The effect of the cyberbullying awareness program on adolescents' awareness of cyberbullying and their coping skills

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Abstract

Due to the prevalence of cyberbullying in adolescence and its association with a number of negative psychosocial consequences, there is a need to develop programs to prevent this phenomenon. In this study, the aim was to examine the effect of the Cyberbullying Awareness Program on adolescents' awareness of cyberbullying and their coping skills. A total of 38 adolescents were included in the study, where 17 adolescents were assigned to the intervention group and 21 to the control group. The mean age of the adolescents was 13.8 (SD = 0.44). The Cyberbullying Awareness Program was administered to the intervention group in 10 sessions. The Cyberbullying Awareness Scale for Adolescents and Coping with Cyberbullying Scale were used as data collection tools in the study. As a result of the study, it was determined that the Cyberbullying Awareness Program was effective in increasing the awareness level of the adolescents in the intervention group about cyberbullying, as well the development of their skills to cope with cyberbullying. In line with the results of the study, suggestions are presented to educators and policy makers. It is recommended that policy makers include cyberbullying prevention programs in their national curriculums in order to increase the awareness of adolescents about cyberbullying and improve their coping skills, and these programs should be implemented by educators to children and adolescents nationwide.

Introduction

Combined with the rapid development and widespread use of information and communication technologies, the fact that today's adolescents belong to a generation that is growing up with technology is a situation that presents both advantages and disadvantages for educators and parents. Although Information and Communication Technologies (ICT) provide adolescents with advantages such as access to information and improved interpersonal relations, inappropriate use of ICT presents many dangers. In particular, the social interaction opportunities offered by the Internet and mobile phones allow bullying behaviors to go beyond the physical boundaries of the school environment and facilitate bullying in the virtual environment (Cross et al., 2016). Cyberbullying is defined as the aggressive and deliberate actions performed by a group or individual repeatedly over time, using electronic communication forms, towards a victim who is unable to defend him/herself (Smith et al., 2008).

Cyberbullying, which is one of the risks that arises as a result of the negative use of social media and the Internet, is accepted as an important public health problem as a result of its high prevalence (Ridell et al., 2018; Espelage et al., 2018). Studies conducted in various countries emphasize that cyberbullying is a common phenomenon during adolescence (Calvete et al., 2010; Schneider et al., 2012; Garaigordobil, 2015; Gimenez Gualdo et al., 2015; Pereira et al., 2016; Brochado et al., 2017). It is stated that the prevalence of cyberbullying among adolescents varies between 1% and 41%, whereas the prevalence of cyber-victimization ranges between 3% and 72% (Selkie et al., 2016). Similar results have been found in studies conducted in Turkey, and it is stated that cyberbullying is common in adolescence. Research results indicated that 25.5% of adolescents

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experience cyber victimization and 40.8% engage in cyber-bullying themselves (Topçu & Erdur Baker, 2016; Beyazıt et al., 2019).

Although there is no physical interaction between the bully and the victim in cyber bullying acts, cyber victimization negatively affects the development and life of adolescents emotionally, psychologically, academically and socially. The psychological and emotional aspects of cyber victimization include depression, depressive symptoms and anxiety (Perren et al., 2010; Wang et al., 2011; Kowalski & Limber, 2013; Landoll et al., 2015), stress (Kubiszewksi et al., 2015), suicide and suicidal ideation (Hinduja & Patchin, 2010; Bonana & Hymel, 2013), low self-perception (Brewer & Kerslake, 2015; Urano et al., 2020), and substance abuse risk (Díaz & Fite, 2019). Depending on the psychological and emotional effects of cyber victimization, psychosomatic symptoms are observed in cyber victims (Li et al., 2019). Although cyberbullying occurs outside the school environment, unlike traditional bullying, it is stated that cyber victimization negatively affects perceived school climate, academic achievement and school engagement (Bayar & Uçanok, 2012; Wigderson & Lynch, 2013; Cross et al., 2015). Cyber victimization also negatively affects important social development processes such as socialization and peer relationships related to adolescence. It is stated that cyber victims experience problems such as avoiding making new friends and distrusting people (Crosslin & Crosslin, 2014). It has been determined that cyber victimization in adolescence is negatively related to perceived social support and social competence (Olenik-Shemesh & Heiman, 2016). Studies have shown that cyberbullying also has negative consequences for perpetrators. It is stated that engagement in cyberbullying perpetration is associated with high levels of depressive symptoms and depression (Wang et al., 2011; Camphell et al., 2012). Engaging in cyberbullying as a victim or perpetrator is a predictor of both depressive symptoms and suicidal ideation (Bonana & Hymel, 2013). Cyberbullying perpetration is associated with perceived difficulties, hyperactivity, conduct problems, low prosocial behavior, substance use, headache, and not feeling safe at school (Sourander et al., 2010). Cyberbullying perpetration is negatively associated with perceived social support and positively associated with proactive aggressiveness (Calvete et al., 2010).

It is claimed that the negative effects of cyber victimization are related to the coping strategy adopted by the victims. In other words, it is stated that the negative emotions experienced by the victims who adopt an ineffective coping strategy are more intense (Jacobs et al., 2014; Elipe et al., 2017; Beyazıt et al., 2021). For example, seeking social support from family and peers, one of the strategies used to cope with cyberbullying, reduces depressive symptoms,

while confronting the bully increases the likelihood that victims will experience depression (Machmutow et al., 2012). It is stated that when the majority of adolescents experience cyber victimization, they do nothing (Li, 2010) and ignore the bullying (Smith et al., 2008), even though they experience negative feelings. Avoidant focused strategies such as ignoring and the adolescent thinking that they cannot do anything increase the prevalence of cyberbullying and cause negative consequences that harm the mental health of adolescents (Hoff & Mitchell, 2009). The coping styles of adolescents with cyberbullying are suggested to be related to their emotion regulation skills. Adolescents who are cyber victims use ineffective coping strategies such as retaliation, ignoring, and accepting the situation when they cannot adaptively regulate the negative emotions they experience as a result of cyberbullying (Jacobs et al., 2014; Den Hamer & Konijn, 2016; Trompeter et al., 2018; Arato et al., 2022). In addition to emotion regulation skills, online security skills (i.e. managing online privacy, ensuring personal security), in other words digital literacy skills, are an important factor in the use of effective coping strategies with cyberbullying (Vandoninck et al., 2013). Equipping potential and actual victims of cyberbullying with effective coping strategies requires interventions based on both theory and evidence (Jacobs et al., 2014).

