Slovak Validation of the Transgression-Related Interpersonal Motivation Inventory (TRIM-18)

Lucia Záhorcová [iD], Vladimír Dočkal
Department of Psychology, Trnava University in Trnava, Slovak Republic

The goal of this study was to validate the Transgression-Related Interpersonal Motivation Inventory (TRIM-18) on the Slovak population. One non-functional item had to be excluded from the Slovak version of the TRIM-18, so it is referred to as TRIM-17. The scale was verified on a representative group of adults in the productive age bracket of 18-65 years (n = 1209). The three-factor structure of the scale was corroborated. The interrelated factors of avoidance and revenge correlate negatively with the factor of benevolence. All three subscales show sufficient internal consistency (ω = .77 – .94 in different groups), and the total score has reliability of ω = .94 – .96. The validity of the questionnaire was corroborated by criterion validity (high correlations with other forgiveness scales) and construct validation (convergence with satisfaction with life and happiness, and divergence with anxiety, depression, and anger).

Key words: forgiveness, validation, Transgression-Related Interpersonal Motivation Inventory, interpersonal forgiveness, relationships

Introduction

Forgiveness has become a frequent research topic in the last 40 years. In interpersonal relationships, forgiveness is often needed in order to heal transgression wounds and for relationships to continue. Although there are various definitions of forgiveness, scholars agree that forgiveness is a process and not a single act, and during this process individuals work to decrease negative emotions (e.g., anger, sadness, hatred), thoughts (e.g., he/she is a bad, dreadful person), and behaviors (e.g., trying to seek revenge against the offender) toward the offender as well as increase positive emotions (e.g., compassion, empathy), thoughts (e.g., he/she is a good person, a person worthy of respect), and behaviors (e.g., showing kindness, helping the person) toward them (e.g., Enright, 2001; Worthington, 2005). For this to happen, the person often

has to express empathy and compassion for the offender (Enright, 2001; McCullough et al., 1997). Since forgiveness is often confused with other concepts, whether by lay people (Freedman & Chang, 2010) or helping professionals (Konstam et al., 2000), it is essential to distinguish it from other similar concepts. Authentic forgiveness is not the same as pardoning the hurt, excusing or condoning the offender, forgetting the hurt, or reconciliation with the offender (Enright, 2001; Worthington, 2005). It is possible to forgive without reconciliation with the offender; however, in healthy relationships, reconciliation is often necessary in order to maintain the relationship.

In the interpersonal context, transgressions often create a desire to avoid the offender, a desire to seek revenge against the offender, and a decline in goodwill toward the transgressor (McCullough et al., 1997; McCullough et al., 1998). With this in mind, McCullough et al. (1997) define interpersonal forgiveness as a set of motivational changes in which the person becomes a) decreasingly motivated to avoid the offender, b) decreasingly motivated to take revenge on the offending partner, and c) increasingly motivated to act benevolently toward the partner, and feel goodwill toward the offender, despite their hurtful behavior.

When a victimized partner has forgiven their offending partner, he or she no longer perceives the offense or offender in such a way as to elicit these two negative motivation tendencies. That means that instead of trying to avoid contact with the offender and seeking to take revenge on them, the victim seeks benevolence and these motivational tendencies undergo relationship-constructive transformations. Forgiveness is not, therefore, motivation per se, but a complex of prosocial motivational changes following interpersonal transgression (McCullough, 2000).

Previous research showed that higher forgiveness is beneficial for the individual and for couples. Forgiveness has been shown to have positive consequences for physical health (Lee & Enright, 2019), in terms of lower blood pressure (Lawler-Row et al., 2008) or even lower mortality rates (Toussaint et al., 2012), as well as for mental health, such as a decrease in depression, anxiety, anger, and an increase in self-esteem or hope (e.g., Akhtar & Barlow, 2018). In the relational context, forgiveness has been linked to effective communication (Fincham & Beach, 2002), higher relationship satisfaction (Braithwaite et al., 2011), as well as to conflict resolution (Fincham et al., 2004).

Forgiveness can be conceptualized both as a state and as a trait. Trait-forgiveness has been defined as forgivingness (disposition to forgive), which represents the ability to forgive different people across a variety of situations and across time (Roberts, 1995). The state of forgiveness refers to the individual capacity to forgive a specific event, a transgression performed by a particular individual in a specific situation (McCullough & Worthington, 1999). The most frequently used measures of state-forgiveness are the Transgression-Related Interpersonal Motivations Inventory (TRIM-18, McCullough et al., 1998), the Enright Forgiveness Inventory (EFI, Subkoviak et al., 1995), along with the shorter version of the EFI-30 (Enright et al., 2022), the Decision to Forgive Scale (DTFS; Davis et al., 2015), and the Emotional Forgiveness Scale (EFS; Hook et al., 2009).

In the Slovak context, we lack a validated tool for measuring situation-specific forgiveness. Since its creation in 1998, the TRIM-18 is being validated in various countries, such as Spain (Fernández-Capo et al., 2017), Poland (Kossakowska & Kwiatek, 2017), China (Wong et al., 2014), or Iran (Nouri et al., 2021). This tool has certain strengths, which led us to validate the TRIM-18 on the Slovak population and obtain its psychometric properties. First,

this scale allows researchers to study both forgiving (i.e., benevolence) and unforgiving motivations (i.e., motivation to avoid the offender and seek revenge). Second, compared to the EFI, and even the abbreviated EFI-30, the TRIM-18 is a shorter scale and so using it may help reduce the time needed to fill in long test batteries.

