

Suicide ideation: Prevalence and determinants among high school students

Quynh-Anh Ngoc Nguyen ^{a*}, University of Education, Hue University, 03 Le Loi Street - Hue City, Vietnam

Thach Tran ^b, Monash University, shop 4/21 Chancellors Walk, Clayton VIC 3168, Australia

Tu-Anh Tran ^c, University of Education, Hue University, 03 Le Loi Street - Hue City, Vietnam

Jane Fisher ^d, Monash University, shop 4/21 Chancellors Walk, Clayton VIC 3168, Australia

Suggested Citation:

Nguyen, Q. N. Q., Tran, T., Tran, T. & Fisher, J. (2022). Suicide ideation: Prevalence and determinants among high school students. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 12(1), 100-120. <https://doi.org/10.18844/gjgc.v12i1.6007>

Received from December 03, 2021; revised from February 22, 2022; accepted from April 25, 2022.

Selection and peer review under responsibility of Prof. Dr. Kobus Maree, University of Pretoria South Africa.

© 2022 Birlesik Dünya Yenilik, Organization & Counseling. All rights reserved.

Abstract

This study aims to investigate the prevalence of suicidal ideation and its determinants among adolescents in Vietnam. This is a cross-sectional school-based self-report survey conducted on the attending high school students. The anonymous questionnaire included questions about suicidal ideation from the Youth Risk Health Survey, emotional intelligence (EI), mental health problems, parenting styles, school connectedness, cyber bullying, conflicts with teachers and peers and social isolation. Findings from 1,593 students showed a high prevalence of lifetime suicidal thought and plan (31.58% and 12.6%) as well as 12-month suicidal thoughts (24.55%). Protective factors to lifetime suicidal thoughts included high EI and having a caring mother. Risk factors were being female, living in urban areas, having depression or anxiety, and conflict with teachers. This study provided evidence for future studies in intervention programmes to prevent suicidal thoughts in Vietnamese adolescents.

Keywords: Adolescents, emotional intelligence, low- and middle-income, suicide, students;

* *ADDRESS FOR CORRESPONDENCE: Quynh-Anh Ngoc Nguyen, University of Education, Hue University, 03 Le Loi Street - Hue City, Vietnam

E-mail address: nguyennhocquynhanh@dhsphue.edu.vn

1. Introduction

Suicide is an act of violence against the self that leads to death (McKinnon, Gariépy, Sentenac, & Elgar, 2016). It has become the second most common cause of death among young people aged 15–29 years worldwide (World Health Organisation, 2018) and is the leading cause of death among adolescents in some countries, such as Korea and Australia (Australian Institute of Health and Welfare (AIHW), 2018; Statistics Korea, 2013). Suicide among young people not only ends a life but is a profoundly traumatic experience for the family and friends who survive and can then experience lifetime grief (Cerel, Jordan, & Duberstein, 2008). McKinnon et al. (2016) and Patton et al. (2009) describe suicide as a severe global public health problem that demands urgent action.

According to the World Health Organisation (WHO, 2012), suicide is a complicated process starting with thinking about it, following up with plans, attempting suicide and committing suicide. Suicidal ideation comprises thoughts and plans of intentional self-harm to end life (Posner, Oquendo, Gould, Stanley, & Davies, 2007; Singh, 2012). Suicidal thought is the thought of killing oneself or the feelings of wanting to end their own life without thinking of any plan (Ergün, Uzunboylu & Altınay, 2018). On the contrary, the suicidal plan is a more severe circumstance where a precise method, time and steps to kill themselves have formed (WHO, 2014). Suicidal ideation is prevalent in adolescence (Naghavi, 2019), a transformative life stage from childhood to adulthood with rapid changes in biological, emotional, social, moral, psychological and sexual development (Backes & Bonnie, 2019). A pooled analysis from 118 surveys in 90 countries about suicidal behaviours among adolescents has proved this fact (Campisi et al., 2020). The prevalence of suicidal ideation was different across countries. For example, a population-based cohort study in Norway among 2,399 secondary school students aged 17–19 years revealed that the prevalence of lifetime suicidal thoughts had increased from 15.5% to 18.5% in a 4-year follow-up (Strandheim et al., 2014). In the US, the population-based study among 1,170 adolescents (13–17 years of age) reported that the prevalence was 7.5% (Joe, Baser, Neighbors, Caldwell, & Jackson, 2009). The 12-month prevalence of suicidal ideation (19.1%) was higher in a nationwide study using a web-based survey in South Korea among 72,623 adolescents aged 12–18 years (Kang et al., 2015).

In low- and middle-income countries (LMICs), where 73% of the global suicides occur, suicidal thoughts are common with prevalence similar to or higher than in high-income countries (McKinnon et al., 2016). In reviewing the available evidence from LMICs, lifetime suicidal ideation among adolescents ranged from 12.5% to 33% (Fisher et al., 2011). In a subsequent review of data contributed by 13–15-year-old adolescents in 49 LMICs, 15.3% had suicidal thoughts in the prior 12 months (McKinnon et al., 2016). Evidence has proved that there is a continuum of these thoughts from fleeting to persistent among adolescents. Although not all suicidal ideation is associated with an intention to end life but rather with finding life unmanageable, identifying the determinants of these experiences is essential to create and develop prevention strategies (McKinnon et al., 2016; Scott, Pilkonis, Hipwell, Keenan, & Stepp, 2015; Stone et al., 2020).

Suicidal ideation is a multidimensional problem with various risk and protective factors at individual, family, school and community levels. At the individual level, being female, experiencing loneliness, depression, high stress and hopelessness are commonly reported as potential factors that trigger suicidal ideation (Im, Oh, & Suk, 2017; Kang et al., 2015; Miranda-Mendizabal et al., 2019). A recently identified factor is emotional intelligence (EI), a constellation of emotional perceptions, including an

individual's knowledge, beliefs and attitudes about emotions and the ability to regulate emotion to understand self and others (Petrides & Furham, 2011). In a laboratory-based study, Cha and Nock (2009) found among 54 US female adolescents (age ranged from 12 to 19 years) that EI was a protective factor against suicidal ideation and attempts. This result was duplicated among secondary school students in a recent cross-sectional study in Kenya (Okello & Aomo, 2018) and depressed adolescents in Iran (Abdollahi, Khanbani, Ghahfarokhi, & Carlbring, 2016). However, the correlation between EI and suicidal ideation among adolescents in many cultures is unknown, including in Southeast Asia.

Family-related factors may increase the risk; for example, not living with one or both parents, history of suicide in the family, conflict with family, being rejected by or separated from parents (Im et al., 2017; Kirkcaldy, Siefen, Urkin, & Merrick, 2006; Liu, Tein, Zhao, & Sandler, 2005). A large-scale study was conducted among 44,610 students in Germany to investigate the determinants of suicidal ideation. Results were that the warmth of mother and father during childhood protected adolescents from suicidal attempts, while authoritative (OR = 0.79, $p < 0.001$) and rejecting/neglecting parents (OR = 1.63, $p < 0.001$) were predictors to a higher risk of suicidal attempts (Donath, Graessel, Baier, Bleich, & Hillemacher, 2014). A study in Hong Kong revealed that suicidal ideation is associated with perceived authoritarian parenting (Lai & McBride-Chang, 2001). Korean students with authoritarian parents also had a more permissive attitude to suicide (Choi et al., 2020). Friendship misunderstandings, broken romantic relationships, disappointment in academic achievements or conflict with teachers are potential risk factors within the school environment (Kang et al., 2015; Kirkcaldy et al., 2006; Liu et al., 2005; Tørmoen, 2016). Cyberbullying is defined as bullying using digital technology, such as mobile phones, the Internet or email. John et al.'s (2018) systematic review about self-harm, suicidal behaviours and cyberbullying in youth using meta-analysis on 16 studies with 103,774 participants found that cyber-victimisation was associated with more than double the risk of suicidal ideation (OR = 2.57; 95% CI = 1.69–3.90). However, there is a lack of empirical evidence about the relationship between suicidal ideation and factors at the individual, familial and school levels, such as EI, parenting styles, school connectedness or cyberbullying among adolescents in Vietnam.

