**Original Article**

# The Effect of Personality Traits on the Roles of Traditional Bully-Victim and Cyberbully – Cybervictim among Greek Adolescents

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**Abstract**

**Background:** The association of personality traits, based on the theory of Five-Factor model, in conjuction with (cyber)victimization or (cyber)bullying constitutes study topic - theme.
**Aim:** This pilot study aimed to investigate the personality traits of the Greek adolescents, who are potentially associated with the roles of the traditional perpetrator or victim as well as the modern cyberbully or cybervictim, and their effect on these roles.
**Methods:** A research was carried out on 324 students (192 females; 132 males), aged 12–18 years old, drawn randomly from seven public high schools of Athens and its suburbs, Greece, by completing anonymous self reported questionnaires. Students completed the European Cyberbullying Intervention Project Questionnaire – Bullying and Cyberbullying and the International Personality Item Pool (IPIP-50). Pearson *r* coefficient, one-way Anova and linear regression analysis were used to analyze the data.
**Results:** Agreeableness has been found to be associated with all forms of bullying / intimidation. Extrovert individuals and those with low conscientiousness can be bullies, while non- extrovert adolescents may be victims.
**Conclusions:** Relations have been found between specific adolescent personality traits and victimization, in both traditional and modern cyberbullying versions.

**Keywords:** Bullying; Cyberbulling; Cybervictimization; Adolescence; Personality traits.

## Introduction

Bullying among young people is not a modern phenomenon. As Olweus (1993) stated “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students. It is a negative action when someone intentionally inflicts, or attempts to inflict, injury or discomfort upon another – basically what is implied in the definition of aggressive behavior in the social sciences. There should also be an imbalance in strength (an asymmetric power relationship)”.

Cyber bullying on the other hand emerges as the newer aspect of intimidation (Kowalski et al., 2014). Among the definitions that have been stated is that cyberbullying is an aggressive behavior manifested repeatedly by either an individual or a group of individuals using electronic means against a victim who cannot be easily protected (Smith et al., 2005; Slonje & Smith, 2008).

Although there has been worldwide research into the relationship between personality traits and Bullying / Cyberbulling (e.g. Tani et al., 2003; Ybarra & Mitchell, 2004; Bollmer, Harris, & Milich, 2006; Jensen-Campbell & Malcolm,

2007; Williams & Guerra, 2007; Anderson & Sturm, 2007; Hinduja & Patchin, 2008, 2010; Perren et al., 2010; Sourander et al., 2010; Goodboy & Martin, 2015; Garaigordobil, 2015; Alonso & Romero, 2017; Semerci, 2017), less research has been conducted on cyberbullying in Greek reality (Kokkinos, 2013; Kokkinos et al., 2013; Αντωνιάδου & Κόκκινος, 2013; Kokkinos, Antoniadou & Markos, 2014; Kokkinos et al., 2016a, 2016b; Antoniadou et al., 2016; Athanasiades et al., 2016; Lasuras, Barkoukis & Tsorbatzoudis, 2017). These studies are mainly examining the relation of the psychopathic characteristics of the personality, skills and the search for experiences and emotions by engaging in traditional or cyberbullying / cyber victimization (Antoniadou, Kokkinos & Markos, 2016), the relationship between victimization and parenting style (Kokkinos, 2013; Kokkinos et al., 2016a) or depression (Kokkinos et al., 2016b) and the role of empathy (Antoniadou & Kokkinos, 2018), while only one deals with the association of the personality of the adolescent students with cyberbullying / cyber victimization incidents (Αντωνιάδου & Κόκκινος, 2013).

Also, to date in the literature on Greek data, relevant surveys on the characteristics of victims and victims of cyberbullying have either been reported in pre-adolescent pupils (Kokkinos et al., 2013; 2016a; 2016b; Τουλούπης & Αθανασιάδου, 2014) or conducted on a sample of university student population (Kokkinos, Antoniadou & Markos, 2014) or were focused on the correlation of internet bullying with the traditional form of bullying in teenage age (Antoniadou, Kokkinos & Markos, 2016; Antoniadou & Kokkinos, 2018; Lasuras, Barkoukis & Tsorbatzoudis, 2017), or finally looked into problematic aspects of internet use by teenagers such as gambling (Tsitsika et al., 2011) or internet addiction (Kormas et al., 2011). Under this prism, this study enriches current literature by providing new research data concerning adolescents' personality traits and its relation to cyberbullying. Finally, the present research also aims enrich the existing literature by giving evidence of the state of (cyber) intimidation and (cyber) victimisation in the Greek reality of recent years.

