

STRESS AND COPING STRESS STRATEGIES AMONG 10TH GRADE ETHNIC BOARDING STUDENTS OF VIET BAC HIGHLAND HIGH SCHOOL FROM 2023 TO 2024

Nguyen Viet Chung, Le Thi Quynh Trang*

Vietnam National University- University of Medicine and Pharmacy -
114 Xuan Thuy, Dich Vong Hau Ward, Cau Giay District, Hanoi City, Vietnam

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ABSTRACT

Objectives: Describe ways to cope with stress in 10th grade boarding ethnic students at Viet Bac Highlands High School from 2023 to 2024.

Materials and Methods: Cross-sectional descriptive research design using a set of survey questions on 262 10th grade students at Viet Bac Highlands High School for the 2023-2024 school year from February 2024 to the end of March 2024.

Results: The most frequently used Problem-Focused Coping ($\bar{X} = 2.7 \pm 0.91$), followed by Emotion-Focused Coping ($\bar{X} = 2.49 \pm 0.99$) and the least Avoidant Coping ($\bar{X} = 2.23 \pm 0.99$). The most frequently used response is "Acceptance", at least "Substance use". Students having chronic disease tend to choose "Self-blame" and " Behavioral disengagement ". Meanwhile, students who do not have chronic disease tend to " Acceptance " and "Active coping" more when faced with stress.

Conclusions: Among the 3 forms of coping: Focusing on emotions, focusing on problems and abnormal coping methods (a total of 14 coping methods), "Problem focusing" is the most popular form. used most often. Considering a total of 14 coping methods: the "Accepting the problem" method is the most used. Students with chronic diseases: this subject uses 5 methods: "Religion", "Denial", "Stimulant use", "Lack of engagement behavior", "Self-blame". "self" more than students without chronic diseases and the difference is statistically significant.

Keywords: Coping strategy, 10th grade ethnic boarding student.

1. INTRODUCTION

Stress or tension is inevitable in life. When encountering stressful situations, the body reacts to stressors to adapt [1]. Stress can help individuals proactively cope with stress from the living environment. If they are unable to adapt and cope, Stress can become pathological (Selye, 1951). According to a 2018 British study by the Mental Health Foundation, up to "74% of people feel stressed to the point of being overwhelmed or unable to cope." [4]

Coping strategies are special efforts that each individual uses to control, minimize, and adapt to stressful life events. 10th grade ethnic boarding students are subject to a lot of stress due to changes in living environment and study pressure is said to be higher than other groups. Since then, more and more research has been conducted to identify how this group of students copes with stress to have Research by Nguyen Thi Que Lam [6] on the

current state of stress among students at Le Quy Don specialized high school, Khanh Hoa showed that it was relatively high, accounting for 63.8%. Besides, author Phan Thanh Hai [5], when studying the current state of stress among high school students in grade 12 at Dinh Tien Hoang school, Dong Nai province, found that the overall rate was not small, about 50.4%. This shows that mental health problems are a significant burden for teenagers in Vietnam, especially high school students.

However, there are currently no studies on Stress or ways to cope with Stress in 10th graders at high schools. Especially the boarding ethnic students at Viet Bac Highlands High School, Thai Nguyen province. Viet Bac Highland High School is a Central Boarding School for Ethnic Minorities located in Quyet Thang commune, Thai Nguyen city, Thai Nguyen province. A multi-system ethnic boarding school with training

*Corresponding author

Email: quynhtrangtranglee@gmail.com **Phone:** (+84) 828621600 **Https://doi.org/10.52163/yhc.v65i13.1798**

systems, the enrollment target is students from ethnic minorities living in many highland, remote and mountainous areas with different customs and habits, which determines the negative or positive impact of the stress source on physical health, mental health, and performance. Therefore, we carried out the project to “ Describe ways to cope with stress in 10th grade boarding ethnic students at Viet Bac Highlands High School from 2023 to 2024”.

2. RESEARCH SUBJECTS AND METHODS

2.1. Research design: Cross-sectional descriptive research design using a set of survey questions on 262 10th grade students at Viet Bac Highlands High School for the 2023-2024 school year from February 2024 to the end of March 2024. Admitted students must meet the following criteria

2.2. Location and time of research

- Time: From 10/2023 to 5/2024.
- Location: Viet Bac Highland High School.

2.3. Subjects for research: All 10th grade students studing in Viet Bac High School.

- Selection criteria

10th grade student at Viet Bac Highland High School for the 2023 - 2024 school year.

Students voluntarily and cooperatively participate in research.

- Exclusion criteria:

Students who did not agree to participate were absent at the time of the study.

Students show signs of mental and cognitive damage that affect their ability to answer complete research questions.

