Cyberbullying in Greek adolescents: The role of parents

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Abstract

The aim of the study was to examine whether and to what extent parenting practices create a suitable ground and/or enhance Greek adolescents’ involvement in cyberbullying either as cyber-bullies or cyber-victims and whether adolescents’ gender and parents’ educational level are differentiating factors of cyberbullying at puberty. The results with a sample of 396 secondary school students showed that: (a) parenting style was not a statistically significant predictor of adolescent cyber victimization; on the contrary, seemed to be a significant predictor of cyberbullying manifestation, since adolescents with authoritative parents exhibited the lowest levels of cyberbullying behaviors while adolescents with authoritarian parents the highest; (b) adolescents with authoritative parents tended to communicate more frequently to them the cyberbullying experiences they might have than adolescents with permissive, neglectful or authoritarian parents; (c) gender and parents’ educational level were not a significant differentiating factor of cyberbullying behavior.

Keywords: cyberbullying, parenting, gender

Introduction

Over the past few years, an evolution of traditional bullying has taken place through the advent of new digital communication. During the last decades, the Internet has entered daily life in a dynamic and sometimes catalytic way, for children and adults alike. Its potential to cover every aspect of human activity is almost limitless. International research on the issue reveals that 71% of adults (Horrigan, 2007) and 87%-90% of teenagers and children in Europe have access to the Internet (Lenhart, 2005; Ybarra, Mitchell, Wolak & Finkelhor, 2006), while both age groups are capable of handling the Internet services very well. Therefore, the rapid increase in Internet access and mobile use facilitated (Brighi, Melotti, Guarini, Genta, Ortega, Mora-Mechan, Smith, & Thompson, 2012; Dilmac & Aydoğan, 2010; Kite, Gable & Filippelli, 2009; Shoemaker-Galloway, 2007) the promotion of traditional bullying by giving it the chance to escape from the school grounds and expand to the vast and complex field of cyber space, even within the privacy of one’s home (Gasior, 2009; Rauskauskas & Stoltz, 2007). The outcome of this evolution was a new form of bullying, called “cyberbullying” (Juvonen & Gross, 2008).

Bill Belsey (Belsey, 2007), who coined the term ‘cyberbullying’ and is the creator of the websites www.bullying.org and www.cyberbullying.org, defines cyberbullying as “the use of information and communication technologies such as e-mail, cell phone and pager text messages, instant messages, defamatory
personal websites, and defamatory online personal polling Web sites, to support deliberate, repeated, and hostile behavior by an individual or group, that is intended to harm others” (cited in Li, 2007a).

According to the National Crime Prevention Council, a nonprofit organization whose headquarters are located in Washington: Cyberbullying is the use of the Internet, mobile phones or other digital devices to send or post text or images intended to hurt or embarrass another person (www.ncpc.org/cyberbullying).

Cyberbullying is a multidimensional and multiform phenomenon which may take the following forms: cyberstalking, exclusion, denigration, online harassment, impersonation, outing, flaming, trickery, happy slapping (Campbell, 2005; Dilmac & Aydoğ an, 2010; Gasior, 2009; Makri-Botsari, 2010a; Willard, 2007). Shoemaker-Galloway (2007) lists two further types of cyberbullying behavior: (a) bash boards: the practice of posting various malicious and defamatory comments in online forums and/or bulletin boards, and (b) text war: a practice in which a sufficient number of people gang up on victims, sending hundreds of e-mails and text-messages to the victims’ cell phone or other mobile devices.

The frequency with which incidents of cyberbullying occur seems to vary with the form in which the latter is manifested, the means of digital communication used to commit cyberbullying, and the specific websites on which cyberbullying takes place (Hinduja & Patchin, 2008; Juvonen & Gross, 2008; Li, 2008). E-mails, instant messaging, SMSs, photos and videos constitute the most common means of digital communication used in cyberbullying. The websites on which incidents of cyberbullying usually take place are chat rooms, social networking websites, message boards and personal polling/voting websites. The study of Kowalski and Limber (2007), which examined a sample of 3,767 students, found that the highest reported mean of cyberbullying was instant messaging, while the highest reported website on which incidents of cyberbullying take place was chat rooms. Dehue, Bolman, and Vollink (2008) concluded that both boys and girls are more often cyber bullied via MSN.

