The influence of coping and social support on resilience among Indonesian adolescents with bullying victimization

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Abstract: Bullying victims and their relationship to coping and social support in adolescents has been extensively discussed. However, little is established about the underlying this relationship, particularly the significance of resilience. We investigated the relations between coping and social support on resilience among Indonesian adolescents with bullying victimization. A Cross-sectional study with 107 adolescents with bullying victims from a public school and two private schools in grades 7 to 9 was recruited. Adjusted coefficients β and 95% confidence interval were estimated using multiple linear regression. The findings indicated that coping was independently associated with resilience. Moreover, social support-friend was prominent factors on resilience. However, no significant relationship between social support-family and resilience among adolescents with bullying victims after controlling for confounding factors. The study found that coping and social support-friends are strengthening determinants, particularly those aimed at improving resilience among adolescents with bullying victims.

Keywords: adolescents; bullying victimization; coping; social support; resilience

Introduction

Bullying victimization is a widespread global systemic concern that has major effects for those who are bullied (Halliday et al., 2021). Bullying often triggers serious conflict among adolescents and becomes a complex psychosocial problem (Akasyah et al., 2018; Gaffney et al., 2021). According to a cross-cohort survey international comparation conducted in several countries such as Ghana, Canada, China, Indonesia, and Australia approximately 30% of adolescents had experienced bullying victimization (Elgar et al., 2015), which was committed purposefully and frequently by an identifiable group and individual based on a power imbalance between victims and perpetrators (Zhao et al., 2021). In Indonesia, specifically, it is presented that 19,9% of adolescents in grade 7 to 9 were victims of being bullied (Yusuf et al., 2019). Importantly, bullying can also have direconsequences: adolescents with a history of bullying were more likely to have suicidal thoughts and attempt suicide later in life (Antila et al., 2017). That is, some victims who have been experienced bullying may turn into a bully, which make the issues of bullying more complex and harder to resolve (Brighi et al., 2019; Folayan et al., 2020). The high frequency and dire consequences of bullying among adolescents needs an understanding about the factors that contribute to bullying’s burden. These factors, which include coping (Brighi et al., 2019) and social support (Folayan et al., 2020), might enhance adolescents’ resilience when they are bullied.

Resilience focuses a priority on an individual’s capacity to deal successfully with adversity and has been a prominent issue in the society of psychology (Ophir et al., 2019). Resilience refers to positive adaptation, or the ability to retain or regain mental health, despite suffering. Resilience can be viewed as a measure of the ability to cope with stress
and, therefore, can be an important indicator in the treatment of anxiety, depression, and stress reactions (Akasyah et al., 2018). More recently, several researchers have reported a positive link between adolescents’ resilience and adolescents who suffer from bullying (Brighi et al., 2019; Folayan et al., 2020; Zhao et al., 2021). Some characteristics of those who had experience bullied, and its management regimen, including the psychological and social support was associated with resilience (Folayan et al., 2020; Widiharto et al., 2022). Recognizing the predictors of resilience, particularly those modifiable, may be valuable for future health interventions targeting improve resilience (Sisto et al., 2019), consequently, promote life satisfaction of adolescents with bullying victimization. Notably, only one study has investigated the determinants contributing to resilience among adolescents with bullying victimization in Indonesia. Nonetheless, the population was recruited from Islamic boarding schools, which are the exclusive population, thus declining the generalization of the population study (Solicha et al., 2020). It could therefore cause an underestimation of the effect of resilience among adolescents with bullying victimization.

The previous study suggested the potential for growth and development of resilience and proposed a plausible platform for coping and resilience intervention (Booth & Neill, 2017). As a result, establishing a repertoire of productive coping that are adaptable and successful in various contexts is essential to realizing one’s resilience potential (Booth & Neill, 2017; Rhee et al., 2017). According to a previous study, additional research should be conducted to determine the impact of coping in relation to resilience (Brighi et al., 2019). Therefore, coping seems to be a pathway to resilience, as suggested by previous study (Raskauskas & Huynh, 2015), at least in relation to direct confrontation, as its enactment improves resilience. However, no study has been conducted in Indonesia to examine the association between coping and resilience in adolescents with bullying victimization. Thus, establishing this relationship is critical for encouraging coping and improving the resilience of Indonesian adolescents with bullying victimization.

