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Online victimisation and stress among high school students: prevalence and relationships

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ABSTRACT

This study aimed to investigate the prevalence of online victimisation, the prevalence of stress among high school students, and the mediating role of avoidance coping in the online victimisation-stress relationship. A cross-sectional study utilising 507 high school students was conducted employing a convenience sampling method. The survey comprised questions related to online victimisation, avoidant coping, stress, and socio-demographics. Research results showed that the prevalence of online victimisation and stress among high school students were 59.2% and 40.8%, respectively. Online victimisation directly increased stress levels among students ($\beta = 0.213$, $p < 0.001$). Avoidant coping mediated the online victimisation-stress relationship ($\beta = 0.383$, 95% CI = [0.276; 0.509]). The findings of this study are a practical basis for proposing intervention measures to reduce stress for high school students in the study area.

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KEYWORDS

Avoidant coping; online victimisation; stress; high school students; Vietnam

1. Introduction

Adolescence is defined as the period from 10 to 19 years old, serving as a bridge from childhood to adulthood. Adolescents experience many psychosocial and physiological changes that make them especially susceptible to stress (Anjum et al. 2022). Becoming a victim online can be considered a stressful situation (Ho and Gu 2023) among adolescents. The term 'online victimization' refers to experiencing aggressive behaviours when utilising smartphones, game consoles, and other information and communication technology platforms (Kowalski, Limber, and McCord 2019; Shoib et al. 2022). In other countries, an estimated 14.6% (Lee and Shin 2017) to 61% become online victims (António, Guerra, and Moleiro 2023). In Vietnam, the prevalence of online victimisation among adolescents found in studies ranges from 18.4% (Tran, Weiss, and Nguyen 2022) to 36.5% (Thai et al. 2022). According to previous reports, online victimisation was closely correlated with mental health (Eroglu, Peker, and Cengiz 2022; Siah et al. 2022; Thai et al. 2022). Stress is one of the common symptoms related to mental health. The term 'stress' is used to describe any situation in which homeostasis is gravely threatened (Schneiderman, Ironson, and Siegel 2005). In other countries, the prevalence of stress among adolescents was found in previous studies to range from 32.9% (Karki et al. 2022) to 73.5% (Anjum et al. 2022). In Vietnam, the

prevalence of stress among adolescents found in studies ranges from 28.4% (Thai, Nguyen, and Pham 2021) to 74.0% (Nguyen, Hoang, and Nong 2015). Stressed adolescents are at risk of experiencing more serious mental health problems such as anxiety and depression (Anyan and Hjemdal 2016; Thorsteinsson, Ryan, and Sveinbjornsdottir 2013).

1.1. Online victimisation and stress

It was found that online victimisation is positively correlated with stress levels (Kampoli et al. 2017; Martins et al. 2016; Pimentel, Cristina, and Dapieve Patias 2020); the greater the frequency of victimisation, the higher the stress level. Online victims often have a negative image not only of themselves but also of their friends, society, and friendships (Makarova and Makarova 2023), thus experiencing reduced self-esteem (Balluerka et al. 2023; Makarova and Makarova 2023). In addition, being victimised online (like being a victim of cyberbullying) can make the victim feel lonely (Li, Zhang, and Li 2021) and have reduced social support (Chen 2020) due to being excluded from the social group (Ho and Nguyen 2023). Meanwhile, low self-esteem (Juth, Smyth, and Santuzzi 2008), low social support (Pilcher and Bryant 2016), and loneliness (Satici 2020) can cause online victims to experience stress.