Gender as a cyberbullying predictor
Many studies have revealed that boys are more prone to becoming perpetrators or victims of traditional bullying than girls (Hoover & Olsen, 2001; Nabuzoka, 2003; Pellegrini & Bartini, 2000), while some other studies indicate that boys and girls are equally likely to engage in traditional bullying behaviors (Boulton & Smith, 1994; Mynard & Joseph, 1997; Whitney & Smith, 1993). Pellegrini και Bartini (2000) argue that the selective use of aggressive and other competitive strategies followed by boys in their relationships with peers is a common social behavior for them.

Research findings regarding gender differences in cyberbullying are, however, somewhat contradictory. Surveys conducted in the USA and Sweden concluded that boys and girls are equally likely to engage in and suffer cyberbullying acts (Hinduja & Patchin, 2009; Raskauskas & Stoltz, 2007; Slonje & Smith, 2008; Williams & Guerra, 2007; Ybarra & Mitchell, 2004a). Other studies conducted in the USA, the UK and Belgium claim that boys tend towards being cyberbullying aggressors while girls are more likely to be cyberbullying victims (Dehue et al., 2008; Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008; Walrave & Heirman, 2011; Wang, Iannotti, & Nansel, 2009). Nevertheless, there are also some studies that, although they found that boys are more likely to be cyber bullies compared to girls, at the same time they either suggested that there are no gender differences in victimization by online bullying (Li, 2007a) or concluded that boys are victims of cyberbullying more often than girls (Aricak, Siyahhan, Uzunhasanuglu, Saribeyogly, Ciplak, Yilmaz, & Memmedov, 2008). Researchers have attributed these contradictory results on the victimization by online bullying to the nature of cyberspace itself (Li, 2007). In the online world, users can easily hide their identity. Females in particular tend to hide their identity when they use computer mediating communication, in order to avoid judgments and evaluations on the basis of gender identity (Gopal, Mirana, Robichaux & Bostrom, 1997; Li, 2006). Therefore, boys and girls are equally likely to become cyber targets, as their identities can be easily concealed.

The role of family on the emergence, maintenance and prevention of cyberbullying
The kind and quality of parents-children relationships differ greatly depending on the various parenting styles and have a significantly important effect on shaping children’s character, identity and relationships with peers. Cyberbullying is, by nature, a phenomenon occurring more within the family context and less beyond it (Gasior, 2009; Taiariol, 2010). Parents-children relationships and parents’ knowledge and awareness of cyberbullying have a significant role in the emergence, maintenance and prevention of digital bullying.
**Parents’ knowledge and awareness of cyberbullying.** Informed and aware parents are able to minimize the emergence of cyberbullying (Strom & Strom 2005; Campbell, 2005), while parents who do not realize the prevalence and effects of the phenomenon are not able to properly guide and support their children, favoring in this way the emergence and maintenance of online bullying (Accordino & Accordino, 2011). When parents are not adequately informed about cyberbullying, they cannot help their children manage cyberspace and take advantage only of its positive aspects and elements (Gasior, 2009).

A survey conducted by i-safe America (2006, as cited in Kowalski, Limber, & Agatson, 2008) revealed that almost all American parents (93%) believe that their children do generally good things through the Internet. Furthermore, according to the Pew Internet & American Life Project (2005), 65% of the parents are confident that their children are at no risk while on the Internet. They regard surfing the Internet as a quite safe practice and, consequently, they do not worry when their children use various online applications. More than 65% of parents stated that their children do things, which they would not be being reported to parents.

A research of the National Center for Missing and Exploited Children (2006, as cited in Taiariol, 2010) showed that almost 50% of the parents had no knowledge of the various cyber safety systems and did not check the e-mails of their children. The majority of the parents (67%) had no awareness of the existence of a specific “digital” slang, which often uses words’ initials to imply whole phrases and which is often used in various forms of cyberbullying.

Parental knowledge and awareness of online bullying is also associated with parental educational level. To be more specific, the higher the parents’ educational level the greater the parents’ willingness to be informed of the safer use of new technologies by their children and to adopt a proper parenting style. The latter parameters are reliable predictors of cyberbullying emergence/tackling (Accordino & Accordino, 2011; Beran & Li, 2005; Strom & Strom, 2005).

**Parenting style as a cyberbullying predictor.** Current research indicates that parenting style is directly associated with teenagers’ online behavior (Rosen, Cheever & Carrier, 2008). An authentic parenting style is related to less risky internet behavior, while children with authentic parents are less prone to disclosing personal information in digital environments.

