The Role of Parents and Peers in Cyberbullying Perpetration: Comparison among Arab and Jewish and Youth in Israel

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Abstract

In recent years, several studies have examined the effect of parents and friends on cyberbullying victims. Less is known about their combined effect on cyber perpetrators, especially among Jewish and Arab teens in Israel. We collected data from a representative sample of 350 Jewish and Arab adolescents (aged 15–16) and their parents. We repeated the interviews twice within a year. The survey included measurements of three parental practices: support, monitoring, and protectiveness, as reported by parents at the first time of data collection. We measured the adolescents’ engagement in sensation-seeking and cyberbullying as perpetrators and perceptions about peers’ involvement in these behaviors. Path-analysis models revealed that the perception of peers’ involvement in cyberbullying perpetration was positively linked with involvement in such behavior among Jewish and Arab teens. Contrary to our expectations, no parental practice had a direct effect on cyberbullying perpetration among teens in either ethnic group.

The study presents important and unique findings. The results indicate that youngsters involved in cyberbullying are strongly influenced by their peers. The prevalence of this pattern in both the Jewish and the Arab populations indicates its universal nature. On a practical level, it may be suggested that bullying behaviors may be mitigated by taking measures in formal and informal education. Another aspect of the results is the decline in parental influence on adolescents’ cyberbullying behaviors, especially among Arab teens. This may be an indicator of cultural changes taking place in the Arab population in Israel alongside widening of the generation gap.

Keywords Parental support · Descriptive norms · Youth bullying · Cyberbullying · Arab youth · Jewish youth

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1 Introduction

Cyberbullying is defined as “any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others” (Tokunaga, 2010, p. 278).

In Israel, findings from the 2019 HBSC study, based on a national representative sample of over 14,000 youth, show that about 11% of adolescents aged 11–17 reported cyberbullying others at least once during the past couple of months. However, this rate was much lower among Jewish youth (7.5%) than among Arab youth (19%) (Harel-Fisch et al., 2020). In another study among 901 junior- and senior-high-school students (501 Jewish Israelis, 400 Arab Israelis), it was found that Arab adolescents reported being cyberbullies more than did Jewish adolescents (Lapidot-Lefler & Hosri, 2016).

Research has consistently found an association between cyberbullying and a variety of adverse consequences for victims as well as perpetrators (Arnarsson et al., 2020; Carvalho et al., 2020; Gofin & Avitzour, 2012; Kowalski et al., 2019). Cyberbullying is associated with frustration, academic problems, social anxiety, depression, emotional distress, and lower well-being and life satisfaction. (Juvonen & Gross, 2008; Kowalski et al., 2019; Tokunaga, 2010; Ybarra, 2004).

In recent years, several studies examined the effect of parents and friends on cyberbullying victims (Elsaesser et al., 2017; Fridh et al., 2015; Gofin & Avitzour, 2012; Sasson & Mesch, 2016). Less is known about the combined effect of parents and friends on cyber perpetrators. Some of the studies that relate to cyberbullying in Israel, focus distinctly on either Jewish youth (Sasson & Mesch, 2016) or Arab youth (Khoury-Kassabri et al., 2019). Several studies conduct a comparative analysis of youth bullying within the Jewish and Arab populations of Israel (Abu-Asba & Harel-Fisch, 2003; Hijasi & Harel-Fisch, 2020; Laufer & Harel-Fisch, 2003). All these studies, however, investigate school bullying only. A comprehensive study of relations among family and peer determinants of cyberbullying in both youth societies is still awaited.

It is important to conduct such a study because previous research has indicated major differences in cultural and life circumstances between the societies that may result in very different roles of parental and peer involvement in reducing the probabilities of cyberbullying perpetration (Abu-Asba & Harel-Fisch, 2003; Hijasi & Harel-Fisch, 2020; Lavee & Katz, 2003). The goals of the present study are to bridge the gaps by the investigating the links between family practices, peers’ descriptive norms, sensation-seeking, and cyberbullying behaviors, and to investigate differences between Jewish and Arab adolescents in the mechanism through which these factors affect perpetrators of cyberbullying.
2 Literature Review

2.1 The Role of Parents—Family Practices and Cyberbullying

Family climate is defined as a positive or negative state of well-being that results from interactions among family members (Alonso-Tapia et al., 2013). These patterns of interaction may have effects on various personality variables as well as behavioral variables such as aggressive and deviant behavior (Cantero-Garcia & Alonso-Tapia, 2017). Recent literature establishes that a positive family climate, characterized by open and empathetic parent–child communication, acts as a protective factor against cyberbullying victimization and perpetration (Buelga et al., 2016, 2017; Cross et al., 2015; Gofin & Avitzour, 2012; Ortega-Barón et al., 2016). Furthermore, parent–child communication has a major influence on children’s and adolescents’ well-being and life satisfaction (Boniel-Nissim et al., 2015). Poor parenting practices, such as lack of monitoring, inconsistent discipline, and an absence of positive parenting, have been associated with delinquent behavior in children and adolescents (Racz & McMahon, 2011). Cyberbullies present poor family management (Hemphill & Heerde, 2014), a negative perception of parental support (Fanti et al., 2012), frequent family conflicts (Tanrikulu & Campbell, 2015), and negative communication patterns with parents (Elgar et al., 2014).