In our study, we chose the following variables to measure construct validity – life satisfaction, happiness, depression, anxiety, and anger. These variables were selected as they had previously shown positive associations between forgiveness and life satisfaction and happiness (e.g., Bono et al., 2008; Szcześniak & Soares, 2011) and a negative correlation with depression, anxiety, and anger (e.g., Barcaccia et al., in press; Rijavec et al., 2010). Moreover, in the experimental forgiveness studies (e.g., Akhtar & Barlow, 2018), the effect of forgiveness intervention is most often measured in terms of alleviating depression, anger, and anxiety.

Method

Participants

An external marketing agency recruited a research sample that was representative of the demographic composition of the productive Slovak population (18-65 years). The research sample consisted of 1,209 participants, 600 (49.6%) of whom were men and 609 (50.4%) women. All age subgroups had an approximately equal representation of males and females. Mean participant age was 41.22 (*SD* = 12.78); the age composition of the sample is reported in detail in Table 1.

Most of the sample (545; 45.1%) reported having completed high school with an exit certificate, 403 participants (33.3%) reported having obtained a Master's degree, 123 (10.2%) reported having completed high school without an exit certificate, 85 (7%) participants reported having obtained a Bachelor's degree, 35 (2.9%) reported having obtained a doctoral degree and 18 participants (1.5%) had completed middle school. Regarding marital status, most of the participants were married (586; 48.5%), followed by single participants (270; 22.3%), participants in a romantic relationship (211; 17.5%), and divorced (118; 9.8%) and widowed (24; 2%) participants. The majority of the sample were religious (78.2%), and 21.8% had no religion or were atheists. Most of the participants were Catholic (802; 66.3%), or Evangelical, others were of different Protestant religions (111; 9.2%), other Christian religions (24; 2%), or non-Christian, e.g., Buddhism (8; 0.7%).

Table 1 *Age composition of the sample*

Age Group	N	%
18 – 25 years	121	10.0
26 – 35 years	373	30.9
36 – 45 years	249	20.6
46 – 55 years	250	20.7
56 – 65 years	216	17.9
Total	1209	100.0

Measures

Prior to completing the questionnaire battery, participants completed a consent form and demographic information (gender, age, education level, marital status, religion).

TRIM-18. Situational forgiveness toward another person was measured with the Transgression-Related Interpersonal Motivations Inventory–18-Item Version (TRIM-18) (McCullough et al., 1998). The scale is based on McCullough et al.'s (1997) theory of interpersonal forgiveness, the concept of which involves the means of decreasing motivation to avoid the offender, decreasing motivation to take revenge on the offender, and increasing motivation to act benevolently toward them. The TRIM-18 consists of 18 items divided into three subscales: the avoidance subscale (7 items, e.g., *"I am avoiding him/her."*), the revenge subscale (5 items, e.g., *"I wish that something bad would happen to him/her."*), and the benevolence subscale (6 items, e.g., "*I want as to bury the hatchet and move forward with our relationship."*). In order to measure the overall forgiveness score, the items belonging to the revenge and avoidance subscale need to be reverse coded and added to the score of the benevolence items. The original TRIM-18 has good reliability and validity (McCullough et al., 2006; McCullough & Hoyt, 2002). For the purposes of this study, the TRIM-18 was back and forth translated by the authors of this study, both of whom are fluent in English (one is level C1 on the CEFR scale). Once a consensus had been reached, an external English teacher and a native-English-speaking proofreader were consulted on the translation. Both provided feedback, which was incorporated into the final version.

EFI-30. In order to measure situational forgiveness, the Slovak adaptation (Záhorcová & Dočkal, in press) of the Enright Forgiveness Inventory-30 item version (Enright et al., 2022) was used in addition to the TRIM-18. The scale consists of three subscales: affective, cognitive, and behavioral. Each subscale consists of 10 items, of which five are formulated positively and five negatively, e.g., affective subscale (e.g., *"I feel tender toward him/her"; "I feel cold toward him/her"),* cognitive subscale (e.g., *"I think he or she is of good quality"; "I think he or she is horrible")* and a behavioral subscale *(e.g., "I do or would aid him/her when in trouble"; "I do or would avoid him/her").* Participants assess how they are feeling right now toward the person who hurt them deeply and unjustly. Items are assessed on a 6-point Likert scale (1 – strongly disagree, 6 – strongly agree). In our study the internal consistency was $\omega = .928$ for the affective subscale, $\omega = .957$ for the behavioral subscale, $\omega = .927$ for the cognitive subscale, $\omega = .974$ for the whole scale.

The scale also includes a pseudo-forgiveness subscale. This subscale contains five items, e.g., *"I was never bothered by what happened",* which are assessed on a 6-point Likert scale (1 – strongly disagree, 6 – strongly agree). Participants high scoring on the pseudo-forgiveness subscale should be excluded from the data analysis, as they may be engaging in non-authentic forgiveness, i.e., denying the hurt, pardoning the offender, etc. (Enright et al., 2022). The internal consistency for the pseudo-forgiveness subscale was $\omega = .951$.

