

## **Adaptation and validation of Polish Version of Reasons for Living Inventory (RFL-48) by M.M. Linehan et al.**

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### **Summary**

**Aim.** The aim of the study was to develop the Polish version of the Reasons for Living Inventory (RFL-48) of Linehan et al. The questionnaire is a self-descriptive tool designed to measure six factors protecting against committing suicide: “Survival and Coping Beliefs”, “Responsibility to Family”, “Fear of Suicide”, “Moral Objections”, “Fear of Social Disapproval”, “Child-Related Concerns”. The original version of the method was characterized by good psychometric properties.

**Method.** A sample of 431 adults (236 women and 195 men), aged 18–65 years (mean age was 33 years,  $SD = 11.33$ ), was recruited as a non-clinical group from various regions of Poland. The Beck’s Depression Inventory, Suicide Behaviors Questionnaire-Revised and Positivity Scale were also used to evaluate the construct validity of the RFL-48.

**Results.** Exploratory and confirmatory factor analysis supported an assumed six-dimensional structure of the questionnaire. Cronbach’s alpha ranged from 0.70 (“Fear of Suicide”) to 0.95 (“Survival and Coping Beliefs”) and amounted to 0.92 for the total score.

**Conclusions.** The findings indicate that the Polish adaptation of the RFL questionnaire by Linehan et al. has good psychometric characteristics and can be used in both research and clinical practice.

**Key words:** suicide, Reasons for Living Inventory, Polish adaptation

### **Introduction**

Harmful behaviors, especially suicide attempts, present a significant problem for health and society worldwide, so their prevention represents a major challenge for the mental health community. Therefore, it is important to identify the risk factors as well as the potential factors protecting against suicide. According to the literature, the most important factors that increase the risk of attempting suicide include: male gender, age over 65, white race, low socioeconomic status, migration [1], family problems, domestic violence, sense of loneliness or rejection [2], alcohol [3] or drug addiction,

mental illnesses like depression, schizophrenia, and personality disorders [4], chronic somatic diseases, as well as heartbreak and death of a loved one [5].

Due to the growing number of suicides among children and adolescents, researchers are interested in the situations that favor the emergence of suicidal thoughts and acts in this age group. In this case, attention is drawn to factors related to the school environment, e.g., problems in the relationship with the teacher and, in particular, rejection by peers and factors related to the family, *inter alia*, conflicts between parents or with parents, death of one or both parents [6], as well as inadequate and excessive parental expectations towards their children, lack of parental authority [7], growing up in an incomplete family, and presence of family pathology, i.e., alcoholism and violence [6].

Another age group that researchers pay special attention to, due to the risk of suicide, is middle-aged people for whom performing many functions and roles, including care for the older generation may constitute a suicidogenic factor as a source of excessive burden and the necessity to resign from meeting one's own needs. On the other hand, the motivation of suicidal behavior in the elderly is of a more complex nature than the usually mentioned somatic disease, but an active life is indicated as an important preventive method [8].

The identification of potential factors protecting against suicide seems to have high priority in preventing suicidal behavior. Most research in this area has concerned the preventive role played by family [9] and social support [10]. The help of relatives, friends and other people is a significant moderator of inhibiting suicidal tendencies [11]. Other protective factors include the ability to accept help in difficult situations, openness to new experiences and searching for solutions, faith in oneself and one's achievements, social competences [12], stress-coping skills and self-esteem [13], religiousness [14, 15], hobbies and interests as well as involvement in organizational activities [16] and ensuring psychosomatic hygiene in the workplace [8].

An important role is also attributed to the personal motives and beliefs that prevent people from committing suicide, especially when experiencing severe stress or depression [17]. The importance of adaptive beliefs about life and expectations towards the future in surviving extremely severe life experiences began to be noticed already in the 1950s, by analyzing the preventive factors of suicide among people who survived concentration camps [18]. The role of cognitive patterns, beliefs, expectations and motives as important mediators of suicidal behavior is emphasized in cognitive [19] and cognitive-behavioral [20] terms.

