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### Reactions Victims Display Against Cyberbullying: A Cross-cultural Comparison

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## **Reactions Victims Display Against Cyberbullying: A Cross-cultural Comparison**

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### **Abstract**

This research aims to examine behavioral reactions that victims display against cyberbullying through a cross-cultural comparison standpoint. The research data have been collected from 161 participants from different countries such as Turkey, Azerbaijan, and Syria; and all of them continue their undergraduate studies in Turkey. Some of the noteworthy findings are as follows: revenge behaviors adopted by victims of cyber-bullying differ at a statistically significant level across the gender variable. On the other hand, reactions such as precautions, dialogue, and avoidance do not vary significantly across genders. Comparisons among nationalities indicate that seeking vengeance from the bully, looking for ways to build dialogue with the bully, and avoiding behaviors employed by victims from different cultures also differ at a statistically significant level. However, one reaction, precautions, does not bear a statistically significant variance value across different nationalities. Based on the findings of the current study, strategies to overcome cyber aggression can be associated with cultural aspects.

**Keywords:** Cyber victimization; Cyber victims' reactions; Cross-cultural reacting behaviors to cyberbullying; Cyberbullying; Internet usage.

### **Introduction**

Defined as aggressive and intentional actions targeting to harm a specific target group via the use of technology-based communication devices and the Internet (Kowalski et al. 2012, Akbulut et al. 2010; Smith et al. 2008), cyberbullying has recently received quite a substantial attention within technology literature. The fact that cyberbullying behaviors have spiked considerably on a global scale regardless of variables such as social and economic background, age, gender, status, etc. (Agaston et al. 2007; Mishna et al. 2010) in accordance with the vast increase in the frequency of internet use, that bullying ways and methods have multiplied (Peebles 2014; Chisholm 2014), and that victimization leading to serious consequences on part of the victims (Hinduja and Patchin 2013; Cowie 2013) are among the reasons why this issue has received much attention lately (Betts et al. 2017; Mishna et al. 2009; Brewer & Kerslake 2015; Sari & Camadan 2016; Camodeca & Cossens 2005; Slonje et al. 2013; Akbulut & Eristi 2011; Bauman et al. 2013; Barlett & Coyne 2014).

When the attention within cyberbullying is directed to the victims, research studies have shown that bullying behaviors cause chronic and devastating emotional, psychological, and mental health problems (Cenat et al. 2014; Caputo 2014; Mishna et al. 2010; Olenik-Shemesh et al. 2012; Slonje et al. 2012; Nixon 2014; Patchin & Hinduja 2010; Pronk and Zimmer-Gembeck 2010; Schenk & Fremouw 2012; Schultze-Krumbholz et al. 2010; Cerna et al. 2016). The victims reacting behaviors that victims display against the aggression or the aggressor as a result of their emotional state a very important issue that needs to be discussed (Völlink et al. 2013; Machmutow et al. 2012). The type of reaction can turn the existing situation into a more complicated one, or even a non-proportional reaction can convert the victim into a bully (Eristi & Akbulut 2017).

Relevant literature does not bear a comprehensive analysis of the kinds of tangible responses that victims have displayed so far. Nevertheless, it is possible to mention several classification headlines regarding the reactions exhibited by the victims (Eristi & Akbulut 2017), which include seeking vengeance from the bully (Gollwitzer & Denzler 2009; König et al. 2010), establishing dialogue with the bully, ignoring, forgiving (Safaria et al. 2016), ignoring the attack, and avoiding (Cao & Lin 2015; Na et al. 2015). Additionally, literature reports that victims also try to overcome the problem by employing coping strategies (Tenenbaum et al. 2011; Schenk &

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Fremouw 2012; Machackova et al. 2013) that involve individual, emotional, behavioral, and mental retaliation (Dooley et al. 2012; Smith and Frisén 2012).