***The Five-Factor Model:*** The Five-Factor Model is a theoretical construction that describes the five dimensions or factors of the human personality. These dimensions are: Extraversion, Agreeableness, Conscientiousness, Emotional stability or Neuroticism and Intellectual or Openness to Experiences. They have been derived by questionnaires as well as adjectives that describe the human personality (McCrae & Costa, 1987; Goldberg, 1990, 1992; Costa & McCrae, 1992; McCrae & John, 1992).

According to Costa & McCrae (1992) the dimension of Extraversion includes specific traits as talkative, energetic, assertive, forceful, adventurous, sociable, active, enthusiastic, outgoing. Agreeableness encompasses traits like forgiving, generous, unselfish, warm, kind, friendly, pleasant, sympathetic, affectionate; Conscientiousness includes traits like well-organized, conscientious, thorough, responsible, precise and planful. Neuroticism or Emotional Stability includes traits like tense, moody, emotional, nervous, worrying and anxious. Finally, Openness to Experience or Intellect/Imagination includes traits like creative, original, curious, having wide interests and being imaginative and insightful (Costa & McCrae, 1992; Goldberg, 1990,1992, 1999).

Although this model has been used primarily to describe adult personality traits, the possibility of using it in children and adolescents has been investigated with positive conclusions (Baker et al., 2004; Measelle et al., 2005; Παυλόπουλος & Μπεζεβέγκης, 1999; Μπεζεβέγκης, Παυλόπουλος & Γεωργουλέας, 2002; Kokkinos et al., 2013; Kokkinos et al., 2016b), since the continuity of personality characteristics from the childhood to the adulthood has been supported (Capsi, 2000; Measelle et al., 2005; Bollmer, Harris, & Milich, 2006).

***Personality traits and (cyber) intimidation:*** Exploring personality traits of adolescents involved in traditional bullying and cyberbullying situations has been the subject of interest for many surveys. In traditional intimidation, the dimensions of the Five-Factor model have been associated to a lesser or greater degree with aggressive and violent behavior (Barlett & Anderson, 2012), while other studies examine the correlation between intimidation / victimization and the personality of the offenders and the victims (Mitsopoulou & Giovazolias, 2015, where a post-analytical approach to the research is attempted). In particular, Agreeableness has been found to be negatively related to victimization (Ehrler, Evans, & McGhee, 1999; Jensen-Campbell et al., 2002; Tani et al., 2003; Kokkinos et al., 2016b; Alonso

& Romero, 2017) and children who score high in this dimension tend not to engage in intimidation (Veenstra et al., 2005). On the other hand, those who score low in Agreeableness may be offenders (Tani et al., 2003).

Emotional instability, manifested by anger, anxiety and depression, both on the bullies' side and that of the victims, is associated with intimidation and aggressive behaviors (Coolidge, DenBoer & Segal, 2003; Tani et al., 2003; Bollmer, Harris, & Milich, 2006; Menesini, Camodeca & Nocentini, 2010; Hansen et al., 2012) and victimization (Kokkinos et al., 2016b; Alonso & Romero, 2017). It has also been found that low score in subscale of consciousness in IPIP-50 is associated with the victims (Tani et al., 2003; Bollmer, Harris, & Milich, 2006; Jensen-Campbell & Malcolm, 2007; Kokkinos et al., 2016b), while Extraversion has been associated with the victims, which have been found to exhibit lower scores in extraversion (Kokkinos et al., 2016b), as well as with the perpetrators who have been found to be more social, extrovert or even popular (Bollmer, Harris, & Milich 2006; Tani et al., 2003). Finally, Openness in experiences has been associated with victimization (Alonso & Romero, 2017).

The study of the phenomenon of bullying / victimization and its modern version through new technology and the Internet in the light of the model of the five factors model has been the subject of recent research, as in teenagers in Spain (Garaigordobil, 2015; Alonso & Romero, 2017) and vocational school students (Semerci, 2017) or undergraduate students in Turkey (Çelik, Atak & Erguzen, 2012). The results of these surveys have not always resulted in common conclusions (Alonso & Romero, 2017).

