# Cyberbullying and quality of life: The role of social support as mediator

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**Abstract.** Cyberbullying represents a form of digital harassment that poses a significant risk to adolescents' quality of life. However, its negative impact does not always occur directly but may be shaped by protective factors within the social environment. This study aims to examine the mediating role of social support in the relationship between cyberbullying and adolescents' quality of life. Participants consisted of 207 adolescents aged 14–19 years (101 females and 106 males) who had regular access to the internet and social media. The instruments employed were the Youth Quality of Life – Short Form (YQOL-SF), the Cyberbullying Scale, and the Multidimensional Scale of Perceived Social Support (MSPSS). Data were analyzed using mediation analysis technique. The results reveal that cyberbullying does not significantly affect quality of life directly ($\beta = -0.111$, $p = 0.069$). In contrast, social support shows a significant and positive effect on quality of life ($\beta = 0.460$, $p < .001$), serving as the primary pathway mediating the relationship between cyberbullying and quality of life. The findings highlight that social support plays a crucial role in sustaining adolescents' quality of life amidst the prevalence of cyberbullying.

## 1 Introduction

Quality of life during adolescence plays a crucial role in mental health. Ideally, every adolescent should achieve a high quality of life, in line with the World Health Organization's objective that each individual is expected to be physically and psychologically healthy. Individuals with a high level of quality of life tend to possess a positive perception of themselves and their environment. This aligns with developmental tasks in adolescence leading toward adulthood. Quality of life is closely associated with the concepts of psychological well-being and happiness and indicated a strong correlation among psychological well-being, happiness, and quality of life. These terms generally refer to a state of physical and mental health; therefore, they are often used interchangeably.

Thus, concerns regarding adolescent quality of life as part of mental health issues have evolved into both a national and global concern. Low quality of life during adolescence has significant consequences, influencing health outcomes during adolescence as well as later developmental stages. These effects range from a weakened immune system to physical decline manifested in physiological problems. Therefore, mental health has direct implications for physical health.

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Various factors can act as stressors during adolescence. Technological advancements, particularly the internet, are suspected to affect adolescents' psychological well-being. Such risk is cyberbullying, which has become increasingly common given the widespread use of technology among adolescents. The anonymity afforded by the internet facilitates perpetration. Unlike traditional bullying, which often occurs at school, cyberbullying transcends geographic and temporal boundaries [1,2]. Moreover, the lack of face-to-face interaction between perpetrators and victims often desensitizes perpetrators to the severity of their actions.

Cyberbullying encompasses a variety of forms, including threats, hate speech, and online sexual harassment. Its consequences are diverse, particularly concerning mental health [3] and may include reduced self-esteem, psychosomatic symptoms [4], increased stress, self-harm, suicidal ideation [5], depression, and impaired adaptability [6]. Given these outcomes, it is evident that cyberbullying negatively impacts the quality of life of its victims.

Nonetheless, cyberbullying does not necessarily lead to a decline in adolescents' quality of life. Social support is suggested as a protective factor [7,8]. Social support can be defined as a form of close relationship between individuals that supports optimal personal well-being [9]. When experiencing cyberbullying, adolescents may turn to social environment to share their negative emotional experiences. Such support is perceived to strengthen adolescents' quality of life. Conversely, insufficient social support is associated with a greater likelihood of mental health problems, particularly among female adolescents. Furthermore, poor communication increases the risk of both experiencing cyberbullying and its adverse mental health effects. Therefore, social support plays a vital role in safeguarding adolescents' quality of life when facing cyberbullying.

Furthermore, social support is equally important in preventing declines in adolescents' quality of life. The quality of social support can serve as a predictor of well-being among cyberbullying victims [9,10]. Other research highlights the role of social support in supporting victims. Experiments employing empowerment strategies through peers' empathetic approaches have shown that social support can provide crucial emotional support to victims. Based on the foregoing discussion, there appears to be a significant role of social support in maintaining the quality of life of adolescents who experience cyberbullying. Accordingly, this study aims to answer the following research question: "Does social support serve as a mediating variable between cyberbullying and quality of life among adolescents?".

## 2 Methods

### 2.1 Participants

The study involved 207 participants, comprising 101 female students and 106 male students in one private highschool in Yogyakarta. The sampling techniques used purposive sampling to gather data from participants that fulfil the qualifications. Their ages ranged from 14 to 19 years (M = 17,14; SD = 0,935). All participants reported having daily access to the internet or social media platforms.

### 2.2 Research Instrument

The quality of life scale used in this study was based on a translated version of the Youth Quality of Life Instrument – Short Form (YQOL-SF) Version 2.0, which consists of 15 items developed by Patrick and Edwards (2013) [11]. The reliability analysis yielded a Cronbach's alpha coefficient of 0.849, indicating high internal consistency.

Cyberbullying was measured using the Cyberbullying Scale developed by Akbulut, Sahin, and Eristi (2010) [11], consisting of 28 items. This instrument demonstrated acceptable reliability with a Cronbach's alpha coefficient of 0.766. The scale employed a five-point Likert-type response format: Very Often (5), Often (4), Sometimes (3), Rarely (2), and Never (1). All items were scored in a favorable direction.