Social support from friends and family can support reduce the adverse effects of bullying (Shaheen et al., 2019). Moreover, social support was correlated with resilience among adolescent in Nigeria (Folayan et al., 2020). Social support from friends may also contribute to bullying resilience. For example, bullied adolescents who report high levels of friends support are more likely to maintain student performance levels appropriate for their age group than those who report low levels of friends support (Rothon et al., 2011; Sapouna & Wolke, 2013). According to several studies, a high level of friends support ameliorates the effect of bullying victimization on the emotional adjustment of adolescents (Sapouna & Wolke, 2013; Yeung & Leadbeater, 2010).

On the other hand, other study has discovered that support from friends alone is insufficient to offset the significant negative effect of bullying on adolescent emotional adjustment (Pouwelse et al., 2011). There is evidence that relationships with peers serve as more significant stress buffers during adolescence than relationships with family support (Stadler et al., 2010). Consequently, further investigation of relationships between social support including family and friends with resilience need to be clarified.

Remarkably, adolescents who knew themselves well with the adaptive coping were more likely to be resilience (McVie, 2014). Moreover, bullying victims and their relationship to coping and social support in adolescence have been extensively discussed in the scientific literature. However, a lack of study to investigate the underlying factors that influence these relationships, particularly the role of resilience (Brighi et al., 2019; Folayan et al., 2020; Zhao et al., 2021). The study aimed to investigate the relationship between coping and social support on resilience among Indonesian adolescents with bullying victimization.
Materials and Methods
The Materials and Methods should be described with sufficient details to allow others to replicate and build on the published results. Please note that the publication of your manuscript implicates that you must make all materials, data, computer code, and protocols associated with the publication available to readers.

Study Design and Participants
A cross-sectional study in the Indonesian province of East Java using stratified random sampling. For the first stage, we divided the province into 38 regions. For the second stage, we selected two regions from the 38 regions available. In the final stage, we randomly selected four schools from the two regions for data collection, one of which declined our invitation to participate in our research. In the end, we recruited participants from a public school and two private schools with the total number of students with grade 7 to 9 in these schools was 1131 students. The number of eligible adolescents with bullied victimization was 107 adolescents. The inclusion criteria included (1) Indonesian nationality and students with grade 7 to 9, (2) had history or exposure to bullying, and (3) agreement to participate in the study. Participants who not completed the questionnaires was excluded from our research.

Data Collection
Data collection was carried out in March 2018 in three schools in the provinces of Central Java and East Java, Indonesia. Researchers collected data with the assistance of other researchers.

Sample Size
To calculate sample size, we used G-Power Version 3.1.9.2 with effect size of .20 (Shaheen et al., 2019), an a alpha level of .05, and a power value of .80, we calculated a sample size of 107 participants.

Instruments
Exposure to bullying
The Olweus Bullying Questionnaire (OBQ) was examined the adolescents’ experience of being bullied. Ten items were evaluated to the victims; however, the critical question for representing exposure to bullied in the OBQ is question 4; "How often have you been bullied in the past couple of months?". Participants rated each item on a five-point Likert scale, ranging from 0 = hasn’t happened; 1 = once or twice; 2 = 2-3 times a month; 4 = about once a week, and 5 = several times a week, with higher scores suggesting higher frequencies of victimization. In our study, participants who had been bullied/bullied others “2 or 3 times a month” or more often (this term) were classified as bullied victims, and students who had not been bullied/bullied others (this term) or replied "only once or twice" were categorized as non-bullied victims (Solberg & Olweus, 2003). Moreover, participants reported they had experienced or no experienced with five specific forms of bullying, including capturing verbal, physical, social, sexual, and cyber (Olweus, 2003). The duration experience of bullying victimization was classified with <6 and >6 (Sigurdson et al., 2015). In our study, the Cronbach alpha for the Indonesian version of the bullying exposure measure was .87. We also performed the content validity was .90 with determined by three experts in nursing.

