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THE TURKISH ADAPTATION OF A MEASURE TO ASSESS THE IMPACTS OF CYBERBULLYING IN ADOLESCENTS: THE CYBERVICTIMIZATION EMOTIONAL IMPACT SCALE

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ABSTRACT

The purpose of the present study was to adapt the Cybervictimization Emotional Impact Scale (CVEIS) into Turkish and assess its psychometric characteristics. The study group consisted of 379 adolescents who were drawn two secondary and three high schools in Antalya, Turkey. In the analysis to examine the validity, the factor analysis results provided a two-factor model, namely Depressed and Active, consisted of 16 items. In the analyses for criterion-related validity, the relationships between the C*yber Victim Scale (CVS)* and the sub-dimensions of CVEIS were examined. According to the results, CVS scores were positively correlated with Depressed ($p<0.05$). In terms of the reliability, Cronbach's alpha coefficients were found to be 0.87 for Depressed and 0.84 for Active. The results of the study provide a measure that can be administered for the assessment of the emotional impacts of cybervictimization in Turkish adolescents.

Keywords: Adolescent, cybervictimization, emotional impact, psychometric properties

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INTRODUCTION

The development and spread of information and communication technologies have offered children and adolescents various new media settings, and have affected the quality and quantity of the time they spend with Internet-based applications and mediums (Chisholm, 2014). This process has brought many opportunities such as the access to information and ease of communication in addition to risks and dangers for both individuals and society. Information and communication technologies have provided adolescents with a wide and uncontrollable communication network and helped them build crowded peer groups; thus, adolescents are able to communicate with their peers whenever and wherever they want (Anderson et al., 2017; Çınar et al., 2017). Additionally, the social communication networks that adults experience difficulties with supervising have led to adolescents being exposed to negative situations and risky behaviors in virtual environments (Lazuras et al., 2013; Bütün Ayhan et al., 2017). The unsupervised and inappropriate use of information and communication technologies by adolescents has transferred the commonly seen traditional bullying behaviors to virtual settings and has become a predictor for the definition of cyberbullying, which enables bullying through technology (Del Rey et al., 2016). Cyberbullying is a behavior where an individual or group repetitively sends hostile and aggressive messages through electronic and digital media with the aim of harming or causing discomfort (Başturk-Akça & Sayımer, 2017). It includes the constant aggressive and harmful behaviors of an individual or a group that are intentionally exhibited through mobile phones, computers and other electronic devices towards a victim who is not in a position to defend him/herself (Patchin & Hinduja, 2015; Coric & Kastelan, 2020).

Studies on cyberbullying have indicated that cyberbullying and victimization have severe negative effects on adolescents' academic, social and emotional lives. The negative effects observed in adolescents exposed to cyberbullying include depression, suicidal thoughts, low self-perception and anxiety (Baruah et al., 2017; Chu et al., 2018); feelings of sadness, anger, fear, worry, disappointment, shame and revenge (Jenaro, Flores & Frias, 2017; Wright et al., 2018); low self-esteem and self-confidence (Lei et al, 2020); loneliness (Iranzo et al., 2019); and somatization based on psychological effects (Li et al., 2019). In addition to the negative psychological effects of cyberbullying on adolescents, it can also negatively affect their academic lives in the form of academic failure and low school attendance (West, 2015; Livazovic & Ham, 2019).

The ability to conceal one's identity, access many people in a short time, access the victim at any time and place through communication technologies and no requirements to have physical power are the features that increase the negative effects of cyberbullying (Baldry et al, 2018). Despite the lack of direct and physical contact with the victim, cyberbullying might affect the victim's personal well-being and relationships with others (Carvalho et al, 2018). Victims generally do not know who does the cyberbullying due to the characteristic features of the Internet setting. Adolescents who are exposed to cyberbullying usually define this as a situation that makes them feel desperate (Saladino et al., 2020) and causes them to experience intense worry for their safety (Kota & Selkie, 2020). On the other hand, according to Elipe et al. (2017), the feelings of defenselessness, fear, despair, sadness, shame and guilt experienced by the cyber victims can be associated with their strategy that they adopt to cope with the problem. In other words, victims who do not use a coping strategy experience negative feelings more intensely when exposed to cyberbullying (DeSmet et al., 2018).