In their multifactor research, Leung and Lee (2012) specifically addressed the role of parenting style, among other variables, in predicting internet risks. They found that three types of parental media-related mediation seem to dominate the contemporary research on parenting style: (a) “active mediation”- where parents often talk with their children over issues such as television, the internet, etc. in order to help them become “critical viewers” or “critical users”, (b) “restrictive mediation”- where parents set strict rules on their children’s Internet access and on the kind of online games that their children can or cannot play, and (c) “co-viewing”- where parents sit in the same room as their children while the latter are watching television or are surfing the Internet, discussing with them the content of what they watch. The findings of Leung and Lee (2012) showed that the stricter the rules on the kind and frequency of children’s Internet use, and the greater the parental intervention and mediation, the fewer the children’s chances to get cyberbullied and the lower the children’s exposure to other internet risks.

Authentic parents, compared to authoritarian and rejecting/neglecting parents, resort more often to restrictive mediation and co-viewing, and set clear and strict limits on the content and the time their children spent on the Internet, while using at the same time blocking and other Internet safety software (Eastin, Greenberg & Hofchire (2006, as cited in Rosen et al., 2008).

Other empirical findings reveal that 45% of the children and adolescents who had been cyberbullying victims reported that they had no emotional relationships with their parents, and only 16% of them reported that they had such parent-child relationships (Ybarra & Mitchell, 2004b). The adolescents who had very close relationships with their parents, compared to those who had loose or no relationships at all, were less frequently cyber bullied. A recent study by Accordino and Accordino (2012) reached similar conclusions.

It seems that teenagers transfer to cyberspace not only their attitudes and opinions, but also the challenges they face and the emotions they experience in the offline (real) world, namely friends, family, schoolmates, etc. Consequently, a child who experiences troublesome and problematic relationships with his/her parents, who does not communicate deeply with them, facing their indifference and rejection, is more likely to use certain online
services such as chat rooms or social networking sites in order to obtain the attention or the recognition that he/she lacks in the relationships with his/her parents. It is also possible, for such a child, to develop aggressive, defiant or insolent behavior, as a reaction to the lack of parental attention, love and acceptance, or to become unable to react to the things that frighten, provoke, insult, offend and finally victimize him/her, due to low self-esteem.

In summary, it could be argued that the offline and the online reality are mutually affected and that there is a significant and specific interaction between the two (Subrahmanyam & Smahel, 2011).

**Frequency of teens’ report of cyberbullying incidents to parents.** Most children rarely talk to adults in general and to their parents in particular about cyberbullying, while the majority of adolescents who have been cyberbullying-victims do not report their experience to an adult (Dehue, et al. 2008; Smith et al. 2008). Slonje and Smith (2007) reached similar conclusions with a sample of 360 adolescents (12-20 years old). Their results showed that almost all participants in the study did not report the cyberbullying attacks they had suffered to their parents. On the contrary, they preferred to report this experience to a friend they trust. A research review conducted by Kowalski et al. (2008) reported similar findings. More specifically, this review revealed that only 51% of pre-adolescents report the cyberbullying attacks they experience to their parents, while the corresponding rate for adolescents amounts to 35%. This suggests that as children grow up and enter puberty, they discuss less with their parents about their negative experiences, which in turn signifies a lack of parents-children communication.

**Aim and hypotheses of the study**

The aim of the study was to examine whether parenting style and gender predict adolescents’ cyberbullying and cybervictimization. On the basis of the literature cited the following hypotheses were formulated and tested:

- Boys and girls are equally likely to be perpetrators and victims of cyberbullying.
- Adolescents with authoritative parents exhibit lower levels of engagement in cyberbullying behaviors either as victims or perpetrators than adolescents with authoritarian or neglectful parents.

**Method**

**Sample**

The sample of the study consisted of 396 students drawn from public junior and senior high schools. There were 53 seventh graders (26 boys and 27 girls), 62 eighth graders (34 boys and 28 girls), 47 ninth graders (21 boys and 26 girls), 43 tenth graders (14 boys and 29 girls), 79 eleventh graders (40 boys and 39 girls), and 112 twelfth graders (57 boys and 55 girls).

Parental level of education was measured along a 5-point scale (1: elementary school-1.3% of the mothers and 1.0% of the fathers, 2: junior high school-3.43% of the mothers and 4.6% of the fathers, 3: senior high school-26.3% of the mothers and 27.3% of the fathers, 4: higher education-46.21% of the mothers and 37.0% of the fathers, 5: postgraduate studies-22.8% of the mothers and 30.1% of the fathers).

The participants represented a wide range of socioeconomic background. Participation in the study was all voluntary.