1.2. Avoidant coping as a mediator

For online victims, avoidant coping strategies are coping strategies considered as efforts to avoid being victimised online and include cognitive distance, internalising, and externalising strategies (Na, Dancy, and Park 2015). Avoidant coping is linked to online victimisation (Shukla and Chouhan 2023; Siah et al. 2022) and mental health problems (Na, Dancy, and Park 2015; Quynh Ho, Gu, and Wang 2022). Firstly, in cyberspace, victims often engage in avoidant coping strategies such as suppressing or hiding their emotions, not paying attention, and ignoring the situation of being online victimised (Chi et al. 2020; Mallmann et al. 2018; Vranjes et al. 2018). Online victims use avoidance coping strategies more than other coping strategies because they assume that cyberbullying or cyberstalking will subside when these strategies are applied or that the incident online is usually not serious and will eventually pass (Siah et al. 2022). Indeed, many studies show that the higher the frequency of online victimisation, the greater the use of avoidant coping (Shukla and Chouhan 2023; Siah et al. 2022). These findings were found in samples of Chinese (Siah et al. 2022) and Indian adolescents (Shukla and Chouhan 2023). Second, avoidant coping was found to be associated with increased symptoms of stress (Grummitt et al. 2023; MacCann, Double, and Clarke 2022; Mineva 2022; Smida et al. 2021). These findings were found in samples of students in Australia (Grummitt et al. 2023; MacCann, Double, and Clarke 2022), Qatar (Smida et al. 2021), Bulgaria, and Turkey (Mineva 2022). Like unhealthy coping strategies, avoidant coping involves trying to avoid stressors (online victimisation) and can worsen stress without helping the individual address what is causing them stress. Therefore, avoidant coping has created stress factors (Holahan et al. 2005). When becoming a victim online, individuals may constantly think about what is happening to them, which can increase stress. Individuals can only reduce stress when they completely solve the problem that is happening to them. Finally, avoidant coping may mediate the online victimisation-depression relationship (Prowten and Breitenstein 2023; Shukla and Chouhan 2023; Siah et al. 2022). According to previous studies, online victims with high levels of avoidant coping use had high depression scores (Prowten and Breitenstein 2023; Shukla and Chouhan 2023; Siah et al. 2022).

In Vietnam, many studies investigated the prevalence of online victimisation (Thai et al. 2022; Tran, Weiss, and Nguyen 2022) and stress (Nguyen, Hoang, and Nong 2015; Thai, Nguyen, and Pham 2021) among high school students; as well as the link between online

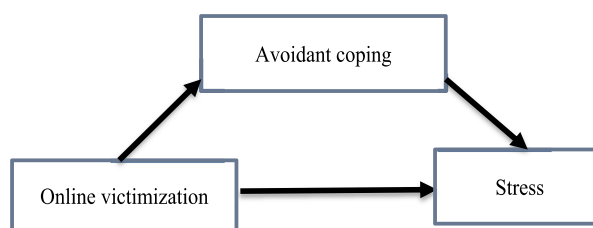


Figure 1. Proposed model.

victimisation and depression (Ho and Gu 2023), psychological distress (Ho and Nguyen 2023). However, around the world and in Vietnam, no study has investigated the mediating role of avoidant coping in the online victimisation-stress relationship, although single associations between the three variables have been reported in the literature. This created a gap in the literature and motivated us to explore the relationship between online victimisation, avoidant coping, and stress. Based on the transactional model of stress and coping theory (Lazarus and Folkman 1984), we propose a model that hypothesises the mediating role of avoidant coping in the online victimisation-stress relationship among Vietnamese high school students.

1.3. Purpose and research hypotheses

This study aimed to investigate the prevalence of online victimisation, the prevalence of stress among high school students, and the mediating role of avoidance coping in the online victimisation-stress relationship. Based on previous studies, this study proposes the following four hypotheses:

- H1: The prevalence of online victimization among high school students is high.
- H2: The prevalence of stress among high school students is high.
- H3: Online victimization is positively related to stress.
- H4: Avoidant coping mediates the online victimization-stress relationship. (Figure 1)

2. Methods

2.1. Sample

Participants in this study are students at high schools, Thu Dau Mot city in Binh Duong province, Vietnam. Ethical permission for this study was obtained from a university in Vietnam. This study also received permission from high school principals and parents. All participants checked the box agreeing to participate in

Table 1. Characteristics of the research sample.