Initial attempts at identifying the factors influencing suicidality adopted a cognitive-behavioral perspective that focused on the adaptive role of cognitive patterns, resulting in the development of the Reasons for Living Inventory (RFL-48) self-description tool by Linehan et al. [18]. The tool initially included 72 items constituting the reasons for living given by the study participants. The number of test items has been reduced to 48 items by factor analyses. Their adequacy has since been confirmed by multivariate analyses of variance of the general population and clinical groups. However, it is important to note that while the long-form version of the tool is still freely available to researchers, an abbreviated version consisting of 48 statements is more commonly used [21].

This method individualizes the following six most common groups of factors based on cognitive patterns, which can be helpful in overcoming life crises:

1. Survival and Coping Beliefs (SCB) are related to the notion that an individual is able to adequately manage the challenges faced in life;
2. Responsibility to Family (RF) represents how respondents envision their commitment to family;
3. Fear of Suicide (FS) relates to the level of fear the respondent holds towards death and the act of suicide;
4. Moral Objections (MO) refer to how the respondents feel their thoughts and desire for suicide may come into conflict with their religious or moral beliefs;
5. Fear of Social Disapproval (FSD) reflects the respondents' concerns that others would judge their suicidal action negatively;
6. Child-Related Concerns (CRC) are related to the impact of their death on their children.

The RFL-48 is used to measure the importance of these factors by evaluating a range of adaptive beliefs and expectations for living if suicide is contemplated. It shows high internal reliability, with Cronbach's alpha ranging from 0.72 to 0.89 [18]. Numerous studies have confirmed the value of the method in studying factors protecting against committing suicide in various groups of participants, including students [22, 23], the elderly [24] and adult psychiatric patients [25], as well as among drivers involved in road accidents [26], low-income mothers [27], LGBT people [28] and those with drug addiction [29].

The RFL-48 questionnaire has been translated into many languages (e.g., a French-Canadian version [30]) and has been adapted for use in many countries, for example Italy [31], Iran [32], Spain [33], Colombia [34], Malaysia [35], the Metropolitan Region of Chile [36] and Russia [37].

So far, the RFL-48 has not been adapted for use in Poland, and neither has its shortened 12-item version, the Brief Reasons for Living Inventory–BRFL [38] nor the 72-item long form [18], nor any of its versions which have been administered to adolescents, college students or young adults: the Reasons for Living Inventory for Adolescents – RFL-A [39], the Brief Reasons for Living Inventory for Adolescents – BRFL-A [40], the College Student Reasons for Living Inventory – CS-RFLI [41], the Reasons for Living Inventory for Young Adults – RFL-YA [42], the Reasons for Living for Older Adults Scale: RFL-OA [43]. Hence, the purpose of this study was to adapt and analyze the psychometric properties of the Polish version of the RFL questionnaire. The adaptation of the tool seems to be valuable not only for its use in scientific research but also in clinical diagnostics, development of therapeutic programs and prevention of suicide.

### **Development of the Polish version of the Reasons for Living Scale (RFL)**

The study validated the Reasons for Living Inventory (RFL-48), which measures the severity of each of the six factors protecting against committing suicide. The

questionnaire consists of 48 items: twenty-four address Survival and Coping Beliefs (SCB), seven items address both Responsibility to Family (RF) and Fear of Suicide (FS), four address Moral Objections (MO), and three address both Fear of Social Disapproval (FSD) and Child-Related Concerns (CRC). The responses are given on a 6-point Likert scale from (1) “not at all important” to (6) “extremely important”. The mean values are calculated for each subscale, as well as a total score. Higher scores represent stronger reasons for living [18].

The research was approved by the Bioethics Scientific Research Committee of the University of Lodz (Resolution No. 5/KBBN-UŁ/II/2019).