The negative emotions experienced due to adolescents' involvement in cyberbullying behaviors as a victim or audience have negative effects on developmental processes related to adolescence such as identity formation, autonomy and socialization (Beyazıt et al., 2017; Atlı, 2019). Therefore, it is important to identify the emotions adolescents feel as a result of cyberbullying with valid and reliable instruments in order to determine the emotional impact of cyberbullying during adolescence and to prevent such behaviors. It is seen that there different valid and reliable measurement tools are used in Turkey in order to determine adolescents' awareness of cyberbullying, sensitivity, levels of cyberbullying and cybervictimization, and skills for dealing with cyberbullying (Arıcak et al., 2012; Tanrıkulu et al., 2013; Ayas et al, 2015; Koç et al., 2016). However, there is no valid and reliable instrument in Turkish that can be used for determining the emotional impact of cyberbullying. In this regard, there is a need for a valid and reliable tool in Turkey that would help in determining the emotional impact specific to cybervictimization., distinguish adolescents as being exposed and not exposed to cyberbullying based on their emotional responses; evaluate the emotional perceptions of adolescents who are not exposed to cyberbullying regarding cyberbullying. Taking this need as the starting point, the main purpose of this study was to adapt the Cybervictimization Emotional Impact Scale into Turkish, conduct the validity and reliability analyses and determine the psychometric features of the Turkish form of the scale.

METHOD

Participants

A total of 379 adolescents between the ages of 12 and 18 participated in the study. The adolescents were recruited from secondary and high schools in Antalya, Turkey. According to Kline (1994), in the adaptation of a measure into a specific culture, the size of the sample should be at least twice the amount of items in the measure. In accordance with this suggestion, the 18-item CVEIS was planned to be implemented to a minimum number of at least 252 adolescents in the 12-18 age group, with at least 36 adolescents from each group. Prior to the onset of data collection, the Ministry of National Education was consulted to obtain information about the secondary and high schools in Antalya in terms of the number of students enrolled and the socio-demographic profiles of these schools. Based on the obtained information, two secondary and three high schools in Antalya were selected according to the extent to which they represented the socio-economic features of the entire population. The forms were implemented individually to adolescents in these five schools. The mean age of the adolescents was 14.46±17.72. Of the adolescents, 57% (n=216) of were girls and 43% (n=163) were boys. A total of 51.5% (n=195) of the adolescents were attending secondary school and 48.5% (n=184) were attending high school.

Instruments

The instruments used were an Individual Information Form, and two self-reported questionnaires: the Cybervictimization Emotional Impact Scale and Cyber Victim Scale.

Individual Information Form: In order to collect individual information, an Individual Information Form asking about gender, age and grades was used.

Cybervictimization Emotional Impact Scale (CVEIS): The scale was developed in Spain by Elipe et al. (2017) in order to determine the emotional impact of cybervictimization on adolescents between the ages of 12 and 18. The scale, which is comprised of 3 factors (depressed, active and annoyed) and 18 items, asks adolescents to state the extent to which they would feel the 18 emotions included in the scale if they were exposed to cyberbullying. The possible responses for each emotion are: not at all (1), a little bit (2), moderately (3), quite (4) and a lot (5).

The items in the Depressed sub-dimension are “depressed, sad; lonely; ashamed; tense, nervous; guilty; defenseless, helpless; scared, afraid; fed up; jittery,

worried". The scores that can be obtained from the sub-scale range between 9 and 40. In the active sub-dimension, the items are "ready, clear-headed; satisfied, proud; determined, daring; animated; energetic, lively; active, alert". The scores range between 6 and 30. Lastly, the items in the annoyed sub-dimension are "angry, annoyed; choleric, enraged; irritable, in a bad mood". The scores of the sub-dimension range between 3 and 25. The score received from each sub-dimension indicates the emotional responses of the adolescent in that sub-dimension regarding cyberbullying. There is no cut-off score for the scale.