HFS. The Forgiveness of Others subscale from the Heartland Forgiveness Scale (HFS; Thompson et al., 2005) was used to measure dispositional forgiveness toward others. The scale has six items, e.g., "*If others mistreat me, I continue to think badly of them".* Items are assessed on a 7-point Likert scale (1 – almost always false for me, 7 – almost always true for me). The original scale demonstrated good psychometric properties (Thompson et al., 2005). The internal consistency for our

sample was ω = .766. We consider this coefficient to be sufficient for the scale to be used to validate the TRIM-18.

Happiness. Respondent's level of perceived global happiness was assessed by The Subjective Happiness Scale (SHS, Lyubomirsky & Lepper, 1999). The scale contains four items, e.g., "*In general, I consider myself... 1 – not a very happy person, 7 – a very happy person.*" All items are assessed on a 7-point Likert scale. The original scale demonstrated very good psychometric properties (Lyubomirsky & Lepper, 1999). For the purposes of this study, we used the Slovak version of the scale, which showed good construct validity and adequate internal consistency (Babinčák, 2018). In our study the internal consistency was ω = .830.

Satisfaction with life. To measure satisfaction with life, The Satisfaction with Life Scale (SWLS; Diener et al., 1985) was used. The scale measures satisfaction with one's life as a whole and consists of five items. An example item is: "*I am satisfied with my life.*" Items are assessed on a 7-point Likert scale (1 – strongly disagree, 7 – strongly agree). The original scale showed good construct validity with other types of assessments of satisfaction with life (Pavot & Diener, 1993). The scale was back and forth translated from English to Slovak by the authors of this study. The internal consistency of the Slovak version of the SWLS was ω = .894.

Depression and anxiety. The Hospital Anxiety and Depression Scale (HADS, Leung et al., 1993) was used to measure individuals' levels of the symptoms of depression and anxiety. The scale consists of seven items to measure depression and seven items to measure anxiety. Items are scored on a 3-point Likert scale. An example item for depression is "*I feel as if I am slowed down*" (0 – not at all, 3 – nearly all the time). An example item for anxiety is "*I get sudden feelings of panic*" (0 – not at all, 3 – very often indeed). The scale has previous-

ly been used with various populations, including the general population, and somatic, psychiatric, and primary care patients, and shows good psychometric properties (Bjelland et al., 2002). The scale was back and forth translated from English to Slovak by the authors of this study. The coefficients of internal consistency recorded for our sample were ω = .821 for depression and ω = .844 for anxiety.

Anger. The A-subscale from the Aggression Questionnaire (AQ, Buss & Perry, 1992) was used to measure individuals' levels of anger. The subscale contains six items, e.g., "*Some of my friends think I am a hothead*". The items are assessed on a 5-point Likert scale (1 – extremely uncharacteristic of me, 5 – extremely characteristic of me). The original scale showed good internal consistency and stability over time (Buss & Perry, 1992). The scale was back and forth translated from English to Slovak by the authors of this study. Internal consistency of the AQ subscale in our sample was ω = .807.

Results

The psychometric properties of the Slovak version of the TRIM-18 were verified based on the Classical Test Theory.

Item Analysis

For the purposes of the analysis, we arranged the eighteen items according to the dimensions of the questionnaire to which they belong. We tracked the average and median scores of each item. On a 5-point scale, optimal mean values should be around 3. Lower values indicate predominant disagreement with the item, whereas higher values are indicative of agreement. In addition, Table 2 shows the corrected item – the total correlation values for the individual dimensions as well as for the total forgiveness score (the

avoidance and revenge items were recoded in the calculation). They indicate the item's contribution to the questionnaire results and the discriminatory power of the item.

The values obtained for the Avoidance Dimension indicate the quality of the scale. Only in item 7 do we see more frequent indicative responses – respondents expressed more dis-

Table 2 *Characteristics of the TRIM-18 items*

Dimensi	Item	Item AM	Item Mdn	Discrimination coefficient of dimension	Discrimination coefficient of total scale
Avoidance	2. I am trying to keep as much distance between us as possible.	3.11	3	.812	.747
	5. I am living as if he/she doesn't exist, isn't around.	2.66	3	.839	.802
	7. I don't trust him/her.	3.43	4	.736	.726
	10. I am finding it difficult to act warmly toward him/her.	3.18	3	.693	.705
	11. I am avoiding him/her.	2.95	3	.854	.779
	15. I cut off the relationship with him/her.	2.91	3	.787	.745
	18. I withdraw from him/her.	2.78	3	.854	.855
Revenge	1. I'll make him/her pay	2.23	2	.642	.576
	4. I wish that something bad would happen to him/her.	1.72	1	.694	.503
	9. I want him/her to get what he/she deserves.	2.52	2	.696	.658
	13. I'm going to get even.	1.89	2	.695	.467
	17. I want to see him/her hurt and miserable.	1.86	2	.764	.623
Benevolence	3. Even though him/her actions hurt me, I have goodwill for him/her.	3.41	4	.762	.763
	6. I want as to bury the hatchet and move forward with our relationship.	3.17	3	.794	.761
	8. Despite what he/she did, I want as to have a positive relationship again.	3.23	3	.835	.817
	12. Although he/she hurt me, I am putting he hurts aside so we can resume our relationship.	2.92	3	.801	.759
	14. I have given up my hurt and resentment.	3.03	3	.497	.479
	16. I have released my anger so I can work on restoring our relationship to health.	2.91	3	.801	.782