### Material and method

A total of 450 people from non-clinical groups were initially recruited from various regions around Poland. Of these, 174 completed the electronic survey, and 276 completed the paper-pencil questionnaires. Nineteen questionnaires filled out with the traditional method were disqualified because of formal errors. Finally, 431 people were qualified for the analysis (236 women and 195 men) aged between 18 and 65 years (mean age was 33.0 years,  $SD = 11.33$ ). No statistically significant differences were observed between the participants completing the surveys electronically and those using the paper-pencil method in the total score of Reasons for Living ( $p = 0.101$ ). Detailed sociodemographic data of the study group are summarized in Table 1. Among the respondents, 4% did not provide an answer about their children. In addition, 14% of participants gave a positive response to the question “Have you ever had depression diagnosed by a psychiatrist?” (Table 1). The response to the first question of the SBQ-R, i.e., “Have you ever thought about or attempted to kill yourself? (select only one answer)”, is also given in Table 1. The range of answers comprised “never” (in Table 1 as “No”), “it was just a brief passing thought” (in Table 1 as “Thoughts”), “I have had a plan at least once to kill myself but did not try to do it” and “I have had a plan at least once to kill myself and really wanted to die” (in Table 1 as “Plans”), and “I have attempted to kill myself, but did not want to die” and “I have attempted to kill myself, and really hoped to die” (in Table 1 as “Attempts”). Two percent of the respondents did not answer this question.

Research by Malone et al. [17] indicates that reasons for living scores are negatively correlated, among others, with subjective depression and suicidal ideation, and these correlations are significantly higher for suicide attempters than for non-suicidal depressed patients. An analogous relationship is indicated by N Vaghia et al. [44], who found that depressed patients who had not attempted suicide within the last year demonstrated significantly higher total reasons for living scores than those suffering from depression who had attempted suicide within the last year. In turn, depressiveness shows a negative correlation with a positive life outlook [45]. Based on these findings, the present validation study also used:

- (a) *Beck Depression Inventory (BDI)* in the Polish adaptation by Parnowski and Jernajczyk [46]. This method is used to determine subjective depression severity. It contains 21 statements, each of which is evaluated in the range

of 0-3 points. The higher the score, the greater the severity of depressive symptoms.

- (b) *Suicide Behaviors Questionnaire-Revised (SBQ-R)* of Osman et al. in the Polish adaptation by Chodkiewicz and Gruszczyńska [47] analyzes suicidal tendencies by the respondent answering four questions. Answers are scored on a scale of 1-3 (first three questions) and 0-6 (last question). The overall test result indicates the severity of suicidal tendencies.
- (c) The *Positivity Scale (P Scale)* of Caprara in the Polish adaptation by Łaguna et al. [48] assesses positive orientation, i.e., tendency to notice and attach importance to positive aspects of life. The scale consists of eight items. Answers are given on a five-point scale ranging from 1 – “I strongly disagree” to 5 – “I strongly agree”; one item is inverted (item 4). The result is the sum of points. A higher score indicates a higher positive orientation level.

Table 1. Characteristics of the study group (N = 431)

N		Total		Female		Male	
		%	N	%	N	%	
Number of participants		431	100	239	55	195	45
Education	Primary	21	5	11	3	10	2
	Secondary	145	34	62	15	83	19
	Higher	265	61	163	37	102	24
Marital status	Single	125	29	66	15	59	14
	In a relationship	306	71	170	40	136	31
Professional activity	No	44	10	28	6	16	4
	Yes	387	90	209	49	178	41
Place of residence	Village	128	30	75	18	53	12
	City	303	70	160	37	143	33
Having children	No	208	48	112	26	96	22
	Yes	207	48	113	26	94	22
Diagnosis of depression during lifetime	No	369	85	193	45	176	40
	Yes	60	14	42	10	18	4
Suicide behavior	No	239	55	113	26	126	29
	Thoughts	123	28	81	18	42	10
	Plans	54	12	33	7	21	5
	Attempts	15	3	9	2	6	1

## Results

After obtaining approval for adaptation from the authors of the Reasons for Living Scale, the RFL-48 scale was translated from English into Polish by two independent translators. The agreed Polish version was back-translated into English, which showed satisfactory correspondence with the original. All study participants were asked to complete four questionnaires: RFL-48, BDI, SBQ-R and the P Scale.