The development study of the Scale was conducted on a sample of 1,016 students in southern Spain. In the study, exploratory factor analysis (EFA) was initially performed to examine the measure's factor structure. The results of the analysis revealed a three-factor model, where the factors were depressed, active, and annoyed. The variance explained by this model was 59.57%. Consequently, the factor structure obtained in EFA was confirmed by confirmatory factor analysis (CFA). In terms of the reliability of CVEIS, Elipe et al. (2017) examined the internal consistency of each factor and the total scale. In the analysis, the Rho coefficient was computed as 0.89 for the total scale, 0.92 for Depressed; 0.89 for Active and 0.81 for Annoyed. According to the results, the psychometric structure of the Scale was confirmed to be the same for both cybervictimized and non-cybervictimized students who answered thinking in the way they would feel if they were cybervictimized. The results of the study showed that CVEIS was valid and reliable measure to assess the emotional impacts of cyberbullying.

Cyber Victim Scale (CVS): The scale is developed by Ayas and Horzum (2010) to assess the secondary and high school students' experiences of being a cyber victim. The scale includes items on cases of being exposed to cyberbullying such as "Send messages, e-mail or video to people by using the name of the person you want to harm"; "Threaten through the Internet or telephone"; "Spread personal information shared with me through e-mail, message, etc." The form of the scale implemented to secondary school students includes 19 items, while the form for the high school students contains 17 items. Two of the items in the secondary school from ("Forcing someone to leave the chat room or the game website" and "Making fun of the telephone model that one uses") were excluded in the high school form. The responses to the items vary between 1 (never) and 5 (always). High scores received from the sub-scales indicate the extent to which the students have been cybervictims. The reliability analysis of the scale revealed that the internal consistency coefficient ranged between .81 and .85 (Ayas & Horzum,

2010; Horzum & Ayas, 2011). The internal consistency of the measure for this study was computed to be .93.

Procedure

Initially, the necessary permission to adapt CVEIS into Turkish was provided by Elipe, one of the original developers of the scale. The required approvals to implement the study in schools was also provided from the Educational Ministry. In addition, the administrations of each school and the teachers in each classroom were informed about the content of the study and they were asked to provide their permission. The students were also given information and their consent was provided. The study was conducted in accordance with the ethical guidelines of the 1964 Helsinki Declaration and the anonymity of the adolescents was ensured. Initially, forward and backward translation procedures were performed. CVEIS has both English and Spanish forms. In the forward translation, the English form of the measure was translated into Turkish by two independent translators. Consequently, these translated forms were back-translated from Turkish to English by two other translators. These translated forms, which were performed independently of each other, were evaluated by the authors of the study and an expert who is fluent in both languages and the translation that was closest to the original for each item was selected to create a preliminary form. Consequently, four experts from the fields of psychology, psychological counselling, and child development were consulted to elaborate the convenience of the translated form in terms of the suitability for Turkish language and culture, and the comprehensibility of the items for adolescents. The responses of the experts were recorded on a form and their rate of agreement were investigated for each items; that is, the items that were agreed upon by experts with a rate of 70-80% were revised according to their feedbacks whereas the items that were agreed upon with a rate of at least 90% were included in the form without any revisions. In this respect, the preliminary form of the Turkish CVEIS was administered to a total of eight adolescents between the ages of 12 and 18. In the study, the adolescents were asked whether they could fully understand and respond to the items. Several minor revisions were made and some spelling mistakes were corrected in line with the feedback given by the adolescents.