One of the great global concerns is developing suicide prevention programmes. Significant effectiveness from these programmes has been revealed in some developed countries, such as Australia, New Zealand, Finland, Norway and Sweden (Bailey, Spittal, Pirkis, Gould, & Robinson, 2017; Lewitzka, Sauer, & Bauer, 2019). However, scientific evidence regarding prevalence and determinants of suicide ideation is still limited in Southeast Asia, including Vietnam. If these concerns are answered, included factors in intervention programmes can be suggested to eliminate suicidal thoughts, plans and attempts. Therefore, this study aims to (1) identify the prevalence of suicidal ideation among adolescents in Central Vietnam and (2) examine the determinants of lifetime suicidal thoughts among adolescents in Central Vietnam.

2. Methods

Vietnam is a Southeast Asia country categorised by the World Bank as an LMIC (World Bank & Ministry of Planning and Investment of Vietnam, 2016). The study was a cross-sectional school-based self-report design conducted on the attending high school students in the Centre of Vietnam where

the Nguyen feudal dynasty established the country's capital in the 19th and 20th century (CIA World Factbook, 2018).

2.1. Participants and recruitment

Participants were selected randomly from 9 among 40 public high schools in Thua-Thien-Hue's rural, urban and coastal areas. Four to five classes were then chosen randomly in each school based on the number of students in each class. Age, sex and residence location in correlation with suicidal ideation were also considered. The number of students in each class ranged from 30 to 45. All students in the selected classes were invited to participate.

2.2. Measures

An anonymous, self-completed questionnaire was designed to gather information about age, sex, region (rural or urban areas), religion (Buddhism or others or no religion), parental marital status, parental highest education, parental occupation, current living with parents or not, having a sibling or not in the family, breaking up with girl/boyfriend in a 12-month period (Yes or No or Have not had one) and satisfaction with academic achievement or not. The below-mentioned scale was included in the questionnaire.

Two single-item questions from the Youth Risk Survey assessed suicidal ideation: 'During your life, have you ever seriously thought about killing yourself?' and 'During your life, have you ever made a plan about how you would attempt to kill yourself?'. Response options for these questions were dichotomous, yes or no. It should be noted that the use of a single-item measure is common in suicidal research due to its consistency in estimating prevalence (Gandhi et al., 2016; Muehlenkamp, Claes, Havertape, & Plener, 2012). The third question was about the last 12-month frequency of participants' thoughts about killing themselves. This question followed the 5-point Likert scale ranging from none, rarely (1 time), sometimes (2 times), often (3–4 times) and very often (5 or more times). These questions have been used among adolescents in Vietnam (Le, Holton, Nguyen, Wolfe, & Fisher, 2016a, 2016b).

2.2.1. Symptoms of common mental health problems

The Depression-Anxiety-Stress Scale-21 (DASS-21) is a 21-item self-report measure of 3 particular emotional problems, including depression, anxiety and stress. Each subscale contains seven items and is designed using a 4-point scale, asking the frequency of relevant symptoms over the past week (Lovibond & Lovibond, 1995). The scores of depression, anxiety and stress symptoms were calculated by summing all relevant items. The higher the score, the higher the depression, anxiety or stress (Lovibond & Lovibond, 1995). The scale was validated among adolescents in Vietnam in Le, Tran, Holton, Nguyen, and Wolfe's (2017) study with an acceptable Cronbach's alpha of 0.84 for the depression subscale, 0.74 for anxiety and 0.76 for stress subscales.

2.2.2. Loneliness

The 8-item UCLA Loneliness Scale (UCLA LS) was revised from the 20-item UCLA LS (Russel, 1980) by Hays and DiMatteo (1987). The scale has shown good internal consistency and convergent validity for use among adolescents and youth in various settings (Cole, Bond, Qualter, & Maes, 2021; Eccles, Qualter, Madsen, & Holstein, 2020; Kwiatkowska, Rogoza, & Kwiatkowska, 2017; Roekel et al., 2018). After reverse-coding two items, the loneliness score was gained by summing all eight items. Students

who self-reported a higher score were more likely to be lonely (Hawkley, Browne, & Cacioppo, 2005; Russel, 1996).

2.2.3. Emotional intelligence

The Trait Emotional Intelligence – Adolescent Short Form (TEIQue-ASF) (Petrides & Furham, 2006) was used for students to self-report their EI students chose the most appropriate answer from 1 ‘strongly disagree’ to 7 ‘strongly agree’ for each of the 30 statements in 4 domains, including well-being (the positive feeling about life), self-control (the ability to manage stress and control impulsive behaviours), emotionality (the ability in applying the understanding of their own and others’ emotions to build smooth relationships with family members and friends) and sociability (the confidence in social communication including listening skills). The EI score was the average sum of all 30 items with some reverse-coded items. Students who had a higher score were better in EI (Petrides, 2009). The TEIQue-ASF has shown a good internal consistency among adolescents in many countries, with Cronbach’s alpha ranging from 0.81 to 0.87 (Petrides, 2006; Siegling, Vesely, Saklofske, Frederickson, & Petrides, 2015; Stamatopoulou, Galanis, Tzavella, Petrides, & Prezerakos, 2017).

2.2.4. Experience of parents’ caregiving styles

The Parenting Bonding Instrument (PBI) was used to assess young people’s experiences in their first 16 years of the life regarding their parent’s attitudes and behaviours towards them. The scale includes 2 parts with the same 16 questions about the mother and the father and is completed by the child (Parker, Tupling, & Brown, 1979). Responses to each question comprise four options, ranging from ‘very unlikely’, ‘unlikely’, ‘likely’ and ‘very likely’. It yields scores on three different dimensions of parental caregiving: warmth, overprotectiveness and authoritarianism. Higher scores indicate a higher experience of each dimension (Kendler, 1996). The PBI has been validated among Vietnamese adolescents and has acceptable internal consistency with Cronbach’s alpha from 0.70 to 0.80 (Nguyen, Fisher, Tran, Holton, & Le, n.d.).

2.2.5. School connectedness

School connectedness is the feeling of belonging students have about their school. It was assessed using Resnick et al.’s (1997) 5-item School Connectedness Scale. Participants choose one option from a 5-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree). The school connectedness total score was the sum of all items. A higher score indicated a more incredible feeling of connection that students have about their school. This scale had a good internal consistency among adolescents, with Cronbach’s alpha reported to be 0.79 (McNeely, Nonnemaker, & Blum, 2002) and used among Vietnamese adolescents by Pham (2015).

2.2.6. Conflicts at school

Three questions were used to assess *conflicts with teachers and school staff* in the past 12 months. There are three response options, including ‘never’, ‘sometimes’ and ‘often’. Four other questions were used to assess *conflicts with peers* in the past 12 months. Participants chose one option from three options: ‘never’, ‘sometimes’ and ‘often’. The higher sum of four questions indicates the higher conflict with peers that students experienced. These scales have been used on Chinese and Vietnamese high school students (Pham, 2015; Sun, Dunne, Hou, & Xu, 2012).

2.2.7. Social isolation

Social isolation was assessed using one single question: 'Do you have one or more close friends you can talk to about your problems?' The answer has four options 'none', 'only one', 'a few' and 'many'. This question has been used among adolescents in Pham's (2015) study.