Although a range of salient parenting attributes have been proposed, two central dimensions have been relied on to reflect the quality of parenting: warmth and control (Elsaesser et al., 2017, p. 63). The dimension of warmth offers children support and responsiveness and is significantly associated with positive outcomes such as superior academic achievement and decreased substance use and risky online behaviors (Abar et al., 2014; Gordon & Cui, 2012; Rioux et al., 2016; Sasson & Mesch, 2014). Moreover, warm and supportive families mitigate children’s and adolescents’ involvement in bullying, both as perpetrators and as victims, by providing them with a safe environment (Georgiou, 2008; Ok et al., 2010). In fact, positive parent–adolescent communication is associated with parents’ engagement in dialogue with adolescents about online risks, which is linked to less involvement in cyberbullying (Mesch, 2009).

Another type of parent–child communication is parental monitoring, an aspect of the control dimension (Elsaesser et al., 2017, p. 63) manifested in activities that allow parents to know where their children are, with whom they are associating, and what they are doing when they are out of the house (Dishion & McMahon, 1998; Tur-Sinai et al., 2020). In their discussion of parental monitoring, Kerr and Stattin (2000) indicate disclosure as a potential source of parental knowledge about children’s activities. Disclosure, denoting children’s willingness to share truthful information with their parents, is related to the degree of family communication. In studies that test this conceptualization of parenting, it is reported that disclosure is negatively associated with youngsters’ breaking norms, delinquent behavior, and risky online activities (Sasson & Mesch, 2014). Additionally, poorly monitored youth are at high risk of bullying both as perpetrators and
as victims (Espelage et al., 2000; Hong & Espelage, 2012). In a study among 733 youngsters aged 10–18, for example, it was found that the more often adolescents tell their parents about their online activities, the fewer aggressive messages they send online (Law et al., 2010). In another longitudinal study, Kerr et al. (2010) reinforce their assertion that youth disclosure predicts changes in delinquency over time and therefore serves as a protective factor against risk behaviors.

### 2.2 The Role of Friends—Social Norms and Cyberbullying

Adolescence is a time of major changes including physical growth, the onset of sexual maturation, the activation of new drives and motivations, and a wide range of social and affective changes (Forbes & Dahl, 2010). During this time, friends become central in young adults’ lives and adolescents start to see themselves as members of social networks outside the family (Sasson & Mesch, 2016). Given that adolescents want to fit in with their peers, they are also sensitive to influences from their friends, who usually play a completely different role than do their parents. Whereas parents usually try to restrict risky behaviors, friends may leverage these behaviors to test the boundaries of what is acceptable (Sasson & Mesch, 2014).

One aspect of peer influence is known as “sensation-seeking,” viz., looking for varied, novel, and exciting experiences and being willing to take physical and social risks for their sake (Zuckerman, 1979). Basically, sensation-seeking is considered a characteristic of individuals who wish to raise their level of arousal and has been identified by numerous empirical researchers as a robust risk factor for emotional and behavioral problems (Knorr et al., 2013; Laurence et al., 2015; Siman-Tov et al., 2020). Specifically, in a comprehensive study among 523 students in Austria, Graf et al. (2019) found that sensation-seeking plays a strong role in cyberbullying. In another study, conducted among 146 Greek junior-high-school students, sensation-seeking was found to be a common correlate of cyberbullying (Antoniadou et al., 2016). In this context, however, it may be argued that sensation-seeking comprises both socialized and unsocialized modes (Graf et al., 2019). Moreover, social factors, such as peer-group norms, may encourage sensation-seeking behavior on the part of the individual as well as other aggressive behaviors such as online bullying. Adolescents who believe that friends who engage in a certain behavior are more likely than others to do so as well.