Considering the negative effects of cyberbullying in adolescence, it is important to examine the motivations of adolescents to exhibit cyberbullying in order to prevent cyberbullying. It is stated that cyberbullying is performed for reasons such as entertainment, jokes, revenge, jealousy, retaliation, moral disengagement, pro-bullying attitudes, to attain high levels of peer status and to display their technological skills, and that some adolescents do not characterize cyberbullying as bullying (Smith et al., 2008; Topçu et al., 2008; Vandebosch & Van Cleemput, 2008; Wright, 2017; Yurdakul & Bütün Ayhan, 2021). Aggressive behavior can sometimes occur as a result of the motivation to attain a higher social status within the peer group. The non-anonymous display of cyberbullying in a particular social group may result from the desire to attain high levels of social status (Wright, 2017). However, the relationship between traditional bullying and cyberbullying suggests that some people may engage in cyberbullying as a way of retaliating for traditional bullying victimization (Hemphill et al., 2012; Kowalski et al., 2014). Individuals who are unable to retaliate in face-to-face situations due to the lack of physical strength, shyness or low self-esteem may feel more comfortable online (Law et al., 2012). The reason why adolescents claim that the reason that cyberbullying is only perpetrated for entertainment and joking could also be due to moral disengagement. Moral disengagement is used to decrease the seriousness of the consequences of the bullying behavior

and to provide justification for it (e.g., by saying it was only a joke) (Bandura, 1999; Hymel & Bonanno, 2014). According to Pornari & Wood (2010), moral disengagement is a predictor of cyberbullying perpetration. Perpetrators may engage in moral disengagement such that their aggressive actions are more well-intentioned, the consequences are less harmful, or the bullying is caused by the victim's deserving behavior (Bauman, 2010; Lazuras et al., 2013; Kowalski et al., 2014). Perpetrators feel less guilt or shame as a result of ignoring or distorting the consequences of their harmful behavior (Pornari & Wood, 2010). Due to the lack of face-to-face communication in the virtual environment, cyberbullies or bystanders who witness cyberbullying cannot directly observe the negative effects of cyberbullying acts on the victim. This situation causes cyberbullies or bystanders to have a lack of empathy with the victim and to be less aware of the consequences of cyberbullying compared to traditional bullying (Solanje & Smith, 2008; Steffgen et al., 2011). Antisocial behaviors such as cyberbullying are considered to be the result of an individual's lack of awareness of the negative consequences of their own behavior. This lack of empathy and awareness of the consequences of one's own actions can be exacerbated in the cyber world, where there is often no direct contact with the victim (Baldry et al., 2018). It is stated that interacting anonymously on the Internet leads to low self-awareness in individuals and may cause them to react impulsively and aggressively towards other people in the online environment (Arıcak et al., 2008). Adolescents' awareness of the consequences of their cyberbullying behaviors is thought to be an important factor in shaping their anti-bullying attitudes. According to Theory of Planned Behavior (Ajzen, 1991), the strongest predictor of the intention to engage in cyberbullying is the attitudes towards cyberbullying (Heirman & Walrave, 2012). It is emphasized that attitudes are influenced by the knowledge and beliefs that individuals have about a behavior. Positive attitudes towards a behavior increase the tendency to exhibit the behavior. Accordingly, adolescents' positive attitudes towards cyberbullying, such as jokes and entertainment, increase their cyberbullying tendency (Ajzen, 1991; Heirman & Walrave, 2012; Barlett et al., 2014). In addition to reducing their cyberbullying tendencies, anti-bullying behaviors in adolescents are effective in terms of supporting a victim when they witness cyberbullying and thus ending the bullying by reducing the rewards of the bullies (Williford et al., 2013). In this respect, it is important to focus on transforming the positive attitudes of adolescents towards cyberbullying such as jokes and entertainment into anti-bullying attitudes aimed at preventing cyberbullying in adolescence. It is thought that the reason why adolescents state that cyberbullying is done for reasons such as entertainment and jokes and that they do not describe these behaviors as

bullying (Vandebosch & Van Cleemput, 2008) is due to their low level of awareness about the negative consequences of cyberbullying.

Increasing the awareness of adolescents about cyberbullying is seen as a priority in studies conducted on methods of preventing and intervening in cyberbullying, which negatively affects adolescents (Ayas et al., 2015). In addition, the fact that adolescents are knowledgeable and aware of the possible risks of cyberbullying that they may encounter in the online environment is decisive in terms of taking preventive measures to protect and cope with cyberbullying (Altundağ & Ayas, 2020). Considering the prevalence and negative effects of cyberbullying in adolescence, studies are needed to prevent cyberbullying and to develop effective coping skills that enable adolescents to be less affected by the negative consequences of cyberbullying. It is seen that programs to prevent cyberbullying are implemented in adolescence in various countries around the world (e.g., KiVA, Media Heroes Program). The results of programs that focus on supporting adolescents' ability to empathize with victims, develop anti-bullying attitudes, and increase their level of knowledge about Internet risks and safety are promising. Prevention programs also assist by providing strategies that help victims protect themselves against victimization (Williford et al., 2013; Wölfer et al., 2014; Cross et al., 2016). It has been determined that the KiVA program, which focuses on supporting the skills of empathizing with victims and increasing the bystanders' punishing attitudes of the cyberbullies, is effective in preventing cyberbullying. The KiVa Program focuses on increasing the empathy, self-efficacy, and antibullying attitudes of bystanders, who are neither perpetrators nor victims. The aim of the program is to enable bystanders to show that they are opposed to bullying and to make them support victims rather than encourage bullies (Williford et al., 2013). In another study, it was found that the Media Heroes Program was effective in preventing cyberbullying by supporting adolescents' ability to empathize with victims and increasing their awareness of Internet safety and risks (Wölfer et al., 2014). The theoretical basis of the Media Heroes Program, which was developed to prevent cyberbullying in adolescence, is based on the Theory of Planned Behavior. The program aims to change attitudes and beliefs towards cyberbullying by providing information on the definition of cyberbullying acts, online security options, legal rights and the impact of cyberbullying on the victim. In addition, the program aims to promote empathy with the victim and perspective-taking skills (Wölfer et al., 2014; Schultze-Krumbholz et al., 2016).