The statistical analyses were performed using the IBM Statistical Package for the Social Sciences (SPSS 25.1) and IBM SPSS Amos (v. 25). In order to verify the internal structure of the tool, exploratory and confirmatory factor analysis was used. For this, the study group was randomly divided into two subgroups: one of them was an exploratory analysis ( $N = 216$ ), and the other – a confirmatory analysis ( $N = 215$ ).

### Exploratory factor analysis for the Polish version of the RFL

To confirm that the analyzed matrix is not a unit matrix, the Bartlett's sphericity test ( $\chi^2 = 6042.461$ ;  $df = 1081$ ;  $p < 0.001$ ) and Kaiser-Meyer-Olkin index ( $KMO = 0.89$ ) were used. Both results were found to have satisfactory adequacy. First, principal component analysis was performed with the released number of factors and orthogonal rotation (Varimax). Factor loadings above 0.4 were considered a necessary condition for recognition of belonging to a given factor. In this way, six factors with the same structure as in the original were identified. The general scores for each factor and their loadings are given in Table 2. Three items are loaded with two factors each; however, they accept a higher load force for factors analogous to the original version of questionnaire. The selected factors explain in total over 55% of the variance of the results.

Table 2. Factor loadings for each item of the RFL for the tested model ( $N = 216$ )

Item	SCB	RF	FS	MO	FSD	CRC
SCB1	0.61					
SCB2	0.59					
SCB3	0.65					
SCB4	0.45					
SCB5	0.57					
SCB6	0.62					
SCB7	0.66					
SCB8	0.68					
SCB9	0.67					
SCB10	0.73					
SCB11	0.77					
SCB12	0.73					

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SCB13	0.79					
SCB14	0.69					
SCB15	0.68					
SCB16	0.75					
SCB17	0.71					
SCB18	0.81					
SCB19	0.72					
SCB20	0.53					
SCB21	0.66					
SCB22	0.78					
SCB23	0.74					
SCB24	0.65					
RF1		0.70				
RF2		0.66				
RF3		0.73				
RF4		0.76				
RF5		0.81				
RF6		0.68				
RF7		0.54			0.45	
FS1			0.68			
FS2			0.58			
FS3			0.59			
FS4			0.75			
FS5			0.56		0.43	
FS6			0.71			
FS7			0.61			
MO1				0.81		
MO2				0.77		
MO3				0.89		
MO4				0.70		
FSD1					0.58	
FSD2					0.75	
FSD3					0.79	
CRC1						0.75

*table continued on the next page*

CRC2						0.75
CRC3		0.42				0.72

*Note:* All correlations are significant at  $p < 0.001$ ; SCB – Survival and Coping Beliefs, RF – Responsibility to Family, FS – Fear of Suicide, MO – Moral Objections, FSD – Fear of Social Disapproval, CRC – Child-Related Concerns, RFL – Reasons for Living (total score)

### Confirmatory factor analysis (CFA) for the Polish version of the RFL

In order to verify the assumed factor structure of the tool, a confirmatory factor analysis was also performed by Maximum Likelihood (ML) estimation. The obtained fit indicators indicated moderate fit of the model to the data:  $\chi^2(803) = 1596.57, p < 0.001$ ;  $\chi^2/df = 2.16$ ; TLI  $\rho^2 = 0.833$ ; CFI = 0.851; AIC = 2526.008; RMSEA = 0.072; SRMR = 0.070.

### Internal consistency for the Polish version of the RFL

Cronbach's alpha coefficients for the total scale slightly differed from those obtained in the original study. Internal consistency for the total scale (48 items) was  $\alpha = 0.92$ . In the original version, Cronbach's alpha coefficients were slightly lower:  $\alpha = 0.89$ . For the Polish version, Cronbach's  $\alpha$  coefficients for individual factors were good for five factors, being above 0.80 and acceptable for one factor (FS – 0.70). The obtained correlation coefficients between individual questionnaire items were satisfactory, indicating that the Polish version of the RFL possesses satisfactory reliability (Table 3).