Social-norms theory suggests that peers influence adolescents’ involvement in risky behavior (Berkowitz, 2005). This impact is rooted in adolescents’ beliefs about prevalent norms among their peers. Such norms may dictate how to behave as well as expectations about types of media to use and how these media influence their friends’ attitudes and behavior (Sasson & Mesch, 2014). In the context of online communication, Hinduja and Patchin (2013) found that the perception of peers as being involved in cyberbullying increases individuals’ own involvement in cyberbullying. In other studies, it has been determined that adolescents who expect their friends to engage in risky online sexual behavior are more prone to seek out such
activities themselves (Baumgartner et al., 2010, 2011). Gofin and Avitzour (2012), studying 2,610 students aged 12–14 in Israel, report that the odds of being bullying perpetrators are higher among teens whose peers influence them to engage in dangerous conduct than among others not so influenced.

The social-norms approach posits that there are two types of social norms: descriptive and injunctive. Descriptive norms may be defined as beliefs about what most members of a person’s social group actually do. These norms imply that if one believes that everybody engages in a certain behavior, one is prompted to engage in the same behavior (Lapinski & Rimal, 2005). Injunctive norms are beliefs about the approval or disapproval of a certain behavior by one’s peers (Baumgartner et al., 2010). Indeed, there is much evidence that social norms (both descriptive and injunctive) are positively associated with cyberbullying. For example, a recent study, examining 474 adolescent students from a public high school in a city in China, reports an association of both descriptive and injunctive class norms about cyberbullying with actual cyberbullying by adolescent members of the class (Dang & Liu, 2020). In the current study, we focus only on descriptive norms: beliefs about peers’ actual behavior.

2.3 The Israeli Case

Israel is a small multicultural country marked by cultural diversity, a mix of Jewish and Arab populations, and coexistence of traditional family patterns and modern lifestyles (Lavee & Katz, 2003). In general, the Jewish population is characterized by strong modernization and influence of Western family values. The Arab population, in comparison, has a larger concentration of communities and families that maintain a strong conservative culture typified by traditional, patriarchal, and authoritarian family values (Abbas & Mesch, 2015; Khoury-Kassabri et al., 2019). The conservative and traditional Arab culture has a significant effect on the perceived authority of parents, teachers, and schools, in a way that increases adolescent respect for adults and institutions of education. These findings may suggest that when comparing the monitoring effect of parents, we may find it stronger among Arab youth than among Jewish youth—and conversely, comparing the protective effects of parental and family support in mitigating cyberbullying, we may find these effects stronger among Jewish youth than among Arab youth.

According to the family-systems theory (Bateson, 1972), families are open systems that depend on the environment for their survival and are influenced both internally and externally to achieve balance (Nichlson, 2007). Within this construct, parental styles are subject to the influence of social values such as modernization or conservatism. Given the conservative and traditional leanings of Israel’s Arab society, it stands to reason that an authoritative, more controlling, and more monitoring parental style will be prevalent in the Arab population than among its Jewish counterpart and that, in view of the stronger incidence of modern and Western values in Jewish society, more permissive and supportive parental styles will be prevalent there. Therefore, each of the different parental practices will be more influential in “its” society than in the other.
2.4 The Current Study

This study draws on the social-ecological model (Bronfenbrenner, 1979), which suggests that children’s behavior should be viewed in the context of their relationships, interactions, and exposure to a host of determinants within their main social settings—family, school, community, peers, and electronic social networks.

Previous studies have shown that parents may play a protective role, buffering the negative effects of the individual and peers against risky behaviors, cyberbullying victimization, and problematic internet use (Boniel-Nissim & Sasson, 2018; Sasson & Mesch, 2014, 2016). Therefore, the purpose of this study is to explore the combined effects of personal traits, descriptive norms among peers, and parental practices on cyberbullying perpetrators in view of differences between the Jewish and Arab populations in Israel.

This study makes several contributions. First, it investigates Jewish and Arab populations in Israel. Many studies have been devoted to understanding the role of parents and friends vis-à-vis bullying and cyberbullying victims and perpetrators in the Jewish population (e.g., Boniel-Nissim & Sasson, 2018; Sasson & Mesch, 2016) and a few are dedicated to the Arab population (e.g., Khoury-Kassabri et al., 2019). Second, we will be exploring variations in the roles of parents and friends as protective factors against cyberbullying among Jewish as compared with Arab youth. Third, we will utilize data from our powerful longitudinal study of children and their parents, collected in two rounds from the same participants, to explore causal effects of parental behavior on online bullying behaviors. Fourth, much of the research literature on parent–child communication and its relation to cyberbullying behaviors relies on teens’ perception of their parents’ behavior. In the current study, interviews were conducted with parent–and–child dyads, meaning that the data include parents’ reports of their parental practices.