Perceived social support was assessed using The Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al. (1988) [12], which measures support from parents, peers, and significant others. The scale consists of 12 items, each rated on a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). The adaptation demonstrated strong internal reliability, with an overall Cronbach's alpha coefficient of 0.871. All items were found to be valid.

### 2.3 Data Analysis Techniques

Data were analyzed using mediation analysis conducted with the JASP software package. Bootstrapping technique was not performed in this study

## 3 Result

### 3.1 Descriptive Data on Social Media Use

**Table 1.** Distribution of Social Media Usage Time

| Social Media Usage Time | Frequency | Percentage |
|---|---|---|
| < 1 hours | 11 | 5,3 % |
| 1 – 5 hours | 71 | 34,3 % |
| 6 – 10 hours | 91 | 44,0 % |
| > 10 hours | 34 | 16,4 % |
| Total | 207 | 100 % |

The descriptive data presented in Table 1 indicate that adolescents spend a substantial amount of time on social media. The highest proportion of usage falls within the range of 6–10 hours per day, suggesting that prolonged social media engagement is common among participants.

### 3.2 Mediation Analysis

**Table 2.** Path coefficients

| | | | | | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | Std. estimate | Std. error | z-value | p | Lower | Upper |
| Social Support → QOL | 0.460 | 0.055 | 8.395 | < .001 | 0.352 | 0.567 |
| Cyberbullying → QOL | -0.111 | 0.061 | -1.820 | .069 | -0.231 | 0.009 |
| Cyberbullying → SOS | -0.150 | 0.068 | -2.207 | .027 | -0.283 | -0.017 |

Note. Estimation is ML

Based on Table 2 and Figure 1, social support emerges as the primary predictor of adolescents'quality of life. While cyberbullying does not exert a significant direct effect on quality of life, it demonstrates an indirect effect by reducing perceived social support, which subsequently lowers quality of life. These

findings support the hypothesis that social support mediates the relationship between cyberbullying and quality of life.

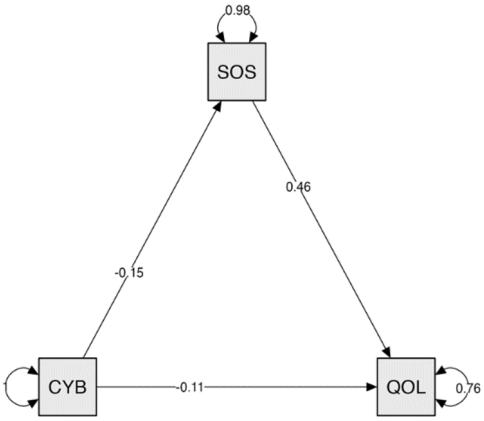


**Fig 1.** Path Analysis

The results reveal that cyberbullying does not significantly affect quality of life directly ($\beta = –0.111$, $p = 0.069$). In contrast, social support shows a significant and positive effect on quality of life ($\beta = 0.460$, $p < .001$), serving as the primary pathway mediating the relationship between cyberbullying and quality of life. These findings indicate that social support functions as a full mediator, such that the negative impact of cyberbullying on adolescents' quality of life manifests only when the level of social support is low.

## 4 Discussion

The findings of this study indicate that there is no significant direct correlation between cyberbullying and quality of life. This suggests that the experience of cyberbullying does not automatically lead to a decline in adolescents' quality of life. Thus, several factors may explain why cyberbullying does not directly influence adolescents' quality of life.

A crucial role is played by the mediator variable—social support. The results are consistent with the buffering hypothesis, which posits that social support functions as a protective factor against the impact of cyberbullying on adolescents' quality of life. This may be related to the developmental stage of adolescence, where peer relationships hold central importance. In line with previous research, findings demonstrate that support from peers, parents, and teachers plays a significant role in maintaining adolescents' psychological well-being when facing cyberbullying [8]. Similarly, follow-up studies revealed that peer support can enhance mental well-being while reducing symptoms of depression and anxiety among adolescents [13]. These findings reinforce the notion that the extent of social support contributes to the strength of the relationship between cyberbullying and quality of life.

Further discussion concerns why social support becomes particularly significant when adolescents encounter external stressors. Research indicates that reliable sources of support can provide a sense of trust, familiarity, and companionship, which may come familiar figures. A high level of social support is also associated with fewer psychological symptoms. Given that adolescence is a transitional period toward adulthood, strong social support from significant others is essential to minimizing potential disruptions to quality of life.

This study, however, is not without limitations. First, data collection was conducted within a single school, which may have introduced homogeneity among the research subjects. Additionally, the study did not examine in detail the duration or type of social media

platforms most frequently used by participants, which could offer further insights into the dynamics of cyberbullying and quality of life.

## 5 Conclusion

This study highlights the significant role of social support as a mediating variable between cyberbullying and quality of life. The findings provide new insights into the function of social support as a buffer, helping adolescents maintain their quality of life even when experiencing cyberbullying.

## 6 Implication

Practically, these findings emphasize the importance of implementing social support programs across various contexts of adolescent life. Social support-based interventions are recommended to reduce the negative psychological consequences of cyberbullying and to safeguard adolescents' developmental outcomes.

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**Competing Interest:** The authors declare no competing interests.

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