As findings also have revealed, cyberbullies are unable to feel compassion and understanding for others, accept ethics and justify intimidation (Williams & Guerra, 2007; Calvete et al., 2010), may not have a harmonious relationship with their classmates and school staff (Li, 2007), they have problems in their social relationships and antisocial behavior (Ybarra & Mitchell, 2004; Sourander et al., 2010) and for this reason they have a low rating on Emotional Stability, and also have low scores in Agreeableness and Conscientiousness (Alonso & Romero, 2017), as well as low self-esteem and negative self-image, and for this reason through intimidation seek to balance their negative self-image (Anderson & Sturm, 2007).

Other researchers argue that cyber-bullies may be social, popular and seek to maintain their popularity by shaming some of their classmates (Feinberg & Robey, 2009; Guarini et al., 2012). Cyberbullies also exploit the anonymity offered by the internet, while some use a pseudonym (Strom & Strom, 2005). In addition, previous negative cyber victimization experiences may lead a teenager to offending behavior over the internet (Wright and Li, 2013).

Regarding the profile of cybervictims, research findings show significant differences between them. In recent research on the subject, it is reported that cybervictims may feel insecure, develop physical problems and difficulties in their friendly relations (Sourander et al., 2010), have low emotional stability (Alonso & Romero, 2017), while ways of manifestation and factors associated with traditional intimidation have been found to be related to cyber-bullying (Williams & Guerra, 2007; Hinduja & Patchin, 2008). On the other hand, cybervictims may have a high score in Agreeableness and Openness in Experiences (Alonso & Romero, 2017).

**Methods**

The survey was conducted in Spring 2018 at seven high schools in Athens and its suburbs, mainly in the western Attica region. There were 324 students [n =324, 132 boys (40.7%) and 192 girls (59.3% ), Mean = 1.53, Std. Error of Mean =,027, Std. Deviation = , 492)], from all classes, completing self reported questionnaires in their classroom. The pupils' age was from 12 up to 18 years old. Students reported frequent use of mobile phones and the internet, more than 3 hours per day, with rates reaching 43.5% for mobile phone use and 44.8% for internet use. In order to fill in the questionnaires in the classroom, the management of the school units as well as the pupils and their parents were informed about the purpose of the research. It was pointed out to the pupils that the completion is optional and that the pupils could cease the completion of the questionnaires whenever they wanted. Also, explanations were given to queries about the completion. The Statistical Package for Social Science (SPSS) IBM software for Windows, version 18.0 was used for the statistical analysis of the results.

***Measures:*** The European Cyberbullying Intervention Project Questionnaire - Bullying (ECIPQ-B) questionnaire (Casas, Del Rey & Ortega-Ruiz, 2013; Schultze-Krumbholz et al., 2015) was used to collect data on traditional victimization. The questionnaire consists of 14 questions, using a 5-point Likert scale to investigate bullying and victimization situations and it is divided into two parts (sub-scales), consisting of seven questions for each part.

A short form of the "European Cyberbullying Intervention Project Questionnaire – Cyberbullying" (ECIPQ-C) questionnaire was used for the Cyberbullying Survey. This questionnaire was also used in the aforementioned survey in six European countries under the European Community Daphne III Program (Brighi et al., 2012; Del Rey et al., 2015; Schultze-Krumbholz et al., 2015). In the same way as the previous one, the questionnaire consists of two parts. The first part consists of twelve (12) questions, which refer to situations of victimization through the new technology. The second part, which refers to the cyberbully, consists of twelve (12) questions too. Here too the questions were of the Likert type 5- point scale. Higher scores indicate the involvement of subjects with a higher incidence of occurrences, either as perpetrators / cyberbullies or as victims / cybervictims (Lazuras, Barkoukis, & Tsorbatzoudis, 2017).

The use of psychometric tools to assess the personality traits in relation to cyberbullying and cybervictimization is considered as useful (Berne et al., 2013). Thus, a questionnaire of 50 questions from Goldberg's International Personality Item Pool (IPIP) was used to investigate the personality traits (Goldberg 1992, 1999; Goldberg et al., 2006). The questionnaire is divided into five (5) sub-scales. The first subscale refers to Extraversion, the second to Agreeableness, the third to Conscientiousness, the fourth to Emotional Stability or Neuroticism and the fifth to Intellectual or Spiritual Culture or Openness to Experience. The total score for each sub-scale is deduced from the sum of the answers after the recode of some questions.