2.2.8. Cyberbullying

This study used the *Cyberbullying Victimization Scale* developed by Patchin and Hinduja (2010) (Cronbach's alpha among American students was 0.74) and some new items applied among Vietnamese adolescents from Pham's (2015) study. All questions target whether students experienced any of the six forms of cyberbullying in a month. Options included 'never', 'once or twice', 'two or three times a month', 'about once a week' and 'several times a week'. The cyberbullying score was calculated by summing all items. Higher scores indicate more experiences of cyberbullying.

2.3. Data analyses

Data analysis used Stata Version 14.0 (StataCorp, 2015). Descriptive statistics were used to identify the prevalence of lifetime suicidal thought, lifetime suicidal plan and the frequency of suicidal thoughts in the last 12 months. The multiple logistic regression model was used to identify predictors of having any lifetime suicidal thoughts among Vietnamese adolescents. Independent variables included factors at an individual level, family level, school level and community level. Intra-school correlations (cluster effects) were controlled using the clustered sandwich estimation (Nichols & Schaffer, 2007).

2.4. Ethics approval

Approvals for the study were obtained from the Human Research Ethics Committee of Monash University (Project No.: 2016-0610) and the Institutional Review Board of the Hue University of Medicine and Pharmacy (Project No.: 01-102016/DHYDH). All students and their parents or guardians received written information about the study. It was made clear to them that participation was voluntary. It was also made clear that the questionnaires were to be completed anonymously and that students were asked not to write their names on them. Psychological counselling services were available to provide support to any students experiencing distress after completing the questionnaire.

3. Results

Among 1,616 students recruited, 1,593 provided complete data and were included in the analyses (response rate = 98.3%). The mean age of participants was 15.94 years (SD = 0.90). More than half of the respondents were female (55%) and living in rural areas (55.4%). Overall, 87.7% of the students were living with both birth parents. Most students were Kinh people (99.3%) and more than half adhered to Buddhist beliefs (45.8%). Approximately a quarter of the mothers (27%) and fathers (24%) had never gone to school. About 82% of the mothers and 73% of the fathers were working as manual labourers. Only 15% of the students had no siblings or cousins.

3.1. Prevalence of suicidal ideation among Vietnamese adolescents

The prevalence of lifetime suicidal thoughts and plans and the frequency of 12-month suicidal thoughts are described in Table 1.

Table 1. Prevalence of suicidal ideation ($n = 1,593$)

	<i>N/n</i>	%
Lifetime suicidal thought	504/1,593 ^a	31.64
Lifetime suicidal plan	201/504 ^b	39.88
	201/1,593	12.62
12-month suicidal thoughts	391/504 ^b	77.60
	391/1,593	24.54

^a Total participants.

^b Total participants who experienced lifetime suicidal thought at least once.

N: Number of cases; *n*: Total participants ($n = 1,593$).

3.2. Determinants of lifetime suicidal thoughts

The multiple logistic regression model investigated the risk and protective factors for lifetime suicidal thought and is presented in Table 2.

Table 2. Multiple logistic regression for lifetime suicidal thoughts reported by Vietnamese adolescents ($n = 1,593$)

Predictors	OR	95% CI
Individual level		
Female	Ref.	
Male	0.52***	0.41–0.66
Depression	1.10***	1.07–1.14
Anxiety	1.04**	1.01–1.07
Stress	1.04	0.98–1.09
Loneliness	1.01	0.99–1.04
Global EI	0.81*	0.67–0.99
Family level		
Mother's warmth	0.95**	0.90–1.00
Mother's overprotection	0.99	0.97–1.02
Mother's authoritarianism	0.97	0.90–1.05
Father's warmth	0.99	0.97–1.02

Predictors	OR	95% CI
Father's overprotection	1.01	0.98–1.05
Father's authoritarianism	1.03	0.98–1.09
School level		
Conflicts with teachers/school staff	1.09*	1.01–1.18
Community level		
Urban	Ref.	
Rural	1.23*	1.01–1.51

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

After controlling for age, ethics, religion, region, parental status, parental education, parental occupation, woman/man most care in the first 16 years, currently living with both birth parents or not, having a sibling or not in the family, conflicts with teachers/staff, conflicts with friends, breaking up a romantic relationship, social isolation, academic achievement satisfaction and cyberbullying, only factors significantly associated with lifetime suicidal thoughts are presented.

The proportion of lifetime suicidal thoughts was higher among females than males. There was a negative correlation between global EI and lifetime suicidal thoughts. Adolescents who had higher global EI scores were less likely to have any suicidal thoughts. Symptoms of depression and anxiety were associated with higher odds of suicide thoughts.

Differences in the odds of lifetime suicidal thoughts were found between adolescents with parents with different parenting styles. Specifically, students who self-reported receiving warmth from their mothers during childhood were less likely to have lifetime suicidal thoughts. However, associations were not found with the fathers' caregiving or overprotection and authoritarianism of either mother or father (Table 2).

Students who received primary care from their birth mothers during their first 16 years of life were less likely to have any suicidal thoughts. There was no association with birth fathers' primary care.

Having any conflict with teachers was significantly associated with suicidal thoughts. Students studying in urban areas were more likely to experience lifetime suicidal thoughts than those in rural areas. No significant associations were found between having lifetime suicidal thoughts and any of the following factors: having a breakup with a girlfriend/boyfriend, conflict with peers, school connectedness, social isolation, academic achievement satisfaction, cyberbullying and students' religion.

4. Discussion

Suicidal ideation among adolescents is a growing problem worldwide. The benefits of suicide prevention in some developed countries have provided promising opportunity for spreading these programmes in LMICs. However, conducting these programmes in different cultures such as Vietnam is challenging due to the lack of information about prevalence and determinants of suicide that can be used in prevention programmes for adolescents. This robust original study identified for the first time the prevalence of suicidal ideation and determinants for suicidal thoughts among school-attending adolescents in Central Vietnam. It provided evidence about the correlation of the individual and family, school and community factors associated with suicidal thoughts and plans among adolescents. The findings can suggest some promising strategies for preventing the growing of this public health concern in Vietnam.

We acknowledge several limitations of this study. First, it only investigated on attending school students. Therefore, it cannot be generalise to all Vietnamese adolescents. Future lines of research should include adolescents in highlands and islands as well as those who were out of school. Second, information collected in this study were self-reports by students who might bias in providing their opinions and attitudes, such as they might self-evaluation higher their EI ability or misunderstanding parents' care. Observations or structured interviews or longitude designs should be considered to reduce this risk of bias. Third, although the questionnaire has been culturally adapted based on standard guidelines in this study, some scales have not been validated among adolescents in Vietnam, such as the UCLA-8 and the TEIQue-ASF. Fourth, the cross-sectional design allows for an understanding of the correlation at a specific point in time; the causal relationships between the factors and suicidal thoughts are warranted to be examined in the future.

4.1. Prevalence of suicidal thoughts and plans among adolescents in Vietnam

Lifetime suicidal thoughts were prevalent among adolescents in Vietnam, with more than one-third of participants reporting these behaviours. This prevalence is a much higher than reports from previous studies such as the US (12.1%) (Nock, Green, & Kessler, 2013), German (7.6%–10.7%) (Donath, Bergmann, Kliem, Hillemacher, & Baier, 2019; Voss et al., 2019) and Canada (22.2%) (Hester, 2020). The situation was the same for the prevalence of 12-month suicidal thoughts that was also higher than adolescents in Canada (8.1%) (Georgiades et al., 2019), the US (3.2%–14.5%) (Cash & Bridge, 2009; Joe et al., 2009; Kim, Fan, Liu, Kerner, & Wu, 2011), Brazil (14%) (Santos Silva, Santos, Soares, & Pardono, 2014), Nigeria (20%) (Omigbodun, Dogra, Esan, & Adedokun, 2008) and other Asian countries, such as China (7%–19.3%) (Liu et al., 2005; Wong, Stewart, Ho, Rao, & Lam, 2005) or Malaysia (7%) (Chen, Lee, Wong, & Kaur, 2005). A possible explanation might be due to differences in the sampling recruitment methods and suicidal questions used among studies. For example, the 2009 US study (Joe et al., 2009) recruited adolescents from nationwide households while our research was based on students attending school. The questions used to ask about suicidal thoughts in other studies were 'During the past 12 months, has there been a time when you thought seriously about killing yourself?' (Kim et al., 2011) or 'During the past 12 months, did you seriously consider ending your life?' (Chen et al., 2005). These questions employed words and expressions which were different from those used in our study: 'During the past 12 months, have you ever thought of killing yourself?' The word 'seriously' in other studies might direct participants to recall serious suicidal

thoughts with a suicidal plan, while the question in our study might include fleeting suicidal thoughts among participants.