Resilience
The Brief Resilience Scale (BRS) consist six-item questionnaire that assesses an individual’s capacity to recover from stressful experiences. the questionnaire statement for items 1, 3, and 5 was positive, whereas the statement for items 2, 4, and 6 was negative and reverse to positive. The participants rated each item on a five-point Likert scale, ranging
from 1 = strong disagreement, 2 = disagreement, 3 = neutral agreement, 4 = agreement, and 5 = strong agreement, with indicated that the average scores to generate higher endurance scores that imply greater resilience (Smith et al., 2008). The previously in Indonesia showed the Cronbach alpha was .78 (Raisa & Ediati, 2016). In the current study the Cronbach’s alpha was .86.

Coping
The Brief Coping Orientation to Problems Experienced (COPE) consisted of 28 items questionnaire that examined individuals’ coping. The COPE using a Likert Scale of likelihood to cope in specific ways. It ranged from 1 = highly unlikely to 4 = highly likely, indicating a higher score that implies adaptability of good coping (Carver, 1997). The Cronbach alpha for the Indonesian version of the COPE with negative cope and positive cope was .73 to .84, respectively. Moreover, in our study the total Cronbach’s alpha for COPE was .78.

Social support
The Perceived Social Support (PSS) Scale assessed perceived social support. PSS consisted of 40-item scale that assesses the perceived nature of social support received from family and friends. The PSS was sub-divided into two subscales such as perceived social support from family (PSS-Fa) and perceived social support from friends (PSS-Fr). Each subscale has a score between 0 to 20. Lowered scores indicate a declining perception of social support (Procidano & Heller, 1983). We performed the content validity of total PSS was .90 with determined by three experts in nursing. Moreover, the Cronbach’s values for the Indonesian version was .93 and 0.76 for the PSS-Fr and PSS-Fa, respectively in our study.

Statistical Analysis
The frequency (n) and percentage distributions of demographic data and determinant factors between groups are used (%). Continuous variables are expressed as means with standard deviations and were analyzed independently using the t test, and Pearson’s correlation, as appropriate. Multicollinearity was determined with a variance inflation factor (VIF) of <10 (García et al., 2015; Rias et al., 2020). The maximum VIF in our investigation was 1.25, indicating that our data had a low impact on multicollinearity. After adjusting for potential confounding variables such as gender, age, duration exposure of bullying including victims, verbal, social, physical, sexual, and cyber bullying. The adjusted $\beta$ coefficients and 95% confidence intervals (CIs) for resilience in relation to exposures of interest were obtained. SPSS Version 25.0 (Chicago, IL) was used for statistical analysis, with a p value of .05 justified statistically significant.

Results
Table 1 presents the demographic characteristics of the participants. There were no significant differences by age, gender, perceived social support family, bullying time, verbal bullying, social bullying, physical bullying, sexual bullying, cyber bullying in total resilience score. However, we did find a significant difference by perceived social support friends and coping. Most of the students experienced bullying > 6 months (n = 102) and only a few experienced bullying under 6 months (n = 5). Female students had a larger number (n = 60) than male students (n = 47). In addition, verbal bullying and physical bullying dominate more than sexual bullying, social bullying, and cyber bullying.
Table 1. Demographic characteristics of the participants.