***Hypotheses:*** The main hypothesis is that there is a correlation between the predatory features of cyberbullies and cybervictims with the active act of cyberbullying or the involvement in cyber victimization respectively. So, this study investigated the following hypotheses :

(H 1): Extroverted children are more susceptible to atrocities / cyberbullying events and vice versa introverted teens are easier to being victimized
(H 2): (cyber) bullying and victimization is correlated with the Agreeableness and Emotional Stability of adolescent pupils.
(H 3): (cyber) victimization is not related to Consciousness and Intellectual cultivation of adolescent pupils.

**Results**

The self-reported rates of involvement in traditional victimization in our study are high: more than one in two adolescents (57.7%) report being at least occasional victims of some form of bullying, while 11.7% report more serious involvement and only one in three (30.6%) states that there was no involvement.

Correspondingly, self-report rates on involvement in traditional bullying are high: more than one in two adolescents (56.6%) state that there were at least occasional perpetrators of some form of bullying, while only 5.6% report more serious involvement and more than one in three (38.9%) said that they had no involvement.

Frequent daily use of mobile phones and internet by Greek students, as shown by the rates of our own research and other relevant research in the country (Makri-Botsari & Karagianni, 2014, Athanasiades et al., 2016) highlights problematic Internet use behaviors. Regarding self-report rates on cybervictimization involvement, few more than one in two adolescents (52.5%) state that they had no involvement, 44.7% stated that they were at least occasional victims of some form of cyberbullying, and 3.1% reported more serious involvement.

Finally, in terms of self-reported rates of involvement in cyberbullying, nearly two in three adolescents (65.1%) state that they had no involvement, 34% that there were at least occasional perpetrators/bullies of some form of cyberbullying and just 0.9% indicates more serious involvement. Descriptive statistics for the study variables appear in Table 1. Regarding the correlations on the scale of the (cyber) bullying and (cyber) victimization questionnaire (Table 2), we note that there is a significant positive correlation between the offenders and the cybervictims (r = 0, 548**, $p$ <0.001). Also, there is a small correlation between the traditional victim and the cyber-bully (r = 0, 290**, $p$ <0.001). In addition, a remarkable

correlation was found between the (traditional) offender and the cyberbully (r = 0, 548**, *p* <0.001). A small correlation was also recorded between the perpetrator and the victim (r = 0, 290**, *p* <0.001) as well as between cyberbully and cybervictim (r = 0, 379**, *p* < 0.001). Only in the relationship between victim and cyberbullying was observed a small correlation with reference value (r = 0.186**, *p* = 0.001). The correlation of the independent variables of the IPIP sub-questions to the dependent variables of the (cyber)bullying and (cyber)victimization questionnaire was calculated using the Pearson *r* affinity index. Two-tailed significance level was requested. The level of statistical significance was *p* <0.05. There were some correlations between personality traits and victimization, which are presented below. Finally, regarding the internal consistency Reliability of the scales in the questionnaires, Cronbach's Alpha Coefficient internal indicators were in most scales high (Table 2) and almost in agreement with the indices of other researches (for example: Del Rey et al., 2012; Ypofanti et al., 2015).

Additionally, a one-way Anova and a linear regression analysis were conducted, with the independent subscale variables of IPIP as factors / independent variables in relation with the subscales of victim, cybervictim, bully and cyberbully as dependent variables.

**Tale 1: Means, Standard Deviation and Standard Error of Mean of study variables (N = 324)**

| Variables | Mean | Std. Deviation | Std. Error of Mean |
|---|---|---|---|
| Sex | 1.59 | .492 | .027 |
| (ECIPQ-B) Victim | 10.1358 | 4.00697 | .22261 |
| (ECIPQ-C) CyberVictim | 13.8179 | 4.29207 | .23845 |
| (ECIPQ-B) Bully | 9.0247 | 2.96825 | .16490 |
| (ECIPQ-C) CyberBully | 13.1605 | 2.77296 | .15405 |
| IPIP Extraversion | 32.2160 | 7.55473 | .41971 |
| IPIP Agreeableness | 40.4198 | 6.73628 | .37424 |
| IPIP Conscientiousness | 34.5586 | 6.78824 | .37712 |
| IPIP Neuroticism | 27.9660 | 7.91687 | .43983 |
| IPIP Openness to Experiences | 35.1512 | 6.20536 | .34474 |