trust toward the person who hurt them. The Revenge dimension is characterized by negative answers. Here the mean value of the score is 2 not 3, and 1 for item 4. Thus, respondents do not feel more motivated to take revenge. Nevertheless, the values of the discrimination coefficients are acceptable, so the scale appears to be applicable. Respondents gave the most positive answers to the items in the Benevolence dimension. Here the mean values are 3, and 4 for the third item – the respondents want to maintain goodwill toward the person who hurt them. Item 14 attracts

lower discrimination coefficients; its contribution to the benevolence score and to the overall forgiveness score is much lower compared to the other items.

Reliability

As our measure of reliability, we used the internal consistency of the subscales and the entire TRIM-18 scale; given the nature of the data, McDonald's omega appears to be a suitable indicator. Table 3 presents the observed values of α for the whole representative Slo-

Table 3 *McDonald's ω for the three dimensions and total forgiveness score for the TRIM-18*

Group	Avoidance (7 items)	Revenge (5 items)	Benevolence (6 items)	Forgiveness (18 items)
Whole Sample	.938	.874	.913	.951
Male	.936	.880	.908	.949
Female	.941	.865	.917	.953
18 – 25 years	.931	.771	.888	.938
26 – 35 years	.944	.866	.903	.948
36 – 45 years	.942	.901	.928	.959
46 – 55 years	.920	.862	.915	.947
56 – 65 years	.944	.909	.923	.951

Table 4 *McDonald's ω for the Benevolence dimension and total forgiveness score for the TRIM-17*

Group	Benevolence (5 items)	Forgiveness (17 items)
Whole sample	.926	.952
Male	.920	.950
Female	.932	.954
18 – 25 years	.904	.939
26 – 35 years	.914	.948
36 – 45 years	.940	.958
46 – 55 years	.930	.948
56 – 65 years	.940	.959

vak sample (n = 1209), as well as the sub-groups differentiated by respondent gender and age.

As we will show in the following section, the analysis of the internal structure of the TRIM-18 led us to the decision to delete the disputed item 14 from the Slovak version of the questionnaire. Table 4 shows the change (increase) in the McDonald's omega values for the benevolence scale as well as for total forgiveness after the intervention.

Internal Validity

The data obtained from the Slovak version of the TRIM-18 (the whole set) was subjected to a confirmatory factor analysis in order to confirm the three-factor model of the questionnaire. Since the data distribution did not differ from the normal distribution, we chose the Maximum Likelihood method. Various indicators are used to assess the conformity of the data with the model; like Hoyle (2004) we interpret two: CFI, which should be greater than .9, and RMSEA, which should be less than .8. The data only roughly correspond to this model (CFI = .940; RMSEA = .0802; χ^2 = $1160_{(132)}$; p <.001). The factor saturations of the individual items range from 0.86 to 0.91, with the exception of item 14, with a saturation of 0.49. We therefore decided to run an exploratory factor analysis using the Maximum Likelihood method with Oblimin rotation. Eigenvalues higher than 1 had two factors: one combined the avoidance and benevolence items (those with negative values), the other was saturated with revenge. Given this result, we chose a three-factor solution, reducing the required eigenvalue to 0.8. This solution provided a meaningful factor structure identical to the structure of the questionnaire. The strongest factor was the avoidance factor, followed by revenge, whereas the factor contributing least to the variance of the

results was benevolence. The factor values of all items were higher than 0.65; the exception was item 14, which had a charge below 0.45. Therefore, considering the previous results, we decided to exclude this item from the Slovak version of the TRIM. The results of the factor analysis of the 17-item version of the questionnaire are presented in Table 5 (charges below 0.5 are not reported). Slovak version of the scale can be found in the Appendix. Table 6 shows how the factors are correlated.

Subsequent confirmatory factor analysis of the 17-item questionnaire yielded a satisfactory agreement with the three-factor model (CFI = .948; RMSA = .0788; χ^2 = $986_{(116)}$; p < .001), while the saturation did not fall below 0.68.

Criterion Validation

The results of the two forgiveness tests were chosen as the criteria for the concurrent validation. The EFI-30 questionnaire is aimed at the same construct as the TRIM questionnaire – situational forgiving – so we expect a high correlation between the overall scores of both questionnaires. As for the subscales, we expect a high positive relationship between the EFI-30 and Benevolence, a high negative relationship with Avoidance, and a moderately strong negative relationship with Revenge. The validation file in this case contained 1,143 respondents. From the original 1,209-member group, we excluded 66 persons (5.5%) who scored high on the pseudo-forgiveness scale in the EFI-30 questionnaire, as according to the authors of the EFI (Enright et al., 2022), their forgiveness score cannot be considered reliable.

