The Relationship between Adolescents' Levels of Hopelessness and Cyberbullying: The Role of Values

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Abstract

The purpose of this research is to present the relationship of teenagers' values with their levels of cyberbullying and hopelessness, as well as to test the created model in terms of these relations. This research analyzes the predictive relationships among adolescents' values, cyberbullying, and hopelessness through the program AMOS 19 in accordance with the structural equation model. Structural equation modeling is a statistical approach that reveals causative and reciprocal relationships between observed and latent variables. The research's study group has been selected among teenage students in five different schools in Istanbul, one vocational school and four high schools, during the 2015-2016 academic year using the random sampling method. Of the students, 525 are female and 369 are male. The most important independent variable affecting cyberbullying in the model mentioned above is values. The most important independent variable seen in the model affecting hopelessness is also values. Additionally, the second most important variable affecting hopelessness according to the tested model is the level of expected cyberbullying.

Keywords

Values ◆ Cyberbullying ◆ Hopelessness ◆ Adolescent ◆ Structural equation model

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With the developments in modern technology have come important changes in the tools used for interpersonal communications. Individuals become acquainted with technological devices such as smart phones, tablets, and computers at early ages these days. Information and communication technologies, in particular the Internet, have become an indispensable part of life as they meet the ever-increasing need for accessing, storing, and sharing information (Erdur-Baker & Kavşut, 2007). In Turkey, Internet use among youths in 2004 was 26.6% and as of 2015, has increased to 77%. Additionally, 80.9% of Internet use is for sharing content on social media (Türkiye İstatistik Kurumu [Turkish Statistical Institute], 2016).

Scientific and technological developments don't just facilitate peoples' daily lives; sometimes it can also result in unwanted consequences. With adolescents' frequent and sometimes unsupervised use of technological devices, the virtual environment can become dangerous for teens (Soydaş, 2011). These tools, which are used for communication purposes, can also be used for malicious purposes such as harassing, disturbing, threatening, or humiliating others (Çivilidağ & Cooper, 2013).

Bullying is defined as aggression with the intention of hurting (Kepenekci & Çınkır, 2003) and is an anti-social form of behavior that produces negative consequences (Taylor, 2006). The most well-known types of bullying are physical, verbal, emotional, and sexual bullying (Elliot, 1997), and studies show that cyberbullying and victimization are common problems among young people (Eroğlu & Peker, 2011). A previous study on cyberbullying and victimization among high school students reported that 28% of 14- to 19-year-old students have cyberbullied and 30% have been cyberbullied (Erdur-Baker & Kavşut, 2007). Another study revealed that 23% of university students had cyberbullied and 55% had been subjected to cyberbullying at least once in their lives (Dilmaç, 2009).

Cyberbullying is defined as the repetitive use of information and communication technologies by an individual or a group in order to hurt other individuals (Akbaba & Eroğlu, 2013). According to Arıcak (2011), two types of cyberbullying exist: electronic bullying, which involves technical issues such as acquiring passwords or hacking web sites, and electronic verbal bullying that involves acts such as humiliating, spreading gossip, or insulting using the Internet. Unlike other types of bullying, individuals who cyberbully can hide their identities in the virtual environment, which enables them to exhibit as much aggressive behavior as they wish and cause their victim to become desperate (Patchin & Hinduja, 2006). Exposure to cyberbullying can be deeply traumatic for the victim and cause them psychological harm (Gillespie, 2006).

Adolescents turn away from their homes towards their friends. Distancing themselves from their parents, who encapsulate an important part of their lives, creates a void in adolescents' lives, and they build new friendships in order to fill this void.

Some of the challenges that adolescents experience involve keeping up with modern times and presenting themselves in a virtual environment (Bakırcıoğlu, 2010). In particular, students who frequently use technological tools can do this negatively by becoming threatening, humiliating, and insulting towards others; discrediting an individual or group; logging onto others' social media accounts without permission; or hacking their passwords (Peker, 2015).