**Tale 2: Cronbach's Alpha Coefficient internal indicator and Variable correlations with the Pearson *r* affinity index in the total scores (N= 324)**

| | Cronbach's a | V | CV | B | CB | EX | AG | CON | N | OP |
|---|---|---|---|---|---|---|---|---|---|---|
| (ECIPQ-B) Victim (V) | 0.785 | 1 | | | | | | | | |
| (ECIPQ-C) Cybervictim (CV) | 0.850 | .604** | 1 | | | | | | | |
| | | .000 | | | | | | | | |
| ECIPQ-B Bully (B) | 0.705 | .290** | .154** | 1 | | | | | | |
| | | .000 | .005 | | | | | | | |
| ECIPQ-C CyberBully (CB) | 0.677 | .186** | .379** | .548** | 1 | | | | | |
| | | .001 | .000 | .000 | | | | | | |
| IPIP Extraversion (EX) | 0.750 | -.082 | -.057 | .058 | .056 | 1 | | | | |
| | | .139 | .308 | .297 | .313 | | | | | |
| IPIP Agreeableness (AG) | 0.802 | -.239** | -.258** | -.253** | -.181** | .301** | 1 | | | |
| | | .000 | .000 | .000 | .001 | .000 | | | | |
| IPIP Conscientiousness (CON) | 0.725 | -.091 | -.025 | -.267** | -.113* | -.029 | .167** | 1 | | |
| | | .103 | .656 | .000 | .041 | .599 | .002 | | | |
| IPIP Neuroticism (N) | 0.784 | -.234** | -.060 | -.062 | .000 | .101 | -.189** | .174** | 1 | |
| | | .000 | .282 | .266 | .998 | .068 | .001 | .002 | | |
| IPIP Openness to Experiences (OP) | 0.708 | .033 | .017 | -.046 | -.034 | .331** | .275** | .306** | -.064 | 1 |
| | | .549 | .759 | .413 | .544 | .000 | .000 | .000 | .254 | |

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

**Tale 3: Analysis of variance (one-Way ANOVA) for the depended variables**

| | df | Mean Square | F | Sig. |
|---|---|---|---|---|
| **1. With factor EXTRAVERSION** | | | | |
| VICTIM | 36 | 28.518 | 1.968 | .001 |
| | 287 | 14.493 | | |
| CYBERVICTIM | | 36.221 | 2.237 | .000 |
| | | 16.189 | | |
| BULLY | | 14.873 | 1.848 | .003 |
| | | 8.050 | | |
| CYBERBULLY | | 7.274 | .940 | .572 |
| | | 7.741 | | |
| **2. With factor : AGREEABLENESS** | | | | |
| VICTIM | 30 | 43.693 | 3.304 | .000 |
| | 293 | 13.226 | | |
| CYBERVICTIM | | 83.542 | 7.107 | .000 |
| | | 11.754 | | |
| BULLY | | 12.479 | 1.479 | .056 |
| | | 8.435 | | |
| CYBERBULLY | | 13.039 | 1.826 | .007 |
| | | 7.142 | | |
| **3. With factor : CONSCIENTIOUSNESS** | | | | |
| VICTIM | 33 | 17.163 | 1.077 | .360 |
| | 290 | 15.930 | | |
| CYBERVICTIM | | 21.867 | 1.213 | .204 |
| | | 18.030 | | |
| BULLY | | 14.927 | 1.840 | .005 |
| | | 8.114 | | |
| CYBERBULLY | | 7.308 | .945 | .558 |
| | | 7.733 | | |
| **4. With factor : NEUROTICISM** | | | | |
| VICTIM | 34 | 29.346 | 2.025 | .001 |
| | 289 | 14.492 | | |
| CYBERVICTIM | | 23.886 | 1.344 | .104 |
| | | 17.779 | | |
| BULLY | | 15.232 | 1.891 | .003 |
| | | 8.055 | | |
| CYBERBULLY | | 11.933 | 1.660 | .015 |
| | | 7.190 | | |
| **5. With factor : OPENNESS** | | | | |
| VICTIM | 30 | 21.982 | 1.423 | .076 |

| | | | | |
|---|---|---|---|---|
| | 293 | 15.449 | | |
| CYBERVICTIM | | 33.632 | 1.994 | .002 |
| | | 16.865 | | |
| BULLY | | 11.955 | 1.408 | .082 |
| | | 8.489 | | |
| CYBERBULLY | | 8.851 | 1.169 | .254 |
| | | 7.570 | | |