The variation analysis of the results of the TRIM-17 questionnaire revealed significant differences in men's and women's scores (in the revenge dimension and the overall

Table 5 *Exploratory factor analysis results for the Slovak version of the TRIM-17*

Items	Factors		
	Avoidance	Revenge	Benevolence
2. I am trying to keep as much distance between us as possible.	.848	–	–
5. I am living as if he/she doesn't exist, isn't around.	.877	.504	–
7. I don't trust him/her.	.741	–	–
10. I am finding it difficult to act warmly toward him/her.	.707	–	–
11. I am avoiding him/her.	.900	–	–
15. I cut off the relationship with him/her.	.824	–	–
18. I withdraw from him/her.	.871	.537	–
1. I'll make him/her pay	–	.650	–
4. I wish that something bad would happen to him/her.	–	.780	–
9. I want him/her to get what he/she deserves.	.502	.731	–
13. I'm going to get even.	–	.772	–
17. I want to see him/her hurt and miserable.	–	.858	–
3. Even though him/her actions hurt me, I have goodwill for him/her.	–	–	.774
6. I want as to bury the hatchet and move forward with our relationship.	–	–	.866
8. Despite what he/she did, I want as to have a positive relationship again.	–	–	.915
12. Although he/she hurt me, I am putting the hurts aside so we can resume our relationship.	–	–	.835
16. I have released my anger so I can work on restoring our relationship to health.	–	–	.828
Percentage of explained variance	54.68	9.75	3.38

Table 6 *Factor correlation matrix of TRIM-17*

Factor	Avoidance	Revenge
Revenge	.496	–
Benevolence	-.809	-.516

score) and in the scores for the monitored age groups (revenge, avoidance, and overall score). Gender and age had a smaller effect on the EFI-30 score, but we noted the effect nevertheless. These differences could intervene in the identified relationships between the questionnaires, so in addition to evaluating the whole data set, we also separately evaluated the data in the sub-sets broken down by gender and age. The results of the correlation analysis are shown in Table 7.

The second tool used in the concurrent criterion validation was the HFS questionnaire. This questionnaire is aimed at identifying the tendency to forgive others, i.e., forgiveness as a personal disposition. We therefore expect significant relationships with the TRIM-17, but lower than when the situational forgiveness rate is used. The results obtained for the group of 1,209 persons and the subgroups by gender and age are shown in Table 8.

Table 7 *Pearson's correlations between the TRIM-17 and the total EFI-30 forgiveness score*

Group	TRIM Forgiveness	TRIM Avoidance	TRIM Revenge	TRIM Benevolence
Whole Sample	.908	-.884	-.597	.852
Male	.905	-.869	-.607	.841
Female	.910	-.896	-.586	.860
18 – 25 years	.919	-.903	-.542	.842
26 – 35 years	.907	-.888	-.539	.850
36 – 45 years	.902	-.887	-.595	.860
46 – 55 years	.894	-.858	-.639	.829
56 – 65 years	.920	-.881	-.661	.879

Note. All correlation coefficients are significant at $p < .001$

Table 8 *Pearson's correlations between the TRIM-17 and HFS forgiveness score*

Group	TRIM Forgiveness	TRIM Avoidance	TRIM Revenge	TRIM Benevolence
Whole Sample	.523	-.401	-.559	.479
Male	.511	-.373	-.562	.463
Female	.529	-.424	-.545	.492
18 – 25 years	.480	-.363	-.523	.441
26 – 35 years	.464	-.326	-.555	.417
36 – 45 years	.624	-.522	-.598	.584
46 – 55 years	.539	-.421	-.569	.481
56 – 65 years	.531	-.408	-.567	.491

Note. All correlation coefficients are significant at $p < .001$

Table 9 *Pearson's correlations between the total TRIM-17 score and the other constructs*

Group	Satisfaction with life (SWLS)	Happiness (SHS)	Anxiety (HADS)	Depression (HADS)	Anger (AQ)
Whole Sample	.183***	.138***	-.131***	-.111***	-.086**
Male	.202***	.119**	-.176***	-.085*	-.097*
Female	.161***	.146***	-.101*	-.133***	-.091*
18 – 25 years	.116	.189*	-.213*	-.156	-.178
26 – 35 years	.174***	.138**	-.128*	-.105*	-.133**
36 – 45 years	.195**	.136*	-.080	-.128*	-.022
46 – 55 years	.198**	.084	-.092	-.086	-.119
56 – 65 years	.134*	.147*	-.197**	-.087	-.020

Note. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$

Construct Validation

Theoretical considerations and previous research experience show that forgiveness is positively correlated with satisfaction with life and happiness (Bono et al., 2008; Maltby et al., 2005; Toussaint & Friedman, 2009), but negatively correlated with depression, anxiety, and anger (Akhtar & Barlow, 2018; Barcaccia et al., in press). Verifying these relationships will contribute to the construct validity of the TRIM-17. At this point (Table 9), we only show the relationships between the total forgiveness score and the above variables, both for the entire 1,209 sample set and the sub-sets by gender and age.