Not only was the lifetime suicidal thoughts prevalence more prominent among this sample than in other countries, but also more widespread than those from other studies in Vietnam. For example, a study in the Southern area (26.3%) (Nguyen, Dedding, Pham, Wright, & Bunders, 2013) or the two national surveys in 2005 and 2009 (SAVY I and II) (3.4%–12.21%) (Cu & Blum, 2011; Le, Nguyen, Tran, & Fisher, 2012). The 12-month reports of suicidal thoughts in this study were also higher than the North of Vietnam (14.2%–21.4%) (Le et al., 2016a; Nguyen et al., 2019). The disparity in prevalence of suicidal thoughts among students in the Centre, North and South of Vietnam might be explained by cultural differences among the regions. Thua-Thien-Hue province is based on more than a thousand years of Vietnamese feudalism and Confucianism (Nguyen, 2010), which framed the cultural norm affecting family and individual members. The impact of feudalism and Confucianism, which was formed from the history of 1,000-year domination by the Chinese, remains stronger in the centre than other areas of Vietnam. Firstly, adolescents in central area live in traditional extended families that share the same house with parents, grandparents, aunts, uncles and sometimes great grandparents. In other regions, people tend to live in nuclear families due to economic development and, in general, the impact of Western cultures (Nguyen, 2011). Therefore, the risk of generational conflicts might increase, contributing to stress and depression among adolescents (Ozdemir, 2014). Secondly, family regulation, which is understood as rules and habits to maintain a stable order in the family (Bui, 2002), is stringent in Central Vietnam. In this area, family members must adhere to extended family norms: children have to listen to and obey adults; and younger members listen to older members. Daughters are usually under the strict control of the father who directs them to be gentle, meek, discreet and resigned; while sons, the ‘hope’ of the family, are under high pressure to fulfil expectations of being a strong, intelligent man with high social position (Phung et al., 2016). Children understand that their failure is their family’s failure; disappointing their family is shameful and unacceptable. The welfare, the pride and the continuity of the family are much more important than any individual’s interests and needs (Cima, 1987). Therefore, children tend to try their best to be successful. They avoid talking about their problems to family members (Hoang, 2001; Phung et al., 2016). The last reason might be due to the human characteristics of this land. Thua-Thien-Hue in Central Vietnam is the most peaceful place in this country, where the local people are more ‘quiet, profound and discreet’ than those from other areas. They prefer to hide emotions and thoughts than sharing to others, including family. This tendency makes other people feel confused and find it hard to communicate with them (Hoang, 2001; Phung et al., 2016). With this trait, adolescents in this sample might try to solve their problems by themselves rather than sharing or asking or seeking help from others. In sum, these family characteristics in Central area might account for the higher incidence of suicidal thoughts among adolescents in this area than the other two parts of the country. To put it colloquially, adolescents in this area are more likely to feel trapped in a family web from which they cannot easily extricate themselves. Suicide, in turn, can seem like a way out.

4.2. Determinants of lifetime suicidal thoughts

Gender differences were found in lifetime suicidal thoughts in this data set. Females were more likely to think of killing themselves than their male counterparts (Begum et al., 2017; Le & Blum, 2011; Le et al., 2016a; Liu et al., 2005; Shahnaz, Bagley, Simkhada, & Kadri, 2017; Tørmoen, 2016). The same correlation was found in Shek and Yu’s (2012) study in Hong Kong, which has a culture

similar to Vietnam. Findings from a pooled analysis from 82 countries also shared the same conclusion as ours (Biswas et al., 2020).

As expected, findings from this study indicate that depression and anxiety emerge as a predictor of lifetime suicidal thoughts. The results were in line with studies conducted among school-attending adolescents and university students in Spain, the US, Canada or Chile (Aradilla-Herrero, Tomás-Sábado, & Gómez-Benito, 2013; Cash & Bridge, 2009; Núñez, Monjes, Campos, & Wigman, 2021; Orri et al., 2020). Some reports among adolescents and youth from LMICs shared the same conclusions (Pervin & Ferdowshi, 2016). However, unlike other studies (Arun & Chavan, 2009; Arun, Garg, & Chavan, 2017; Biswas et al., 2020; Pervin & Ferdowshi, 2016; Qualter, Brown, Munn, & Rotenberg, 2010), stress and loneliness in our study were not associated significantly with suicidal thoughts. The possible explanation might derive from the unique characteristic of preference among Thua-Thien-Hue youth for hiding emotions and solving problems independently. The differences in measurement used for assessing mental health problems might be another reason (DASS-21 in our study and the Mooney Problem Checklist – High School Form in India's studies).

Notably, our analysis showed that global EI played a protective role against lifetime suicidal thoughts among adolescents. This correlation was consistent with conclusion from a systematic review in 2018 that included 25 papers. The review also suggested that enhancing EI should include suicide prevention programmes (Dominguez-Garcia & Fernandez-Berrocal, 2018). More recent studies also confirmed this association. For example, Quintana-Orts, Mérida-López, Rey, Neto, and Extremera (2020) reported on 4,620 Spanish adolescents whose EI predicted lower suicidal ideation on both cross-sectional and prospective designs. A robust result from a 38-year longitude study also shared the same significant inverse role of EI on suicidal ideation (Bittár, Falkstedt, & Wallin, 2019). Specially, an examination of EI therapy's effectiveness on suicidal risk among adolescents also revealed that EI significantly reduced suicidal ideation among this age group (Bonet, Palma, & Santos, 2020).

Regarding EI's components, the self-reported healthy well-being and good ability in EI predicted less suicidal thoughts among adolescents in the US, Spain, Kenya (Cha & Nock, 2009; Mamani-Benito, Brousett-Minaya, Ccori-Zuniga, & Villasante-Idme, 2018; Okello & Aomo, 2018) and among adults in Hong Kong (Kwok, 2014). Our finding fits the local culture of Central Vietnam, in which the individual tends to manage and solve problems by themselves. Hence, if an individual had a good capacity of understanding their own and others' emotions, using this knowledge to control their emotions and be in harmony with others, the risk of suicidal thoughts might be reduced.

In terms of family level, the maternal but not parental warmth was a significant protective factor to suicidal thoughts among Vietnamese adolescents. A probable explanation is the traditional division of labour in a Vietnamese family. The mother's primary role is doing housework and taking care of children, while that of a father is going out or even away from home to earn money. During childhood, the mother is busy almost full-time to feed, care, play with, solve problems and listen to their children. Children, therefore, even find it hard to communicate with parents, but are more likely to feel closer to their mother. They usually share thoughts, express emotions and communicate feelings with their mother if they want to. The sensation of warmth and care, which is expressed to the child actively by the mother, is essential to support children when they tackle difficulties during puberty and thus safeguards against suicidal thoughts. On the contrary, overprotection and

authoritarianism, which discourage of autonomy and independence in children, usually create distance, rebelliousness and fear towards their parents (Phung et al., 2016). Being unable to communicate with overprotective or authoritarian parents and sometimes receiving pressure from adults might lead adolescents to develop suicidal thoughts. Hence, choosing the right parenting style is essential in helping adolescents avoid thinking of killing themselves.