The findings show that there is no important correlation between the characteristic of Extraversion with traditional perpetration or cyberbullying / cybervictim situations (Table 2). However, the use of a one-way ANOVA with Extraversion as factor and all forms of bullying / victimization as dependent variables (Table 3), revealed significant effect for Extraversion concerning the traditional victim [$F$(36,287) = 1,968, $p$ = 0.001], cybervictim [$F$(36,287) = 2,237, $p$ = 0.000] and traditional offender [$F$(36,287) = 1,848, $p$ = 0.003]. Additionally, in subgroups of adolescents who stated higher scores in ECIPQ-B and ECIPQ-C questionnaires remarkable negative relation to traditional victim and extraversion (r = -0.368 **, $p$ =0.002) and positive correlation between bully and extraversion (r = 0.546 **, $p$ =0.001) were found.

Agreeableness was found to have a small negative correlation with the (traditional) victim (r = -0.239 **, $p$ <0.001) and small negative correlation with the (traditional) aggressor (r = -0.253 **, $p$ <0.001). Furthermore, Agreeableness was found to have a small negative correlation with the cybervictimization (r = -0.258 **, $p$ <0.001), and less significantly with cyberbullying (r = -0.181*, $p$ = 0.001). A one-way ANOVA with Agreeableness as factor, revealed significant effect for Extraversion on traditional victim [$F$(30,293) = 3,304, $p$ = 0.000], cybervictim [$F$(30,293) = 7,107, $p$ = 0.000], cyberbully [$F$(30,293) = 1,826, $p$ = 0.007], but not for bully [$F$(30,293) = 1,479, $p$ = 0.056].

On the other hand, bivariate correlations showed that Emotional Stability / Neuroticism is negatively related only to the bullying (r = -0.234 **, $p$ <0.001). However, a one-way ANOVA with Neuroticism as factor and all forms of bullying / victimization as dependent variables, revealed significant effect for Neuroticism on traditional victim [$F$(34,289) = 2,025, $p$ = 0.001], bully [$F$(34,289) = 1,891, $p$ = 0.003] and cyberbully [$F$(34,289) = 1,660, $p$ = 0.015] but not for cybervictim [$F$(34,289) = 1,344, $p$ = 0.104].

There were no significant associations with Conscientiousness or Openness to Experiences, with the exception of small negative correlation being observed in this study between Conscientiousness and the (traditional) perpetrator (r = -0.267 **, $p$ <0.001) [$F$ (33,290) = 1,840, $p$ = 0.005]. However, a one-way ANOVA with Openness as factor, showed a significant effect on cybervictim [$F$(30,293) = 1,994, $p$ = 0.002].

Finally, linear regression analysis showed that traditional victimization is significantly predicted by Agreeableness ($\beta$ = -0.322, $p$ < 0,001) and Neuroticism ($\beta$ = -0.285, $p$ < 0,001), cyber victimization is significantly predicted only by Agreeableness ($\beta$ = -0.315, $p$ < 0,001) and less by Neuroticism ($\beta$ = -0.121, $p$ = 0,036), traditional bullying is significantly predicted by Agreeableness ($\beta$ = -0.287, $p$ < 0,001), by Conscientiousness ($\beta$ = -0.216, $p$ < 0,001) and less positively by Extraversion ($\beta$ = 0.130, $p$ = 0,028), while cyber bullying is significantly predicted by Agreeableness ($\beta$ = -0.215, $p$ < 0,001) and less positively by Extraversion ($\beta$ = 0.122, $p$ = 0,049).

**Discussion**

The purpose of the present study was to investigate the relation between (cyber)bullying / (cyber)victimization with the personality traits. On the basis of the statistical analysis carried out above, the hypotheses of the study have been partly confirmed. Research hypothesis H 1, that is extrovert adolescents are more prone to perpetrator / cyberbullying events, was not confirmed through bivariate correlations, but was confirmed through the one-way ANOVA. This finding is consistent with another recent survey in Turkey (Semerci, 2017) and earlier surveys of traditional offenders (Bollmer, Harris, & Milich, 2006; Tani et al., 2003).