Students reserve during the learning process.

2.4. Research sample size

Calculated based on the formula to estimate a ratio

$$n = Z^2_{1-\alpha/2} \frac{p(1-p)}{d^2}$$

$n \approx 262$ (case)

In which:

- n is the sample size to be studied
- $Z_{1-\alpha/2} = 1,96$ is the confidence coefficient of $\alpha=0.05$ corresponding to the 95% CI confidence interval.
- $p = 0.215$ (we refer to the research of Do Thi Le Hang [2], so we estimate the proportion of students experiencing stress = 0.215).
- d is the desired deviation between the sample and the population.

2.5. Data management and analysis methods

After being collected, the data is cleaned, imported into Excel, and exported to SPSS 26.0 software to process and analyze the data according to mathematical statistical methods. Through SPSS 26.0 software, I apply descriptive statistics: calculate frequencies and percentages for qualitative variables. Calculate average and standard deviation for quantitative variables. Using statistical analysis algorithms: Comparison test (statistically significant difference when $p \leq 0.05$, 95% confidence level).

3. RESEARCH RESULT

3.1. General features

Table 1. Basic demographics

		Quantity (n)	Ratio (%)
Gender	Male	120	45,97
	Female	142	54,02
Major	sciences department	132	50,6
	social department	130	49,4
Ethnic	Kinh	42	16
	Tay	106	40,5
	Nung	42	16
	Thai	12	4,6
	Mong	21	8
	Dao	7	2,7
	Bo Y	6	2,3
	Different	26	9,9
Religion	Have	12	95,4
	None	249	4,6
Birthplace	City	57	21,8
	Countryside	120	25,8
	Mountainous region	85	32,4

Comment: The rate of female students participating in research is higher than male, with 45,97% and 54,02% respectively. Participating students 2 mainly majored is nearly the same, accounting for nearly half of the research subjects. Most students are Tay ethnic group, about 40% and do not follow religion, about 95,4%. The birthplace of students is about 32,4% in the Mountainous region, followed by 25,8% living in the Countryside and just over 20% living in the city.

Table 2. Strategies of coping with stress in students

No.	Coping strategies	\bar{X}	SD
1	Emotion-Focused	2,49	0,99
2	Problem-Focused	2,7	0,91
3	Avoidant	2,23	0,99

Comment: Among the three strategies of coping, Problem-Focused ($\bar{X} = 2.7 \pm 0.91$) and Emotion-Focused ($\bar{X} = 2.49 \pm 0.99$) are frequently used to cope with stress, in which Problem-Focused is the most frequently applied. Avoidant copings ($\bar{X} = 2,23 \pm 0.503$) are sometimes used.

3.2. Describe coping methods commonly used by students

Table 3. Emotion-focused coping strategies

No.	Emotion-Focused Coping	\bar{X}	SD
Acceptance		2,75	0,95
20	I've been accepting the reality of the fact that it has happened.	2,73	0,96
24	I've been learning to live with it	2,77	0,94
Emotional Support		2,68	0,91
5	I've been getting emotional support from others.	2,73	0,91
15	I've been getting comfort and understanding from someone.	2,63	0,91
Venting		2,64	1,005
9	I've been saying things to let my unpleasant feelings escape	2,76	1,01
21	I've been expressing my negative feelings	2,52	1,00
Self-Blame		2,375	1,02
13	I've been criticizing myself	2,77	1,00
26	I've been blaming myself for things that happened	2,70	1,04
Humor		2,46	1,02
18	I've been making jokes about it	2,16	1,04
28	I've been making fun of the situation	2,76	1,00
Religion		2,3	1,045
22	I've been trying to find comfort in my religion or spiritual beliefs	1,85	1,07
27	I've been praying or meditating	2,75	1,02

Comment: Table 3 results show that 2/6 strategies students use regularly, in order are Acceptance ($\bar{X} = 2.75$; SD = 0.95) and Emotional support ($\bar{X} = 2.68$; SD = 0.91). Among them, accepting the reality of the fact of the Acceptance strategy ($\bar{X} = 2.77$; SD = 0.94) is used the most. The remaining four strategies are applied to a lesser extent: Venting ($\bar{X} = 2.64$; SD = 1.005), Humor ($\bar{X} = 2.46$; SD = 1.02), Self-Blame ($\bar{X} = 2.375$; SD = 1.02) and Religion ($\bar{X} = 2.3$; SD = 1.045)); Searching comfortably by religion is the least applied strategy.