Cyberbullying is commonly observed among adolescents because in this stage they may act without considering the consequences of their actions; they can easily become a part of dangerous experiences (Bhat, 2008). Being subjected to cyberbullying is also known to relate to many psychological problems. Individuals who are subjected to cyberbullying intensely experience such emotions as anger, shame, worry, fear, hurt, and hopelessness (Akbaba & Eroğlu, 2013). Apart from these negative feelings, victims can show symptoms of depression and anxiety (Raskauskas, 2009; Sjursø, Fandrem, & Roland, 2016). For this reason, investigating the factors that predict cyberbullying among adolescents is as important as predicting the factors for being subjected to cyberbullying. Adolescents' values and cyberbullying are two related concepts. According to Twyman, Saylor, Taylor, and Comeaux (2010), moral breakdown and cyberbullying are related concepts. Moreover, according to Dilmaç and Aydoğan (2010), cyberbullying behaviors can be explained through an individual's values.

The concept of values is a central foundation in the social sciences (Schwartz, 2012) and is one of its research topics. The boundaries of values are roughly defined over the questions of: What is human existence, what is correct, what is good, and what is desired, as well as what acts and behaviors meet these things (Yıldız & Dilmaç, 2012; Yıldız, Dilmaç, & Deniz, 2013). Values are the most important criteria that make the socio-cultural elements of a society meaningful (Özensel, 2003). From this aspect, values bear a regulating, guiding, and motivating role in peoples' lives (Aydın & Gürler, 2012), as well as contribute to the development of the personality (Dilmaç & Ekşi, 2007). Many social scientists state that values have a basic importance in explaining human behavior (Kuşdil & Kağıtçıbaşı, 2000).

Ulusoy and Dilmaç (2012) define values as the sum of beliefs involving humans' characteristics; they are the features that distinguish humans from other creatures and guide human behaviors (Dilmaç, 2007). Erdem (2003) defined values as the tendency to prefer one certain situation over another. According to Rokeach (1973), values are the constant beliefs that guide and define human behaviors. Values guide individuals' behaviors toward themselves and others; they are the dynamics that support a society. If a society starts to lose its values, it loses its strongest tool for social control (Avcı, 2007).

Adolescence is a very stormy, tempestuous period (Hall, 1904). In adolescence, individuals try to establish a system of values and acquire their identities (Ercan, 2001). Adolescents, consciously or unconsciously, ask themselves questions such as "What am I," "Who am I," and "What kind of a person should I be?" (Göller, 2010). Individuals can define their identities only by internalizing their system of values. Moving away from one's own identity results in hopelessness (İmamoğlu & Yavuz, 2011). From this aspect, adolescents who are distanced from their system of values become distanced from their identities. This causes hopelessness.

Hope refers to existent expectations for attaining a future objective, whereas hopelessness refers to non-existent expectations about attaining a future objective (Rideout & Montemuro, 1986). According to O'Connor and Sheehy (2000), hopelessness is a level of pessimistic expectations about the future. Both hope and hopelessness are reflections of the possibility of attaining real objectives in the future (Melges & Bowlby, 1969). Hopelessness is a psychological reaction to negative incidents and forms negative expectations. It is related to the despair that occurs with expectations of changing the future. Hopelessness can be a trait or a situation (Dunn, 2005).

Hopelessness is the mood experienced through negative expectations about the future. These expectations involve beliefs and ideas that a negative situation won't change, as well as individuals' negative self-assessments (Beck, 2005). Through these definitions of hopelessness, one can claim that hopelessness leads to negative cognitive structures when evaluating one's experiences. Additionally, hopelessness refers to a lack of belief in and reluctance about the future, as well as a lack of well-being (Tüfekçiyaşar, 2014). The lack or loss of belief in an individual is the most important factor in the cause of hopelessness. Indeed, hopelessness occurs as a result of losing belief in one's self, loved ones, others, or the future; in short, it is losing belief in life (Fromm, 1995).

While the concept of belief is defined as believing something is wanted or not wanted (Güngör, 1998), hope refers to the belief in what is wanted being realized. Belief is an ability that provides human life with strength (Fromm, 1995). The most important features of hopelessness are negative attitudes, pessimistic approaches, and failures in one's perception of life (Tümkaya, 2005). For an individual to act, they need a positive mindset and the self-confidence to face certain difficulties, whether personal, environmental, or social. For this reason, some psychologists state that deep belief is a component of hope (Frankl, 1997). Studies on hopelessness levels among adolescents date back to the 17th century (Tamar & Özbaran, 2004). Investigating hopelessness among adolescents is important in Turkey because of the country's young population. In this context, the purpose of this research is to investigate the direct effects of values on cyberbullying and their indirect effects on hopelessness, as well as the direct effects of hopelessness on cyberbullying.