Basing ourselves on the aforementioned literature review, we offer the following hypotheses:

H1: The prevalence of cyberbullying behaviors is higher among Arab respondents than among Jewish ones.
H2: The more individuals engage in sensation-seeking behaviors, the more they tend to engage in cyberbullying.
H3: Involvement in cyberbullying is strongly associated with perceptions that one’s peers are involved in cyberbullying.
H4: Engagement in sensation-seeking and cyberbullying is strongly associated with perceptions that one’s peers are engaged in sensation-seeking behaviors.
H5: Parental practices such as support, monitoring, and protecting predict lower rates of sensation-seeking and cyberbullying.
H6: The negative association between parental support and sensation-seeking as well as cyberbullying is stronger among Jewish youth than among Arab youth.
H7: The negative association between parental monitoring and sensation-seeking as well as cyberbullying is stronger among Arab youth than among Jewish youth.
3 Methods

3.1 Sampling

3.1.1 Procedure

We collected data from a representative sample of the Jewish and Arab populations in Israel. Each interview was conducted with a dyad composed of a parent and an adolescent aged 15–16. The parent was asked to confirm his/her own participation and that of the adolescent by phone; then the adolescent was asked to confirm participation separately. After both sides’ consent was obtained, the interviews were held face-to-face by a professional interviewer in the participants’ homes. Each parent–child dyad was interviewed separately in order to maintain confidentiality and honesty. We repeated the interviews twice within a year, first in April–May 2019 and again in April–May 2020. A total of 350 participants (240 Jewish, 110 Arab) responded both times. Importantly, the second round of data collection took place immediately after the first lockdown occasioned by the COVID-19 pandemic. This may have implications for the findings even though the participants were asked to ignore the effect of the pandemic while answering the questionnaire. The study was approved by the ethical committee of the Max Stern Yezreel Valley College, Israel (EMEK YVC 2016-53).

3.1.2 Participants

Frequency analysis results showed that 31% of the participants were Arabs and 69% were Jews. During the first round of interviews, 57% of the teens were in ninth grade and 43% in tenth grade; 54% were girls and 46% were boys. Most participating parents were women (72%) and were married (88%). Half of them had higher education and 35% had a high-school diploma.

3.2 Measures

3.2.1 Adolescents

Cyberbullying Perpetration This item was adopted from Shren-Beninson (2009). Participants were asked to indicate the frequency with which they had engaged in online bullying behaviors or harassment in the past year. The responses ranged from “never” to “many times” and were introduced in the analysis as a dummy variable (never = 0 and at least once or twice to many times = 1). This question was asked in the second round.

Sensation-Seeking Participants were asked to indicate the frequency with which they had engaged in dangerous acts in the past year. The responses ranged from
“never” to “many times” and were introduced in the analysis as a dummy variable (never = 0 and at least once or twice to many times = 1). This question was asked in the second round of data collection and was inspired by Shren-Beninson (2009).

Peers’ Descriptive Norms We measured this concept using two different variables. First, we asked the participants to note the frequency with which their best friends had engaged in online bullying behaviors or harassment in the past year. Second, we asked the participants to note the frequency with which their best friends had engaged in dangerous acts in the past year. The responses to these questions ranged from “never” to “many times” and were introduced in the analysis as a dummy variable (never = 0 and at least once or twice to many times = 1). These questions, adopted and adjusted from Shren-Beninson (2009), were asked in the second round.

3.2.2 Parents

Parental Support We measured this concept by using items that reflected parental support in accordance with the scale in Martins et al. (2016), adjusted for this study. The scale comprised the following four items: “Our children can talk to us about their problems”; “I am there for my child”; “I make sure to be involved in everything that happens to my children”; “I am interested in everything that happens to my children at school.” The responses to each item ranged from 1 (totally disagree) to 5 (totally agree). The items were subjected to factor analysis (varimax rotation), resulting in one dimension with factor loadings in the range of 0.83–0.72. The items were standardized and a sum score was calculated. Cronbach’s alpha was acceptable (α = 0.79). All questions were asked in the first round of data collection.

Parental Monitoring This scale combined five items that we adopted from the Adolescent Family Process (AFP) scale (Vazsonyi et al., 2003). Parents were asked to indicate whether they know their children’s friends, how their children spend their money, where they hang out after school and at night, and what they do in their spare time. The responses for each item ranged from “know nothing” to “know a lot.” The items were subjected to factor analysis (varimax rotation), resulting in one dimension with factor loadings of 0.80–0.57. The items were standardized and a sum score was calculated. Cronbach’s alpha was acceptable (α = 0.68). All questions were asked in the first round of data collection.