Developing a cyberbullying prevention program in accordance with the society's cultural characteristics and education system is seen as an important factor in the effectiveness of the program. It is noteworthy that in Turkey,

cyberbullying prevention and intervention programs are mostly carried out in the form of group therapy targeting adolescents who are cyberbullies or cyber victims, and they are applied to adolescents studying at high school (Tanrıkulu, 2013; Özbay, 2017; Akyüz & Koç, 2020). The fact that cyberbullying programs in Turkey target cyberbullies and cyber victims suggests that they are applied to intervene after the cyberbullying behavior has been exhibited. Considering the effects of social norms and bystanders on cyberbullying behaviors, there is a need for preventive programs that target bystanders as well as victims and bullies, while the aim should be to prevent cyberbullying before it occurs. In addition, most of the cyberbullying prevention and intervention programs in Turkey are targeted at high school students. Considering the research results (Ayas & Horzum, 2012; Camphell et al., 2012) showing that the prevalence of cyberbullying peaks in adolescents in the 13–14 age group, it is thought that this age group is particularly at risk in terms of the negative effects of cyberbullying. In this respect, it can be said that the high school period is potentially too late to prevent and minimize the negative consequences of cyberbullying, and younger age groups should be targeted for early intervention. Some programs developed to prevent cyberbullying in Turkey include other topics (e.g., abuse, peer pressure, respect, honesty, tolerance) besides cyberbullying (Peker, 2013; Nedim-Bal & Kahraman, 2015). It is thought that the focus of these programs moves away from cyberbullying and remains superficial in terms of the prevention of such behavior. In this study, the Cyberbullying Awareness Program was developed in order to increase the awareness of adolescents about cyberbullying and to improve their coping skills. The Cyberbullying Awareness Program differs from other programs in that it targets secondary school students, its content is specific to cyberbullying, and it focuses on the anti-bullying attitudes of bystanders as well as perpetrators and victims. In addition, the program has a preventive nature as it aims to prevent cyberbullying before it occurs.

The present study includes the theoretical background, structure, content and evaluation of the Cyberbullying Awareness Program.

Cyberbullying awareness program

The Cyberbullying Awareness Program targets secondary school students. The program is a modularized, school-based and theoretically-based cyberbullying prevention program. It is built on certain theoretical foundations as well as research results on cyberbullying. The theoretical background of the program is based on the Theory of Planned Behavior (Ajzen, 1991) and Social Cognitive Theory

(Bandura, 1989). The reason why the program builds on these theoretical approaches is that these models successfully explain aggressive behavior and cyberbullying (Heirman & Welrave, 2012; Wölfer et al., 2014; Williford et al., 2013).

According to Theory of Planned Behavior (TPB), an individual's knowledge and beliefs about a behavior shape her/his attitudes towards that behavior. Attitudes towards behavior determine the tendency to exhibit the behavior. The strongest predictor of cyberbullying intention was stated as positive attitudes towards cyberbullying. Other components of TPB are subjective norms and perceived behavioral control. Subjective norms refer to the social pressure that an individual perceives to perform the behavior. When the individual thinks that significant others will react negatively to the cyberbullying conduct, this will reduce their motivation to engage in such behavior. Perceived behavioral control refers to the fact that adolescents who perceive cyberbullying as easy to perform are more inclined to exhibit these behaviors (Ajzen, 1991; Heirman & Walrave, 2012). In this context, increasing the awareness of adolescents about the negative consequences of cyberbullying is considered to be an important factor in the formation of negative attitudes towards cyberbullying and thus reducing their cyberbullying tendencies. According to Social Cognitive Theory, it is stated that bullying behaviors are motivated by the desire to seek social reputation and status in peer groups. Bystanders who witness bullying can contribute to the perpetuation of bullying by providing bullies with the social reputation they seek and reinforcing their actions. Bystander support for victims can reduce bullies' motivation to commit bullying acts by reducing the rewards they receive for their status seeking and social reputation. It is stated that the way that bystanders react to bullying is effective in maintaining or ending the bullying (Williford et al., 2013). It is stated that when a bystander is aware of the harmful consequences of bullying for the victim, they intervene in the bullying (Shultz et al., 2014).

Based on these theoretical models, the Cyberbullying Awareness Program focuses on the attitudes and knowledge levels of adolescents towards cyberbullying. There are two reasons for focusing on adolescents' attitudes towards cyberbullying in order to prevent cyberbullying. First, adolescents' anti-cyberbullying attitudes can reduce their motivations and tendencies towards cyberbullying. Secondly, the fact that adolescents have anti-cyberbullying attitudes may be effective in reducing their support for perpetrators and thus shaping the perpetrators' subjective norms. The program aims to raise the awareness of adolescents about cyberbullying act, the negative effects of cyberbullying on the victim and legal rights. It is thought that increasing the knowledge and awareness levels of adolescents about

cyberbullying will be effective in the development of their attitudes towards cyberbullying. In addition, the program includes the development of social skills such as empathy, social and virtual communication skills, as well as social responsibility. In this context, the Cyberbullying Awareness Program aims to prevent cyberbullying by focusing on adolescents' awareness of the negative consequences of cyberbullying for victims, ability to empathize with the victim, and anti-bullying attitudes. It is thought that increasing the awareness level of adolescents about the harmful consequences of cyberbullying will be effective in terms of taking preventive measures to protect against cyberbullying in the Internet environment. In addition, the program aims to develop adolescents' skills, including helping and coping strategies, when faced with cyberbullying behaviors directed towards themselves or others on the Internet.

After the literature review and the theoretical basis were completed, the content of the Cyberbullying Awareness Program was created. The content, learning methods, educational environment and activities of the Cyberbullying Awareness Program, which was prepared in accordance with a child-centered design, were prepared in a way that was designed to ensure the active participation of adolescents. The content of the program is based on an active learning and active participation approach. In parallel with this approach, adolescents took part in the program implementation process not as passive listeners, but as active participants who could shape their own learning.During the program, adolescents were asked to participate in group discussions, explain their views, and make connections between their experiences and the topics in the program. In this direction, active learning methods such as question-answer, discussion, game, case study, role playing, animation, mind map, brainstorming, story formation, station, and still image were used in the program.

Objectives and hypotheses of the study

The aim of the present study was to examine the effect of the Cyberbullying Awareness Program on adolescents' awareness of cyberbullying and their coping skills.It has been hypothesized that the Cyberbullying Awareness Program will reduce the cyberbullying tendencies of adolescents, while also enabling them to improve their awareness about and protect themselves from cyberbullying (H1). It has also been hypothesized that the Cyberbullying Awareness Program will improve the skill and competence level of the intervention group in effective coping strategies from pre to post test (H2). It was also hypothesized that the effect of the program would continue when it was retested (follow-up test) three weeks after the completion of the program (H3).

Method

Participants

The study participants comprised 38 adolescents studying in the eighth grade of secondary schools affiliated to the Provincial Directorate of National Education in the city center of Antalya/Turkey in the 2019–2020 academic year. In the study, before starting the implementation of the program, the "Cyberbullying Awareness Scale for Adolescents" and "Coping with Cyberbullying Scale" were applied to determine the extent of the participants' awareness and coping skills regarding cyberbullying (Pre-test). In the study, a pre-test was administered to a total of 47 adolescents, where 22 adolescents were in the intervention group and 25 adolescents in the control group. After the pre-test application was completed, the Cyber Bullying Awareness Program was administered to the intervention group in 10 sessions, two days a week for five weeks. After the program implementation was completed, the post-test was administered to 17 adolescents in the intervention group and 21 adolescents in the control group. During the program and post-test application, five adolescents in the intervention group and four adolescents in the control group could not participate in the post-test application due to school changes and absenteeism. Thus, the study was completed with a total of 38 adolescents (17 in the intervention group and 21 in the control group). The follow-up test was administered to 17 adolescents in the intervention group three weeks after the post-test. In the study, 41.2% (n = 7) of the adolescents in the intervention group were girls, 58.8% (n = 10) were boys, 29.4% (n = 5) were 13 years old, and 70.6% of them (n = 12) were 14 years old (Mean age = 13.8 years, SD = 0.56). Of the adolescents in the control group, 47.6% (n = 10) were girls, 52.4% (n = 11) were boys, 9.5% (n = 2) were 13 years old, and 90.5% (n = 19) were 14 years old (Mean age = 13.9 years, SD = 0.30).