After the completion of the pre-pilot study, the final form of Turkish CVEIS was prepared and the study continued with the pilot implementation. The implementations lasted for approximately 30 minutes in each classroom. The

collected data were analysed by using R(v.4.0.1) and SPSS 25. The missing values were initially replaced with the expected values by using an *expectation-maximization* algorithm in *SPSS*. For the CFA, Rstudio (1.3.959) interface was used by implementing "lavaan" package, in R (v.4.0.1) software. When the fit indices were examined, it was seen that model-data fit was not achieved. Therefore, Principal Component Analysis was run, by implementing "psych" package. In addition, Cronbach's alpha coefficients were computed.

RESULTS

In the study, the validity and reliability analyses were performed. In the analyses for validity, construct and criterion-related validity of the measure were investigated respectively. In terms of the reliability analysis, coefficients of internal consistency for each of the sub-scales of CVEIS were computed.

Validity

*Construct Validity***:** CFA was initially run in order to investigate the construct validity of the Turkish CVEIS. In the analysis, a three-factor structure was expected to be confirmed, as in the original version (Elipe et al., 2017). In accordance with the original structure of the measure, the CFA was performed based on the original measure's three constructs. As the items have an ordinal character, polychoric correlation matrices were run in the analysis. In addition, the Mardia coefficients related to the multivariate normallity were copmuted to be over 5. Therefore, Maximum Likelihood Robust (MLR) method was used together with Satorra-Bentler scaled Chi-square test. The recommended cut-off values of fit indices in CFA (Kline, 2015; Orçan, 2018) and the CFA fit indices for CVEIS are presented in Table 1.

Table 1. *The Recommended Goodness of Fit Indices for the CFA and the CFA results for CVEIS*

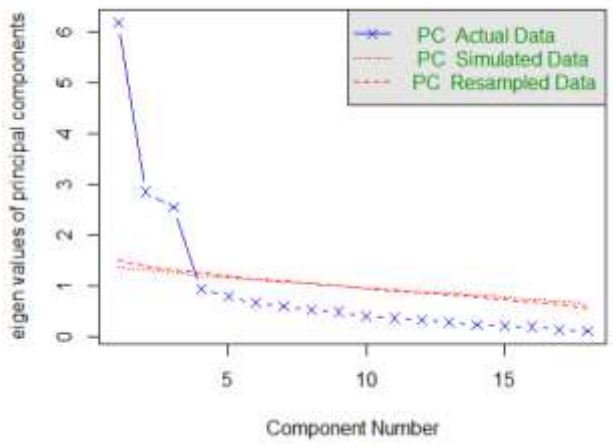
Indices	Cut-Offs	Results of the first order analysis (3 dimensions) (MLR) c=1.488
$\chi 2/df$	Perfect ≤ 3	5.16
RRMSEA	Good ≤ 0.08	0.13 (%90 CI: 0.12-0.14)
SRMR	Good ≤ 0.08	0.12
RCFI	Good ≥ 0.90	0.69

RTLI	Good ≥ 0.90	0.64

When the results presented in Table 1 are examined, it is seen that Robust-RMSEA (RRMSEA) and SRMR values are above 0.08, RCFI and RTLI values are below 0.90 indicating that any of the fit indices for CVEIS do not meet the recommended the cut-off values. The results reveal that the model tested by CFA is invalid. Therefore, Principal Component Analyses (PCA) is conducted, after providing the approval of the authors of the original scale.

Principle Component Analysis: Initially, to investigate the adequacy of the factor analysis, Bartlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO) were run by using polychoric correlation matrix. A KMO value close to 1 indicates that the data of the study are appropriate for factor analysis. On the other hand, Bartlett's test investigates whether a matrix significantly differs from an identity matrix. Significance values smaller than .05 indicate that factor analysis is useful with the data (Güzeller et al., 2017; Denis, 2019). In the present study, the KMO value is calculated as 0.84 and the Bartlett's value is found to be highly significant ($\chi 2 = 4246.581, df=153;, p<0.05$). These results indicate that the data of the study is appropriate for factor analysis. Consequently, PCA revealed three eigenvalues over a value of 1, in addition to a structure of three factors in scree plot test. The results of the scree plot test related to the PCA is presented in Figure 1.