There are numerous variables influential over the reactions that victims can adopt against cyberbullying, which include the type and severity of bullying behavior (Beran et al. 2012), personality traits of the victim (Elledge et al. 2013), previous experience with such an aggression (Beran & Li 2005; Espelage et al. 2000), gender (Downey et al. 2004; Paquette & Underwood 1999; Hinduja & Patchin 2011), and age (Sourander et al. 2010). On the other hand, behaviors that people stick to may have various sources such as genetics, biology, physiology, and psychology, and the reactions given by victims should also be considered as behaviors (Davidson et al. 2010; Davidson et al. 2000; Gibson 2002). However, findings distilled from cross-cultural studies point out that the tendency towards cyberbullying and the frequency of cyberbullying behavior differ significantly across cultures (Cowie 2009; Barlett et al. 2014; Scheithauer et al. 2016; Baek & Bullock 2014; Li 2008).

Cyberbullying is a social aggression behavior aiming to hurt others (Archer & Coyne 2005; Hinduja & Patchin 2009). From a social psychology standpoint, one of the definitive factors overreactions given by victims may be the way that individual learns behaviors and builds habits in that culture. Some studies conclude that the cultures that victims live in (Bergeron & Schneider 2005; Barlett et al. 2014) influence their behaviors. Culture, either directly or indirectly, affects each and every behavior of an individual (Barkow et al. 1992; Triandis 1994). The cultural aspect may be an explanatory variable not only for the behaviors displayed by cyberbullies but also for reactions exhibited by victims (Isen 2003). Because defense behaviors are also learned just as aggressive behaviors and culture bear a crucial role over these behaviors, too. As the immediate environment of individual, family, school, and social surroundings guide such behaviors in accordance with the culture they live in (Ojale & Nesdale 2004; Perry et al. 2001).

Some of the still important issues are the depths of psychological, physiological, and social destruction that victims go through because of cyberbullying, the responses that victims produce against cyberbullying, and whether these responses differ across cultural variables or not. This research aims to explain the responsive behaviors that victims from different cultures adopt against cyberbullying from a cross-cultural angle.

## Method

### Participants

The participants are 161 students from three different countries (68 Turkish-42.2%; 46 Azerbaijani-28.6%; and 47 Syrian-29.2%), and all of them continue their undergraduate studies in Turkey. Participating students were selected through a criterion sampling technique—one of the purposeful sampling methods. The variables set as the criteria to determine the participants were volunteering, coming from a different culture, being a university student, having been cyberbullied, and actively using Internet-based technologies and social networks. As for gender variable, 46 (28.6%) participants are female and 115 (71.4%) participants are male. Concerning the age variable, 95 (59.0%) of all are aged between 18-21 whereas 66 (41.0%) are between 22-24.

### Instrumentation

Research data have been collected by using "The extent and predictors of student reactions to cyberbullying scale" developed by Eristi and Akbulut (2017). Validity and reliability examinations of the scale were completed on a total of 778 students (567 undergraduate and 211 high-school students). The item format is determined as a Likert scale. Responses regarding a specific reaction to cyberbullying ranged from 1 (very untrue of me) to 5 (very true of me). Consisting of 34 items, the scale has a four-factor structure including revenge, precaution, dialogue, and avoidance aspects. The scale explained 53.62% of the variance and revealed an overall alpha value of 0.88. Kaiser-Meyer-Olkin Measure of Sampling Adequacy was superb (i.e., 0.907). Bartlett's Test of Sphericity was statistically significant (Approx. Chi-Square: 12558.714; df: 561;  $p < 0.001$ ). Indicators had ideal factor loadings (i.e.,  $> 0.40$ ). All factors revealed small skewness and kurtosis statistics (i.e., between 0.08 through 0.70). All factors were significantly different from each other (Wilks' Lambda = 0.569;  $F(3,775) = 195.333$ ;  $p < 0.001$ ; partial eta squared = 0.431).

### Data Collection Procedure and Analysis

The data collection tool was administered online. Instructors shared the survey link with students during their compulsory Information Technology courses, which increased the response rate ( $>98\%$ ). The data collection

lasted three weeks and was completed in May 2017. Conducted to test the normality of the distribution, Shapiro-Wilk test ( $S-W(159) = .088, p > .05$ ; Skewness =  $-.39$ ; Kurtosis =  $.921$ ) pointed that the data set had a normal distribution (Tabachnick & Fidell 2013). Carried out to check the homogeneity of the variance, Leneve test ( $L(159) = .089; p = .945, p > .05$ ) concluded that parametric tests could be employed for data analysis. Descriptive statistics were followed by relevant parametric tests to see the predictors of different response patterns. In this regard, independent-samples t-test and one-way between-groups ANOVA were used. Post hoc comparisons using the Bonferroni test indicated significant findings, which are reported accordingly below. Effect size indices are also reported for statistically significant results.