Materials

Individual information form

In the study, the Individual Information Form prepared by the researcher was used to determine the demographic characteristics of the adolescents and their families. The Individual Information Form consists of questions about age, gender and whether the adolescent has been involved in cyberbullying before (as a victim, perpetrator or bully/victim).

Cyberbullying awareness scale for adolescents

In the study, the Cyberbullying Awareness Scale for Adolescents developed by Yurdakul (2020) was used to determine the awareness levels of adolescents about cyberbullying. The Cyberbullying Awareness Scale for Adolescents consists of three sub-dimensions namely "Cyberbullying Tendency, Coping with Cyberbullying and Protection from Cyberbullying", with a total of 21 items. Total points are not taken from the scale and each sub-dimension is scored within itself. The items in the scale are scored as *"I completely disagree (1), I do not agree (2), I am indecisive (3), I agree (4), I completely agree (5)"*. The Cyberbullying Tendency sub-dimension consists of 11 items (e.g., *"I enjoy making comments that make fun of my friends below photos shared on social media"*) and possible scores range between 11 and 55 points. Increased scores obtained from the Cyberbullying Tendency sub-dimension indicate that the adolescents have positive attitudes towards cyberbullying and that the cyberbullying tendency is high. The Coping with Cyberbullying sub-dimension consists of five items (e.g., *"I have information about the institutions to whom I can complain if I am exposed to disturbing behavior on the Internet"*) and possible scores vary between 5 and 25. An increase in the scores obtained in the Coping with Cyberbullying sub-dimension indicates that the level of knowledge and awareness of adolescents about coping with cyberbullying is high. The Protection from Cyberbullying sub-dimension consists of five items (e.g., *"I consider that people can communicate by hiding their real identities on the Internet"*) and the scores vary between 5 and 25. An increase in the Protection from Cyberbullying sub-dimension shows that adolescents have a high level of awareness regarding how they can protect themselves from cyberbullying. The Cronbach's alpha coefficient of the Cyberbullying Tendency sub-dimension of the Cyberbullying Awareness Scale for Adolescents is 0.80, the Cronbach's alpha coefficient of the Coping with Cyberbullying sub-dimension is 0.76, and the Cronbach's alpha coefficient of the Protection from Cyberbullying sub-dimension is 0.63 (Yurdakul, 2020). In the present study, the Cronbach's alpha coefficient of the Cyberbullying Tendency sub-dimension is 0.82, the Cronbach's alpha coefficient of the Coping with Cyberbullying sub-dimension is 0.70, and the Cronbach's alpha coefficient of the Protection from Cyberbullying sub-dimension is 0.71.

Coping with cyberbullying scale

The scale was originally developed by Koç et al. (2016) to determine the strategies used by adolescents in the 15–18 age group to cope with cyberbullying. The scale consists of 19 items in four dimensions: Increasing Cognitive Security and Confidentiality (7 items), Seeking Help (5 items), Avoidance and Ignoring (5 items), and Information Searching (2 items). The Cronbach's alpha coefficient for the Increasing Cognitive Security and Confidentiality sub-dimension is 0.65, the Seeking Help sub-dimension Cronbach's alpha coefficient is 0.76, the Avoidance and Ignoring sub-dimension Cronbach's alpha coefficient is 0.73, and the Cronbach's alpha coefficient of the Information Searching sub-dimension is 0.63. The Cronbach's alpha coefficient for the overall scale in the original study is 0.75 (Koç et al., 2016).

The Coping with Cyberbullying scale was adapted for use with adolescents in the 12–14 age group. The secondary school form of the Coping with Cyberbullying Scale consists of three sub-dimensions and 17 items: "Seeking Help and Information, Increasing Cognitive Security and Confidentiality, and Avoiding and Ignoring". Items in this scale are graded as *"I completely disagree (1), I do not agree (2), I am indecisive (3), I agree (4), I completely agree (5)"*. Total points are not taken from the scale and each sub-dimension is scored within itself. The Seeking Help and Information sub-dimension consists of nine items (e.g., *"I would like help from my friends"*). Scores from the Seeking Help and Information sub-dimension range from 9 to 45 points, and high scores from this dimension indicate that adolescents use coping strategies for seeking help and information when faced with cyberbullying. The Increasing Cognitive Security and Confidentiality sub-dimension consists of four items (e.g., *"I will remove you from my friend list"*). Scores from the sub-dimension of Increasing Cognitive Security and Confidentiality vary between 4–20 points, and high scores from this dimension indicate that adolescents use technological solutions as coping strategies more frequently when faced with cyberbullying. The Avoidance and Ignoring sub-dimension consists of four items (e.g., *"I delete incoming messages without reading them"*). Scores from the Avoidance and Ignoring sub-dimension range from 4–20 points, and high scores from this dimension indicate that adolescents prefer avoidant coping strategies more frequently when faced with cyberbullying. It has been determined that the Cronbach's alpha coefficient of the Seeking Help and Information sub-dimension is .78, the Cronbach's alpha coefficient of the Increasing Cognitive Security and Confidentiality sub-dimension is .56, and the Cronbach's alpha coefficient of the Avoidance and Ignoring sub-dimension is .47 (Yurdakul, 2020). In the present study, the Cronbach's alpha coefficient for the overall scale is .75.

Procedure

In the study, a quasi-experimental design was used, including the measurements of the intervention and control groups and pre test-post test-follow-up test. In the research, the independent variable is the Cyberbullying Awareness Program, while the dependent variables are the adolescents' awareness of cyberbullying and their ability to cope with cyberbullying.