Figure 1. Parallel Analysis Scree Plot Test for The PCA of CVEIS



The results of the parallel analysis scree plot in Figure 1 show that the three eigenvalues revealed in the analysis are below the eigenvalues of the original data. Therefore, a three-factor model is accepted according to the results of the parallel analysis. In the PCA conducted for three factors, Varimax rotation revealed that the factor loadings of the 1st (tense, nervous), 6th (angry, annoyed), and 11th

(choleric, enraged) items were overlapping. When these items were excluded from the scale one by one and two at a time, it was seen that the problem of overlapping of the rest of the items continue, and that 11th item had a greater factor loading in one factor ("depressed") when included in the model by itself. The 9th item (irritable, in a bad mood) which is included in the "annoyed" dimension in the original scale, along with 6th and 11th items, loaded best on the dimension which included the items of the "depressed" factor. Therefore, the 1th and 6th items were excluded from the scale and the analysis was rerun for a two-factor model of remanining 16 items. The factor loadings revealed in the analysis are shown in

Table 2. *The Factor Analysis Results of CVEIS consisted of 16 Items*

Items	Factor 1	Factor 2
13. Defenseless, helpless	0,810	-0,140
15. Depressed, sad	0,790	-0,050
12. Ashamed	0,760	0,050
8. Lonely	0,740	0,020
18. Jittery, worried	0,720	-0,370
5. Scared, afraid	0,670	-0,350
3. Guilty	0,620	0,110
9. Irritable, in a bad mood	0,620	-0,400
16. Fed up	0,570	0,100
11. Choleric, enraged	0,390	-0,120
4. Energetic, lively	-0,050	0,910
7. Satisfied, proud	-0,010	0,880
2. Animated	-0,040	0,850
14. Determined, daring	-0,330	0,600
10. Ready, clear-headed	-0,330	0,540
17. Active, alert	-0,100	0,480
Eigenvalues	4,830	3,690
Variance (%)	30,000	23,000
Variance accounted for (%)	53,000	

An examination of the Table 2 show that the first factor is consisted of 10 items and the factor loadings range between 0.390 and 0.810. The second factor consisted of 6 items and the factor loadings range between 0.480 and 0.910 in the second factor. The total variance accounted for is 53%. As seen in Table 2, the

structure of Factor 1 of the Turkish version of CVEIS is similar to the Depressed factor and the structure of Factor 2 is similar to the Active factor of the original scale. Hence, as in the original version, the Factor 1 was labelled as Depressed and the second factor was labelled as Active. Descriptive statistics of the factors and the correlation between them are give Table 3.

Table 3. Descriptive Statistics of The Factors of CVEIS and The Correlation Between Them

					Correlation Between The Factors	
Factors	$\bar{X}$	S	Min.	Max.	Depressed	Active
Depressed	22.59	8.10	10	50	-	
Active	14.08	5.37	6	30	-0.298*	-

Note.=p<.05*

As shown in Table 3, there is a negative and significant correlation between the factors (*r=-0.298, p<0.05*). According to this result, when the scores of the Depressed factor increase, the scores of the Active factor decrease. Hence, it may be suggested that it is appropriate to score each factor within itself instead of getting a single total score from the entire scale.

Criterion-Related Validity: In the analysis for the criterion-related validity, the relationships among CBVS and the sub-scales of CVEIS were examined. The correlation coefficients among the scores of CBVS and the factors of CVEIS are shown in Table 4.

Table 4. *Pearson Correlation Coefficients Among The CVS and The Factors of CVEIS*

	CVS	Depressed	Active
CVS	1		
CVEIS-Depressed	0.113*	1	
CVEIS-Active	-0.025	-0.313**	1

As presented in Table 4, CVS scores are significantly and positively correlated with Depressed (*r=0.113, p<0.05*), but are not correlated with Active (*r=-.025, p>0.05*). On the other hand, the scores of Depressed and Active are significantly and negatively correlated (*r=-.313, p<0.05*).