Parental Protectiveness This scale is combined from two items adopted from a study conducted for the Green Light Association in Israel (Dvir & Lapian-Amichi, 2015). Parents were asked to indicate whether they feel responsible for warning their children about things that may harm them and whether they feel responsible for everything that happens to their children. The responses for each item ranged from 1 (totally disagree) to 5 (totally agree). The items were subjected to factor analysis (varimax rotation), yielding one dimension with factor loadings of 0.87 for both items. The items were standardized and a sum score was calculated. Cronbach’s
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alpha was acceptable (α=0.69). All questions were asked in the first round of data collection.

### 3.3 Data Analysis

To determine whether family climate, reflected in parental practices, peers’ descriptive norms, and personal traits, is associated with cyberbullying perpetration, we constructed a path analysis using the SEM (Structural Equation Modeling) model for observed variables. Using SEM to test a path-analysis model is beneficial because it provides a measurement of model fit, modification indexes, and other aspects (Garson, 2012). It also allows us to estimate all parameters in the model simultaneously after controlling for all other factors and relationships in the model (Meyers et al., 2006). SEM simplifies the testing of path hypotheses because it is designed to test these more complicated models in a single analysis and allows ease of interpretation and estimation (Gunzler et al., 2013).

To determine whether the covariance drawn from the population is assumed to be the same as that reflected in the coefficient estimates (Garson, 2012), we used the Maximum Likelihood (ML) method, the most suitable method. We also used bias-corrected bootstrap 95% confidence intervals (CIs) to determine whether the indirect-paths coefficients between parental practices and peers’ descriptive-norm variables and cyberbullying perpetration via sensation-seeking behaviors were significant. The bootstrapping method reduces standard-error size and yields stronger confirmation of the predicted relationship (Li et al., 2016).

Model fit was assessed by using chi-square (χ²), a comparative fit index (CFI), the root mean square (RMR), and the root mean square error of approximation (RMSEA). A nonsignificant chi-square (p > 0.05) value equal to or greater than 0.95 for CFI, and values equal to or less than 0.08 and 0.06 for RMR and RMSEA, are considered the cutoffs for a relatively good fit between a hypothesized model and observed data (Garson, 2012; Hu & Bentler, 1999).

As mentioned above, the goal of this study is to detect differences, if any, between Jewish teens and Arab teens in Israel regarding the influence of parental practices and friends’ descriptive norms on cyberbullying perpetraions. For this purpose, we constructed two path-analysis models, shown in Figs. 1, 2, to illustrate the models that pertain to cyberbullying perpetration. Each model was calculated once for Jewish teens and once more for Arab teens. The results are discussed in detail below.

### 4 Results

#### 4.1 Differences Between Jewish and Arab Respondents

Table 1 presents the results of a population-based crosstab and chi-square comparison for all the dichotomous variables and a population-based means comparison and a t-test for independent sample differences among the interval variables. As the table shows, we found few differences. A higher percent of adolescents
in the Jewish population than in the Arab population reported having engaged in dangerous acts at least once or twice in the past year. Correspondingly, a higher percent of adolescents in the Jewish population than in the Arab population reported that their friends had engaged in dangerous acts at least once or twice in the past year. There were no statistically significant differences between the two populations in peers’ descriptive norms toward cyberbullying perpetration. Turning to parental monitoring, we found statistically significant differences: The average percent of parents reporting that they know what their children are doing outside the house and with whom was higher among Arab parents than among Jewish parents. These findings suggest that parental monitoring is more prevalent in the Arab population than in the Jewish population. As for parental support and parental protectiveness, we found no statistically significant differences, meaning that parents’ efforts to support and protect their children from dangers are the same in the Jewish and the Arab populations. Finally, the findings show that cyberbullying is more prevalent among Arab children (15.5%) than among...
Fig. 2 Path-analysis model for the Arab population hypothesized cyberbullying perpetration model. Note: N = 110; chi-square = 10.878; df = 8; P = .209; CFI = .982; RMR = .025; RMSEA = .057. The coefficients are standardized. R-square values are reported in parentheses. * p < .05; ** p < .01

Table 1 Comparative analyses of Jewish and Arab respondents on selected study variables

| Variable                                              | Jewish (N = 240) | Arab (N = 110) |
|-------------------------------------------------------|------------------|----------------|
| Sensation-seeking (2nd round)                         | 25.4%            | 13.6%*         |
| Peers’ sensation-seeking (2nd round)                  | 36.7%            | 23.6%*         |
| Peers’ cyberbullying (2nd round)                      | 25.0%            | 23.6%          |
| Parents reporting on parental monitoring (1st round)   | 13.1%            | 13.7%*         |
| Parents reporting on parental support (1st round)      | 18.5%            | 18.8%          |
| Parents reporting on parental protectiveness (1st round)| 9.1%             | 9.3%           |
| Cyberbullying (2nd round)                             | 11.7%            | 15.5%          |

* p < 0.05, ** p < 0.01

P-values represent T-Tests for interval means and Chi-Square for dichotomous variables (represented by percentage)
Jewish children (11.7%). Although this difference is in correspondence with our first hypothesis, it was not statistically significant.