School is a place where adolescents spend most of their time. This study revealed a positive correlation between conflicts with teachers or staff and lifetime suicidal thoughts. In Vietnam, under the influence of Confucianism, the teacher–student relationship is similar to a ‘father–son’ relationship. Students show high respect to the teacher and accept the demands and requests from the teacher unconditionally. Because of this educational moral code, students might choose to keep silent rather than speak against the teacher when they are scolded, threatened, humiliated or physically punished by teachers; that silence might increase the risk of having lifetime suicidal thoughts. This study found that other school environment-related factors had no association with lifetime suicidal thoughts. These factors include the breakup of romantic relationships, conflicts with friends, belonging to the school (school connectedness), social isolation and academic achievement satisfaction.

At the community level, students in urban schools thought of suicide more than those in rural schools. The pressure from higher expectations from teachers and parents in education in urban areas might explain this finding.

5. Conclusion and recommendations

Suicidal thoughts and plans are becoming a serious public health issue among Vietnamese adolescents. It is evident from this study that the prevalence of suicidal ideation among adolescents in Vietnam is relatively high. Being female, having symptoms of depression or anxiety, living in urban areas and experiencing conflict with teachers contributed to the risk of experiencing lifetime suicidal thoughts among teenagers. The warmth of a mother during the first 16 years of a child’s life, as well as the strength of EI, vigorously protected adolescents against the lifetime thoughts of suicidal ideation. Friends, school connectedness, social isolation, academic performance and cyberbullying were not associated with suicide ideation.

The prevalence of suicidal thoughts is still increasing among adolescents (Biswas et al., 2020; Santos Silva et al., 2014). Many risk factors for suicidal thoughts have been identified, and efforts to prevent suicide by isolating and reducing risk factors have been conducted for a long time (Biswas et al., 2020; Cha & Nock, 2009). Our study identifies potential protective and risk factors to lifetime suicidal thoughts, especially recognising the protective role of EI and the mother’s warmth and care during childhood. Intervention programmes that focus on parenting education, especially for mothers, promise to differentiate between life and death for our young generations.

Furthermore, as EI is potentially modifiable (Nelis, Quoidbach, Mikolajczak, & Michel, 2009; Ruttledge & Petrides, 2012) and has a robust promising protective role via experimental study (Bonet et al., 2020), and can prevent adolescents from experiencing depression and anxiety (Núñez et al., 2021; Orri et al., 2020), it is worthwhile for educators and government to consider the significant impact of EI and create positive emotional capacities for adolescents through prevention programmes.

References

- Abdollahi, A., Khanbani, M., Ghahfarokhi, S. A., & Carlbring, P. (2016). Emotional intelligence moderates perceived stress and suicidal ideation among depressed adolescent inpatients. *Personality and Individual Differences*, 102, 223–228. <https://doi.org/10.1016/j.paid.2016.07.015>
- Aradilla-Herrero, A., Tomás-Sábado, J., & Gómez-Benito, J. (2013). Associations between emotional intelligence, depression and suicide risk in nursing students. *Nurse Education Today*, 34, 520–525. <http://dx.doi.org/10.1016/j.nedt.2013.07.001>
- Arun, P., & Chavan, B. (2009). Stress and suicidal ideas in adolescent students in Chandigarh. *Indian Journal of Medicine Science*, 63(7), 281–287. <https://doi.org/10.4103/0019-5359.55112>
- Arun, P., Garg, R., & Chavan, B. (2017). Stress and suicidal ideation among adolescents having academic difficulty. *Indian Psychiatry Journal*, 26(1), 64–70. https://doi.org/10.4103/ipj.ipj_5_17
- Australian Institute of Health and Welfare (AIHW). (2018). Deaths in Australia. Retrieved from <https://www.aihw.gov.au/reports/life-expectancy-death/deaths-in-australia/contents/leading-causes-of-death>
- Backes, E. P., & Bonnie, R. J. (2019). Adolescent development and its application. Washington, DC: National Academies Press.
- Bailey, E., Spittal, M., Pirkis, J., Gould, M., & Robinson, J. (2017). Universal suicide prevention in young people: An evaluation of the safeTALK program in Australian high schools. *Crisis: The Journal of Crisis Prevention and Suicide Prevention*, 38(5), 300–308. <https://doi.org/10.1027/0227-5910/a000465>
- Begum, A., Rahman, A. K. M. F., Rahman, A., Soares, J., Khankeh, H. R., & Macassa, G. (2017). Prevalence of suicide ideation among adolescents and young adults in rural Bangladesh. *International Journal of Mental Health*, 46(3), 177–187. <https://doi.org/10.1080/00207411.2017.1304074>
- Biswas, T., Scott, J. G., Munir, K., Renzaho, A. M. N., Rewal, L. B., Baxter, J., & Mamun, A. A. (2020). Global variation in the prevalence of suicidal ideation, anxiety and their correlates among adolescents: A population-based study of 82 countries. *EClinicalMedicine*, 24, 100395. <https://doi.org/10.1016/j.eclinm.2020.100395>
- Bittár, N. H., Falkstedt, D., & Wallin, A. S. (2019). How intelligence and emotional control are related to suicidal behavior across the life course – A register-based study with 38-year follow-up. *Psychological Medicine*, 50(13), 2265–2271. <https://doi.org/10.1017/S0033291719002423>
- Bonet, C., Palma, C., & Santos, M. G. (2020). Effectiveness of emotional intelligence therapy on suicide risk among adolescents in residential care. *International Journal of Psychology and Psychological Therapy*, 20(1), 61–74. Retrieved from <https://www.ijpsy.com/volumen20/num1/535/effectiveness-of-emotional-intelligence-EN.pdf>

- Nguyen, Q. N. Q., Tran, T., Tran, T. & Fisher, J. (2022). Suicide ideation: Prevalence and determinants among high school students. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 12(1), 100-120. <https://doi.org/10.18844/gjgc.v12i1.6007>
- Bui, D. T. (2002). *Vietnamese dictionary*. Ho Chi Minh City, Vietnam: Culture and Information Publisher.
- Campisi, S. C., Carducci, B., Akseer, N., Zasowski, C., Szatmari, P., & Bhutta, Z. A. (2020). Suicidal behaviours among adolescents from 90 countries: A pooled analysis of the global school-based student health survey. *BMC Public Health*, 20, 1102. <https://doi.org/10.1186/s12889-020-09209-z>
- Cash, S. J., & Bridge, J. A. (2009). Epidemiology of youth suicide and suicidal behaviour. *Current Opinion in Pediatrics*, 21(5), 613–619. <https://doi.org/10.1097/MOP.0b013e32833063e1>
- Cerel, J., Jordan, J. R., & Duberstein, P. R. (2008). The impact of suicide on the family. *The Journal of Crisis Intervention and Suicide Prevention*, 29(1), 38–44. <https://doi.org/10.1027/0227-5910.29.1.38>
- Cha, C., & Nock, M. (2009). Emotional intelligence is a protective factor for suicidal behavior. *Journal of the American Academy Child and Adolescent Psychiatry*, 48, 422–430. <https://doi.org/10.1097/CHI.0b013e3181984f44>
- Chen, P. C., Lee, L. K., Wong, K. C., & Kaur, J. (2005). Factors relating to adolescent suicidal behaviour: A cross-sectional Malaysian school survey. *Journal of Adolescent Health*, 37(4), 337.
- Choi, S., Lee, S., Lee, C. W., Maeng, S., Son, J., Kim, W., ..., Kim, H. (2020). Association between perceived parenting style and adolescents' attitudes toward suicide. *Journal of the Korean Academy of Child and Adolescent Psychiatry*, 31(4), 193–200. <https://doi.org/10.5765/jkacap.200032>
- CIA World Factbook. (2018). *Vietnam Demographic Profile 2018*. Retrieved from https://www.indexmundi.com/vietnam/demographics_profile.html
- Cima, R. J. (1987). *The family*. Washington, DC: GPO for the Library of Congress.
- Cole, A., Bond, C., Qualter, P., & Maes, M. (2021). A systematic review of the development and psychometric properties of loneliness measures for children and adolescents. *International Journal of Environmental Research and Public Health*, 18, 3285–3301. <https://doi.org/10.3390/ijerph18063285>
- Cu, L. L., & Blum, R. W. (2011). Intentional injury in young people in Vietnam: Prevalence and social correlates. *MEDICC Review*, 13(3). Retrieved from <http://www.scielosp.org/pdf/medicc/v13n3/06.pdf>
- Dominguez-Garcia, E., & Fernandez-Berrocal, P. (2018). The association between emotional intelligence and suicidal behaviours: A systematic review. *Frontiers in Psychology*, 9(2380). <https://doi.org/10.3389/fpsyg.2018.02380>
- Donath, C., Graessel, E., Baier, D., Bleich, S., & Hillemacher, T. (2014). Is parenting style a predictor of suicide attempts in a representative sample of adolescents? *BMC Pediatrics*, 14, 113. <https://doi.org/10.1186/1471-2431-14-113>
- Donath, C., Bergmann, M. C., Kliem, S., Hillemacher, T., & Baier, D. (2019). Epidemiology of suicidal ideation, suicide attempts, and direct self-injurious behavior in adolescents with a migration