Table 3. Correlation coefficients of items with the general factor score and Cronbach's alpha coefficients ( $N = 431$ )

Item	SCB	RF	FS	MO	FSD	CRC
SCB1	0.609					
SCB2	0.616					
SCB3	0.703					
SCB4	0.408					
SCB5	0.636					
SCB6	0.675					
SCB7	0.698					
SCB8	0.682					
SCB9	0.679					
SCB10	0.706					
SCB11	0.777					
SCB12	0.721					

*table continued on the next page*



SCB13	0.766					
SCB14	0.694					
SCB15	0.656					
SCB16	0.756					
SCB17	0.700					
SCB18	0.780					
SCB19	0.694					
SCB20	0.571					
SCB21	0.600					
SCB22	0.753					
SCB23	0.705					
SCB24	0.670					
RF1		0.679				
F2		0.670				
RF3		0.724				
RF4		0.746				
RF5		0.797				
RF6		0.730				
RF7		0.677				
FS1			0.534			
FS2			0.546			
FS3			0.630			
FS4			0.697			
FS5			0.265			
FS6			0.627			
FS7			0.707			
MO1				0.850		
MO2				0.774		
MO3				0.876		
MO4				0.738		
FSD1					0.830	
FSD2					0.885	
FSD3					0.885	
CRC1						0.865

*table continued on the next page*

CRC2						0.905
CRC3						0.891
Cronbach's alpha	0.95	0.83	0.70	0.82	0.83	0.86

Note: All correlations are significant at  $p < 0.001$ ; SCB – Survival and Coping Beliefs, RF – Responsibility to Family, FS – Fear of Suicide, MO – Moral Objections, FSD – Fear of Social Disapproval, CRC – Child-Related Concerns

### Theoretical validity for the Polish version of the RFL

The convergence validity of the method was estimated based on the relationship between its results and the results of other tools measuring the levels of psychopathological symptoms, subjective symptoms of depression (BDI) and suicidal tendencies (SBQ-R). Discriminant validity was marked by comparing the RFL results with those of the Positive Life Orientation (P Scale). The obtained results (Pearson's correlation) are presented in Table 4.

Table 4. Convergence and discriminant validity assessment for RFL ( $N = 431$ )

	SCB	RF	FS	MO	FSD	CRC	RFL
BDI	-0.455**	-0.072	0.221**	-0.152**	-0.072	-0.164**	-0.313**
SBQ-R	-0.458**	-0.191**	0.169**	-0.297**	-0.110*	-0.349**	-0.411**
P Scale	0.534**	0.163**	-0.234**	0.197**	0.076	0.271**	0.402**

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; SCB – Survival and Coping Beliefs, RF – Responsibility to Family, FS – Fear of Suicide, MO – Moral Objections, FSD – Fear of Social Disapproval, CRC – Child-Related Concerns; RFL – Reasons for Living (total score)

The results of the correlation analysis of the adapted scale were found to be as expected. The results of the test group in terms of general reasons for living and three subscales were negatively correlated with the subjective severity of depression symptoms. On the other hand, the results of the respondents in terms of the fear of suicide were positively correlated with both the subjective severity of depression symptoms ( $r = 0.22$ ,  $p < 0.05$ ) and suicidal tendencies ( $r = 0.16$ ,  $p < 0.05$ ). The results of the respondents in terms of general reasons for living and their four subscales were negatively correlated with suicidal tendencies. On the other hand, the results of the respondents in terms of total score of reasons for living and positive orientation turned out to be positively correlated, with the exception of the correlation with the results obtained by the respondents in the area of fear of suicide ( $r = -0.234$ ,  $p < 0.05$ ). The validity of the tool for the participants with and without depression over the course of their lifetime and for the participants without suicidal behaviors or who had attempted suicide, or reported suicidal thoughts or plans, was tested using the *t*-Student's test for independent samples (Table 5). A summary of responses to the first question of the SBQ-R confirming the occurrence of suicidal thoughts, plans and suicide attempts is presented in detail in Table 1.