**Measures**

**Online behavior**

The online behavior of the participants was assessed using a questionnaire devised by Makri-Botsari (2012) which taps:

- The frequency of students’ involvement in cyberbullying as either victims or perpetrators. Seven types of cyberbullying were considered, namely harassment, denigration, exclusion, impersonation, outing, trickery, and happy slapping. The respondents were asked explicitly about how often last school-year they had been victims or perpetrators of cyberbullying (0 = never, 1 = 1-3 times, 2 = 4-7 times, 3 = almost once a month, 4 = almost once a week, 5 = several times a week). Alpha reliabilities were α = .84 for the victim scale and α = .73 for the bully scale.
- The frequency of connecting to the internet (once a week / several times a week / every day).
- The place of connecting to the Internet (home / Internet Café / other).
- The duration of connection to the Internet (half an hour / one hour / one to three hours / more than three hours).
- The reporting of cyberbullying incidents to parents, friends or teachers.

**Parenting**

Parenting styles were assessed using the Authoritative Parenting Index (API; Jackson, Henriksen, & Foshee, 1998), as adapted by Makri-Botsari (2010b) for use with Greek children and adolescents. The API is a self-report scale that assesses responsive ($\alpha = .85$) and demanding ($\alpha = .71$) parenting behaviors. The responsive dimension consists of nine items measuring indicators of parental warmth, acceptance, involvement, and intrusiveness (e.g. ‘She/he listens to what I have to say’). The demanding dimension includes seven items measuring indicators of parental supervision, assertive control, monitoring, and permissiveness (e.g. ‘She has rules that I must follow’). Participants are asked to respond, in reference to the female or male caregiver that lives with them, on a 4-point scale that ranges from 1 (Not like her/him) to 4 (Just like her/him).

Parents who are high on responsiveness and demandingness are authoritative, parents who are low on responsiveness and demandingness are considered neglectful, parents who are high on responsiveness and low on demandingness are indulgent, and parents who are low on responsiveness and high on demandingness are authoritarian (Jackson et al., 1998).

In the present study the items were presented once, with respect to both parents. The exploratory factor analysis of the 16 items of the scale revealed the responsiveness and the demandingness factors. However, one of the responsiveness items loaded on the demandingness factor, while another of the responsiveness items cross-loaded with substantial loadings on both factors. These two items were excluded from the subsequent analyses. After removing the two items, alpha reliabilities were found equal to $\alpha = 0.80$ for the responsiveness factor and equal to $\alpha = 0.71$ for the demandingness factor.

**Results**

**Students’ distribution with respect to the frequency, the place and the duration of connection to the Internet**

**Frequency of connecting to the internet.** The results showed that the majority of the students (55.0%) are connected every day to the Internet, the 28.5% of the students are connected to the Internet several times a week, while the remaining 16.5% are connected to the Internet once a week.

**Place of connecting to the Internet.** The majority of the students (98.6%) reported that are connected to the Internet from their home, while only the 1.7% and the 4.0% of the students reported that are connected to the Internet from an Internet Café and another place, respectively.

**Duration of connection to the Internet.** The 34.7% of the students stated that are connected to the Internet from one to three hours a day, the 29.5% of the students reported that are connected to the Internet one hour a day, the 22.8% of the students are connected to the Internet half an hour a day, while the remaining 13.0% of the students stated that are connected to the Internet more than three hours a day.

**Gender differences in the frequency of cyberbullying**

The means and standard deviations of the frequencies of students’ involvement in the different types of cyberbullying as victims and perpetrators by gender are presented in Tables 1 and 2, respectively. As can be seen in Tables 1 and 2, in general, boys tend to report higher frequencies of involvement in cyberbullying either as victims or perpetrators than girls do. However, a one-way MANOVA, with gender as factor and the frequencies of the different types of cyberbullying as dependent variables, revealed no significant multivariate main effect for gender [victims: Wilks $\lambda = 0.976$, $F(7,384) = 1.356$, $p = 0.223$, perpetrators: Wilks $\lambda = 0.977$, $F(7,381) = 1.264$, $p = 0.267$].

<table>
<thead>
<tr>
<th>Type of cyberbullying</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table 1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Means and standard deviations of the frequencies of students’ involvement in the different types of cyberbullying as victims by gender</strong></td>
<td></td>
</tr>
<tr>
<td>Type of cyberbullying</td>
<td>Gender</td>
</tr>
</tbody>
</table>
Parenting style and cyberbullying

A median split on responsiveness and demandingness scores was used to categorize respondents as having authoritative, neglectful, indulgent, or authoritarian parents. As can be seen in Table 3, 85 students had neglectful parents, 95 students had indulgent parents, 67 students had authoritarian parents, and 140 students had authoritative parents.