4.2 Investigating the Path Model—Findings from SEM Analyses

Overall, as Figs. 1, 2 show and the many indices illustrate, the model measurements fit the data well (Model 1: $\chi^2(8) = 3.429$, $p > 0.05$, CFI = 1.00, RMR = 0.013, RMSEA = 0.000; Model 2: $\chi^2(8) = 10.878$, $p > 0.05$, CFI = 0.982, RMR = 0.025, RMSEA = 0.057). Overall, Model 1 explains 28% of the total variance in Jewish adolescents’ cyberbullying perpetration and Model 2 explains 19% of the total variance in Arab adolescents’ cyberbullying perpetration.

In our second hypothesis, we expected to find a positive relation between individual sensation-seeking behavior and online bullying. The findings support H2 for the Jewish population models but not for the Arab population models. Involvement in sensation-seeking behavior is positively associated with cyberbullying perpetration among Jewish adolescents ($\beta = 0.14$, $p < 0.05$) as against no significant effect among Arab adolescents ($\beta = 0.10$, $p > 0.05$). These findings suggest that this individual feature characterizes Jews adolescents’ involvement in online bullying but does not necessarily typify such conduct among Arab adolescents.

Next, we expected to find a positive association between perception of peers’ descriptive norms regarding cyberbullying participation and engaging in such behaviors. Our findings fully support H3 in all models. The perception of peers’ involvement in cyberbullying perpetration was positively linked with involvement in such behavior among Jewish teens ($\beta = 0.49$, $p < 0.05$) and Arab teens ($\beta = 0.39$, $p < 0.05$). We also tested peers’ descriptive norms related to participation in sensation-seeking behaviors and participants’ personal involvement in such behavior. Here again, the findings support our hypothesis (H4). The perception of peers’ involvement in sensation-seeking behaviors was positively associated with involvement in such behaviors among Jewish adolescents ($\beta = 0.46$, $p < 0.05$) and Arab adolescents ($\beta = 0.27$, $p < 0.05$). Contrary to our expectations, the perception of peers’ involvement in sensation-seeking behaviors had no indirect effect, upward or downward, on cyberbullying perpetration among Jewish teens and Arab teens alike.

In H5, it is suggested that parental practices have a mitigating effect on adolescents’ risky and aggressive behaviors. More specifically, H6 proposes that parental support is more prevalent in reducing risky and aggressive behaviors in the Jewish population than in the Arab population and H7 suggests that parental monitoring is more prevalent in reducing risky and aggressive behaviors in the Arab population than in the Jewish population. The results support our hypotheses in part. No direct association between each parental practice (support, monitoring, protectiveness) and cyberbullying perpetration was found to be statistically significant. The direct association between parental support and sensation-seeking behavior, however, is positively statistically significant among Jewish adolescents ($\beta = 0.15$, $p < 0.05$) but not among Arab adolescents ($\beta = 0.05$, $p > 0.05$). Also, parental support is found to have a modest positive indirect association with cyberbullying perpetration via
sensation-seeking behaviors ($\beta = 0.02$, $p < 0.05$), significant with a 95% confidence interval of 0.002–0.073 in a 500 bootstrap for Jewish adolescents but not for Arab adolescents.

These findings indicate that Jewish teens who are supported by their parents engage in more dangerous and cyberbullying behaviors than do those who receive less parental support. Next, the direct association between parental protectiveness and sensation-seeking behavior is negatively statistically significant for both Jewish adolescents ($\beta = -0.21$, $p < 0.05$) and Arab adolescents ($\beta = -0.29$, $p < 0.05$). Parental protectiveness also has a negative indirect effect on cyberbullying perpetration via sensation-seeking behavior ($\beta = -0.029$, $p < 0.05$), significant with 95% confidence intervals of 0.013–0.123 in a 500 bootstrap for Jewish adolescents only (Table 2). These findings emphasize the important role of parents in warning their children against dangers that they may face, especially in the Jewish population. Contrary to our expectations in H7, parental monitoring has no statistically significant effect, direct or indirect, on cyberbullying perpetration among either Arab or Jewish adolescents. In sum, the findings show that no parental practice had a direct effect on cyberbullying perpetration among Jewish teens as well as Arab teens. For Jewish adolescents, parental protectiveness buffers against cyberbullying through sensation-seeking behavior while parental support acts in the opposite direction and may increase engagement in online bullying.