Firstly, ethics committee approval (No. 56786525-050.04.04/ 67,272) and institutional permission were obtained from Ankara University and the Antalya Provincial Directorate of National Education, respectively. Permission was obtained from the scale authors to use the Coping with Cyberbullying Scale in the study. After obtaining the necessary permissions, the Cyberbullying Awareness Program was developed. In the program development process, a literature review was firstly conducted and cyberbullying prevention and intervention programs developed and implemented around the world for adolescents were examined in terms of content, method and application. Studies on cyberbullying and theories and models for cyberbullying were also examined. The theoretical background of the program is based on the Theory of Planned Behavior (Ajzen, 1991) and Social Cognitive Theory (Bandura, 1989). The prepared Cyberbullying Awareness Program was presented to six experts to obtain their opinions, which included five faculty members in the fields of child development, guidance and psychological counseling, measurement and evaluation as well as a school counsellor. The opinions and suggestions of the experts were evaluated, necessary arrangements were made and the final version of the program was created. The Cyberbullying Awareness Program consists of 14 group sessions, each of which lasts 40 min, and is planned to be implemented for 7 weeks, two sessions per week (Appendix 1). After the program was developed, interventionand control groups were formed.

While forming the participant groups, a list of secondary schools in the central districts was obtained from the Provincial Directorate of National Education. Data on the socioeconomic level of schools were obtained from the Turkish Statistical Institute (TSI). According to the opinions of the Provincial Directorate of National Education and TSI data, secondary schools in the middle socioeconomic level were determined. By examining the websites of the schools determined to be in the middle socioeconomic level, schools with an average class size of 20–25 students were identified. Two schools were randomly chosen from the selected schools. The reason for including two different schools in the study was so that classes that would form the intervention and control groups would not be affected by each other during the program implementation process. For this reason, the classes that made up the intervention and control groups were selected from different schools. The reason why the maximum number of students in the classes that would form intervention and control groups was fixed at 25 was to ensure the active participation of all participants in the program implementation process, to enable each participant to express their feelings, thoughts and opinions, and for the researcher to manage the program implementation process effectively. It was considered that if there were more than 25 students in the groups, this could have prevented the participants in the intervention group from actively participating in the program implementation process and would have made it difficult for the researcher to control the education process. Among the two determined secondary schools, one was randomly selected as the intervention group and the other as the control group. The implementation process was planned by interviewing the school administrators of the selected schools. In the secondary school chosen as the intervention group, the class that would form the intervention group was determined by drawing lots from among three eighth grade classes. In the school determined as the control group, the class that would form the control group was determined by drawing lots among the eight eighth grade classes.The inclusion criteria for the adolescents were having normal development, no previous participation in a cyberbullying prevention program and willingness to participate in the study. All of the adolescents in the classes determined as the intervention group and control group showed normal development and volunteered to participate in the study.

First of all, the adolescents in the intervention and control group and their families were informed about the purpose of the study, data collection tools, and the Cyberbullying Awareness Program by the researcher. In addition, it was stated to the adolescents and their families that the data collected within the scope of the research would remain confidential and would only be used for scientific study purposes. Consent forms were obtained from the adolescents who volunteered to participate in the study as well as their families. The Cyberbullying Awareness Scale for Adolescents and the Coping with Cyberbullying Scale were administered to adolescents in the intervention and control groups as a pretest on February 3, 2020. After the pre-test application was completed, the Cyberbullying Awareness Program began to be administered to the adolescents in the intervention group. The Cyberbullying Awareness Program was prepared in 14 sessions and the plan was to apply the program to the intervention group for seven weeks, two days a week, one class hour a day (40 min). When the program was in progress, it was only possible to apply 10 sessions to the intervention group, as the Ministry of National Education suspended its educational activities on 13 March 2020 due

Table 1 Pre-test, post-test and follow-up test mean scores and standard deviations of adolescents for the sub-dimensions of the Cyberbullying Awareness Scale for Adolescents

Sub-dimensions	Group	n	Pre-test		Post-test		Follow-up test	
			M	SD	M	SD	M	SD
Cyberbullying Tendency	Intervention	17	20.71	7.53	17.94	6.19	17.82	6.93
	Control	21	23.91	9.10	23.43	7.60		
Coping with Cyberbullying	Intervention	17	17.00	3.98	20.35	3.48	19.77	5.66
	Control	21	20.24	3.52	19.81	3.49		
Protection from Cyberbullying	Intervention	17	18.94	4.19	21.53	2.81	19.88	5.40
	Control	21	19.38	2.77	20.14	2.54		

to the COVID-19 epidemic. Therefore, the last four sessions of the program could not be implemented. No application was made to the control group. Due to the suspension of education and training activities as a result of the pandemic and the lockdown of individuals under the age of 20, the post-test application was made online for the intervention and control groups. In this direction, the measurement tools were first made into an online form by the researcher. Two different online message groups with adolescents were created by the teachers of the classes that formed the intervention and control groups. The researcher joined both message groups and made the necessary explanations to the adolescents. The measurement tools prepared as an online form were sent to the adolescents. The final test application was completed in March 2020. The post-test was administered to 17 adolescents in the intervention group and 21 adolescents in the control group. Five adolescents in the intervention group could not be included in the post-test application due to school changes and absenteeism during the program implementation process, and four adolescents in the control group were excluded due to the inability to reach them for the application of the post-test. Consequently, the post-test application was carried out with a total of 38 adolescents. Three weeks after the completion of the post-test application, the follow-up test was administered to the adolescents in the intervention group. The follow-up test application to the intervention group was made online due to the ongoing measures implemented within the scope of the COVID-19 outbreak. The follow-up test was completed in April 2020. During the research process, the ethical rules stated in the 1964 Declaration of Helsinki were followed.

Data analysis

SPSS 25 Program was used in the analysis of the data obtained within the scope of the research. In the analysis of the data, the data set was first examined. It was determined that there were no missing data and univariate outliers in the data set ($|z| < 3$). A normality test was performed as the preliminary analysis. Whether the data were normally distributed or not was determined by examining the Kurtosis and Skewness coefficients. When the kurtosis and skewness coefficients were examined, it was determined that the values were between -1.65 and 3.02. In order to ensure the normal distribution assumption, the skewness and kurtosis coefficients are expected to be between -1 and $+1$ (George & Mallery, 2019). According to the results obtained, it was determined that the data deviated from normal distribution. For this reason, non-parametric methods were preferred for statistical analysis of the data, and therefore, the Wilcoxon Signed-Rank Test was used.

Results

Analysis results of adolescents' awareness of Cyberbullying

The mean and standard deviations of the pre-test, post-test and follow-up test scores of the adolescents in the intervention and control groups related to the Cyberbullying Awareness Scale for Adolescents sub-dimensions are shown in Table 1.

The Wilcoxon Signed Rank Test results regarding the comparison of the pre-test, post-test and follow-up test scores of the Cyberbullying Awareness Scale for Adolescents of the adolescents in the intervention and control groups are given in Table 2.

When the pre-test and post-test scores are compared in Table 2, it can be observed that there are significant differences for all measures in the intervention group (as shown by the Wilcoxon signed-rank test results). In regard to the control group, no significant differences were found.