Table 5. Comparison of RFL scores for participants with and without depression during lifetime, according to non-suicidal and suicidal behaviors (N = 431)

	Without depression N = 369		With depression N = 60				Non-suicidal behaviors N = 239		Suicidal behaviors N = 192			
	M	SD	M	SD	t	d	M	SD	M	SD	t	d
SBC	4.65	0.97	4.07	1.05	4.27***	0.57	4.84	0.82	4.24	1.09	6.55***	0.63
RF	4.54	1.11	4.24	1.34	1.89	0.24	4.61	1.03	4.35	1.29	2.32**	0.22
FS	2.64	1.15	2.94	1.11	-1.85	0.27	2.53	1.14	2.86	1.14	-2.98**	0.29
MO	2.81	1.48	2.17	1.37	3.15*	0.45	3.04	1.48	2.35	1.40	4.92***	0.48
FSD	2.59	1.41	2.67	1.61	-0.360	0.05	2.75	1.46	2.41	1.40	2.43*	0.24
CRC	4.43	1.76	3.90	1.85	2.15**	0.29	4.81	1.51	3.79	1.93	6.13***	0.59
RFL	194	36.9	176	36.7	3.52***	0.49	201	34.1	180	38.1	6.07***	0.58
BDI	7.47	7.79	17.9	13.3	-8.55***	0.99	5.43	6.78	13.3	10.5	-9.39***	0.91
SBQ-R	4.98	2.58	8.07	3.52	-8.13***	1.01	3.54	0.91	7.73	2.90	-21.1***	2.20
P Scale	30.1	5.68	24.6	7.17	6.82***	0.86	31.7	4.80	26.5	6.54	9.51***	0.92

Note: Student's *t*-test; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; Cohen's *d*; SCB – Survival and Coping Beliefs, RF – Responsibility to Family, FS – Fear of Suicide, MO – Moral Objections, FSD – Fear of Social Disapproval, CRC – Child-Related Concerns; RFL – Reasons for Living (total score)

As shown in Table 5, compared with the participants who had suffered from depression during their lifetime, those who had never had a diagnosis of depression scored more highly on the RFL overall, and in the Survival and Coping Beliefs, Moral Objections and Child-Related Concerns subscales, as well as in terms of positive life orientation; they also achieved lower results for suicidal tendencies and subjective symptoms of depression. A small effect of the factor impact estimated by Cohen's *d* was observed only for the Child-Related Concerns variable. In relation to the other dimensions, the obtained Cohen's *d* values indicate a moderate effect (Survival and Coping Beliefs, Moral Objections, Reasons for Living (total score)). On the other hand, those without suicidal tendencies returned higher results for the RFL, as well as for the Survival and Coping Beliefs, Responsibility to Family, Moral Objections, Fear of Social Disapproval, Child-Related Concerns subscales, as well as positive life orientation, while scoring lower in Fear of Suicide, level of depression and suicidal tendencies compared to those demonstrating suicidal behavior. In this case, a low effect size was obtained for three factors (Responsibility to Family, Fear of Suicide, and Fear of Social Disapproval). In contrast, the results obtained in relation to other dimensions of the meaning of reasons to live show a moderate effect.

In the study group, women were found to achieve significantly higher scores than men for Responsibility to Family (Women:  $M = 4.66$ ,  $SD = 1.06$ ; Men:  $M = 4.29$ ,  $SD = 1.24$ ;  $t = 3.358$ ,  $p < 0.01$ ), Fear of Suicide (Women:  $M = 2.87$ ,  $SD = 1.16$ ; Men:  $M = 2.45$ ,  $SD = 1.1$ ;  $t = 3.817$ ,  $p < 0.01$ ), and lower scores for Fear of Social Disap-