<table>
<thead>
<tr>
<th>Type of cyberbullying</th>
<th>Boys Mean</th>
<th>Boys Standard deviation</th>
<th>Girls Mean</th>
<th>Girls Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harassment</td>
<td>0.25</td>
<td>0.80</td>
<td>0.09</td>
<td>0.47</td>
</tr>
<tr>
<td>Denigration</td>
<td>0.29</td>
<td>0.79</td>
<td>0.18</td>
<td>0.59</td>
</tr>
<tr>
<td>Exclusion</td>
<td>0.35</td>
<td>0.76</td>
<td>0.35</td>
<td>0.76</td>
</tr>
<tr>
<td>Impersonation</td>
<td>0.24</td>
<td>0.71</td>
<td>0.14</td>
<td>0.56</td>
</tr>
<tr>
<td>Outing</td>
<td>0.13</td>
<td>0.48</td>
<td>0.10</td>
<td>0.41</td>
</tr>
<tr>
<td>Trickery</td>
<td>0.15</td>
<td>0.60</td>
<td>0.11</td>
<td>0.42</td>
</tr>
<tr>
<td>Happy slapping</td>
<td>0.14</td>
<td>0.44</td>
<td>0.07</td>
<td>0.40</td>
</tr>
<tr>
<td>Overall cyberbullying</td>
<td>0.22</td>
<td>0.45</td>
<td>0.15</td>
<td>0.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of demandingness</th>
<th>Level of responsiveness</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>95</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>140</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>152</td>
</tr>
</tbody>
</table>
The means and standard deviations of the frequencies of students’ involvement in the different types of cyberbullying as victims by parenting style are presented in Table 4. As can be seen in Table 4, in general, students with authoritarian or neglectful parents reported higher levels of cyber-victimization than students with indulgent or authoritative parents did. However, a one-way MANOVA, with parenting style as factor and the frequencies of the different types of cyberbullying as dependent variables, revealed no significant multivariate main effect for parenting style \( [\text{Wilks } \lambda = 0.928, F(21,1071.605) = 1.341, p = 0.139] \).

### Table 4

<table>
<thead>
<tr>
<th>Type of cyberbullying</th>
<th>Parenting style</th>
<th>Indulgent</th>
<th>Authoritative</th>
<th>Neglectful</th>
<th>Authoritarian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harassment</td>
<td></td>
<td>0.24</td>
<td>0.35</td>
<td>0.49</td>
<td>0.61</td>
</tr>
<tr>
<td>Denigration</td>
<td></td>
<td>0.32</td>
<td>0.36</td>
<td>0.48</td>
<td>0.56</td>
</tr>
<tr>
<td>Exclusion</td>
<td></td>
<td>0.17</td>
<td>0.17</td>
<td>0.20</td>
<td>0.29</td>
</tr>
<tr>
<td>Impersonation</td>
<td></td>
<td>0.24</td>
<td>0.29</td>
<td>0.29</td>
<td>0.27</td>
</tr>
<tr>
<td>Outing</td>
<td></td>
<td>0.21</td>
<td>0.19</td>
<td>0.27</td>
<td>0.50</td>
</tr>
<tr>
<td>Trickery</td>
<td></td>
<td>0.19</td>
<td>0.14</td>
<td>0.16</td>
<td>0.47</td>
</tr>
<tr>
<td>Happy slapping</td>
<td></td>
<td>0.06</td>
<td>0.09</td>
<td>0.08</td>
<td>0.38</td>
</tr>
<tr>
<td>Overall cyberbullying</td>
<td></td>
<td>0.20</td>
<td>0.23</td>
<td>0.28</td>
<td>0.44</td>
</tr>
</tbody>
</table>

The means and standard deviations of the frequencies of students’ involvement in the different types of cyberbullying as perpetrators by parenting style are presented in Table 5. As can be seen in Table 5, students with authoritative parents reported the lowest levels of involvement in cyberbullying as perpetrators. A one-way MANOVA, with parenting style as factor and the frequencies of the different types of cyberbullying as dependent variables, revealed a significant multivariate main effect for parenting style \( [\text{Wilks } \lambda = 0.899, F(21,1062.990) = 1.903, p = 0.008] \).

Given the significance of the overall test, the univariate main effects were examined. As can be seen in Table 5, significant univariate main effects for parenting style were obtained for all seven types of cyberbullying, as well as for overall cyberbullying.

