of the fourth factor extracted in random data. Therefore, three factors were rotated by the orthogonal varimax method. These three factors together explained 46.6% of the variance. The rotated factor matrix is presented in the Table.

**Factor Matrix of the PIL Items in a Slovak Sample**

Item #	Item	Factor 1 Excite- ment in Life	Factor 2 Content- edness with Life	Factor 3 Purpose and Goals
5	Every day	<b>.77</b>	-.02	-.07
9	My life is	<b>.69</b>	.33	.27
1	I am	<b>.68</b>	.09	.10
2	Life to me	<b>.57</b>	.22	.31
19	daily tasks	<b>.53</b>	.16	.30
12	I view the world	<b>.49</b>	.12	.04
16	regard to suicide	.06	<b>.74</b>	-.03
11	In thinking of my life	.31	<b>.70</b>	.26
6	If I could choose	.29	<b>.60</b>	-.02
10	If I should die today	.40	<b>.52</b>	.38
13	I am a	-.07	<b>.51</b>	.14
8	achieving life goals	.29	<b>.47</b>	.10
3	In life I have	.00	.11	<b>.77</b>
20	I have discovered	.20	.51	<b>.62</b>
17	I regard my ability	.14	.47	<b>.59</b>
14	man's freedom	.17	.10	<b>.55</b>
4	personal existence	.37	.51	<b>.50</b>
18	My life is in	.32	.45	<b>.45</b>
15	With regard to death	.06	-.31	<b>.44</b>
7	After retiring	.25	.01	.17
% of variance		16.18	15.97	14.20
eigenvalue		6.30	1.53	1.43
Cronbach's Alpha		0.75	0.74	0.71

The first factor (Excitement in Life) comprised items relating to exciting and satisfying life. Higher scores on this factor may mean that the person experiences life as interesting, pleasing, enjoyable, and therefore meaningful. This factor has been extracted in most of the research on the PIL factor structure; and it has been called by different names, e.g., the PIL Happiness,<sup>8</sup> Purpose in Life,<sup>11</sup> Quality of Existence,<sup>14</sup> or Excitement and

Enthusiasm in Life,<sup>2</sup> although sometimes other items contribute to this factor. The second factor (Contentedness with Life) contained items related to appreciation and overall positive attitude toward life. This factor also has been extracted in previous studies.<sup>2,11</sup> Items in the third factor (Purpose and Goals) were mostly related to goals, aims, purpose, and life mission, as well as doing well in fulfillment of these goals. Similarly, this factor has been extracted in previous research as Goal Achievement,<sup>2,11</sup> the PIL Meaning,<sup>8</sup> or Purpose in Existence.<sup>14</sup> Cronbach's Alpha was computed for the subscales based on the factors. All three factors showed satisfactory levels of internal consistency (.71 to .75).

### Conclusion

Results of this study are in agreement with other studies that suggest the PIL can be considered multi-dimensional. In the present research, three factors were extracted and interpreted. The factors extracted in this research therefore give support to some theoretical concepts that consider meaning in life as a three-component phenomenon: Cognitive, Motivational, and Affective.<sup>10,13</sup> However, there are some limitations of this study (especially predominance of females in the sample, not a large enough sample from the view of the criterion of 10 subjects for every item) which suggest a need to reconfirm the model in a new sample.

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