## Results and Discussion

### Revenge and Gender

Results of the independent samples t-test show that mean score of revenge against cyberbullying differs between males ( $M = 2.42, SD = .89, n = 115$ ) and females ( $M = 1.92, SD = .63, n = 46$ ) at the .001 level of significance [ $t(159) = .001, df = 159, p = .001, 95\% CI$  for mean difference  $-.78$  to  $-.21$ ]. On average, males tend to have more revenge reaction to cyberbullying than females.

Table 1. Independent samples t-test comparing gender and revenge reactions across to cyberbullying

	Gender						95% CI for Mean Difference	t	df
	Female			Male					
	M	SD	n	M	SD	n			
Revenge	1.92	.63	46	2.42	.89	115	-.78, -.21	.001*	159

\*  $p < .001$

### Revenge and Nationality

A one-way between groups ANOVA was conducted to compare the revenge reactions among Turkish, Azerbaijani and Syrian students against cyberbullying. The ANOVA shows that there was a significant difference among revenge reactions at the  $p < .001$  level for the three nations [ $F(2, 158) = 7.53, p = 0.001$ ; partial eta squared =  $0.087$ ].

Table 2. One-way between groups ANOVA test comparing nationality and revenge reactions across to cyberbullying

Source	Sum of Squares	df	Mean Square	F
Between Groups	10,237	2	5,124	7,528
Within Groups	107,427	158	.683	
Total	117,664	160		

\*  $p < .001$

Post hoc comparisons using the Bonferroni test indicated that the mean score for the Turkish students' revenge reactions ( $M = 2.57, SD = .89$ ) was significantly different than those of Azerbaijani students ( $M = 2.02, SD = .65$ ) and Syrian students ( $M = 2.10, SD = 0.86$ ). However, Azerbaijani and Syrian students' revenge reactions did not significantly differ from each other. Post hoc statistics and comparisons are provided in Table 3 and illustrated in Figure 1.

Table 3. Bonferroni multiple comparisons of revenge reactions

(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Turkish	Syrian	.46447	.15641	.010*	.0860	.8430
	Azerbaijani	.54912	.15742	.002*	.1682	.9300
Syrian	Turkish	-.46447	.15641	.010*	-.8430	-.0860
	Azerbaijani	.08464	.17102	1,000	-.3292	.4985
Azerbaijani	Turkish	-.54912	.15742	.002*	-.9300	-.1682
	Syrian	-.08464	.17102	1,000	-.4985	.3292

\*  $p < 0.05$

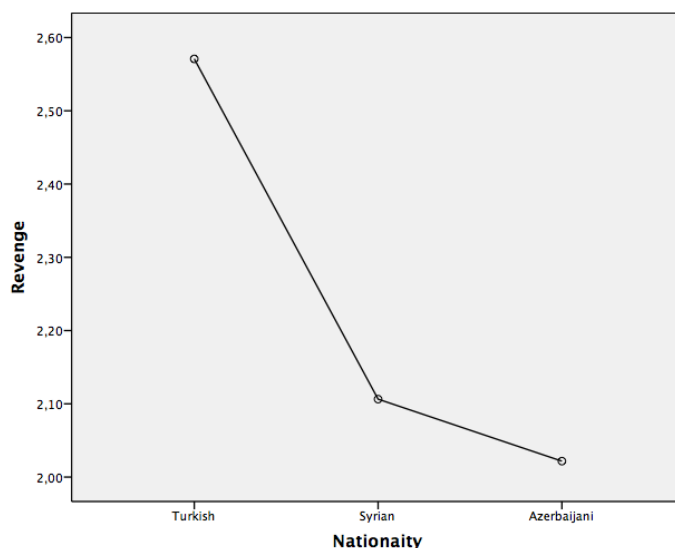


Figure 1. Revenge reactions according to nationalities

**Precaution and Gender**

Results of the independent samples t-test show that mean score of precaution against cyberbullying does not differ between males (M = 3.87, SD = .78, n = 115) and females (M = 4.18, SD = .71, n = 46) at the .05 level of significance (t = .165, df = 159, p > .05, 95% CI for mean difference .04 to .57). On average, females tend to have more precaution reactions to cyberbullying than males.