proval (Women:  $M = 2.45$ ,  $SD = 1.35$ ; Men:  $M = 2.79$ ,  $SD = 1.53$ ;  $t = -2.432$ ,  $p < 0.05$ ). In addition, age ( $r = 0.11$ ,  $p < 0.05$ ) and level of education ( $r = 0.13$ ,  $p < 0.01$ ) are positively correlated with the overall RFL result. Furthermore, in the subscales, age positively correlates with Child-Related Concerns ( $r = 0.25$ ,  $p < 0.01$ ), and education with Survival and Coping Beliefs ( $r = 0.13$ ,  $p < 0.01$ ) and Responsibility to Family ( $r = 0.14$ ,  $p < 0.01$ ). Moreover, the respondents who had children indicated significantly more general reasons for living ( $t = 5.838$ ,  $p < 0.01$ ), as well as in terms of Survival and Coping Beliefs ( $t = 3.176$ ,  $p < 0.01$ ), Responsibility to Family ( $t = 6.876$ ,  $p < 0.05$ ), Moral Objections ( $t = 2.402$ ,  $p < 0.01$ ), Fear of Social Disapproval ( $t = 2.712$ ,  $p < 0.05$ ) and Child-Related Concerns ( $t = 12.945$ ,  $p < 0.001$ ) compared to childless people. The fact of having children did not constitute a significant difference in relation to the reasons for living only in terms of the Fear of Suicide ( $t = -0.779$ ,  $p > 0.05$ ).

### Conclusions

The aim of the presented research was to adapt the original English version of the Reasons for Living Scale (RFL-48) to Polish conditions and to check its psychometric properties. The need to adapt the tool was dictated by its appreciation in foreign research and usability in application in diagnostic and therapeutic practice.

Our findings indicate that the Polish version of the method has similar psychometric properties (Cronbach's alpha = 0.92) as the original (0.89). The factor structure of the Polish version is identical to that of the original [18] and the version validated in subsequent years [21]: all contain six factors characterized by analogous items with factor loadings above 0.5.

Therefore, the Polish adaptation can be used to measure the importance of reasons for living and six specific factors: Survival and Coping Beliefs, Responsibility to Family, Fear of Suicide, Moral Objections, Fear of Social Disapproval, and Child-Related Concerns. All of these demonstrated varied, but acceptable reliability in the Polish adaptation ranging from 0.70 (Fear of Suicide) to 0.95 (Survival and Coping Beliefs).

The six-factor structure obtained in the Polish adaptation is analogous to the French-Canadian version of the test [30], as well as those adapted for Colombia [34], Italy [29, 31], Malaysia [35], Metropolitan Region of Chile [36] and Russia [37]. However, it is different from the Iranian version of the tool, which contains four factors: Survival and Coping Beliefs and Responsibility to Family, Fear of Suicide, Moral Objections and Child-Related Concerns [32].

The Polish version of the tool also shows satisfactory theoretical validity. Interestingly, the respondents who reported experiencing depression in their life history indicated significantly fewer reasons for living compared to those who reported never having depression. They also returned lower scores for three factors: Survival and Coping Beliefs, Moral Objections and Child-Related Concerns. This may suggest that despite the reported depression in the past, the number of reasons for living remains low. However, further research is required to involve individuals from the clinical group in a current depressive state. The diversity observed for suicidal behavior

indicates a lower value of reasons for living in all aspects, which is consistent with the results obtained in adaptations performed for other countries, e.g., in Italy [31] or Columbia [34].

In addition, due to the large age range of the studied group (from 18 to 65 years) our findings demonstrate the great importance of age as a variable; this has tended to be ignored in many adaptations in other countries due to the qualification of only students [31].

However, this study has some limitations. Due to the use of the questionnaire approach, there is a risk that social acceptance may influence the results. In addition, the group of participants did not include people suffering from depression at the time of the study, in whom suicidal risk and protective factors are the main subject of the study [17, 44].

As suicidal behavior does not apply to the cardinal symptoms of depression, it is essential to perform studies involving the general population, as in the case of validation in other countries [29]. However, in order to determine the actual discriminatory potential of the Reasons for Living Inventory in relation to various psychopathological symptoms, further studies involving various clinical groups are required in the future. This is emphasized by the fact that low values of convergence and discriminant validity ratios were obtained in the present study, while maintaining the expected relationship direction [45].