	Variables	<i>n</i>	%
Gender	Female	233	46.0
	Male	274	54.0
Grade levels	10th grade	180	35.5
	11th grade	259	51.1
	12th grade	68	13.4
School name	Ngo Thoi Nhiem High School	387	76.3
	Nguyen Khuyen High School	120	23.7
Age (M ± SD)	16.01 ± 0.874		

the study. All students, parents, teachers, and high school principals were informed about the purpose, content, and how to participate in the study. The researcher further stated that the information supplied by the participants would not be shared.

This study was a cross-sectional design with a convenience sampling method. Data was collected in November 2023 through an online survey. The sample size was determined according to Slovin's formula ($N = 14941$, $e = 0.05$ and $n \geq 390$). There were two criteria used to recruit participants: the participants were high school students and used information and communication technology platforms. The survey process was conducted as follows: (1) The researcher meets with teachers to ask for help; (2) Through the help of teachers, the researcher obtained parental consent for students to participate in the research; (3) Through the help of teachers, the researcher had an online meeting using Google Meet with students. At the online meeting with students, the researcher sent the survey link and invited students to participate. A total of 550 students were invited to participate in the survey, but only 507 students responded to the questionnaire. There are no invalid questionnaires (questionnaires lacking demographic information or missing answers; questionnaires where participants use a single answer for all scales).

The final sample (see Table 1) included 507 students, with a mean age of 16.01 years ($SD = 0.874$). The entire sample has 46.0% female students and 54.0% male students. By grade level, there are 35.5% of 10th grade students, 51.1% of 11th grade students, and 13.4% of 12th grade students. By school name, there are 76.3% of Ngo Thoi Nhiem High School students and 23.7% of Nguyen Khuyen High School students.

2.2. Instruments

This study uses three scales: the Online Victimization Scale, the Cyberbullying Coping Styles Scale and the Depression Anxiety and Stress Scales. All scales are commonly used in many studies in Vietnam (Ho and Gu 2023; Ho and Nguyen 2024; Quynh Ho, Gu, and Wang 2022; Quynh and Gu 2022).

The Online Victimization Scale was developed by Tynes, Rose, and Williams (2010). The Online Victimization Scale is a 21-item self-report scale used to measure four domains of online victimisation, including individual racial discrimination (four items), general victimisation (eight items), vicarious racial discrimination (three items), and sexual victimisation (six items). Each item is rated from 0 (never) to 4 (every day) (Tynes, Rose, and Williams 2010). In this study, we only use 8 items of the General Online Victimization subscale to measure the frequency of online victimisation. A sample item includes 'I have been embarrassed or humiliated online'. Total scores range from 0 to 32, with a total score greater than or equal to 2 identifying an online victim. Higher scores indicate a greater frequency of online victimisation. The General Online Victimization subscale has been used in previous studies abroad (Matsuzaka et al. 2022; Tynes, Rose, and Williams 2010). In the sample of Vietnamese adolescents, this scale has good reliability and validity (Ho and Nguyen 2024). In this study, this scale has $\alpha = 0.921$, $CR = 0.942$, and $AVE = 0.672$.

The Cyberbullying Coping Styles Scale is derived from the Self-Report Coping Scale (Kochenderfer-Ladd and Skinner 2002) and revised by Quynh and Gu (2022) to measure cyberbullying coping strategies among samples of Vietnamese students. The Cyberbullying Coping Styles Scale is a 21-item self-report scale used to measure the frequency of use of two coping strategies: 11 items of avoidant coping strategies (including externalising, internalising, and cognitive distance) and 10 items of approach coping strategies (including seeking social support and problem solving) (Quynh and Gu 2022). All items were rated using a 5-point Likert scale ranging from 0 (never) to 4 (always). In this study, we used 11 items belonging to the cognitive distance, internalising, and externalising coping styles to measure students' avoidance coping strategies. A sample item includes 'I got mad and threw or hit something'. Total scores range from 0 to 44, with higher scores indicating greater use of avoidant coping strategies. In the sample of Vietnamese students, the scale had good reliability and validity (Quynh Ho, Gu, and Wang 2022). In this study, the scale had good reliability and validity with $\alpha = 0.906$; $CR = 0.922$, $AVE = 0.519$.