**Table 4.** Independent samples t-test comparing gender and precaution reactions across to cyberbullying

Gender						95% CI for Mean Difference			
Female		Male							
M	SD	n	M	SD	n	t	df		
Precaution	4.18	.71	46	3.87	.78	115	.04, .57	.165*	159

\* p > .05

**Table 5.** One-way between groups ANOVA test comparing nationality and precaution reactions across to cyberbullying

Source	Sum of Squares	df	Mean Square	F
Between Groups	3,304	2	1,654	2,795
Within Groups	93,379	158	,593	
Total	96,682	160		

\* p > .05

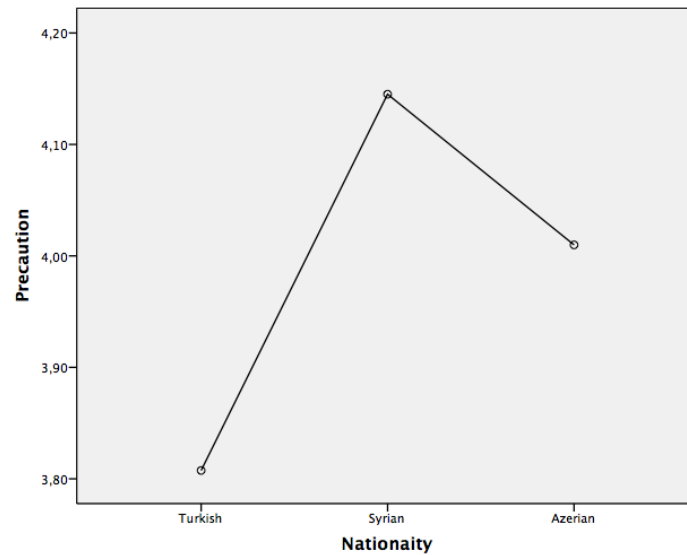


Figure 2. Precaution reactions according to nationalities

### Dialogue and gender

Results of the independent samples t-test shows that mean score of dialogue against cyberbullying does not differ between males ( $M = 2.27$ ,  $SD = .84$ ,  $n = 115$ ) and females ( $M = 2.10$ ,  $SD = .92$ ,  $n = 46$ ) at the .05 level of significance ( $t = .946$ ,  $df = 159$ ,  $p > .05$ , 95% CI for mean difference  $-.46$  to  $.13$ ). So, on average, males tend to have more dialogue reaction to cyberbullying than females.

Table 6. Independent samples t-test comparing gender and dialogue reactions across to cyberbullying

	Gender						95% CI for Mean Difference	t	df
	Female			Male					
	M	SD	n	M	SD	n			
Dialogue	2.10	.92	46	2.27	.84	115	-.46, .13	.946*	159

\*  $p > .05$

### Dialogue and nationality

A one-way between groups ANOVA was conducted to compare the dialogue reactions among Turkish, Azerbaijani and Syrian students against cyberbullying. The ANOVA shows that there was a significant difference on dialogue reactions at the  $p < .000$  level for the three nations [ $F(2, 158) = 16.875$ ,  $p = 0.000$ ,  $p < .05$ , partial eta squared = 0.176].

Table 7. One-way between groups ANOVA test comparing nationality and dialogue reactions across to cyberbullying

Source	Sum of Squares	df	Mean Square	F
Between Groups	21,213	2	10,604	16,875
Within Groups	99,309	158	.623	
Total	120,522	160		

\*  $p < .05$

Post hoc comparisons using the Bonferroni test indicated that the mean score for the Turkish student dialogue reactions ( $M = 2.64$ ,  $SD = .95$ ) was significantly different than the Azerbaijani students' dialogue reactions ( $M = 1.82$ ,  $SD = .45$ ) and Syrian students' dialogue reactions ( $M = 2.01$ ,  $SD = 0.79$ ). However, Azerbaijani and Syrian students' dialogue reactions did not significantly differ from each other. Post hoc statistics and comparisons are provided in Table 8 and illustrated in Figure 3.