5 Discussion

Cyberbullying is a well-known problem that has intensified in the last decade. Many studies have been dedicated to exploring this phenomenon, its nature, and its determinants, especially due to its dire consequences for children and adolescents. Yet a comprehensive study that compares Jewish and Arab youth in respect of this issue has not been conducted. Our first hypothesis relates to the difference between Jewish and Arab adolescents in rates of cyberbullying and proposes that cyberbullying is more prevalent among Arab adolescents than among Jewish ones. Although higher rates of cyberbullying perpetration were found among Arab adolescents than among Jewish adolescents, the difference was not significant despite our expectations and compared with the recent HBSC study conducted in Israel in 2019. This may be due to the smaller sample size in this study or our respondents’ narrower age bracket (15–16) (the 2019 HBSC study included teens aged 11–17), which may have affected and had implications for the rates of cyberbullying among Jewish and Arab teens.

Next, we explored the combined contribution of parents and friends to cyberbullying perpetration. Previous studies established that two important social agents—parents and friends—may influence adolescents’ risky and aggressive behaviors. Even though several studies were dedicated to this subject, less is known about the combined direct and indirect effect of various parental practices and peers’ descriptive norms and personality traits as potential determinants of cyberbullying behaviors in a comparison of Jewish and Arab adolescents. The distinction is important because, from the ecological perspective (Bronfenbrenner, 1979) and the systems
Table 2 Unstandardized and standardized parameter estimates for the path-analysis model

| Indirect effects | Parameter estimates | Jewish population | Arab population |
|------------------|---------------------|-------------------|-----------------|
|                  | Unstandardized      | Standardized      | Unstandardized  | Standardized   |
| Cyberbullying Perpetration | -.007 | -.029* | -.009 | -.028 |
| Parental protectiveness ➔ sensation seeking ➔ cyberbullying perpetration | .003 | .020* | .001 | .004 |
| Parental monitoring ➔ sensation seeking ➔ cyberbullying perpetration | .001 | .008 | -.001 | -.004 |
| 1. Peers’ sensation-seeking ➔ peers’ cyberbullying perpetration ➔ cyberbullying perpetration | .042 | .063 | .022 | .026 |
| 2. Peers’ sensation-seeking ➔ sensation-seeking ➔ cyberbullying perpetration | .042 | .063 | .022 | .026 |

Note: $N = 350$

* $p < .05$; ** $p < .01$
theory (Bateson, 1972), children’s behavior should be examined in the context of relationships within their social environment (family and friends).

Some studies have found that parental practices such as support and monitoring serve as bulwarks against various types of bullying behavior (Buelga et al., 2017; Erginoz et al., 2013; Hemphill & Heerde, 2014; Ok et al., 2010). Our findings, however, are only partly consistent with these results. Contrary to our expectations, we found that parental practices—support, monitoring, and protectiveness—have no direct influence on adolescents’ cyberbullying perpetration among either Jewish teens or Arab teens. A likely explanation for this phenomenon is that youngsters in the transition from childhood to adolescence try to attain personal autonomy (Sasson & Mesch, 2014). This process is accompanied by distancing from parents and reduction in their influence, especially in matters outside of home or in the privacy of one’s room. Although this is true for both Jewish teens and Arab teens, it is of interest because we expected to find differences based on population affiliation.

Basing ourselves on systems theory, we argued that families absorb their parental practices from values inherent to their social environment. Arab society is known for strong collectivistic, conservative, and traditional values; Jewish society is reputed for more individualistic, modern, and Western values (Abbas & Mesch, 2015; Khoury-Kassabri et al., 2019). Therefore, we expected parental monitoring to be more influential in Arab society than in Jewish. The absence of such an influence, however, may reflect a generation gap manifested in less parental influence on adolescents’ Arab adolescents’ behavior. As for the lack of direct parental influence on teens’ cyberbullying behaviors in Jewish society, we suggest that it does indicate that children are expected from early age to get along with their peers and manage their “social problems” without adult involvement (Lapidot-Lefler & Hosri, 2016).

Nevertheless, we did find an indirect positive influence of parental protectiveness against cyberbullying via sensation-seeking behavior among Jewish teens. It is possible that parents’ efforts to warn their children against dangers bear fruit by mitigating engagement in risky behaviors and, in turn, reducing cyberbullying of others. There is evidence in the research literature of significant paths from family bonds to sensation-seeking. Smorti and Guarnieri (2014) support this conjecture by showing that sensation-seeking mediates between parental bond and dangerous driving. We suggest that future studies should consider broadening the measurement of the practice of parental protectiveness and its implications for sensation-seeking and aggressive behavior.