The Depression Anxiety and Stress Scales (DASS 21) (Lovibond and Lovibond 1995) is a measurement tool set that includes three subscales (stress, depression, and anxiety), with each subscale having seven items. A four-point scale ranging from 0 (never) to 3 (almost always) was applied for each item. In this study, we used seven items of the stress subscale to measure stress symptoms among high school students. A sample item

is ‘I found it difficult to relax’. The lowest stress score is 0, and the highest is 42. Based on the stress score, people classify it into four levels: normal (0–14), mild (15–18), moderate (19–25), severe (26–33), and very severe (34–42). In the sample of Vietnamese students, the Stress subscale has good reliability ($\alpha = 0.83$) (Ho 2021). In this study, the scale had good reliability and validity with $\alpha = 0.880$; CR = 0.907, AVE = 0.583.

2.3. Data analysis

We use SPSS 20, AMOS 20, and PROCESS MACRO 4.2 software to analyse data. The data analysis process is performed in the following order: (1) test the reliability and validity of the scales (SPSS 20, AMOS 20 software); (2) provide descriptive statistics for all variables included in this study (SPSS 20 software); and (3) use mediation analysis to determine the mediating role of avoidant coping in the online victimisation-stress relationship (PROCESS MACRO 4.2 software). In mediation analysis, online victimisation was determined as the independent variable, stress was determined as the dependent variable, avoidant coping was determined as the mediator variable. Gender was identified as a control variable due to gender differences in stress levels and the level of use of avoidance coping (see Table 1). An indirect effect is considered significant when the confidence interval (CI) of the indirect effect from online victimisation to stress through avoidant coping does not contain 0.

3. Findings

3.1. The prevalence of online victimisation and stress among high school students

As shown in Table 2, the prevalence of online victimisation among high school students was 59.2%. With a total stress subscale score ranging from 15 to 42, 40.8% of students were determined to have stress. The prevalence of stress among Vietnamese high school students was 40.8%. The prevalence of mild ($15 \leq M \leq 18$), moderate ($19 \leq M \leq 25$), severe ($26 \leq M \leq 33$), and extremely severe ($34 \leq M \leq 42$) stress was 13.6%, 14.2%, 7.9%, and 5.1%, respectively.

Table 2. Prevalence of online victimisation and stress among high school students.

Variables	Levels	<i>n</i>	%
Stress levels	Normal ($0 \leq M \leq 14$)	300	59.2
	Mild ($15 \leq M \leq 18$)	69	13.6
	Moderate ($19 \leq M \leq 25$)	72	14.2
	Severe ($26 \leq M \leq 33$)	40	7.9
	Very severe ($34 \leq M \leq 42$)	26	5.1
Online victimisation	Victims ($M \geq 2$)	300	59.2
	Non-victims ($M < 2$)	207	40.8

Note: M: Total score.

3.2. Preliminary analysis

As shown in Table 3, online victimisation was positively correlated with avoidant coping ($r = 0.440$, $p < 0.001$) and stress ($r = 0.441$, $p < 0.001$). Avoidant coping was positively correlated with stress ($r = 0.582$, $p < 0.001$). There were gender differences in avoidant coping ($r = 0.098$, $p < 0.05$) and stress ($r = 0.241$, $p < 0.001$).

3.3. Examining the mediating role of the level of being bullied in the avoidant coping-stress association

As shown in Table 4, the direct effects of online victimisation on avoidant coping ($\beta = 0.438$, $p < 0.001$), of avoidant coping on stress ($\beta = 0.476$, $p < 0.001$), and of online victimisation on stress ($\beta = 0.213$, $p < 0.001$) were all statistically significant. The indirect effect of online victimisation on stress through avoidance coping was also statistically significant ($\beta = 0.383$, 95% CI = [0.276; 0.509]). The total effect of online victimisation on stress was ($\beta = 0.773$, $p < 0.001$). These results showed that avoidant coping partially mediated the online victimisation and stress relationship among students (see Figure 2).

4. Discussion

Besides conveniences, the development of the Internet and electronic devices also leads to potential risks for high school students. One of those risks is online victimisation. When victimised online, students can experience stress and other mental health issues without effective coping strategies. This study aims to investigate the prevalence of online victimisation and stress among

Table 3. Descriptive statistics and correlations between variables.