**Table 8.** Bonferroni multiple comparisons of dialogue reactions

(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Turkish	Syrian	,63468	,15039	,000*	,2708	,9986
	Azerbaijani	,81156	,15135	,000*	,4453	1,1778
Syrian	Turkish	-,63468	,15039	,000*	-,9986	-,2708
	Azerbaijani	,17689	,16443	,851	-,2210	,5748
Azerbaijani	Turkish	-,81156	,15135	,000*	-1,1778	-,4453
	Syrian	-,17689	,16443	,851	-,5748	,2210

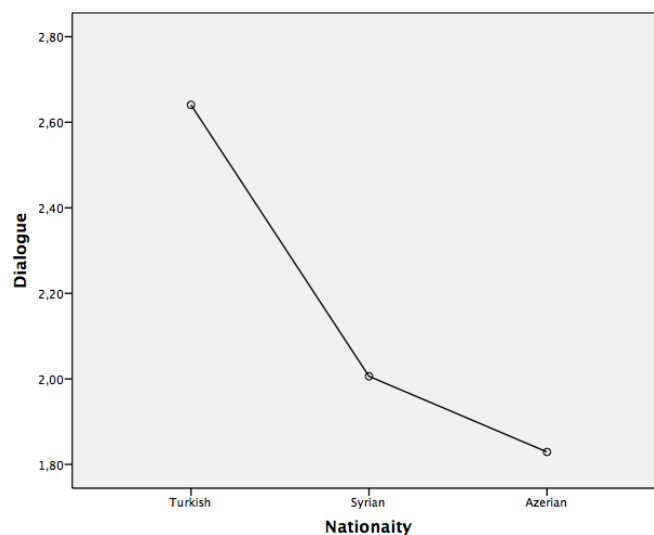
\*  $p < 0.05$  level

Figure 3. Dialogue reactions according to nationalities

**Avoidance and gender**

Results of the independent samples t-test show that mean score of avoidance against cyberbullying does not differ between males ( $M = 2.58$ ,  $SD = .73$ ,  $n = 115$ ) and females ( $M = 2.60$ ,  $SD = .60$ ,  $n = 46$ ) at the .05 level of significance ( $t = .064$ ,  $df = 159$ ,  $p > .05$ , 95% CI for mean difference  $-.22$  to  $.25$ ). On average, females tend to have more avoidance reaction to cyberbullying than males.

**Table 9.** Independent samples t-test comparing gender and avoidance reactions across to cyberbullying

	Gender						95% CI for		
	Female			Male			Mean Difference		
	M	SD	n	M	SD	n			
Avoidance	2.60	.60	46	2.58	.73	115	-.22, .25	.064*	159

\*  $p > .05$ **Avoidance and nationality**

A one-way between groups ANOVA was conducted to compare the avoidance reactions among Turkish, Azerbaijani and Syrian students against cyberbullying. The ANOVA shows that there was a significant difference on avoidance reactions at the  $p < .000$  level for the three nations [ $F(2, 158) = 22.091$ ,  $p = 0.000$ ,  $p < .05$ , partial eta squared = 0.219].

**Table 10.** One-way ANOVA test comparing nationality and avoidance reactions across to cyberbullying

Source	Sum of Squares	df	Mean Square	F
Between Groups	17,070	2	8,534	22,091
Within Groups	61,044	158	,393	
Total	78,114	160		

\*  $p < .000$

Post hoc comparisons using the Bonferroni test indicated that the mean score for the Turkish students' avoidance reactions ( $M = 2.23$ ,  $SD = .79$ ) was significantly different than those of Azerbaijani students ( $M = 2.72$ ,  $SD = .45$ ) and Syrian students ( $M = 2.99$ ,  $SD = 0.46$ ). However, Azerbaijani and Syrian students avoidance reactions did not significantly differ from each other. Post hoc statistics and comparisons are provided in Table 11 and illustrated in Figure 4.