There is a significant difference between the pre-test and post-test scores of the Cyberbullying Tendency sub-dimension in the intervention group ($z = -2.56$; $p < .05$). When the Cyberbullying Tendency pre-test and post-test scores of the intervention group are compared, it is seen that the post-test scores ($M = 17.94$; $SD = 6.19$) are significantly lower than the pre-test scores ($M = 20.71$; $SD = 7.53$). The application of the Cyberbullying Awareness Program led to a significant decrease in the cyberbullying tendencies of the adolescents in the intervention group. A significant difference can also be observed between the pre-test and post-test scores

Table 2 Wilcoxon signed rank test results related to the comparison of the adolescent' pre, post and follow-up scores of the Cyberbullying Awareness Scale for Adolescents

Sub-dimensions	Group	n	Pre test-Post test	Post test-Follow-up Test
Cyberbullying Tendency	Intervention	17	z= -2.56; p = .011* partial η2 = 0.44	z= -0.19; p = .85
	Control	21	z= -0.41; p = .68	
Coping with Cyberbullying	Intervention	17	z= -2.03; p = .04* partial η2 = 0.35	z=-0.60; p = .55
	Control	21	z= -0.43; p = .67	
Protection from Cyberbullying	Intervention	17	z= -2.30; p = .021* partial η2 = 0.40	z= -1.51; p = .13
	Control	21	z= -1.09; p = .28	

*$p < .05$

of the adolescents in the intervention group in the Coping with Cyberbullying ($z=$ -2.03; $p < .05$) and Protection from Cyberbullying ($z=$ -2.30; $p < .05$) subdimensions. When the pre-test and post-test scores of the adolescents in the intervention group Coping with Cyberbullying sub-dimension are compared, it can be seen that the post-test scores ($M = 20.35$; $SD = 3.48$) are significantly higher than the pre-test scores ($M = 17.00.$; $SD = 3.98$). When the pre-test and post-test scores of the adolescents in the intervention group in the Protection from Cyberbullyingsub-dimension are compared, it can be seen that the post-test scores ($M = 21.53$; $SD = 2.81$) are significantly higher than the pre-test scores ($M = 18.94$; $SD = 4.19$). The Cyberbullying Awareness Program generated a significant increase in the scores for coping with cyberbullying and protection from cyberbullying of the adolescents in the intervention group. In terms of the differences between the pre-test and post-test scores, when the effect size values of the intervention group were examined according to the scores of the Cyberbullying Awareness Scale for Adolescents, it was found that the

Tendency to Cyberbullying (0.44), Coping with Cyberbullying (0.35) and Protection from Cyberbullying (0.40), it is seen that the partial eta square values in the sub-dimensions are at a moderate level.

When the post-test scores and the scores of the test applied taken three weeks later (the follow-up test scores) of the intervention group are compared, it can be seen that there are no significant differences.

Analysis results of adolescents' coping skills with cyberbullying

The mean and standard deviations of the pre-test, post-test and follow-up test scores of the adolescents in the intervention and control groups regarding the Coping with Cyberbullying Scale sub-dimensions are given in Table 3.

The Wilcoxon Signed Rank Test results regarding the comparison of the pre-test, post-test and follow-up test scores of the adolescents in the intervention and control groups regarding the Coping with Cyberbullying Scale sub-dimensions are given in Table 4:

When Table 4 is examined, it is seen that in the intervention group there is a significant difference between the pre-test and post-test scores of Seeking for Help and Information ($z=-2.14$, $p < .05$; partial η2 = 0.37) and Increasing of Cognitive Security and Confidentiality ($z=-2.28$, $p < .05$; partial η2 = 0.39) sub-dimensions. When the pre-test and post-test scores of the adolescents in the intervention group in the Seeking for Help and Information sub-dimension are compared, it is seen that the post-test scores ($M = 31.77$; $SD = 7.01$) are significantly higher than the pre-test scores ($M = 27.94$; $SD = 8.29$). When the pre-test and post-test scores of the adolescents in the intervention group in the Increasing Cognitive Security and Confidentiality sub-dimension are compared, it is seen that the post-test scores ($M = 16.82$; $SD = 2.63$) are significantly higher than the pre-test scores ($M = 14.41$; $SD = 3.41$). The Cyberbullying Awareness Program caused a significant increase in the Seeking for Help and Information and Increasing Cognitive Security and Confidentiality scores of the adolescents in the intervention group.In regard to the Avoidance and Ignore

Table 3 Adolescents' pre-test, post-test and follow-up test mean scores and standard deviations for thesub-dimensions of the Coping with Cyberbullying Scale

Sub-dimensions	Group	n	Pre-test		Post-test		Follow-up test	
			M	SD	M	SD	M	SD
Seeking Help and Information	Intervention	17	27.94	8.29	31.77	7.01	31.41	10.24
	Control	21	26.81	6.13	28.38	7.36		
Increasing Cognitive Security and Confidentiality	Intervention	17	14.41	3.41	16.82	2.63	16.18	4.33
	Control	21	16.76	2.43	16.91	1.84		
Avoidance and İgnoring	Intervention	17	9.29	2.99	8.94	3.15	9.82	3.25
	Control	21	8.95	2.89	8.43	2.25		

Table 4 Wilcoxon signed rank test results related to the comparison of the adolescents' pre, post and follow-up scores of the Coping with Cyberbullying Scale

Sub-dimensions	Group	n	Pre test-Post test	Post test-Follow-up test
Seeking Help and Information	Intervention	17	z= -2.14; p = .032* partial η2 = 0.37	z= -0.05; p = .96
	Control	21	z= -1.51; p = .13	
Increasing Cognitive Security and Confidentiality	Intervention	17	z= -2.28; p = .023* partial η2 = 0.39	z= -0.22; p = .82
	Control	21	z= -0.03; p = .98	
Avoidance and Ignoring	Intervention	17	z= -0.59; p = .55	z= -1.34; p = .18
	Control	21	z= -0.41; p = .68	

*p < .05

sub-dimensions, no significant differences were found ($z = -0.59; p > .05$). In this respect, it can be stated that the Cyberbullying Awareness Program did not cause a significant effect on the Avoidance and Ignoring sub-dimension scores of the adolescents in the intervention group. When the effect size value is examined according to the sub-dimensions of the Coping with Cyberbullying Scale, it is seen that the partial eta square values in the sub-dimensions of Seeking Help and Information (0.37) and Increasing Cognitive Security and Confidentiality (0.39) are moderate. In regard to the control group, no significant differences were found.

When the post and follow-up test scores of intervention group are compared, it is seen that there are no significant differences. It was determined that the effect of the Cyberbullying Awareness Program continued three weeks after the program was completed.