- background: A representative study. *BMC Pediatrics*, 19(45). <https://doi.org/10.1186/s12887-019-1404-z>
- Eccles, A. M., Qualter, P., Madsen, K. R., & Holstein, B. E. (2020). Loneliness in the lives of Danish adolescents: Associations with health and sleep. *Scandinavian Journal of Public Health*, 48(8), 877–887. <https://doi.org/10.1177/1403494819865429>
- Ergün, B., Uzunboylu, H., & Altınay, Z. (2018). An investigation of high school students' social capital development within organizational climate. *Quality & Quantity*, 52, 105–113. <https://doi.org/10.1007/s11135-017-0591-7>
- Fisher, J., Cabral de Mello, M., Izutsu, T., Vijayakumar, L., Belfer, M., & Omigbodun, O. (2011). Nature, prevalence and determinants of common mental health problems and their management in primary health care. *International Journal of Social Psychiatry*, 57(SI), 9–12. <https://doi.org/10.1177/0020764010397628>
- Gandhi, A., Claes, L., Bosmans, G., Baetens, I., Wilderjans, T. F., Maitra, S., ..., Luyckx, K. (2016). Non-suicidal self-injury and adolescents attachment with peers and mothers: The mediating role of identity synthesis and confusion. *Journal of Children and Family Studies*, 25, 1735–1745. <https://doi.org/10.1007/s10826-015-0350-0>
- Georgiades, K., Boylan, K., Duncan, L., Wang, L., Colman, I., Rhodes, A. E., ..., Boyle, M. H. (2019). Prevalence and correlates of youth suicidal ideation and attempts: Evidence from the 2014 Ontario Child Health study. *The Canadian Journal of Psychiatry*, 64(4), 265–274. <https://doi.org/10.1177/0706743719830031>
- Hawkey, L. C., Browne, M. W., & Cacioppo, J. T. (2005). How can I connect with thee? *Psychological Science* (0956-7976), 16(10), 798–804. Retrieved from <http://ezproxy.lib.monash.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=18354134&site=ehost-live&scope=site>
- Hays, R. D., & DiMatteo, M. R. (1987). A short-form measure of loneliness. *Journal of Personality Assessment*, 51(1), 69. Retrieved from <http://ezproxy.lib.monash.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=6380304&site=ehost-live&scope=site>
- Hester, M. (2020). Suicide ideation and suicide attempts are common in teens with mental health problems. *Contemporary Pediatrics*, 145(6), e20193823. Retrieved from <https://www.contemporarypediatrics.com/view/suicide-ideation-and-suicide-attempts-are-common-in-teens-with-mental-health-problems>
- Hoang, P. N. T. (2001). *Hue, heritage and human*. Da Nang, Vietnam: Danang Publisher.
- Im, Y., Oh, W. O., & Suk, M. (2017). Risk factors for suicide ideation among adolescents: Five-year national data analysis. *Archives of Psychiatric Nursing*, 31(3), 282–286. <https://doi.org/10.1016/j.apnu.2017.01.001>
- Joe, S., Baser, R. S., Neighbors, H. W., Caldwell, C. H., & Jackson, J. S. (2009). 12-month and lifetime prevalence of suicide attempts among black adolescents in the national survey of American

- life. *Journal of the American Academy of Child & Adolescent Psychiatry*, 48(3), 271–282. <https://doi.org/10.1097/CHI.0b013e318195bccf>
- John, A., Glendenning, A. C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., ..., Hawton, K. (2018). Self-harm, suicidal behaviours, and cyberbullying in children and young people: Systematic review. *Journal of Medical Internet Research*, 20(4), 3129. <https://doi.org/10.2196/jmir.9044>.
- Kang, E., Hyun, M., Choi, S., Kim, J., Kim, G., & Woo, J. (2015). Twelve-month prevalence and predictors of self-reported suicidal ideation among Korean adolescents in a web-based nationwide survey. *Australian and New Zealand Journal of Psychiatry*, 49(1), 47–53. <https://doi.org/10.1177/0004867414540752>
- Kendler, K. S. (1996). Parenting: A genetic-epidemiologic perspective. *American Journal of Psychiatry*, 153(1), 11–20. <https://doi.org/10.1176/ajp.153.1.11>
- Kim, J., Fan, B., Liu, X., Kerner, N., & Wu, P. (2011). Ecstasy use and suicidal behavior among adolescents: Findings from a national survey. *Suicide and Life-Threatening Behaviour*, 41(4), 435–444. <https://doi.org/10.1111/j.1943-278X.2011.00043.x>
- Kirkcaldy, B. D., Siefen, G. R., Urkin, J., & Merrick, J. (2006). Risk factors for suicidal behaviour in adolescents. *Minerva Pediatrica*, 58(5), 443–450.
- Kwiatkowska, M. M., Rogoza, R., & Kwiatkowska, K. (2017). Analysis of the psychometric properties of the Revised UCLA Loneliness Scale in a Polish adolescent sample. *Current Issues in Personality Psychology*, 5(3). <https://doi.org/10.5114/cipp.2017.69681>
- Kwok, S. (2014). The moderating role of emotional competence in suicidal ideation among Chinese university students. *Journal of Advanced Nursing*, 70(4), 843–854. <https://doi.org/10.1111/jan.12246>
- Lai, K., & McBride-Chang, C. (2001). Suicidal ideation, parenting style and family climate among Hong Kong adolescents. *International Journal of Psychology*, 36(2), 81–87. <https://doi.org/10.1080/00207590042000065>
- Le, L. C., & Blum, R. W. (2011). Intentional injury in young people in Vietnam: Prevalence and social correlates. *MEDICC Review*, 13. <https://doi.org/10.1590/s1555-79602011000300006>
- Le, M., Holton, S., Nguyen, H., Wolfe, R., & Fisher, J. (2016a). Poly-victimisation and health risk behaviours, symptoms of mental health problems and suicidal thoughts and plans among adolescents in Vietnam. *International Journal of Mental Health Systems*, 10(1), 66. <https://doi.org/10.1186/s13033-016-0099-x>
- Le, M., Holton, S., Nguyen, H., Wolfe, R., & Fisher, J. (2016b). Victimization, poly-victimisation and health-related quality of life among high school students in Vietnam: A cross-sectional survey. *Health and Quality of Life Outcomes*, 14(155). <https://doi.org/10.1186/s12955-016-0558-8>
- Le, M. T. H., Nguyen, H. T., Tran, T. D., & Fisher, J. R. W. (2012). Experience of low mood and suicidal behaviors among adolescents in Vietnam: Findings from two national population-based