**Table 11.** Bonferroni multiple comparisons of avoidance reactions

(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Turkish	Syrian	-,75914	,11791	,000*	-1,0444	-,4738
	Azerbaijani	-,48939	,11866	,000*	-,7765	-,2023
Syrian	Turkish	,75914	,11791	,000*	,4738	1,0444
	Azerbaijani	,26975	,12892	,114	-,0422	,5817
Azerbaijani	Turkish	,48939	,11866	,000*	,2023	,7765
	Syrian	-,26975	,12892	,114	-,5817	,0422

\*,  $p < 0.05$

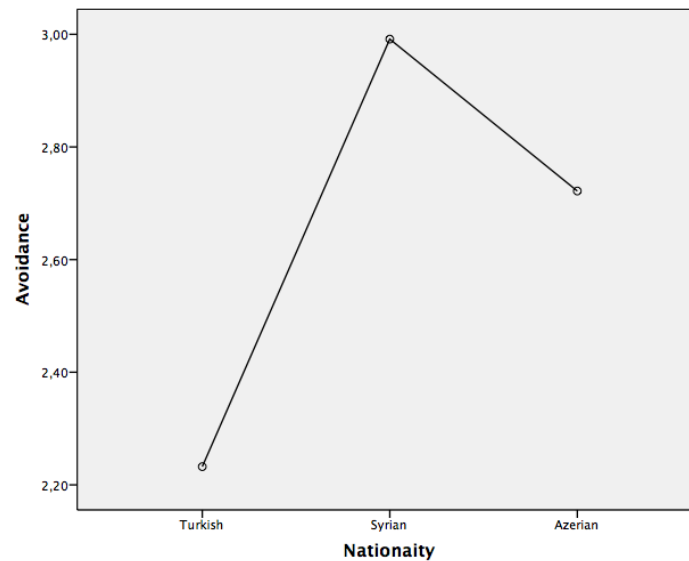


Figure 3. Avoidance reactions according to nationalities

## Discussion and Conclusion

### Gender and reactions to cyberbullying

Aiming to determine reactions displayed by cyber victims from different cultures against cyberbullying, this study concludes that the revenge reaction that victims adopt against cyberbullying varies at a statistically significant level across genders. Male victims employ revenge reaction against cyberbullying more often than female ones. Although the difference is not statistically significant, it can be seen that female victims tend to prefer precaution and avoidance reactions more often than male victims against cyberbullying. On the other hand, male participants' mean score of dialogue reaction is higher than that of female participants. However, the difference between mean scores is not significant. The findings of other studies also conclude that males and females demonstrate different reactions to cyberbullying, and gender is a critical antecedent of behavioral reactions (Wong et al. 2018). Other research results show that males have higher means in terms of revenge (Seals & Young 2003; King et al. 2007; Wright 2017; Erişti & Akbulut 2017) and dialogue whereas females have higher means in terms of precaution and avoidance (Larrañaga et al. 2016; Parris et al. 2011). This finding can be due to females' inclination of avoiding aggression (Juvonen & Graham 2001; Theron et al. 2001). The current finding that male victims are inclined to adopt revenge reaction more often than female victims is also



consistent with the results of other research studies in the literature. Though it is not statistically significant, the difference between genders in terms of preferring dialogue, precaution, and avoidance reactions is also compatible with the conclusions of other studies.

### **Nationality and reactions to cyberbullying**

Cross-national comparisons yielded that the difference among cultures in terms of employing revenge, dialogue, and avoidance reactions is statistically significant. Turkish victims tend to prefer revenge and dialogue reactions much more often than Azerbaijani and Syrian victims. On the contrary, Azerbaijani and Syrian victims adopt avoidance reactions more frequently than Turkish victims. Yet, precaution reaction against cyberbullying does not seem to vary significantly among these three nationalities.

Social culture is a major force guiding individuals to behave in accordance with their culture when confronted with a specific condition. This is much more dominant in communities with higher collectivist values. Individuals feel that they have to put their society in front of themselves (Barlett et al. 2014). Comparative research studies indicate that the frequency of bullying behavior and reactions against bullying differ tremendously across cultures (Akbulut & Eristi 2011; Ferreira et al. 2016; Bergeron & Schneider 2005; Morita 2001; Baek & Bullock 2014). The findings of the current study support those of other studies within the relevant literature.