Finally, post hoc comparisons were performed by Bonferroni test. Significant parenting style pairwise differences were obtained in harassment with students with authoritative parents reporting higher levels of cyberbullying than students with authoritative \( (p < 0.001) \) or indulgent parents \( (p = 0.017) \); in denigration \( (p = 0.027) \), impersonation \( (p = 0.029) \) and happy slapping \( (p = 0.002) \) with students with authoritative parents reporting higher levels of cyberbullying than students with authoritative parents; in exclusion \( (p = 0.017) \), outing \( (p = 0.010) \) and trickery \( (p = 0.016) \) with students with neglectful parents reporting higher levels of cyberbullying than students with authoritative parents; and in the overall cyberbullying with students with authoritative parents reporting lower levels of cyberbullying than students with neglectful \( (p < 0.001) \) or authoritarian parents \( (p < 0.001) \).

### Table 5

<table>
<thead>
<tr>
<th>Type of cyberbullying</th>
<th>Parenting style</th>
<th>Indulgent</th>
<th>Neglectful</th>
<th>Authoritative</th>
<th>Univariate tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harassment</td>
<td></td>
<td>0.04</td>
<td>0.24</td>
<td>0.43</td>
<td>5.933</td>
</tr>
<tr>
<td>Denigration</td>
<td></td>
<td>0.12</td>
<td>0.36</td>
<td>0.42</td>
<td>4.014</td>
</tr>
</tbody>
</table>
Gender differences in the reporting of cyber-victimization incidents

The majority of students (80.7%) – more girls than boys \( \chi^2(1, n = 281) = 5.982, p = 0.014 \) – stated that they report incidents of being cyber-bullied to friends, the 49.4% of the students stated that they report such incidents to their parents, and only the 3.2% of the students stated that they report incidents of cyber-victimization to teachers. Notably, the 4.0% of the students do not report incidents of cyber-victimization.

Parenting style differences in the reporting of cyber-victimization incidents

Of those students who reported incidents of cyber-victimization to their parents, the majority (47.6%) had authoritative parents, the 28.2% had indulgent parents, the 12.4% had neglectful parents, and the 11.8% had authoritative parents \( \chi^2(3, n = 379) = 34.56, p<0.001 \). Reporting of cyber-victimization incidents to friends or teachers was not related to parenting style.

Parental level of education differences in cyberbullying

The one-way MANOVA, with parental level of education as factor, revealed no significant multivariate main effect for parenting style neither on the frequencies of the different types of cyberbullying nor on the reporting of cyberbullying incidents.

Discussion

One of the main aims of the present study was to investigate the role of gender as a cyberbullying predictor. Our research findings indicated that there are no significant gender differences, being, thus, in accordance with the results of prior research which suggest that cyberbullying is no gender-determined (Beran & Li, 2005; Dilmac, 2009; Hinduja & Patchin, 2008; Mishna, Cook, Gadalla, Dacink, & Solomon, 2010; Slonje & Smith, 2008; Ybarra, Diener-West, & Leaf, 2007; Ybarra & Mitchell, 2004; Williams & Guerra, 2007).

It seems that the nature of cyberbullying itself – no requirements for face-to-face-contact and interaction with victims – is more in line with the way in which girls express their anger (Picker, 2006). Furthermore, cyberspace helps users to hide their identity, if they wish to do so, and girls, more often than boys, take advantage of this opportunity in order to avoid gender-based judgments and evaluations. Hinduja and Patchin (2008) find quite reasonable the fact that boys and girls are equally likely to engage in cyberbullying incidents, noting that girls tend to use more verbal and indirect forms of traditional bullying, including psychological and emotional harassment, which constitute the vast majority of cyberbullying forms.

Another key objective of the present study was to investigate the interaction between parenting style and teenagers’ engagement in cyberbullying acts as bullies. Our research findings indicated that the highest incidence of engagement in cyberbullying behavior was recorded by teenagers brought up by authoritarian and neglectful parents, while the lowest was documented by teenagers brought up by authentic parents. It seems that teenagers who have experienced parental rejection and lack of communication are more likely to cyberbully others in an attempt to gain the freedom, the attention, the “power” or the “recognition” that they lack in their relations with their parents. Bullies brought up mainly by authoritarian parents use more aggressive ways of cyberbullying, projecting thus their inner need for power and domination and maybe their feelings of anger and frustration, as a reaction to the lack of parental attention, love and acceptance (Dilmac & Aydoğan, 2010). This finding echoes prior research (Dilmac & Aydoğan, 2010; Ybarra & Mitchell 2004), which identifies parental behavior as a significant predictor of cyberbullying occurrence.