Discussion

In the study, the aim was to examine the effect of the Cyberbullying Awareness Program on the awareness of adolescents about cyberbullying and their coping skills. For this purpose, 10 sessions of the Cyberbullying Awareness Program were applied to the intervention group, two days a week for five weeks. Our results have shown that the Cyberbullying Awareness Program reduced the tendency of adolescents towards cyberbullying, and increased their awareness levels for coping with and protecting themselves from cyberbullying (H1). Also, the results of the present study have demonstrated that the Cyberbullying Awareness Program was effective in improving the knowledge and competence levels of the intervention group in terms of effective strategies for coping with cyberbullying (H2). The

effect of the program continued when a re-test was administered three weeks after (follow-up test) the completion of the program (H3). No significant differences were observed in the control group.

Firstly, we hypothesized that the Cyberbullying Awareness Program would reduce the cyberbullying tendency of adolescents and improve their awareness of coping with and protecting themselves from cyberbullying. Our results confirmed hypothesis (H1). The most important predictor of the intention to show cyberbullying behaviors, in other words, of cyberbullying tendency, is attitudes towards cyberbullying. It is stated that adolescents who have positive attitudes towards cyberbullying have a high tendency towards cyberbullying. Adolescents' awareness levels and beliefs about the consequences of cyberbullying shape their attitudes (Heirman & Walrave, 2012). Due to the lack of face-to-face communication on the Internet and the fact that cyberbullying acts do not leave a physical trace on the victims, the negative effects experienced by the victims as a result of cyberbullying cannot be directly observed by the bullies and bystanders. This situation causes the bullies and bystanders to be unable to empathize with the victim in cyberbullying acts, and to be less or not aware of the consequences of cyberbullying compared to traditional bullying (Solanje & Smith, 2008). Studies have shown that adolescents state that cyberbullying is performed for entertainment and jokes and that the victims should not experience negative emotions (Topçu et al., 2008; Vandebosch & Van Cleemput, 2008). It is thought that the positive attitudes and perceptions of adolescents towards cyberbullying, such as jokes and entertainment, are due to their low awareness of the negative consequences of cyberbullying. According to Kowalski et al. (2014), the level of awareness of adolescents about the negative consequences of cyberbullying will affect their perception, motivation and attitudes towards cyberbullying behaviors and thus their cyberbullying tendencies. It is thought that enabling them to empathize with the victims will be effective in reducing their motivation and tendency towards cyberbullying. In addition, the results of the present study showed that the Cyberbullying Awareness Program is effective in protecting adolescents from cyberbullying by assisting them with avoiding threatening and risky behaviors in the Internet environment, and in improving their awareness of effective coping skills that will enable them to be less affected by the consequences of cyberbullying when they encounter such behavior.

We hypothesized that the Cyberbullying Awareness Program would improve the knowledge and competence levels of adolescents regarding effective strategies for coping with cyberbullying. Our results partially supported hypothesis (H2). In this direction, the Cyberbullying Awareness Program applied to the intervention group was effective in

improving the coping skills of adolescents in terms of seeking social support and information as well as their ability to use technological solutions when faced with cyberbullying. However, we found that the implemented program was not effective in developing the adolescents' understanding that the use of avoidant strategies in coping with cyberbullying is ineffective. It is thought that this result of the research might be due to the inability to implement the last four sessions of the Cyberbullying Awareness Program as a result of the interruption of educational activities caused by the COVID-19 pandemic.

Adolescents use various coping strategies when they encounter cyberbullying online (Arıcak et al., 2008; Smith et al., 2008; Raskuskas & Huynh, 2015). It is stated that the coping strategy used when faced with cyberbullying reduces or strengthens the negative effects of cyberbullying (Machmutow et al., 2012; Jacobs et al., 2014). Also, previous research has revealed that the negative effects of cyberbullying on adolescents' lives are related to the coping strategy used, and that adolescents who use ineffective coping strategies are more likely to experience the negative effects of cyberbullying more intensely (Jacobs et al., 2014; Elipe et al., 2017). It is stated that the strategy of seeking help and information by asking support from family, peers or an adult in coping with cyberbullying is effective in reducing depressive symptoms, which is one of the psychological effects of cyberbullying. However, retaliation and communicating with the bully increase the probability of experiencing depression (Machmutow et al., 2012). According to Li (2010), some adolescents do not consider cyberbullying acts as bullying or do not react because they are concerned that the situation will deteriorate. Some adolescents, on the other hand, think that they can do nothing and try to ignore the bullying, although they experience negative emotional effects when they experience cyber victimization (Li, 2010). The fact that adolescents do not know how to deal effectively with cyberbullying and adopt avoidant-focused coping strategies increases cyberbullying acts and causes adolescents to reach dangerous levels that harm their psychological and emotional well-being (Hoff & Mitchell, 2009). Increasing the level of knowledge of adolescents on effective coping methods with cyberbullying is considered important in terms of protecting them from the negative effects of cyberbullying.

In Turkey as well as various other countries, it is seen that the programs developed purely to improve the skills of adolescents to cope with cyberbullying are limited, but the cyberbullying prevention programs do include content aimed at improving coping skills indirectly. Cyberbullying prevention programs include content aimed at developing indirect coping skills such as peer support, the importance of safe Internet use, conflict resolution skills, empathy,

and responsibility (Del Rey et al., 2012; Williford et al., 2013; Wölfer et al., 2014; Nedim Bal & Kahraman, 2015; Chaux et al., 2016; Cross et al., 2016). Similar results were obtained in the programs aimed at improving adolescents' coping skills with cyberbullying. It has been revealed that a program for school counselors focused on coping with and raising awareness about cyberbullying was effective in the development of teachers' skills in coping with cyberbullying (Atundağ & Ayas, 2020). The ConRed Program, which was developed to prevent cyberbullying in adolescence, increased adolescents' awareness of the strategies they could use for controlling the content they shared on the Internet, hiding personal information on the Internet, and online security measures, thus improving their coping skills with respect to technological solutions. The Media Heroes Program was developed in Germany in order to increase the awareness of adolescents about the legal consequences of cyberbullying and to develop their skills in helping and coping strategies. It was determined that the program is effective in terms of the development of empathy, perspective taking, self-esteem skills of adolescents and in preventing cyberbullying behaviors (Wölfer et al., 2014; Chaux et al., 2016).