Discussion

The Slovak translation of the TRIM-18 questionnaire was verified on a representative sample of the Slovak working age population. The performed analyses alerted us to the problematic functioning of item 14 (*"I have given up my hurt and resentment"*), which showed relatively low discriminatory power as well as weak saturation by the benevolence factor. It may be that Slovak respondents experience hurt and resentment differently from Americans. It is also possible that the Slovak translation did not capture the essence of these emotions well. These problems led us to exclude item 14 from the Slovak version. Thus modified, the TRIM-17 questionnaire has seven items in the Avoidance subscale and five items in the Revenge and Benevolence subscales. The factor analysis confirmed the three-factor structure of the questionnaire with correlated factors (avoidance and revenge are positively related, both factors are negatively correlated with benevolence). It is therefore necessary to recode the avoidance and revenge items in order to calculate the total forgiveness score.

The way in which the TRIM estimates the degree of forgiveness is interesting in that two out of the three subscales detect tendencies, i.e., motivation for unforgiveness. Only the scale of benevolence is focused on the positive motivation to forgive, which was weakest according to the factor analysis (with the lowest contribution to explaining the variance in the questionnaire score). Nevertheless, the questionnaire appears to be a good quality psychometric tool.

We assessed the reliability of the total forgiveness rate as well as the three TRIM-17 subscales based on their internal consistency. The results are satisfactory – McDonald's ω for avoidance is between 0.92 and 0.94, for revenge it is between 0.77 and 0.91, and for benevolence between 0.90 and 0.94. For the total score of forgiveness, ω ranges between 0.94 and 0.96. The overall degree of situational forgiveness can therefore be considered very reliable. The most reliable subscale is the avoidance subscale, and the least reliable is the revenge subscale.

We sought evidence for the validity of the TRIM-17 by correlating it with the criteria for two other forgiveness questionnaires. All the relationships found are consistent with the hypotheses: the total forgiveness score as well as the benevolence score for the TRIM-17 correlate highly positively with the EFI-30 situational forgiveness. Conversely, avoidance scores and revenge motivations correlate negatively with EFI-30 – avoidance highly and revenge with medium to high values for the correlation coefficients.

The correlations between the TRIM-17 and the degree of dispositional forgiveness are understandably lower, reaching medium values. All the relationships are in the expected direction: avoidance and revenge are related to the tendency to forgive negatively, whereas benevolence and overall situational forgiveness score positively.

Another validation procedure was construct validation, where we assumed convergence between the TRIM-17 forgiveness and satisfaction with life and happiness (e.g., Bono et al., 2008; Szcześniak & Soares, 2011), and divergence between it and anxiety, depression, and anger (e.g., Rijavec et al., 2010). The results for the whole sample and sub-groups are in line with previous studies (e.g., Barcaccia et al., in press; McCullough et al., 2007) and confirm our assumptions, although not

sufficiently. It is clear that the dispositional characteristics of personality relate to situational forgiveness in the expected direction, albeit only loosely. Satisfaction with life and happiness show low positive correlations with forgiveness. Anxiety, depression, and anger are always negative, but with only low to negligible correlations. There are differences between males and females and between the different age groups, but the differences in the level of the correlation coefficients are not large, nor are they statistically significant.

The results of our study need to be interpreted in light of some limitations. First, most of the scales used in this study (except for the SHS) were back and forth translated into Slovak, but had not previously been validated in a Slovak context, and this may have influenced the results. Second, our study is cross-sectional, making it impossible to demonstrate causal conclusions about relationships between variables. Future experimental and longitudinal studies could examine such causal relationships.

In our research, we observed several other variables and we intend to analyze the relationships between these and forgiveness in further studies. However, at this stage we can already state that the Slovak version of the TRIM-17 is a suitable tool for use in research, as well as in counseling work with clients of psychological services. We therefore intend to complete the standardization of the questionnaire by constructing Slovak standards for men, women, and several age groups.

Author's ORCID
Lucia Záhorcová
https://orcid.org/0000-0002-9252-8608

References

Akhtar, S., & Barlow, J. (2018). Forgiveness therapy for the promotion of mental well-being: A systematic review and meta-analysis. *Trauma, Violence, and Abuse, 19*, 107–122. https://doi.org/10.1177/1524838016637079

Babinčák, P. (2018). Subjective happiness in Slovakia: Reliability and validity of measuring happiness through the Subjective Happiness Scale*. European Journal of Mental Health, 13*(2), 111–132. https://doi.org/10.5708/ejmh.13.2018.2.1

Barcaccia, B., Ioverno, S., Salvati, M., Medvedev, O. N., Pallini, S., & Vecchio, G. M. (in press). Measuring predictors of psychopathology in Italian adolescents: Forgiveness, avoidance and revenge. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues.* https://doi.org/10.1007/s12144-021-01414-2

Bjelland, I., Dahi, A. A., Haug, T. T., & Neckelmann, D. (2002). The validity of the Hospital Anxiety and Depression Scale: An updated literature review. *Journal of Psychosomatic Research, 52*(2), 69–77. https://doi.org/10.1016/S0022-3999(01)00296-3

Bono, G., McCullough, M. E., & Root, L. M. (2008). Forgiveness, feeling connected to others, and well-being: Two longitudinal studies. *Personality and Social Psychology Bulletin*, *34*(2), 182–195. https://doi.org/10.1177/0146167207310025

Braithwaite, S. R., Selby, E. A., & Fincham, F. D. (2011). Forgiveness and relationship satisfaction: Mediating mechanisms. *Journal of Family Psychology, 25*(4), 551–559. https://doi.org/10.1037/a0024526

Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*(3), 452–459. https://doi.org/10.1037/0022-3514.63.3.452

Davis, D. E., Hook, J. N., Van Tongeren, D. R., DeBlaere, C., Rice, K. G., & Worthington Jr., E. L. (2015). Making a decision to forgive. *Journal of Counseling Psychology, 62*, 280–288. https://doi.org/10.1037/cou0000054

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Enright, R. D. (2001). *Forgiveness is a choice. A step-by-step process for resolving anger and restoring hope*. American Psychological Association.