Our research hypothesis that children of authentic parents are expected to exhibit lower victimization levels in comparison with children of authoritarian or neglecting parents was not confirmed by our research results. Although students brought up by authoritarian or neglecting parents showed higher levels of victimization by

<table>
<thead>
<tr>
<th>Type</th>
<th>Exclusion</th>
<th>Impersonation</th>
<th>Outing</th>
<th>Trickery</th>
<th>Happy slapping</th>
<th>Overall cyberbullying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>0.23</td>
<td>0.06</td>
<td>0.04</td>
<td>0.04</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Mean</td>
<td>0.28</td>
<td>0.18</td>
<td>0.06</td>
<td>0.09</td>
<td>0.08</td>
<td>0.14</td>
</tr>
<tr>
<td>Variance</td>
<td>0.54</td>
<td>0.24</td>
<td>0.23</td>
<td>0.25</td>
<td>0.12</td>
<td>0.28</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.48</td>
<td>0.32</td>
<td>0.20</td>
<td>0.23</td>
<td>0.26</td>
<td>0.33</td>
</tr>
<tr>
<td>Probability</td>
<td>0.009</td>
<td>0.025</td>
<td>0.003</td>
<td>0.008</td>
<td>0.004</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Control</td>
<td>0.030</td>
<td>0.025</td>
<td>0.036</td>
<td>0.031</td>
<td>0.035</td>
<td>0.076</td>
</tr>
</tbody>
</table>
cyberbullying in comparison with those raised up by permissive or authentic parents, their relevant differences were not statistically significant. It seems that an authentic parenting style is not a significant factor of children protection against their victimization. The role of authentic parenting style is perhaps of particular importance within a next stage, where there is an increased probability that children raised up by authentic parents will inform their parents about cyberbullying incidents asking for their help to deal with them.

The survey results have further shown that the majority of participant teenagers connect to the Internet very often – every day (54.9%) or several times a week (28.1%) – and for a long time – one to one and half hours a day (51.3%), one to three hours a day (34.8%) and even more than 3 hours daily (12.9%). This finding suggests that a great number of teenagers have a daily and extensive access to the Internet, a fact that is in accordance with the findings of previous international studies which indicated the same or even higher rates of adolescents’ internet connectivity (Dilmac, 2009; Lenhart, 2005; Subrahmaniam, Kraut, Greenfield, & Gross, 2001; Ybarra et al, 2006). This finding could be attributed to the great potential offered by the Internet, in terms of both connectivity with friends all over the world as well as of entertainment (Dilmac, 2009. Taiariol, 2010).

Provided that the most cyberbullying incidents take place within online environments (Willard, 2007), it is reasonable to assume that the majority of teens in our sample is exposed daily to the risk of cyberbullying, as it has also been demonstrated by previous studies (Dilmac & Aydoğan, 2010; Juvonen & Gross, 2008; Kite et al., 2009). Most notably, in the sample of the present study there was not a single report of no connection to the Internet, which implies the total acceptance of the internet as an indispensable tool of a modern teen’s everyday life. This conclusion has been reached by many other researchers (Lenhart, 2005; Subrahmaniam et al., 2001; Ybarra et al., 2006).

The vast majority of participating adolescents (96.4%) reported their home as the most common place for their internet connection, while very few reported the Internet Café (1.8%) or their cell phone (3.8%). This finding is inconsistent with the findings of other recent surveys conducted in different socio-cultural environments such as the USA (National On Line, as cited in Dilmac & Aydoğan, 2010) which revealed that USA teens connect to the internet equally from home and from other places. Differences in social and cultural conditions between the two countries – Greece and the USA – could possibly provide a basis for the interpretation of the significant rate differences cited above.

The results of the present study have also shown that the largest proportion of teenagers engaged in cyberbullying are victims and not bullies. Similar results are reported in studies conducted in Europe, USA and Australia (Campbell, 2005; Juvenen & Gross, 2008. Lenhart, 2007. Noret & Rivers, 2006, Raskauskas & Stolz, 2007; Smith, Mahdavi, Carvalho, & Tippett, 2006; Smith et al., 2008; Slonje & Smith, 2008; Ybarra & Mitchell, 2004), as well as in Greece (Gountsidiou & Tsiligiroglou-Fachantidou, 2008; N.E.O.I., 2009).