Honor culture is a commonly employed label to classify societies socio-psychologically and socio-culturally (Ijzerman et al. 2007; Rodriguez Mosquera et al. 2000). Turkey is classified as one of the countries with honor culture (Uskul et al. 2010; Elgin 2016; Öner-Özkan & Gençöz 2016). Honor cultures mostly focus on social images. Suitability to social culture matters more than individual preferences in terms of appraising the value of social dignity (Rodriguez Mosquera et al. 2011). Considering the context in Turkey, honor bears highly central importance for the people living in Turkey (Uskul et al. 2010).

Revenge is a quite common reaction to cyberbullying where the victim is motivated to harm back the aggressor (Sticca 2015). Honor is also critical with respect to revenge. Results of relevant research studies indicate that revenge is a prevalent reaction within honor cultures (Aase 2017; Benavidez et al. 2016; Ijzerman et al. 2007). This may well explain why the revenge reaction mean score of Turkish participants is significantly higher than those of Azerbaijani and Syrian participants in this research. In honor cultures, each member is responsible for preventing dishonorable actions and their consequences. Therefore, individuals of an honor culture are always ready to defend their individual and social honors (Kim et al. 2010). Social norms of the society dictate that honor must be preserved under any circumstances and at any costs (Leung & Cohen 2011). Moreover, honor and manhood are closely associated in honor cultures, and it is often expected to attack the bully as a reaction to being bullied (Elgin 2016). Feelings like pride, disgrace, and rage are more important in honor cultures than in others (Rodriguez Mosquera et al. 2000). When an individual detects any kind of aggression against his honor, it produces rage, and the individual feels obliged to retaliate the bully out of hostility (Cohen et al. 1996).

Again, collectivist culture can be taken as the reason why dialogue reaction is adopted significantly more often by Turkish participants as opposed to Azerbaijani and Syrian students. Interestingly, the relevant body of studies points out that collectivistic countries are more open to communication and more forgiving than are individualistic countries (Hook et al. 2009; Lennon 2013). Cyber dialogue is a way of indirect communication between individuals without seeing each other. When it is cyberbullying, the bully and the victim do not even know each other. Research results show that indirect communication is quite common in collectivist societies where honor cultures are also represented (Hammer 2005; Peterson 2004).

Furthermore, the results of relevant research studies conclude that reacting, risk-taking, self-defense, and retaliation are far less frequent in societies that support avoiding uncertainties (Bergeron & Schneider 2005). Revenge, by all means, is a risk-taking behavior since it will give the other party the right to retaliate (Yoshimura 2007; Gollwitzer et al. 2011). So, current political, economic, and social facts, present conditions of the countries, and international variables may have been influential over why Azerbaijani and Syrian participants have significantly higher mean scores of avoidance reaction than Turkish students. On the other hand, cultural homogeneity and ethnic diversity can also be considered as other factors leading to such a result. In addition, wanting to employ revenge reaction against a cyberbullying incidence is quite different than actually adopting a revenge reaction. One has to know appropriate means and channels to attack back on the aggressor for revenge in a cyber setting, which requires some knowledge about technology use. Considering the economic and social conditions of their countries, the frequency, and prevalence of internet and technology use, and how competent they are in terms internet and technology use, it is possible to state that this variable may

also have been effective as to why Azerbaijani and Syrian participants prefer avoidance reaction more than Turkish students. While Turkey has a high rank in terms of internet use among the countries of the world, it is way more limited in Syria and Azerbaijan due to economic and political reasons (Transparency International 2008; Reporters without Borders 2017).

## Recommendations

Relevant literature is rather limited with respect to studies linking the reactions that victims exhibit against cyberbullying with reaction types and across different variables. Similar studies and cross-national comparisons can be conducted to further investigate the role of culture by choosing countries from different continents, with different cultures, and from different social strata. Likewise, belief systems, ethnic layout, socio-economic status, and educational background can also be set as other relevant variables for further research.

Based on the findings of the current study, strategies to overcome cyber aggression can be associated with the cultural aspects. Once families and schools notice the relation between culture and behavior, they can help their children develop correct and appropriate coping strategies in accordance with their own cultural behavior codes. With respect to the reactions that victims exhibit against cyber aggression, the results of this research can also be utilized to prevent cyber aggression and to explain the behaviors of the aggressors. There may be a correlation between the continuity, severity, and density of the attack and victims' reactions. On the other hand, the aggressor may be planning the following attacks based on the victim's reactions.

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The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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