- surveys. *Journal of Adolescent Health*, 51, 339–348. <https://doi.org/10.1016/j.jadohealth.2011.12.027>
- Le, M. T., Tran, D. T., Holton, S., Nguyen, H. T., & Wolfe, R. (2017). Reliability, convergent and validity and factor structure of the DASS-21 in a sample of Vietnamese adolescents. *PLoS One*, 12(7), 1–14. <https://doi.org/10.1371/journal.pone.0180557>
- Liu, X., Tein, J. Y., Zhao, Z., & Sandler, I. N. (2005). Suicidality and correlates among rural adolescents of China. *Journal of Adolescent Health*, 37(6), 443–451. <https://doi.org/10.1016/j.jadohealth.2004.08.027>
- Lewitzka, U., Sauer, C., & Bauer, M. (2019). Are national suicide prevention programs effective? A comparison of 4 verum and 4 control countries over 30 years. *BMC Psychiatry*, 19(158). <https://doi.org/10.1186/s12888-019-2147-y>
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scale*. Sydney, Australia: Psychology Foundation.
- Mamani-Benito, O. J., Brousett-Minaya, M. A., Ccori-Zuniga, D. N., & Villasante-Idme, K. S. (2018). Emotional intelligence as protective factor in adolescents with suicidal ideation. *Journal of the American Academy of Child and Adolescent Psychiatry*, 15(1), 39–50. <https://doi.org/10.21676/2389783X.2142>
- McKinnon, B., Gariépy, G., Sentenac, M., & Elgar, F. J. (2016). Adolescents suicidal behaviour in 32 low- and middle-income countries. *Bulletin of the World Health Organization*, 94, 340F–350F. <https://doi.org/10.2471/BLT.15.163295>
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health*, 72(4), 138–146. <https://doi.org/10.1111/j.17461561.2002.tb06533.x>
- Miranda-Mendizabal, A., Castellví, P., Parés-Badell, O., Olayo, I., Almenara, J., Alonso, I., ..., Alonso, J. (2019). Gender differences in suicidal behavior in adolescents and young adults: Systematic review and meta-analysis of longitudinal studies. *International Journal of Public Health*, 64(2), 265–283. <https://doi.org/10.1007/s00038-018-1196-1>
- Muehlenkamp, J. J., Claes, L., Havertape, L., & Plener, P. L. (2012). International prevalence of adolescent non-suicidal self-injury and deliberate self-harm. *Child and Adolescents Psychiatry and Mental Health*, 6, 1–9. <https://doi.org/10.1186/1753-2000-6-10>
- Naghavi, M. (2019). Global, regional, and national burden of suicide mortality 1990 to 2016: Systematic analysis for the global burden of disease study 2016. *BMJ*, 364, 194. <https://doi.org/10.1136/bmj.I94>
- Nelis, D., Quidbach, J., Mikolajczak, M., & Michel, H. (2009). Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences*, 47(1), 36–41. <https://doi.org/10.1016/j.paid.2009.01.046>
- Nguyen, D., Dedding, C., Pham, T., Wright, P., & Bunders, J. (2013). Depression, anxiety, and suicidal ideation among Vietnamese secondary school students and proposed solutions: A cross-

- sectional study. *BMC Public Health*, 13, 1195–1195. <https://doi.org/10.1186/1471-2458-13-1195>
- Nguyen, K. H., Nguyen, L. T., Pham, Q. T., Pham, V. C., Duong, D. M., & Le, K. A. (2019). Suicidal behaviors and depression among adolescents in Hanoi, Vietnam: A multilevel analysis of data from the Youth Risk Behavior Survey 2019. *Health Psychology Open*, 7(2). <https://doi.org/10.1177/2055102920954711>
- Nguyen, N. Q. A., Fisher, J., Tran, D. T., Holton, S., & Le, M. (n.d.). *Psychometric properties of a shortened parenting bonding instrument among a population-based sample of Vietnamese adolescents* [in press].
- Nguyen, T. B. (2011). The trend of Vietnamese household size in recent years. *The International Conference on Humanities, Society and Culture*. Singapore.
- Nguyen, T. H. T. (2010). The Hue Citadel area in the transition of urban composition during the rise and fall of the Nguyen Dynasty in the 19th Century. *Journal of East Asian Cultural Interaction Studies*, 3, 529–544. Retrieved from <http://hdl.handle.net/10112/3030>
- Nichols, A., & Schaffer, M. (2007). *Clustered standard errors in STATA*.
- Nock, M. K., Green, J. G., & Kessler, R. C. (2013). Prevalence, correlates and treatment of lifetime suicidal behavior among adolescents: Results from the National Comorbidity Survey Replication – Adolescent supplement (NCS-A). *JAMA Psychiatry*, 70(3), 1–24. <https://doi.org/10.1001/2013.jamapsychiatry.55>
- Núñez, D., Monjes, P., Campos, S., & Wigman, J. T. W. (2021). Evidence for specific associations between depressive symptoms, psychotic experiences, and suicidal ideation in Chilean adolescents from general population. *Frontiers Psychiatry*, 11(552343). <https://doi.org/10.3389/fpsy.2020.552343>
- Okello, L. M., & Aomo, J. A. (2018). Relationship between emotional intelligence and suicidal behaviour among secondary school students in Kitutu Central Sub-County, Kisii County, Kenya. *International Journal of Educational Policy Research an Review*, 5(7), 109–116. <https://doi.org/10.15739/IJEPRR.18.013>
- Omigbodun, O., Dogra, N., Esan, O., & Adedokun, B. (2008). Prevalence and correlates of suicidal behaviour among adolescents in Southwest Nigeria. *International Journal of Social Psychiatry*, 54(1), 34–46. <https://doi.org/10.1177/0020764007078360>
- Orri, M., Scardera, S., Perret, L. C., Bolanis, D., Temcheff, C., Séguin, J. R., ..., Geofroy, M. (2020). Mental health problems and risk of suicidal ideation and attempts in adolescents, *Pediatrics*, 146(1), e20193823. <https://doi.org/10.1542/peds.2019-3823>.
- Ozdemir, Y. (2014). Parent-adolescent conflict and depression symptoms of adolescents: Mediator role of self-esteem. *Journal of Psychiatry and Neurological Sciences*, 27, 211–220. <https://doi.org/10.5350/DAJPN2014270304>
- Parker, G., Tupling, H., & Brown, L. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1–10. <https://doi.org/10.1111/j.2044-8341.1979.tb02487.x>