RELIABILITY

The coefficients related to the internal consistency of CVEIS were investigated in the reliability analysis. For this purpose, the Cronbach's alpha coefficients were investigated. The results of the analysis are presented in Table 5.

Table 5. *The Coefficients Related To The Internal Consistency of The Factors of CVEIS*

Factors	Items	Cronbach's Alpha Coefficients
Depressed	3, 5, 8, 9, 11, 12, 13, 15, 16, 18	0.87
Active	2, 4, 7, 10, 14, 17	0.84

As can be seen in Table 5, the Cronbach's alpha coefficients are computed as .87 for Depressed, and .84 for Active.

DISCUSSION

The present study aimed to adapt CVEIS into Turkish and to investigate its psychometric properties. For this purpose, forward and backward translations were initially performed, then four experts from the branches of psychology, child development and psychological counselling were consulted to elaborate the adequacy of the form in terms of Turkish culture and language, and the comprehensibility and the items' effectiveness in assessing emotional impact of cybervictimization. In accordance with the suggestions of the experts, the Turkish form of CVEIS was revised and implemented in a pre-pilot study to a total of eight adolescents. After making several minor corrections, the study proceeded with the pilot implementation.

In the analysis, CFA was initially run to investigate whether the Turkish version of the measure has the same factor structure as the original. However, the factor structure of the original measure was not confirmed in CFA. Therefore, PCA was performed. In the procedure, eigenvalue and scree plot tests were performed. The inital analysis revealed a three-factor model. However, 1st (tense, nervous) and 6th (angry, annoyed) items were excluded from the measure, due to their overlapping factor loads. When these items were excluded from the scale, the 9th (irritable, in a bad mood) and the 11th (choleric, enraged) items loaded best in the Depressed factor, which are loaded in the Annoyed factor in original scale. Since the Annoyed factor of the original scale is consisted of the 1st, 6th, and 11th items, the factor is entirely removed from the Turkish version. The two-factor model of

remanining 16 items accounted for 53% of the total variance. In social sciences, an acceptable variance explained in factor analysis for a construct is suggested to be between 40% and 60% (Pituch & Stevens, 2013). The higher the percentage of variance a model is capable of explaining, the more valid the model is (Lorenzo-Seva, 2013). In the present study, the total variance accounted for indicated that the model is valid.

Except for the four items, the results of the factor analysis provided a model compatible with the factor structure of the original measure, comprised of Depressed (Factor 1), and Active (Factor 2). The difference between the Turkish and the original forms of the measure might be due to the linguistic and cultural differences. In social sciences, cross-cultural studies assume that the factor structure of a measure that was confirmed in one culture should also be confirmed in other cultures (Brown, 2015; Erkuş & Selvi, 2019). However, the expression of feelings might be diverse in various cultures. Taking the cultural variability into account, it is plausible to argue that people in different cultures may be experiencing the same feelings in different dimensions and expressions. The cultural differences in terms of emotional expressions is also a challenge for the translation procedure. The translation of the word feeling may not be exactly equivalent to the original language in terms of meaning. The differences in translations may occur due to the inadequacy of the translation as much as the different factor structures of people's experiences of and thinking about feelings. In the present study, the reasons for the differences compared with the original measure in the Annoyed dimension might also be because of the fact that annoyance is an unpleasant emotional state which may lead to emotional experiences of frustration, anger, irritability and revenge. In other words, the feelings of irritablity, being in a bad mood, choleric, enraged might be considered as constructs that are closely related to the emotional experiences of feeling depressed. In analysis for criterion-related validity, the relationships among CVS and the sub-dimensions of CVEIS were investigated. CVEIS is a measure comprised of emotions that the subjects would feel if they had been or were a cybervictim. Therefore CVS, which assesses the experiences of cybervictimization of the adolescents, was implemented as a criterion-related measure based on the suggestion that the emotions experienced by adolescents should be associated with their status of being the victim of any cyberbullying acts. According to the results, cybervictimization was associated with the construct of Depressed. It may be suggested that the adolescents' experiences of

cybervictimization may have led to the feelings defined within Depressed and CVEIS was efficient in measuring it.