Hypotheses

In accordance with the aim of the research, the following hypotheses will be tested:

1. Values have an effect on cyberbullying.

2. Values have an effect on hopelessness.

3. Hopelessness has an effect on cyberbullying.

Method

Research Model

The purpose of the research is to present the relationship among teenagers' values, cyberbullying, and hopelessness, as well as to test the created model in terms of these relations. The relational screening model, a sub-type of the general screening model, has been used in the research. Relational screening is a research model conducted in order to define the relationships among two or more variables and in order to obtain clues concerning cause-and-effect relationships (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel, 2008).

Study Group

The research's study group has been selected among teenagers attending five different schools (one vocational school and four high schools in Istanbul) during the 2015-2016 academic year. Of the students, 525 are female and 369 are male. Thirty-six students are 15 year-olds, 348 students are 16-year-olds, 291 students are 17-year-olds, 201 students are 18-year-olds, and 18 students are 19 year-olds. Finally, the student participants' mean age is 16.79. Fifty-seven of the participants are freshman, 354 are sophomores, 141 are juniors, and 342 are seniors.

Measurement Tools

Human Values Scale. The Human Values Scale (HVS) was developed by Dilmaç (2007) for determining adolescents' values. The scale measures the human-values process through 42 items under the following six sub-dimensions: responsibility, friendship, peacefulness, respect, tolerance, and honesty. This scale is a 5-point Likert-type scale that can be conducted individually or on groups. Higher or lower scores indicate higher or lower human values, respectively. Alpha internal consistency coefficients have been calculated as .73 for responsibility, .69 for friendship, .65 for peacefulness, .67 for respect, .69 for honesty, .70 for tolerance, and .92 for the entire scale. Reliability factors have been calculated as .73 for responsibility, .91 for friendship, .80 for peacefulness, .88 for respect, .75 for honesty, .79 for tolerance, and .87 for the entire scale.

Cyberbullying Scale. The Cyberbullying Scale was developed by Arıcak, Kınay, and Tanrıkulu (2012) in order to measure adolescents' cyberbullying behaviors. It was developed with the participation of 515 students between 11 and 18 years old. It is a 4-point Likert-type scale consisting of 24 items. It has been prepared with one factor that accounts for 50.58% of the total variance. The Kaiser-Meyer-Olkin sample-suitability value was found to be .939, and the Bartlett sphericity test's χ^2-value was found to be 9197.54 ($p < .05$). Factor loadings range from .49 to .82. Cronbach's alpha coefficient for the entire scale is .95, and the test/retest reliability coefficient is found as .70. Higher scores on the scale indicate higher levels of bullying behavior.

Beck Hopelessness Scale. The Beck Hopelessness Scale (BHS), developed by Beck, Weissman, Lester, and Trexler (1974), has been used in this study. It is applicable to adults and adolescents. The validity and reliability studies for the Turkish version were made by Seber (1991) and Durak (1994). It is used to determine an individual's negative expectations for the future. The structure of BHS consists of 20 items that are scored as 0 or 1. Higher scores assume a higher level of despair for an individual. A general information form surveys individuals with questions on gender, age, marital status, level of education (including their spouse's if married), income levels (spouse's, too, if married), and hometown. Cronbach's alpha internal consistency coefficient was calculated as .85. Item-factor loads vary between .31 and .67. The scale's split-half reliability is .85 (Durak, 1994).

Data Analysis

This research analyzes the predictor relationship among adolescents' values and levels of cyberbullying and hopelessness using the program, AMOS 19, in accordance with structural equation modeling. Structural equation modeling is a statistical approach that reveals causative and reciprocal relationships between observed and latent variables (Shumacker & Lomax, 2004). The model proposed in this study relating to the relationships among subjective cyberbullying, despair, and values is presented in Figure 1.