- Nguyen, Q. N. Q., Tran, T., Tran, T. & Fisher, J. (2022). Suicide ideation: Prevalence and determinants among high school students. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 12(1), 100-120. <https://doi.org/10.18844/gjgc.v12i1.6007>
- Patton, G., Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., & Bose, K. (2009). Global patterns of mortality in young people: A systematic analysis of population health data. *Lancet*, 374(9693), 881–892. [https://doi.org/10.1016/S0140-6736\(09\)60741-8](https://doi.org/10.1016/S0140-6736(09)60741-8)
- Petrides, K. V. (2009). *Technical manual for the trait emotional intelligence questionnaires (TEIQue)*. London, UK: London Psychometric Laboratory.
- Petrides, K. V. (2011). *Ability and trait emotional intelligence*. New York, NY: Wiley.
- Petrides, K. V., & Furham, A. (2006). The role of trait emotional intelligence in a gender specific model of organizational variables. *Journal of Applied Social Psychology*, 36(2), 552–569. <https://doi.org/10.1111/j.0021-9029.2006.00019.x>
- Pervin, M. M., & Ferdowshi, N. (2016). Suicidal ideation in relation to depression, loneliness and hopelessness among university students. *Dhaka University Journal of Biological Science*, 25(1), 57–64. <https://doi.org/10.3329/dujbs.v25i1.28495>
- Phung, M. D., Tran, T. A., Nguyen, P. C. T., Dinh, T. H. V., Dau, M. L., & Nguyen, N. Q. A. (2016). *Hue youth's characteristics in the setting of integration and development*. Hue, Vietnam: Hue University Publisher.
- Posner, K., Oquendo, M. A., Gould, M., Stanley, B., & Davies, M. (2007). Columbia classification algorithm of suicide assessment (C-CASA): Classification of suicidal events in the FDA's pediatric suicidal risk analysis of antidepressants. *The American Journal of Psychiatry*, 164(7), 1035–1043. <https://doi.org/10.1176/appi.ajp.164.7.1035>
- Qualter, P., Brown, S. L., Munn, P., & Rotenberg, K. J. (2010). Childhood loneliness as a predictor of adolescent depressive symptoms: An 8-year longitudinal study. *European Child and Adolescent Psychiatry*, 19(6), 493–501. <https://doi.org/10.1007/s00787-009-0059-y>
- Quintana-Orts, C., Mérida-López, S., Rey, L., Neto, F., & Extremera, N. (2020). Untangling the Emotional intelligence-suicidal ideation connection: The role of cognitive emotion regulation strategies in adolescents. *Journal of Clinical Medicine*, 9(10), 3116. <https://doi.org/10.3390/jcm9103116>
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., & Udry, J. R. (1997). Protecting adolescents from harm – Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278(10), 823–832. <https://doi.org/10.1001/jama.1997.03550100049038>
- Russel, D. W. (1996). UCLA Loneliness scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66(1), 20–40. https://doi.org/10.1207/s15327752jpa6601_2
- Russell, D. W. (1980). The measurement of loneliness. In *Methodological and conceptual issues* (pp. 81–104). New York, NY: Wiley.
- Ruttledge, R. A., & Petrides, K. V. (2012). A cognitive-behavioural group approach for adolescents with disruptive behaviour in schools. *School Psychology International*, 33, 223–239. <https://doi.org/10.1177/0143034311415908>

- Nguyen, Q. N. Q., Tran, T., Tran, T. & Fisher, J. (2022). Suicide ideation: Prevalence and determinants among high school students. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 12(1), 100-120. <https://doi.org/10.18844/gjgc.v12i1.6007>
- Santos Silva, R. J., Santos, F. A. L., Soares, N. M., & Pardono, E. (2014). Suicidal ideation and associated factors among adolescents in Northeastern Brazil. *The Scientific World Journal*, 2014, 8. <https://doi.org/10.1155/2014/450943>
- Scott, L. N., Pilkonis, P. A., Hipwell, A. E., Keenan, K., & Stepp, S. D. (2015). Non-suicidal self-injury and suicidal ideations as predictors of suicide attempts in adolescent girls: A multi-wave prospective study. *Comprehensive Psychiatry*, 58, 1–10. <https://doi.org/10.1016/j.comppsy.2014.12.011>
- Shahnaz, A., Bagley, C., Simkhada, P., & Kadri, S. (2017). Suicidal behaviour in Bangladesh: A scoping literature review and a proposed public health prevention model. *Open Journal of Social Sciences*, 5(7), 254–282. <https://doi.org/10.4236/jss.2017.57016>
- Shek, D. T. L., & Yu, L. (2012). Self-harm and suicidal behaviors in Hong Kong adolescents: Prevalence and psychosocial correlates. *The Scientific World Journal*, 2012, 932540. <https://doi.org/10.1100/2012/932540>
- Siegling, A. B., Vesely, A. K., Saklofske, D., Frederickson, N., & Petrides, K. V. (2015). Incremental validity of the Trait Emotional Intelligence Questionnaire-Adolescent Short Form (TEIQue-ASF). *Journal of Personality Assessment*, 97(5), 525–535. <https://doi.org/10.1080/00223891.2015.1013219>
- Singh, A. (2012). Emotional intelligence and suicide: Need to expand vision. *Indian Journal of Positive Psychology*, 3(2), 133–135. <https://doi.org/10.15614/ijpp%2F2012%2Fv3i2%2F88494>
- Stamatopoulou, M., Galanis, P., Tzavella, F., Petrides, K. V., & Prezerakos, P. (2017). Trait Emotional Intelligence Questionnaire–Adolescent Short Form: A psychometric investigation in Greek context. *Journal of Psychoeducational Assessment*, 36, 436–445. <https://doi.org/10.1177/0734282916687706>
- StataCorp. (2015). *Stata statistical software: Release 14*. College Station, TX: Statacorp LP.
- Statistics Korea. (2013). *Youth statistics*. Retrieved from <http://kostat.go.kr/wnsearch/search.jsp>
- Stone, H., Barrett, K. C., Beales, D., Cole-King, A., Das, S., Deshpande, M., ..., Witharana, D. (2020). *Self-harm and suicide in adults*. London, UK: Royal College of Psychiatrists.
- Strandheim, A., Bjerkeset, O., Gunnell, D., Bjørnelv, S., Holmen, T. L., & Bentzen, N. (2014). Risk factors for suicidal thoughts in adolescence—a prospective cohort study: The Young-HUNT study. *BMJ Open*, 4(8). <https://doi.org/10.1136/bmjopen-2014-005867>
- Sun, J., Dunne, M. P., Hou, X. Y., & Xu, A. Q. (2012). Educational stress among Chinese adolescents: Individual, family, school and peer influences. *Educational Review*, 65(3), 284–302. <https://doi.org/10.1080/00131911.2012.659657>
- Tørmoen, A. J. (2016). *Self-harm among adolescents: From identification to tailored treatment* (Dissertation). University of Oslo, Oslo, Norway.
- van Roekel, E., Verhagen, M., Engels, R. C. M. E., Scholte, R. H. J., Cacioppo, S., & Cacioppo, J. T. (2018). Trait and state levels of loneliness in early and late adolescents: Examining the

Nguyen, Q. N. Q., Tran, T., Tran, T. & Fisher, J. (2022). Suicide ideation: Prevalence and determinants among high school students. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*, 12(1), 100-120. <https://doi.org/10.18844/gjgc.v12i1.6007>

differential reactivity hypothesis. *Journal of Clinical Child & Adolescent Psychology*, 47(6), 888–899. <https://doi.org/10.1080/15374416.2016.1146993>

Voss, C., Ollmann, T. M., Miché, M., Venz, J., Hoyer, J., Pieper, L., ..., Beesdo-Baum, K. (2019). Prevalence, onset, and course of suicidal behaviour among adolescents and young adults in Germany. *JAMA Network Open*, 2(10), e1914386. <https://doi.org/10.1001/jamanetworkopen.2019.14386>

WHO. (2014). *Preventing suicide. Geneva: A global imperative* (p. 92). Geneva, Switzerland: WHO.

Wong, J. P., Stewart, S. M., Ho, S. Y., Rao, U., & Lam, T. H. (2005). Exposure to suicide and suicidal behaviours among Hong Kong adolescents. *Social Science Medicine*, 61(3), 591–599. <https://doi.org/10.1016/j.socscimed.2004.12.012>

World Bank, & Ministry of Planning and Investment of Vietnam. (2016). *Vietnam 2035: Toward prosperity, creativity, equity, and democracy – Overview*. Retrieved from <http://documents.worldbank.org/curated/en/2016/02/25967214/vietnam-2035-toward-prosperity-creativity-equity-democracy-overview>

World Health Organisation. (2012). *Suicide prevention (SUPRE)*. Retrieved from http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/index.html

World Health Organisation. (2018). *Suicide: Key facts*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/suicide>