<table>
<thead>
<tr>
<th>Variables Characteristic</th>
<th>n (%)</th>
<th>The Brief Resilience Scale (BRS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean (SD)/r</td>
</tr>
<tr>
<td>Age (years) a</td>
<td>107 (100)</td>
<td>2.45 (0.69)</td>
</tr>
<tr>
<td>Perceived Social Support Friends a</td>
<td>107 (100)</td>
<td>11.94 (3.28)</td>
</tr>
<tr>
<td>Perceived Social Support Family a</td>
<td>107 (100)</td>
<td>11.22 (3.16)</td>
</tr>
<tr>
<td>Coping a</td>
<td>107 (100)</td>
<td>17.07 (3.70)</td>
</tr>
<tr>
<td>Bullying time b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;6 months</td>
<td>5 (4.67)</td>
<td>19.21 (2.46)</td>
</tr>
<tr>
<td>&gt;6 Months</td>
<td>102 (95.32)</td>
<td>19.80 (2.49)</td>
</tr>
<tr>
<td>Gender b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male b</td>
<td>47 (43.92)</td>
<td>19.77 (2.50)</td>
</tr>
<tr>
<td>Female b</td>
<td>60 (56.07)</td>
<td>18.83 (2.34)</td>
</tr>
<tr>
<td>Verbal bullying b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>84 (78.50)</td>
<td>19.40 (2.43)</td>
</tr>
<tr>
<td>No</td>
<td>23 (21.49)</td>
<td>18.65 (2.48)</td>
</tr>
<tr>
<td>Social bullying b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60 (56.07)</td>
<td>19.45 (2.48)</td>
</tr>
<tr>
<td>No</td>
<td>47 (43.92)</td>
<td>18.98 (2.41)</td>
</tr>
<tr>
<td>Physical bullying b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>85 (79.43)</td>
<td>18.81 (1.62)</td>
</tr>
<tr>
<td>No</td>
<td>22 (20.56)</td>
<td>19.35 (2.61)</td>
</tr>
<tr>
<td>Sexual bullying b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17 (15.89)</td>
<td>19.12 (1.32)</td>
</tr>
<tr>
<td>No</td>
<td>90 (84.11)</td>
<td>19.27 (2.61)</td>
</tr>
<tr>
<td>Cyber bullying b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>75 (70.09)</td>
<td>19.27 (2.45)</td>
</tr>
<tr>
<td>No</td>
<td>32 (29.90)</td>
<td>19.19 (2.49)</td>
</tr>
</tbody>
</table>

aPearson’s correlation. bIndependent t test.

We have presented the determinantal factors for resilience in Table 2. We observed significant correlations between resilience and total coping ($p < .014$), perceived social support friend ($p < .001$), and no significant for perceived social support family ($p < .41$).

Table 2. Descriptive statistics and zero-correlations among study variables.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Perceived social friend support</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Perceived social family support</td>
<td>.093</td>
<td>.061</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3 Coping</td>
<td>.120</td>
<td>.230*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Resilience</td>
<td>.597**</td>
<td>.053</td>
<td>.230*</td>
<td>1</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01

Highlighted, the adjusted β coefficients and 95% CIs of coping, perceived social support friend, and perceived social support family, are presented in Table 3. Participants with high score coping showed significant value ($\beta = 0.03$, 95% CI [0.01, 0.05]). This shows that the higher the coping, the better the resilience. Friend support also showed the significance value with ($\beta = 0.43$, 95% CI [0.31, 0.54]). However, no significant relationship between social support-family and resilience among adolescents with bullying victims after controlling for confounding factors.
Table 3. Adjusted β Coefficients and 95% Confidence Intervals (CIs) of coping, social support including family and friend score for resilience in adolescents with bullying victimization

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unadjusted Coefficients β (95% CI)</th>
<th>p value</th>
<th>Adjusted Coefficients (95% CI)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping</td>
<td>0.39 [0.01, 0.07]</td>
<td>0.14</td>
<td>0.29 [0.04, 0.54]</td>
<td>.024</td>
</tr>
<tr>
<td>Perceived social Support</td>
<td>0.47 [0.33, 0.56]</td>
<td>0.00</td>
<td>0.42 [0.31, 0.54]</td>
<td>.000</td>
</tr>
<tr>
<td>friend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived social support</td>
<td>0.41 [-0.11, 0.19]</td>
<td>0.58</td>
<td>-0.01 [-0.14, 0.11]</td>
<td>.817</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 107. Adjusted β coefficients and 95% CI were estimated using multiple linear regression after adjusting for gender, age, verbal bullying, social bullying, physical bullying, sexual bullying, and cyber bullying.