Another unexpected finding was the indirect positive link between parental support and cyberbullying by Jewish adolescents via sensation-seeking behavior. It seems that parents support their children even if they are involved in risky behavior, a practice that may provide their children with self-confidence that they use for aggressive actions. Seixas et al. (2013), investigating the relation between involvement in bullying and various health behaviors, found that bullies exhibit increased self-confidence and self-esteem. The same mechanism, we may suggest, operates in cyberbullying behaviors. Further studies are needed to explore this conjecture.

Indeed, we found a positive link between dangerous behaviors and cyberbullying perpetration among Jewish teens. This finding squares with other evidence of the
association between involvement in violence and impulsive behaviors (Khoury-Kassabri et al., 2019). Floros et al. (2013), for example, found that among 2,017 students in Greece, impulsivity was associated with a greater likelihood of perpetrating cyberbullying. Sensation-seeking is one of the components of impulsivity. The absence of an association between sensation-seeking behavior and cyberbullying behavior among Arab youth may be explained by the descriptive statistic. The findings indicate that Arab adolescents engage in sensation-seeking behaviors at lower rates than do Jewish adolescents while no significant differences in the rates of cyberbullying perpetration are found. Given these findings, it stands to reason that sensation-seeking behavior is less powerful in explaining cyberbullying perpetration among Arab youth. We suggest that insofar as future studies broaden the measurement of the concept of sensation-seeking behavior, a deeper understanding of this association among Arab as well as Jewish teens may be attained.

Our findings strongly support the social-norms theory, which emphasizes the powerful impact of friends on adolescent behavior. When adolescents believe that their friends are involved in cyberbullying perpetration or in sensation-seeking behavior, they tend to engage in such behaviors themselves. It is possible that adolescents involved in aggressive and risky behaviors tend to justify them by overestimating the norms of their peers. In this phenomenon, known as the false-consensus effect, adolescents project their behavior onto their friends in order to normalize their own behavior (Bauman & Ennett, 1996; Baumgartner et al., 2010; Gerrard et al., 1996). Another explanation may be that positive peer norms constitute attempts to mitigate cognitive dissonance.

Finally, when we consider the contribution of parents’ and peers’ descriptive norms to involvement in traditional bullying or cyberbullying, it seems that peers are much more influential than are parents—among Jewish and Arab youth alike.

5.1 Limitations of the Study

The findings of this study should be considered in view of several limitations. First, the measurement of cyberbullying perpetration and sensation-seeking engagement uses one measure per variable. Although this is an acceptable measurement that yielded solid and reliable data, studies that broaden the measures would provide more information. Second, parental protection was assessed by means of two variables; even though they provide a solid and reliable measure of this concept, it is advisable to broaden the measurement of the concept. Third, different aspects of parents’ practices were assessed on the basis of three variables: parental support, parental monitoring, and parental protectiveness. Although they produced a solid and reliable measure of the concept, the measurement should be broadened to include additional aspects of family climate that may enrich our understanding of adolescents’ aggressive behaviors. Fourth, as mentioned above, the second round of data collection took place after the first COVID-19 lockdown. Even though the participants were asked to ignore the effect of the pandemic while answering the questionnaire, it may have affected our findings.
6 Conclusions

Despite its limitations, this study presents important and unique findings. The results indicate that youngsters involved in cyberbullying are strongly influenced by their peers. The prevalence of this pattern in both the Jewish and the Arab populations indicates its universal nature. These findings add evidence to the extensive literature that documents the importance of peers for various behaviors during adolescence. On a practical level, it may be suggested that bullying behaviors may be mitigated by taking measures in formal and informal education.

Another aspect of the results is the decline in parental influence on adolescents’ cyberbullying behaviors, especially among Arab teens. This may be an indicator of cultural changes taking place in the Arab population in Israel alongside widening of the generation gap; it should also be viewed in light of rising violence among the Arab population. In general, parents should bear this shift in parent–child communication in mind and adopt other parental practices in order to remain meaningful adults in their children’s lives.

Author Contribution Hagit Sasson: Conceptualization, Investigation, Methodology, Formal analysis, Writing—original draft, Writing—review & editing, Project administration, Supervision, Validation; Aviad Tur-Sinai: Conceptualization, Investigation, Methodology, Data Curation, Funding acquisition, Investigation, Writing—review & editing, Validation; Keren Dvir: Conceptualization, Investigation, Methodology, Writing—review & editing, Validation; Yossi Harel-Fisch: Conceptualization, Writing—review & editing, Validation.

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Data Availability The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding author upon reasonable request.

Declarations

Ethical Approval The research protocol received approval from the ethic committee of the Max Stern Yezreel Valley College, Israel.

Informed Consent Informed consent was obtained from all parents of youth participating in the study, and informed assent was obtained from all adolescents.

Conflict of Interest The authors declare that they have no conflict of interest.

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