Findings

The model's final form ($\chi^2 = 61.488$, $df = 30$, $p < .001$) has six exogenous (responsibility, friendship, peacefulness, respect, honesty, and tolerance) and two endogenous (cyber bulling and hopelessness) sets of data. Each path shown in the model is found to be statistically meaningful. The Bentler-Bonett normed-fit index (*NFI*), the Tucker-Lewis coefficient-fit index (*TLI*), and other fit indexes show that the model is rather well-fit (see Table 1). Each two-way correlation between the model's endogenous data sets has a high value and is statistically meaningful. This is also affected by the correlation of values from the study's sub-dimensions from the HVS.

Table 1
Statistical Values Related to the Structural Equation Model's Fit Index

Measure	Good fit	Acceptable fit	Fit Index Values of the Model
(χ^2/SD)	≤ 3	$\leq 4\text{-}5$	2.05
RMSEA	≤ 0.05	0.06-0.08	0.03
SRMR	≤ 0.05	0.06-0.08	0.03
NFI	≥ 0.95	0.94-0.90	0.96
CFI	≥ 0.97	≥ 0.95	0.98
GFI	≥ 0.90	0.89-0.85	0.99
AGFI	≥ 0.90	0.89-0.85	0.99
TLI	≥ 0.95	0.94-0.90	0.97

The following values are found when examining the fit values in Table 1; χ^2/SD = 2.05, *RMSEA* = 0.03, *SRMR* = 0.03, *NFI* = 0.96, *CFI* = 0.98, *GFI* = 0.99, *AGFI* = 0.99, and *TLI* = 0.97. One can observe that the model generally has fit values at the desired level (Bollen, 1989; Browne & Cudeck, 1992; Byrne, 2010; Hu & Bentler, 1999; Kline, 2011; Tanaka & Huba, 1985). The tested single-factor model is presented in Figure 1. All paths shown in the model are meaningful at $p < .001$.
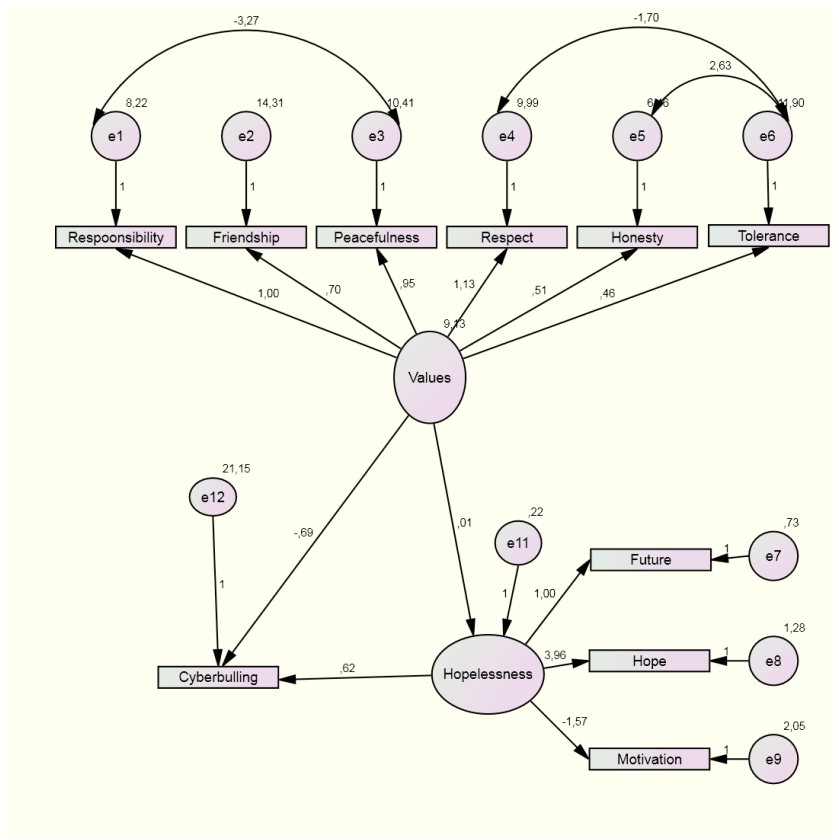

Figure 1. The path diagram of the study's model.

Table 2
Model on Predictor Relations among Values, Cyberbullying, and Hopelessness for Protecting Adolescents

Predictor Variable	Dependent Variable	Unstandardized Beta Coefficient	Total Effect[a]	Direct Effect	Indirect Effect	Standard Error	Critical Value
Value	Cyberbullying	-.011	-.041	-.041	0	0.64	-4.81*
Value	Hopelessness	-.017	-.057	-.057	0	0.55	-1.34*
Hopelessness	Cyberbullying	.22	0.58	0.58	0	0.37	1.61*

[a] Total Effect = Direct Effect + Indirect Effect; * $p < .01$.