Discussion

Prior research has shown that adaptive coping was positively associated with resilience to developmental strength among adolescents (Donnon & Hammond, 2007). Coping mechanisms are critical during adolescence for maintaining positive adaptation to stressors. Surprisingly, coping is a mechanism for inciting personal resources, and resilience is a beneficial outcome of successful coping (Narayanan & Betts, 2014). In line with previous study revealed that the teenagers and children’s resilience can increase when they believe and manage adverse situations. Moreover, they had the negative emotions such as depression converted to positive ones through the use of specific coping strategies. As a result, they develop resilience as they learn to cope effectively with adversity (Vandoninck et al., 2013). Moreover, study in Norway presented that negative coping such as depressive symptoms strongly correlated with resilience among adolescents (Hjemdal et al., 2007). Highlighted that the increase in a low score of resilience-related bullying victim’s cases in Indonesia requires further advocacy of mental health services with coping prevention or growth, in which coping strategies are recommended among adolescents with bullied victims.

Another key finding in the present study was that friend support correlation with resilience, but we observed no significant correlation between the family support and resilience. The support of friends greatly affects individuals’ psychological and mental health who get bullying (Ungar et al., 2014). Similarity with our study, the cohorts study in Australia presented that friends support can protect bullying students from adverse psychological effects such as stress and depression (Vassallo et al., 2014). Moreover, the friend support was more accessible and effective decline the negative psychological effects than family support among adolescents (Natvig et al., 2001). In line with the resistance theory, the protective factor can be a promotive factor that can help adolescents avoid harmful risk exposure (Fergus & Zimmerman, 2005). Contractility, both family support and friend support in the form of emotional support may help adolescents overcome the harmful effects of stressors, either physical or psychological stressors (Aneshensel & Stone, 1982), which escalated resilience. There are several possible explanations for the finding that resilience is associated with PSS-Fr but not with associated PSS-Fa. First, because the social support of friends allows one to feel cared for, valued, gain new strength from the external, helping with problem-solving, increase resilience and mitigate the adverse effects of adversity (Wilks & Spivey, 2010). Second, adolescents are encouraged to pursue higher education as a means of transitioning away from familial dependence and toward reliance of self and friend in a similar environment. Within this mechanism, it is reasonable to assume that adolescents internalize friend support more than family.
support; similarly to previous research (Chambel & Curral, 2005), these study advocates for friend support to promote student well-being, specifically resilience reducing stress. That is, even though the support from family does not work on resilience, it is still helpful in improving mental health for adolescents. More generally, based on our findings, we presented that increasing adaptive coping and improving friend support are potentially effective strategies for improving resilience as well as reducing risk suicide, stress, or depression among adults with bullied victims.

Conclusions
The present research revealed that coping and friend support independently were associated with improved resilience scores among participants with bullied victims; however, no significant correlation between family support and resilience. That is, even though the support from family does not work on resilience, it is still helpful in improving mental health for adolescents. These findings suggest that health professionals as well as mental health nurses should indeed play a critical role in identifying and promoting treatment-targeted strategies such as escalating adaptive coping and increasing social support—friends and family to improve resilience among adolescents who have been bullied. This appeared to be the first study that provide an understanding of the association between coping and social support, including family and friends, on resilience among Indonesian adolescents with bullying victimization. Specifically, mental health nurses should be aware of and explore the significance that social support and coping style could effectively mental health regarding the resilience among adolescents with bullying victimization. Importantly, understanding the mechanisms by which coping and social support factors protect adolescents from emotional and behavioral difficulties as a result of bullying victimization is a critical goal for future mental health nursing research on resilience in bullied adolescents and may represent a critical area for clinical nursing intervention.

Author Contributions: Conceptualization, Wildan Akasyah and Yohanes Andy Rias; methodology, Yohanes Andi Rias; software, X.X.; validation, Wildan Akasyah and Yohanes Andy Rias; formal analysis, Wildan Akasyah and Yohanes Andy Rias; investigation, Wildan Akasyah; resources, Wildan Akasyah and Yohanes Andy Rias; data curation, Wildan Akasyah, Yohanes Andy Rias and Dang Thi Thuy My; writing—original draft preparation, Wildan Akasyah and Dang Thi Thuy My.; writing—review and editing, Yohanes Andy Rias; visualization, Wildan Akasyah and Dang Thi Thuy My.; supervision, Yohanes Andi Rias; project administration, Wildan Akasyah. All authors have read and agreed to the published version of the manuscript.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from the students to publish this paper.

Data Availability Statement: Not applicable

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Conflicts of Interest: The authors declare no conflict of interest

References