Variables	M \pm SD	1	2	3	4
1. Online victimisation	3.51 \pm 5.732	–			
2. Avoidant coping	11.48 \pm 9.805	0.440***	–		
3. Stress	13.18 \pm 10.518	0.441***	0.582***	–	
4. Gender	1.57 \pm 0.594	0.031	0.098*	0.241***	–
5. Age	16.01 \pm 0.874	–0.010	0.017	0.003	0.031

Note: *: $p < 0.05$; ***: $p < 0.001$.

Table 4. Direct and indirect effects of online victimisation on stress.

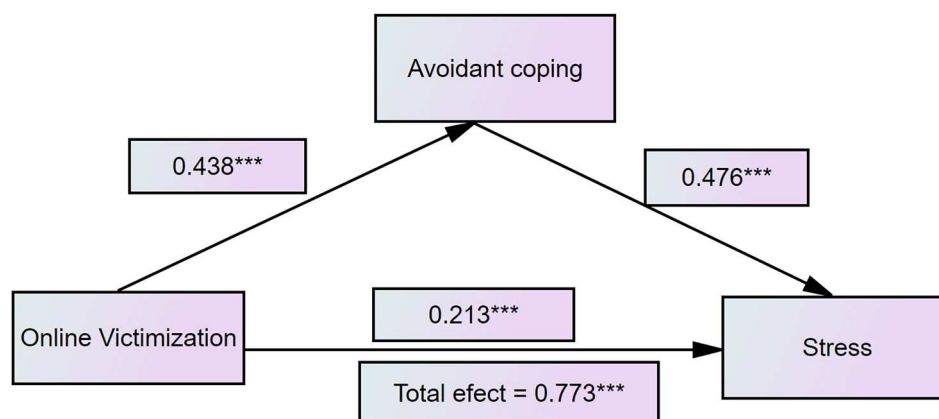
Effects	β	SE	95% CI
Online Victimisation → Avoidant coping	0.438***	0.069	0.614; 0.884
Gender → Avoidant coping	0.022	0.664	-0.950; 1.659
Avoidant coping → Stress	0.476***	0.041	0.431; 0.591
Online Victimisation → Stress	0.213***	0.070	0.253; 0.528
Gender → Stress	0.181***	0.608	2.001; 4.391
Online Victimisation → Avoidant coping → Stress	0.383	0.059	0.276; 0.509
Total effect	0.773***	0.072	0.631; 0.915

high school students in Vietnam. At the same time, this study also investigated the association between online victimisation and stress as well as the mechanisms mediating this relationship. Here are the findings of this study:

In this study, we found that the prevalence of online victimisation among Vietnamese high schools students was high. Compared with previous studies, we found that the prevalence of online victimisation among high school students in this study was higher than the prevalence of online victimisation among samples of adolescents in Thailand (44.7%, Auemaneekul et al. 2019), China (31.4%, Li et al. 2019), South Korea (14.6%, Lee and Shin 2017), Malaysia (52.2%, Marret and Choo 2017), Saudi Arabia (42.8%, Gohal et al. 2023), and Basque (20.3%, Machimbarrena and Garaigordobil 2018). The prevalence of online victimisation in this sample was also higher than previous research in Vietnam (24%, Le et al. 2017). However, the prevalence of online victimisation in our study was lower than in studies on adolescent samples in Portugal (61%, António, Guerra, and Moleiro 2023) and Spain (61%, Montiel, Carbonell, and Pereda 2016). We found that the above studies used different measurement tools such as the Juvenile Online Victimization Questionnaire (Montiel, Carbonell, and Pereda 2016), the Cyberbullying Scale (Lee and Shin