As presented in the model above, the most important independent variable affecting cyberbullying is values ($t = -4.81$, $p < .01$). The correlation coefficient related to this factor is calculated as $\beta = 0.64$. The predictive correlation between adolescents' values and their perception of cyberbullying is negative and linear. Namely, adolescents' cyberbullying decreases as their values increase according to the research findings.

As one can observe in the model, the most important independent variable affecting hopelessness is values ($t = -1.34$, $p < .01$). The correlation coefficient related to this factor is calculated as $\beta = 0.55$. The predictive correlation between adolescents' values and their hopelessness is negative and linear. In other words, according to the research findings, as adolescents' values increase, their hopelessness decreases.

Additionally, according to the tested model, the second most important variable affecting hopelessness is the expectation of cyberbullying ($t = 1.61$, $p < .01$). The correlation coefficient related to this factor is calculated as $\beta = 0.37$. The predictive correlation between adolescents' hopelessness and cyberbullying is positive and linear. In other words, according to the research findings, as adolescents' hopelessness increase, their cyberbullying increases.

Discussion

This section discusses and interprets the findings obtained by investigating the predictor relationships between the values of adolescents who formed the research's study group with their levels of cyberbullying and hopelessness. According to the obtained findings, a negative linear relationship exists between adolescents' values and their level of cyberbullying. These findings reveal that adolescents' level of cyberbullying decreases as their values increase. Although cyberbullying, which is defined as the malicious and repetitive use of technological tools in order to hurt other individuals (Li, 2006), is a new concept, studies on the subject indicate it is a very common problem in Turkey (Arıcak, 2009; Dilmaç, 2009; Erdur-Baker & Kavşut, 2007). Studies on cyberbullying are important in order for young individuals to become aware of the concept of cyberbullying, acquire coping skills, and use technology in a healthier manner so as to decrease cyberbullying (Arıcak et al., 2012).

A literature review presents similar research conducted on this topic. For instance, Peker and İskender (2015) studied the effects of a psychological education program

on cyberbullying oriented toward human values. A total of 24 students in the 9th and 10th grades participated in the research in control and experimental groups. In the study, researchers conducted pre-, post-, and follow-up tests. According to the findings obtained in that research, the psychology education program oriented toward human values had a permanent effect on decreasing students' cyberbullying behaviors. Menesini, Nocentini, and Camodeca (2011) studied the role of values in defining traditional bullying and cyberbullying in their research conducted on 390 adolescents. The research findings showed that having moral value judgments negatively predicts cyberbullying. Büyükyıldırım and Dilmaç (2015) studied cyber victimization and cyberbullying in terms of human values and socio-demographic variables over 1,028 secondary-school students. According to their findings, the average score for the sub-dimensions of the Human Values Scale (friendship, pacifism, respect, and tolerance) for students who don't cyberbully were significantly higher than for students who do. Additionally, the average pacifism scores for students who had cyberbullied four times were significantly lower than for students who had never cyberbullied. Dilmaç and Aydoğan (2010) investigated cyberbullying as a predictive factor on 300 secondary-school students. According to their findings, all sub-scales from the Human Values Scale (responsibility, friendship, respect, honesty, tolerance, and pacifism) predicted cyberbullying. Wright, Kamble, and Soudi (2015) examined the relationships between cyber aggression and cultural values, as well as the effect of peers on this relationship, over 480 adolescents in India. That study's findings revealed that cyberbullying and cyber-victimization positively correlate to individualistic values and negatively correlate with collectivist values, and peer commitment negatively correlates to cyber aggression. Suparli and Ramdhanic (2015) studied 71 high-school students to reveal whether a relationship exists among shame, guilt, objectivity, and cyberbullying. Their results indicated that all of these moral emotions negatively relate to cyberbullying. According to the findings of the present research and related studies in the literature, values negatively correlate to students' cyberbullying behaviors. This study's finding on the negative linear relation between values and cyberbullying agrees with the findings of similar studies in the literature.