Enright, R., Rique, J., Lustosa, R., Song, J. Y., Komoski, M. C., Batool, I., Bolt, I., Sung, H., Huang, S. T. T., Park, Y., Leer-Salvesen, P. E., Andrade, T., Naeem, A., Viray, J., & Costuna, E. (2022). Validating the Enright Forgiveness Inventory – 30 (EFI-30). *European Journal of Psychological Assessment, 38(2),* 1–12. https://doi.org/10.1027/1015-5759/a000649

Fernández-Capo, M., Recoder, S., Gómez-Benito, J., Gámiz, M., Gual-García, P., Díez, P., & Worthington, E., Jr. (2017). Exploring the dimensionality and the psychometric properties of the TRIM-18 in the Spanish context. *Anales de Psicología, 33*(3), 548–555. https://doi.org/10.6018/analesps.33.2.264461

Fincham, F. D., & Beach, S. R. H. (2002). Forgiveness in marriage: Implications for psychological aggression and constructive communication. *Personal Relationships, 9*(3), 239–251. https://doi.org/10.1111/1475-6811.00016

Fincham, F. D., Beach, S. R. H., & Davila, J. (2004). Forgiveness and conflict resolution in marriage. *Journal of Family Psychology, 18*(1), 72–81. https://doi.org/10.1037/0893 3200.18.1.72

Freedman, S., & Chang, W.-C. R. (2010). An analysis of a sample of the general population's understanding of forgiveness: Implications for mental health counselors. *Journal of Mental Health Counseling, 32*(1), 5–34. https://doi.org/10.17744/mehc.32.1.a0x246r8l6025053

Hook, J. N., Worthington Jr., E. L., & Utsey, S. O. (2009). Collectivism, forgiveness, and social harmony. *The Counseling Psychologist, 37*, 821–847. https://doi.org/10.1177/0011000008326546

Hoyle, R. H. (2004). Confirmatory factor analysis. In M. Lewis-Beck, A. Bryman, & T. Liao (Eds.), *Encyclopedia of Social Science Research Methods,* (vol. 1, pp. 169–175). Thousand Oaks, CA: Sage Publications.

Konstam, V., Marx, F., Schurer, J., Harrington, A., Lombardo, N. E., & Deveney, S. (2000). Forgiving: What mental health counselors are telling us. *Journal of Mental Health Counseling, 22*(3), 253–267.

Kossakowska, M., & Kwiatek, P. (2017). Strategies of coping with transgressor – Polish validation of TRIM-18 questionnaire. Seminare. *Poszukiwania naukowe, 4,* 69–82.

Lawler-Row, K. A., Karremans, J. C., Scott, C., Edlis-Matityahou, M., Edwards, L. (2008). Forgiveness, physiological reactivity and health: The role of anger. *Inter-*

national Journal of Psychophysiology, 68(1), 51–58. https://doi.org/10.1016/j.ijpsycho.2008.01.001

Lee, Y.-R., & Enright, R. D. (2019). A meta-analysis of the association between forgiveness of others and physical health. *Psychology & Health, 34*(5), 626–643. https://doi.org/10.1080/08870446.2018.1554185

Leung, C. M., Ho, S., Kan, C. S., Hung, C. H., & Chen, C. N. (1993). Evaluation of the Chinese version of the Hospital Anxiety and Depression Scale. *International Journal of Psychosomatics, 40*, 29–34.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46*(2), 137–155. https://doi.org/10.1023/a:1006824100041

Maltby, J., Day, L., & Barber, L. (2005). Forgiveness and happiness. The differing contexts of forgiveness using the distinction between hedonic and eudaimonic happiness. *Journal of Happiness Studies, 6*(1). https://doi.org/10.1007/s10902-004-0924-9

McCullough, M. E. (2000). Forgiveness as human strength: Theory, measurement, and links to well-being. *Journal of Social and Clinical Psychology, 19*(1), 43–55. https://doi.org/10.1521/jscp.2000.19.1.43

McCullough, M. E., Bono, G., & Root, L. M. (2007). Rumination, emotion, and forgiveness: Three longitudinal studies. *Journal of Personality and Social Psychology*, *92*(3), 490–505. https://doi.org/10.1037/0022-3514.92.3.490

McCullough, M. E., & Hoyt, W. T. (2002). Transgression-related motivational dispositions: Personality substrates of forgiveness and their links to the Big Five. *Personality and Social Psychology Bulletin, 28*(11), 1556–1573. https://doi.org/10.1177/014616702237583

McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology, 75*(6), 1586–1603. https://doi.org/10.1037/0022-3514.75.6.1586