On the other hand, from the findings of the research, hypothesis H 2 is partly confirmed; the (cyber) perpetration and (cyber) victimization is related to the Agreeableness and less to the Emotional Stability of teenage pupils. In particular, Agreeableness was found to have a small negative correlation with the (traditional) victim , consistent with other studies (Ehrler, Evans, & McGhee 1999; Jensen-Campbell et al., 2002; Tani et al., 2003; Alonso & Romero, 2017) and small negative correlation with the (traditional) aggressor, consistent with earlier study (Tani et al., 2003). These findings reveal that people who are confined to themselves, do not exude sympathy and trust (either due to contraction or disagreeable behavior) and are in danger of becoming bullied in everyday life. Furthermore, Agreeableness was found to have a small negative correlation with the cybervictimization and less significantly with cyberbullying, which is consistent with the findings of other surveys (Garaigordobil, 2015; Semerci, 2017; Alonso & Romero, 2017).

Also, statistical tests showed that Emotional Stability / Neuroticism is negatively related to bullying and victimization , which is consistent with findings from earlier surveys on victimization (Tani et al., 2003; Jensen-Campbell & Malcolm, 2007). Emotional stability is also negatively related to cyberbullying, but not to cybervictimization. On the contrary, this finding is the opposite to other surveys. People with emotional instability are more likely to resort to the online world as a treatment for their loneliness (Sahin, 2012; Kim, LaRose, & Peng, 2009, although referring to students) and become victims of cyberbullying as a result of their unstable emotional state or / and loneliness they may experience (Gleason, Jensen-Campbell, & Richardson, 2004; Guarini et al., 2012; Sahin, 2012; Semerci, 2017).

The findings also partly confirmed Hypothesis 3; bivariate correlations revealed no significant associations with Conscientiousness or Openness to Experiences, except for a slight correlation between Conscientiousness factor and perpetrator, as well as one-way ANOVA, with Openness as factor, which showed significant effect on cybervictim. A small positive association of Openness with at least the cybervictims has been observed in other studies in Spain, namely in the Basque region (Garaigordobil, 2015), as well as in the Galician region, where cybervictims have a high score in Openness to Experiences (Alonso & Romero, 2017). Openness has evolved with a negative correlation as the most prominent factor in both traditional victimization and electronic intimidation in Turkish research in adolescent students of vocational schools, especially boys (Semerci, 2017).

In conclusion, the evidence from this survey suggests that a person's lack of organization and orientation towards the achievement of his goals may be related to his / her behavior as a perpetrator / cyberbully, especially when combined with the low responsibility of the individual. Furthermore, it is not excluded that people with conscientious characteristics become victims of bullying / cyberbullying. In the first case, intimidating behavior may be linked to the achievement of its goals. In the second, it is possible that the organization and the targeting of the person raise the envy and the actor's desire to reduce the person by frightening it. The aforementioned Turkish survey, though highlighted this phenomenon, i.e. adolescents with high conscientiousness to be victims of cyberbullying, did not find any significant correlation of Conscientiousness with cyberbullies (Semerci, 2017).

**Limitations:** The restriction to particular school units in Athens did not allow us to draw generalized conclusions and, therefore, the findings of the study should be interpreted with caution. In addition, it should be should be taken into account that this research was designed as a cross-sectional study and concerns a specific period time.

**Conclusions:** Based on the IPIP 50 measurement tool, this study revealed that there were clear correlations between specific pupil personality traits and the occurrence of bullying and victimization behaviors. It is confirmed in part that extroversion adolescents are more prone to perpetrator / cyberbullying events. Clear correlations exist between (cyber) victimization and Agreeableness. Also, Conscientiousness has a negative correlation with the perpetrator.

These findings may help parents and school staff to detect and understand the behaviors of adolescent pupils associated with (cyber) bullying and (cyber) victimization, to prevent the former and to encounter / heal the latter by enhancing positive behaviors.

They could also be taken into account by policy makers in the planned intervention and prevention programs aimed at the direction of enhancing personality traits that prevent bullying and victimization.

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