Another finding of the present research is the positive linear relationship between adolescents' hopelessness and cyberbullying levels. Accordingly, as their hopelessness levels increase, so do their cyberbullying levels. In a similar study, Seki and Dilmaç (2015) studied 600 high-school students for the predictive relationship of values and social-appearance anxiety with subjective well-being. According to their findings, a positive and linear relationship exists between adolescents' values and their subjective well-being levels. Peker (2015) studied the predictive effect of negative feelings on cyberbullying. According to that study's findings, negative feelings positively predict cyberbullying. Bolland (2003) reported in a study conducted on young individuals with low socio-economic backgrounds that male

participants with medium or advanced levels of hopeless feelings and hopelessness statistically predict dangerous behaviors such as violence. Kula (2008) investigated the relationship between hopelessness and aggression levels among 338 vocational high-school students. According to those findings, a linear and significant relationship exists between hopelessness and aggression levels. Feinstein, Bhatia, and Davila (2014) investigated the relationship among cyberbullying, symptoms of depression, and rumination in three-week intervals over 565 university students. Their results revealed that a rise in cyberbullying positively correlates to a rise in symptoms of depression and rumination. Additionally, their study reported the negative effect of cyberbullying on mood and mental health. Sjursø et al. (2016) investigated emotional problems in traditional bullying and cyberbullying; they found that the relationship between traditional victimization and depression were higher than for cyber victimization. The same study propounded that the relationship between cyber victimization and anxiety were higher than for traditional victimization. Similarly, Wright (2016) concluded in a four-year longitudinal study that cyber victimization contributes to depression, anxiety, and suicide attempts.

Hopelessness is defined as negative expectations about the future (Beck, Weissman, Lester, & Trexler, 1974) and is generally associated with negative feelings. Studies on this topic reveal a negatively significant relationship between positive feelings and risky behaviors, and a positive, significant relationship between negative feelings and risky behaviors (Telef, 2014). Hopelessness symbolizes a negative mood. From this perspective, the positive linear relationship between cyberbullying (a negative behavior) and hopelessness is significant. The current study's finding on the positive, linear relationship between the levels of hopelessness and cyberbullying agrees with the findings of similar previous studies in the literature.

This study's last finding is on the negative, linear relationship between adolescents' values and their hopelessness levels. This indicates that as adolescents' values increase, their hopelessness levels decrease. Braun-Lewensohn and Sagy (2010) aimed to explore measurements of spirituality, sense of coherence, hope, and values among adolescents living in a violent political area who were experiencing missile attacks. As a result of their two-year longitudinal study, the feelings of hope and coherence for these adolescents living in war and conflict were revealed to diminish, and the importance they gave to social values decreased. Ruchkin, Eiseman, and Hägglöf (1999) tested for possible interrelations among hopelessness, loneliness, self-esteem, and personality in samples of delinquent adolescents and a control group. In their survey of 187 delinquent and 103 non-delinquent adolescents, no difference was seen between their levels of loneliness and hopelessness, but their levels of self-esteem were found to vary. Wachs (2012) investigated the similarities and differences between participants' roles in traditional bullying and cyberbullying in terms of moral disengagement and social/emotional characteristics. Students

involved in cyberbullying showed greater moral disengagement. Ruyter (2002) stated that human beings need a framework of values in order to make their experiences and lives meaningful and valuable. Making sense of life is a major need of humans; it is a query into understanding the universe and rationale for human and universal existence. Humans struggle to find the purpose of existence and to arrive at principles and values that can guide them (Akıncı, 2005). Frankl (1997) defined hopelessness as the state of anxiety that occurs as a result of inhibiting humans' attempts to find meaning. Briefly stated, moving away from a values system results in the meaning of life becoming lost, which results in hopelessness.

According to all of these, this research is believed able to contribute to a better understanding of adolescents, a healthier assessment of their attitudes and behaviors, an understanding of the importance of values in terms of adolescents, and an explanation of youths' cyberbullying behaviors. However, the present research has certain limitations. The research has been limited by the adolescents who form the sample group. Therefore, the obtained findings cannot be generalized to other age groups. Repeating the study over adolescents with different socio-demographics can contribute to generalizing the limitations of this study's findings. Also, conducting similar studies on other age groups can provide more comprehensive information on this topic.

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