McCullough, M. E., Root, L. M., & Cohen, A. D. (2006). Writing about the benefits of an interpersonal transgression facilitates forgiveness. *Journal of Consulting and Clinical Psychology, 74*(5), 887–897. https://doi.org/10.1037/0022-006x.74.5.887

McCullough, M. E., & Worthington, E. L., Jr. (1999). Religion and the forgiving personality. *Journal of Personality, 67*(6), 1141–1164. https://doi.org/10.1111/1467-6494.00085

McCullough, M. E., Worthington, E. L., & Rachal, K. C. (1997). Interpersonal forgiving in close relationships. *Journal of Personality and Social Psychology, 73*, 321–336. https://doi.org/10.1037/0022-3514.73.2.321

Nouri, F. L., Lotfali, S., Sahranavard, S., Amiri, F., Fatideh, Z. A., & Fatideh, N. A. (2021). Measuring forgiveness among Iranian adolescents: Evaluation of psychometric properties of Persian version of Transgression-Related Interpersonal Motivations Inventory. *Current Psychology,* 40, 1968–1978. https://doi.org/10.1007/s12144-019-0135-5

Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment, 5*(2), 164–172. https://doi.org/10.1037/1040-3590.5.2.164

Rijavec, M., Jurčec, L., & Mijočević, I. (2010). Gender differences in the relationship between forgiveness and depression/happiness. *Psihologijske Teme, 19*(1), 189–202.

Roberts, R. C. (1995). Forgivingness. *American Philosophical Quarterly, 32*(4), 289–306.

Subkoviak, M. J., Enright, R. D., Wu, C., Gassin, E., Freedman, S., Olson, L., & Sarinopoulos, I. (1995). Measuring interpersonal forgiveness in late adolescence and middle adulthood. *Journal of Adolescence, 18*(6), 641–655. https://doi.org/10.1006/jado.1995.1045

Szcześniak, M., & Soares, E. (2011). Are proneness to forgive, optimism and gratitude associated with life satisfaction? *Polish Psychological Bulletin*, *42*(1), 20–23. https://doi.org/10.2478/v10059-011-0004-z

Thompson, L. Y., Snyder, C. R., Hoffman, L., Michael, S. T., Rasmussen, H. N., Billings, L. S., Heinze, L., Neufeld, J. E., Shorey, H. S., Roberts, J. C., & Roberts, D. E. (2005). Dispositional forgiveness of self, others, and situations. *Journal of Personality, 73*, 313–359. https://doi.org/10.1111/j.1467-6494.2005.00311.x

Toussaint, L., & Friedman, P. (2009). Forgiveness, gratitude, and well-being: The mediating role of affect and beliefs. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being, 10*(6), 635–654. https://doi.org/10.1007/s10902-008-9111-8

Toussaint, L. L., Owen, A. D., & Cheadle, A. (2012). Forgive to live: Forgiveness, health, and longevity.

Journal of Behavioral Medicine, 35(4), 375–386. https://doi.org/10.1007/s10865-011-9362-4

Wong, L. C., Chu, A. M., & Chan, C. L. (2014). Measuring the Transgression-Related Interpersonal Motivations Inventory in marital relationships: Forgiveness in the Chinese context (C-TRIM). *Research on Social Work Practice, 24*(3), 356–363.

https://doi.org/10.1177/1049731513498622

Worthington, E. L. (2005). *Handbook of Forgiveness.* Routledge.

Záhorcová, L., & Dočkal, V. (in press). Slovak validation of the Enright Forgiveness Inventory-30. *Československá Psychologie*.

Appendix

Exploratory factor analysis results for the Slovak version of the TRIM-17

Items	Factors		
	Avoidance	Revenge	Benevolence
2. Snažím sa zachovať si maximálny odstup.	.848	–	–
5. Správam sa, akoby neexistoval/a.	.877	.504	–
7. Nedôverujem mu/jej.	.741	–	–
10. Je pre mňa náročné správať sa k nemu/nej srdečne.	.707	–	–
11. Vyhýbam sa mu/jej.	.900	–	–
15. Prerušil/a som s ním/ňou vzťah.	.824	–	–
18. Nechcem s ním/ňou mať nič spoločné.	.871	.537	–
1. Odskáče si to.	–	.650	–
4. Želám si, aby sa mu/jej stalo niečo zlé.	–	.780	–
9. Chcem, aby dostal/a, čo si zaslúži.	.502	.731	–
13. Vrátim mu/jej to, čo mi urobil/a.	–	.772	–
17. Chcem, aby sa trápil/a a bol/a nešťastný/á.	–	.858	–
3. Hoci ma jeho/jej konanie zranilo, zachovám si voči nemu/nej dobrú vôľu.	–	–	.774
6. Želám si, aby sme zakopali vojnovú sekeru a pohli sa vo vzťahu ďalej.	–	–	.866
8. Napriek tomu, čo mi urobil/a, želám si, aby sme mali znovu dobrý vzťah.	–	–	.915
12. Aj keď mi ublížil/a, zranené city idú bokom, aby náš vzťah mohol pokračovať.	–	–	.835
16. Prestal/a som sa hnevať, aby sme mohli náš vzťah napraviť	–	–	.828
Percentage of explained variance	54.68	9.75	3.38