Studies conducted in various countries have revealed that cyberbullying behaviors are common among adolescents (Selkie et al., 2016; Baldry et al., 2018). It is emphasized that cyberbullying has negative effects on the life and development of adolescents in terms of psychological, academic and social aspects. It is thought that the negative effects of cyberbullying will also negatively affect critical developmental processes such as gaining identity, autonomy, belonging to a group and gaining approval, as well as academic success in adolescence. It is stated that the fact that adolescents often describe cyberbullying acts as jokes and entertainment (Vandebosch & Van Cleemput, 2008; Kowalski et al., 2014) and do not perceive them to be bullying is due to their low level of awareness about the negative consequences of cyberbullying.Adolescents' evaluation of cyberbullying as a positive behavior increases their motivation and tendencies towards cyberbullying (Heirman & Walrave, 2012). In this context, increasing awareness regarding cyberbullying and the negative consequences of such behavior plays an important role in preventing cyberbullying in adolescence. In addition, increasing the level of awareness about the negative effects of cyberbullying is considered as an important factor for adolescents to take preventive measures to protect themselves from and cope with cyberbullying. Today, the prevalence of cyberbullying reaches a peak in adolescents aged 13–14, due to the ease of access to technological tools, the frequency of Internet use and the high rate of participation in social media (Ayas & Horzum, 2012; Camphell et al., 2012). Considering that this

age group is at risk of cyberbullying and the negative effects of cyberbullying stem from the adopted coping methods, it is thought that it is important for adolescents to acquire the knowledge and skills required for effective coping strategies against cyberbullying. Considering that Internet-based communication applications are increasingly prevalent in the lives of adolescents, there is a need for programs designed to increase adolescents' awareness of cyberbullying and to develop their skills to deal with this problem effectively. Our results have shown that the Cyberbullying Awareness Program is effective in increasing the awareness levels of adolescents about cyberbullying and developing their skills to cope with cyberbullying.

Limitations

Although the results obtained within the scope of the study make important contributions to the literature, they should be evaluated within the scope of the limitations of the study. The results obtained from the research are limited to 38 adolescents who were studying in the eighth grade of a secondary school in the middle socio-economic level in the city center of Antalya/Turkey. While developing the Cyberbullying Awareness Program, the developmental characteristics of adolescents were taken into account and activities that included active learning methods were created. The research was carried out with a small group (N = 38) in order to ensure the active participation of all participants in the program implementation process and for the researcher to direct the implementation process. The Cyberbullying Awareness Program developed within the scope of the study should be implemented in larger samples to provide more evidence for the effectiveness of the program. Whether the participants had experienced cyberbullying before (as a bully or victim) was not used as an inclusion criterion in the study. Since the previous experiences of the participants are likely to affect the results of the research, the inclusion criteria of the participants should include whether they have experienced cyberbullying or not. The research was started shortly before the COVID-19 pandemic began to impact Turkey. Although the Cyberbullying Awareness Program was planned to consist of 14 sessions, only 10 sessions could be implemented due to the interruption of education activities caused by the Covid-19 pandemic. The results obtained in the study are limited to the 10 sessions of the program. By applying the entire Cyberbullying Awareness Program, the effect of adolescents' awareness of cyberbullying and their ability to cope with cyberbullying should be examined. Another limitation of the study is that different data collection methods were used in the research process. In the study, the pre-test application was conducted face-to-face with the

adolescents, but the post-test and follow-up test were conducted online due to the imposition of the lockdown as part of the pandemic measures.We also did not have information about how the different data collection settings (offline and online, pre-COVID and during COVID) could have influenced our participants, their answers and their cyberbullying experiences.In the present study, all of the Cronbch's alpha values were found to be higher than 0.70. However in the original studies, the Cronbach's alpha values of some sub-dimensions of the scales were lower than 0.70. Therefore, we suggest that in future studies, the Cronbach's alpha values of these measures should be assessed and interpreted cautiously.

Conclusions

When the findings of this study were examined, it was determined that the Cyberbullying Awareness Program was effective in reducing the cyberbullying tendencies of adolescents and developing their skills to cope with cyberbullying.The results obtained in the study have shown that the level of cyberbullying awareness is an important factor in preventing cyberbullying. TheCyberbullying Awareness Program has a preventive nature as it focuses on preventing cyberbullying before it occurs. The program reduces the cyberbullying tendencies of adolescents by improving their anti-cyberbullying attitudes and also helps them develop strategies to help the victim and protect themselves against victimization.In line with the purpose of helping schools to help themselves, the Cyberbullying Awareness Program provides schools with a practical cyberbullying prevention strategy by enabling teachers to repeatedly implement the program in classrooms. Although the prevalence of cyberbullying reaches its peak in middle adolescence, it can also be seen at younger ages. Considering that younger children's technological competence is limited, an additional version of the program is needed. Therefore, our main suggestion for future studies is that the Cyberbullying Awareness Program, which has been demonstrated to be effective within the scope of this research, should be adapted to the younger age group. In addition, considering the prevalence and negative effects of cyberbullying in adolescence, it is recommended that cyberbullying prevention programs be added to the national curriculum by policy makers and implemented by teachers across the country.

Appendix

Cyberbullying Awareness Program

Session	Theme	Content
1. Let's Get to Know Each Other	Program representation Meeting	Meeting group Presentation of program (content and objectives) Discussing the expectations of the participants from the program
2. Bullying is no joke!	Traditional bullying	Definition of bullying Types of bullying Effects of victimization
3. Our Topic: Cyberbullying	Cyberbullying	Definition of cyberbullying Similarities and differences between traditional bullying and cyberbullying Types of cyberbullying
4. Who? Where? What did he/she?	Roles in Cyberbullying	Roles of bully, victim and bystander in cyberbullying acts Online environments where cyberbullying can occur
5. Cyberbullying and Beyond	Effects of Cyberbullying	Social effects of cyberbullying Effects of cyberbullying on academic success Effects of cyberbullying on mental health
6. I get what you're feeling	Empathizing with Cyber Victims	Emotional effects of cyberbullying Empathizing with victims
7. Secure Internet	Internet Security and Confidentiality	Using the Internet safely and responsibly Internet privacy settings Privacy settings in social media apps
8. Communication	Communication Skills	Social communication and virtual communication rules The effects of using I and you language in conflict resolution
9. I'm strong with my family and my friends	Adult Support in Coping with Cyberbullying	The importance of family and teacher support in coping with cyberbullying
10. Joining Hands Against Cyberbullying	Peer Support in Coping with Cyberbullying	The importance of peer support in coping with cyberbullying Supporting and helping cyber victims
11. Let's not be a bystander to cyberbullying	Bystanders' Roles in Cyberbullying	Roles and importance of bystanders in stopping cyberbullying Anti-bullying attitudes of the bystanders

Cyberbullying Awareness Program

Session	Theme	Content
12. Cyberbullying is a crime!	Legal Consequences of Cyberbullying	Legal regulations for cyberbullying
13. I can cope with Cyberbullying	Effective Coping Strategies for Cyberbullying	Evaluation of strategies to cope with cyberbullying (Technological solutions, seeking social support, avoidant coping strategies, retaliation)
14. Evaluation		Evaluation of the education process

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethics approval This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of Ankara University (Date. 27 September 2018/ No. 56786525-050.04.04/ 67272).

Consent to participate Written informed consent was obtained from the parents.

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