2017), or Cyberbullying: Screening of Peer-Harassment (Machimbarrena and Garaigordobil 2018); different survey times such as before (Le et al. 2017; Lee and Shin 2017; Li et al. 2019; Marret and Choo 2017) or after the COVID-19 epidemic (António, Guerra, and Moleiro 2023; Gohal et al. 2023); and participants reported frequencies of online victimisation over different time periods such as 1 month (Lee and Shin 2017) or 12 months (Machimbarrena and Garaigordobil 2018; Marret and Choo 2017; Montiel, Carbonell, and Pereda 2016). These may be factors that influence the risk of online victimisation in different studies. Furthermore, in high schools in Vietnam, the issue of cyber security education, or the propaganda and dissemination of cyber security laws in schools to students, has not been given due attention and is not highly effective. Educational content is often integrated into subjects or extracurricular activities; the time spent on these activities is very short and lacking in appeal. These activities are mainly aimed at providing knowledge, lacking emphasis on skill formation. This may increase the prevalence of online victims in Vietnam. In addition, during the COVID-19 epidemic, many parents have purchased new electronic devices and created accounts on websites and Whatsapp for students to use for online learning. After the epidemic, many teachers still maintain the habit of assigning online homework to students. The use of electronic devices, websites, and Whatsapp has increased the risk of online victimisation among students.

Regarding the prevalence of stress, this study found that the prevalence of stress among Vietnamese high schools students was high. The prevalence of students with stress in this study is higher than studies on student samples in Nepal (32.9%, Karki et al. 2022), Saudi Arabia (14.7%, Barnawi et al. 2023), and Vietnam (33.8%, Nguyễn et al. 2022). On the same sample of adolescents,

**Figure 2.** Avoidant coping as a mediator in the online victimisation-stress relationship.

the prevalence of students experiencing stress in this study was lower than previous research in other countries such as Bangladesh (73.5%, Anjum et al. 2022), India (47.2%, Sandal et al. 2017), and Ethiopia (52.2%, Nakie et al. 2022). Previous studies have either used different scales, such as DASS 21 (Karki et al. 2022; Nakie et al. 2022; Sandal et al. 2017) or PSS 10 (Anjum et al. 2022; Nguyễn et al. 2022), different survey times, such as before (Sandal et al. 2017) or after the COVID-19 epidemic (Anjum et al. 2022; Karki et al. 2022; Nakie et al. 2022; Nguyễn et al. 2022) or asked students to report their stress expressions over different periods of time, such as 1 week (Karki et al. 2022; Nakie et al. 2022; Sandal et al. 2017) or 1 month (Anjum et al. 2022). Therefore, we suspect that the above factors may be responsible for differences in stress prevalence among adolescents in different studies. Furthermore, the prevalence of online victimisation was high in this study may also be related to the prevalence of stress among students. According to previous studies, social relationships play an important role in an individual's mental health (Jia et al. 2018), so negative experiences in social relationships can harm their mental health. Online victimisation can be seen as a negative and stressful experience in the victim's social interactions (Niu et al. 2020; Zhou et al. 2013). Furthermore, being an online victim causes even more stress for the victim due to the publicity of the harmful act, the anonymity of the perpetrator, and the rapid spread of information (Niu et al. 2020).

This study found that online victimisation directly increases stress levels among high school students. This finding was consistent with previous studies (Kampoli et al. 2017; Kowalski et al. 2014; Martins et al. 2016; Pimentel, Cristina, and Dapieve Patias 2020; Staude-Müller, Hansen, and Voss 2012; Wright, 2015). Reduced self-esteem (Balluerka et al. 2023; Makarova and Makarova 2023), feelings of loneliness (Li, Zhang, and Li 2021), and low social support (Chen 2020) can occur after students are victimised online, increasing their risk of stress (Juth, Smyth, and Santuzzi 2008; Pilcher and Bryant 2016; Satici 2020). These results suggest that measures to prevent online victimisation may be useful in preventing risk and reducing stress levels in students. In fact, stress levels are strongly and closely correlated with anxiety (Havnen et al. 2020; Ho 2023) and depression levels (Havnen et al. 2020; Rabadi et al. 2017; Valikhani et al. 2020). Measures to reduce online victimisation may therefore be important not only in reducing stress but also in reducing other mental health problems such as anxiety and depression.