A criterion-related measure is suggested to be an indicator of the extent to which one measure predicts the suggested outcome for another measure (Seçer, 2015). Hence, it is thought that the feelings included in this construct may be the outcomes of cybervictimization in this specific sample. In the analysis, it is also seen that Depressed and Active are significantly and negatively correlated. It can be argued that the more the feelings defined within Depressed (i.e. sad, lonely, in a bad mood) increase, the more the feelings defined within Active (i.e. active, alert, energetic) decrease. Therefore, it is plausible to suggest that these two dimensions are efficient in defining the constructs opposite of each other. On the other hand, Active is not significantly associated with cybervictimization in the present study. According to Elipe et al. (2017), CVEIS not only evaluates the negative feelings regarding cybervictimization, but also assesses positive emotions regarding coping and seeking help. The three factors included in the original scale also put forward the coping strategies of the adolescents exposed to cyberbullying. However, the Turkish version of the scale is consisted of only Active, and Depressed which included some items of the Annoyed dimension of the original scale. Following these results of the study, it is believed that the emotions in the Depressed factor show the fear, despair and desire to seek help; and the emotions included in the Active factor reveal the efforts made to trigger the problem-solving oriented emotions and resources for coping. The Annoyed and Depressed factors are associated with each other and reflect emotions of withdrawal, while the Active factor represents emotions in the opposite direction. In the development study of CVEIS, Elipe et al. (2017) found that the Depressed sub-dimension was negatively correlated with Active and positively correlated with Annoyed. In addition, the Active and Annoyed sub-dimensions were found to be negatively correlated. The depressed and annoyed constructs are comprised of negative emotions, whereas the active construct includes positive emotions. Hence, as expected, the negative emotions were directly related, whereas the active factor was inversely related to the others. Parallel to the original version, Depression was negatively related with Active in the Turkish CVEIS.

Finally, in the analysis, internal consistency coefficients for each of the sub-scales of CVEIS were investigated. In social sciences, a value of .70 or higher as the Cronbach's alpha is acceptable (Büyüköztürk, 2017). In the present adaptation, the reliability coefficients are computed as .87 for Depressed, and .84 for Active,

which show a high level of internal consistency. The results of the study revealed proof for the reliability and validity of the Turkish version of CVEIS, which consists of 16 items and two factors, namely, Depressed (10 items), and Active (6 items). High scores in each sub-dimension show adolescents' emotional reactions to cybervictimization in that dimension.

This study is significant as it provides an instrument to assess the emotional impacts of cyberbullying in Turkish adolescents. It is thought that the Turkish CVEIS will be beneficial for researchers and professionals in terms of monitoring, preventing and intervening in cybervictimization. In addition to its potential to provide a deeper comprehension regarding the emotional consequences of cyberbullying acts on victims, the measure may also be useful for professionals in terms of psychological counselling and guidance procedures at schools. Besides its significance, the study has also a number of limitations. The generalizability of the findings is limited due to the limited number of adolescents who participated in the study. It is thought that testing the measure on larger samples would be helpful to improve the external validity of the instrument. The study consisted of only PCA due to the conditions which did not allow to develop a wider study. Therefore, an analyses for CFA could not be conducted as the working group did not include enough number of participants to run a CFA with appropiate statistical garantees. In the future studies, the factor structure of the Turkish form of CVEIS should be confirmed in an independent sample. The present study was conducted on a community sample; hence, testing the measure on a sample of cybervictim adolescents could help testing and improving the validity. In future studies, the factor structure should also be assessed in terms of invariance across cybervictims and non-cybervictims. Finally, it should also be stated that the study was conducted for psychometric purposes and no related actions were taken for the adolescents who were identified as being victims of cyberbulling acts. Future studies should provide services for incidences where adolescent cybervictims might benefit from psychosocial support.

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institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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