To conclude, despite the limitations, the Polish adaptation of the Reasons for Living Scale by Linehan et al. [18] can be useful in clinical trials and therapeutic screening activities, centered around identifying the personal motives that protect adults from committing suicide.

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## UNIVERSITY OF WASHINGTON

### BEHAVIORAL RESEARCH & THERAPY CLINICS

Linehan et. al., 1983

**INSTRUCTIONS:** Many people have thought of suicide at least once. Others have never considered it. Whether you have considered it or not, we are interested in the reasons you would have for **not** committing suicide if the thought were to occur to you or if someone were to suggest it to you.

On the following pages are reasons people sometimes give for **not** committing suicide. We would like to know how important each of these possible reasons would be to you at this time in your life as a reason to **not** kill yourself. Please rate this in the space at the left on each question.

Each reason can be rated from 1 (Not At All Important) to 6 (Extremely Important). If a reason does not apply to you or if you do not believe the statement is true, then it is not likely important and you should put a 1. Please use the whole range of choices so as not to rate only at the middle (2, 3, 4, 5) or only at the extremes (1, 6).

In each space put a number to indicate the importance to you of each reason for **not** killing yourself.

1. Not At All Important (as a reason for **not** killing myself, **or**, does not apply to me, I don't believe this at all).
2. Quite Unimportant
3. Somewhat Unimportant
4. Somewhat Important
5. Quite Important
6. Extremely Important (as a reason for **not** killing myself, I believe this very much and it is very important).

Even if you never have or firmly believe you never would seriously consider killing yourself, it is still important that you rate each reason. In this case, rate on the basis of **why killing yourself is not or would never be an alternative for you.**

In each space put a number to indicate the importance to you of each for **not** killing yourself.

1. Not At All Important
4. Somewhat **Important**

- |                                |                        |
|--------------------------------|------------------------|
| 2. Quite Unimportant           | 5. Quite Important     |
| 3. Somewhat <b>Unimportant</b> | 6. Extremely Important |
- 

1. I have a responsibility and commitment to my family.
2. I believe I can learn to adjust or cope with my problems.
3. I believe I have control over my life and destiny.
4. I have a desire to live.
5. I believe only God has the right to end a life.
6. I am afraid of death.
7. My family might believe I did not love them.
8. I do not believe that things get miserable or hopeless enough that I would rather be dead.
9. My family depends upon me and needs me.
10. I do not want to die.
11. I want to watch my children as they grow.
12. Life is all we have and is better than nothing.
13. I have future plans I am looking forward to carrying out.
14. No matter how badly I feel, I know that it will not last.
15. I am afraid of the unknown.
16. I love and enjoy my family too much and could not leave them.
17. I want to experience all that life has to offer and there are many experiences I haven't had yet which I want to have.
18. I am afraid that my method of killing myself would fail.
19. I care enough about myself to live.
20. Life is too beautiful and precious to end it.
21. It would not be fair to leave the children for others to take care of.
22. I believe I can find other solutions to my problems.
23. I am afraid of going to hell.
24. I have a love of life.
25. I am too stable to kill myself.
26. I am a coward and do not have the guts to do it.
27. My religious beliefs forbid it.
28. The effect on my children could be harmful.
29. I am curious about what will happen in the future.
30. It would hurt my family too much and I would not want them to suffer.
31. I am concerned about what others would think of me.
32. I believe everything has a way of working out for the best.
33. I could not decide where, when, and how to do it.
34. I consider it morally wrong.
35. I still have many things left to do.
36. I have the courage to face life.
37. I am happy and content with my life.
38. I am afraid of the actual "act" of killing myself (the pain, blood, violence).

- 
39. I believe killing myself would not really accomplish or solve anything.
  40. I have hope that things will improve and the future will be happier.
  41. Other people would think I am weak and selfish.
  42. I have an inner drive to survive.
  43. I would not want people to think I did not have control over my life.
  44. I believe I can find a purpose in life, a reason to live.
  45. I see no reason to hurry death along.
  46. I am so inept that my method would not work.
  47. I would not want my family to feel guilty afterwards.
  48. I would not want my family to think I was selfish or a coward.