Not only the direct impact, but online victimisation also indirectly increases stress levels among high school

students through avoidant coping. Therefore, avoidant coping partially mediated the online victimisation-stress relationship among high school students. This result is consistent with the transactional model of stress and coping theory (Lazarus and Folkman 1984). Mediation analysis revealed that online victimisation positively predicted avoidant coping, which is consistent with previous studies (Shukla and Chouhan 2023; Siah et al. 2022). In addition, we also found that avoidant coping positively predicted stress levels among students, which is consistent with previous studies (Grummitt et al. 2023; MacCann, Double, and Clarke 2022; Mineva 2022; Smida et al. 2021). Based on the results of this study, we explain that experiencing online victimisation motivated students to use avoidant coping strategies. Then, using avoidant coping strategies increased the victim's risk of stress. Students who are online victims often believe that perpetrators can reduce harmful online behaviour when victims ignore, pay no attention, and hide their emotions (Siah et al. 2022), so online victims use avoidance coping more often than other coping (Shukla and Chouhan 2023; Siah et al. 2022). However, the avoidant coping used by victims not only fails to resolve the online victimisation but also harms their mental health through the development of symptoms of stress (Grummitt et al. 2023; MacCann, Double, and Clarke 2022; Mineva 2022; Smida et al. 2021) and depression (Prowten and Breitenstein 2023; Shukla and Chouhan 2023; Siah et al. 2022). When the problem is not resolved and the situation of being harmed online persists, the victim can suffer profound harm to their mental health. Comparing the direct and indirect impact coefficients has shown that the indirect impact of online victimisation on stress through avoidant coping is greater than the direct impact of online victimisation on stress. This suggests that avoidant coping is an important mechanism in the relationship between online victimisation and stress. Therefore, in addition to reducing the risk of online victimisation, it is more important to limit the use of avoidance coping among victims.

In summary, the results of this study have shown that the prevalence of online victimisation in this sample is high. Online victimisation can directly or indirectly increase students' stress levels through avoidant coping. These results suggest that reducing the prevalence of online victimisation and reducing the frequency of use of avoidant coping may have a major effect on reducing students' stress levels. Based on these results, we recommend measures to reduce the prevalence of online victimisation and reduce the use of avoidant coping. Proposed measures include improving the effectiveness of cybersecurity education, propagating cybersecurity laws to students, increasing parent and school

supervision of students' use of the internet and electronic devices, and teaching students skills to deal with situations in which they become victims online. The contribution of this study included finding the prevalence of online victimisation and stress among high school students in Binh Duong, Vietnam, although previously, many studies have investigated the prevalence of online victimisation (Auemanekul et al. 2019; Lee and Shin 2017; Marret and Choo 2017; Montiel, Carbonell, and Pereda 2016) and stress (Anjum et al. 2022; Nakie et al. 2022; Nguyễn et al. 2022; Sandal et al. 2017) in adolescents as well as the relationship between online victimisation and stress (Kampoli et al. 2017; Kowalski et al. 2014; Martins et al. 2016; Pimentel, Cristina, and Dapieve Patias 2020; Staude-Müller, Hansen, and Voss 2012; Wright, 2015). More importantly, for the first time, this study explored the mediating role of avoidant coping in the online victimisation-stress relationship, which has not been reported in previous studies. Previous studies have focused on the mediating role of avoidance coping in the online victimisation-depression relationship (Prowten and Breitenstein 2023; Shukla and Chouhan 2023; Siah et al. 2022). The findings of this study are a practical basis for proposing intervention measures to reduce stress for high school students in the study area. However, the research sample only included high school students in one province in Vietnam, so it is difficult to generalise these results to the whole population. Furthermore, the cross-sectional study design has made it difficult to infer causal links between online victimisation, avoidant coping, and stress. In addition, because research costs are limited, we used a convenience sampling method. This leads to an undetermined sampling error, and we cannot draw conclusions about the population from the sample results. Therefore, expanding the study sample, stratified random sampling, and longitudinal study design to overcome the limitations of this study may need to be considered for future studies.

Data availability statement

Research data are not shared.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee.

Informed consent

Informed consent was obtained from all individual participants, parents, and teachers included in this study.

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