Regarding the willingness of our participating adolescents to report their cyberbullying experiences to their parents or to any other adult, the results of the present study indicated that teens prefer to talk about their cyberbullying experiences firstly to their friends (72.4%) and secondly to their parents (44.3%). The main tendency here is that the majority of teens do not feel comfortable to report their online problems to their parents, and that the latter do not seem to constitute their first or only choice. This outcome is entirely consistent with the existing literature on cyberbullying (Dehue et al., 2008; Fight Crime, 2006; Kowalski et al., 2008; Slonje & Smith, 2008), but inconsistent with the research findings of Smith et al. (2008) who suggest that children rarely report, if at all, the online incidents they confront to their parents. However it is worth noting that the relevant rates are higher in Greece compared to those in other countries. Furthermore, 47.6% of adolescents with authentic parents reported their Cyberbullying experiences to them, in comparison with 28.2% of adolescents with permissive or neglecting parents and 11.8% of adolescents with authoritarian parents.

It seems, therefore, that the majority of teens in our study do not easily reveal their cyberbullying experiences to their parents, a finding which has also emerged in previous research (Agatston, Kowalski, & Limber, 2007; Dehue et al, 2008; Kowalski et al., 2008; Smith et al., 2008). Many researchers (Kowalski et al., 2008) attribute this tendency to three reasons: (a) the fear that their parents forbid them to access the Internet as soon as they learn about online incidents, because of their concern that their children might be online victims again, (b) the fear that they will hear the cliché parental phrase “I told you so”, and (c) the fear that many agents will be involved in the issue and things will be even worse. Agatson et al. (2007) have also found that people who received online attacks do not report them to their parents. The main reason is that they fear that their parents would limit or totally
forbid them to have access to their favorite applications. This reason seems to apply to adolescents who have been raised up by authoritarian parents due perhaps to the lack of freedom and communication and to a punitive climate existing in the family context of these adolescents. However, there is a need for further investigation on this issue in order to make this correlation well established. Generally, international literature indicated fear as an important reason why adolescents avoid reporting cybrbullying instances to their parents (Agatson et al., 2007; Dehue et al., 2008; Olweus, 1991) and prefer to talk to a friend instead (Dehue et al., 2008; Slonje & Smith, 2008). Furthermore, the most usual reaction of parents when their children report cyberbullying to them is to limit or totally deny them access to the internet (Strom & Strom, 2005).

Finally, on the basis of our findings we can argue that the more democratic elements a parenting style includes, the easier it is for the child or adolescent to tell their parents about anything negative they confront on cyber space. On the contrary, the more authoritarian their upbringing is, the more difficult the reporting of cyberbullying to parents is. It seems that adolescents with authentic parents do not reveal their cyberbullying online experiences to their parents either, due to their belief that their parents do not have the ability to protect them against online risks. This belief may result from the fact that the vast majority of parents, regardless of their type, is not familiar enough with cyber space (Leung & Lee, 2012). This is something that children are aware of and makes them feel that their parents are characterized by low empathy levels: in other words, children will not ask for the help of a parent that is unaware of what they go through.

Regarding the concealment of online bullying, boys seem to exceed girls at a rate of 13.6%. In other words, girls seem to reveal their cyberbullying experiences more often than boys do, consistent with findings of other relevant Greek studies (Kapatzia & Syngollitou, 2007). The observed gender difference may be attributed to the sex-related stereotypes that exist for each gender. Boys do not usually reveal their victimization, fearing that they will be considered as cowards or because they want to be regarded as fearless. On the contrary, girls are usually considered to be more demonstrative and more sensitive, having thus no problem reporting their victimization and discussing it.

Regarding the cyberbullying forms in which the teens in our sample are most commonly involved either as bullies or victims, our research findings indicated that when adolescents engaged in cyberbullying as bullies, their preferable form of digital bullying was “exclusion”, while the highest levels of cyberbullying victimization were reported at the categories of “online harassment”, “denigration/defamation”, “disclosure of personal data” and “trickery”, suggesting that these are the most popular ways that today’s teenagers use to cyber bully others or when being cyber bullied by others. Previous relevant studies in Greece have identified posting of insulting photos, especially in social networking sites, and sending messages, to cell phones mainly and e-mails secondly, as the most popular forms of cyberbullying in Greece (N.E.O.I., 2009). It therefore becomes evident that cyberbullying forms which used to be popular among Greek teenagers in the past have lately been substituted by new, more aggressive ones. This shift could be attributed to the change in Greek socio-economic conditions, which in turn changed modern teenagers’ mentality, leading them to become more aggressive than in the past. This trend, however, is worthy of investigation in its own right.

In conclusion, online bullying incorporates features of a constantly and rapidly growing phenomenon and has many variables and facets that must be thoroughly addressed, in order to gain a clearer and broader knowledge of it (Kowalski et al., 2008; Patchin & Hinduja, 2006; Tokunaga, 2010; Ybarra & Mitchell, 2004).

References