Table 4. Problem-focused coping strategies

No.	Problem-Focused Coping	\bar{X}	SD
Active coping		2,73	0,845
2	I've been concentrating my efforts on doing something about the situation I'm in.	2,60	0,80
7	I've been taking action to try to make the situation better.	2,86	0,89
Planning		2,685	0,93
14	I've been trying to come up with a strategy about what to do	2,58	0,94
25	I've been thinking hard about what steps to take.	2,79	0,92
Positive reframing		2,71	0,93
12	I've been trying to see it in a different light, to make it seem more positive.	2,73	0,96
17	I've been looking for something good in what is happening.	2,69	0,89
Use of informational support		2,695	0,95
10	I've been getting help and advice from other people.	2,61	0,95
23	I've been trying to get advice or help from other people about what to do.	2,78	0,95

Comment: Common average for all 4 Problem-focused strategies: Active coping ($\bar{X} = 2.73$; SD = 0.845), Planning ($\bar{X} = 2.685$; SD = 0.93), Positive reframing ($\bar{X} = 2.71$; SD = 0.93), Use of informational support ($\bar{X} = 2.695$; SD = 0.95) were frequently used by students and "Taking action to try to make the situation better" ($\bar{X} = 2.86$; SD = 0.89) of the Active coping strategy was used more. The difference between the 4 strategies is very small.

Table 5. Avoidant coping strategies

No.	Avoidant coping	\bar{X}	SD
Self-distraction		2,64	0,985
1	I've been turning to work or other activities to take my mind off things.	2,51	0,99
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	2,77	0,98
Denial		2,355	1,015
3	I've been saying to myself "this isn't real".	2,47	1,03
8	I've been refusing to believe that it has happened.	2,24	1,00
Behavioral disengagement		2,285	0,985
6	I've been giving up trying to deal with it.	2,24	0,98
16	I've been giving up the attempt to cope.	2,33	0,99
Substance use		1,665	0,985
4	I've been using alcohol or other drugs to make myself feel better	1,67	1,01
11	I've been using alcohol or other drugs to help me get through it.	1,66	0,96

Comment: The Substance use (\bar{X} =1.665; SD = 0.985) is a strategy rarely used by students to cope with difficulties. In contrast, the Self-distraction strategy (\bar{X} =2.64; SD = 0.985) is the most frequently used strategy and students often choose to go to movies, watch TV, read, daydream, sleep, or shopping to think about problems less (\bar{X} = 2.77; SD = 0.98). The remaining two strategies: Denial (\bar{X} = 2.355; SD = 1.015) and Behavioral disengagement (\bar{X} = 2.285; SD = 0.985) are used moderately.

Table 6. Characteristics of coping strategies by chronic disease

		Having chronic disease ($\bar{X} \pm SD$)	Do not having chronic disease ($\bar{X} \pm SD$)	p
Emotion-Focused Coping				
1	Emotional support	5,29±1,57	5,37±1,53	0,765
2	Venting	5,24±1,48	5,28±1,41	0,880
3	Acceptance	5,44±1,45	5,50±1,50	0,803
4	Religion*	5,02±1,24	4,42±1,54	0,049
5	Humor	5,02±1,68	4,9±1,55	0,642
6	Self-blame*	6,02±1,53	5,37±1,72	0,023
Problem-Focused coping				
7	Active coping	5,34±1,41	5,49±1,36	0,385
8	Planning	5,46±1,48	5,34±1,41	0,424
9	Use of informational support	4,98±1,71	5,46±1,48	0,061
10	Positive reframing	5,27±1,42	5,44±1,43	0,472
Avoidant coping				
11	Denial*	5,24±1,66	4,61±1,57	0,019
12	Substance use*	4,85±1,78	3,05±1,53	<0,001
13	Behavioral disengagement*	5,59±1,53	4,37±1,53	<0,001
14	Self-distraction	5,00±1,79	5,33±1,46	0,206

Comment: 4 strategies found statistically significant differences between the two genders: Acceptance (p = 0.004 < 0.05); Venting (p = 0.004 < 0.05); Humor (p = 0.001 < 0.05) and Substance use (p = 0.004 < 0.05). Men often use Acceptance, Humor and Substance more often than Females, while Venting is a strategy women use more often.

4. DISCUSSION

4.1. Comment on some factors related to stress

Among the three strategies of coping, Problem-Focused and Emotion-Focused are frequently used to cope with stress, in which Problem-Focused is the most frequently applied. Avoidant copings are sometimes used.

There are many different studies on the specifics of coping with stress. In this study, we rely on the classification of coping with stress into 3 forms of coping: Problem-focused, Emotion-focused, and Avoidant.

In table 1, the results show that, when faced with stressors, Problem-focused coping strategies are frequently used by 10th grade boarding ethnic students at Viet Bac Highland High School to cope with stress ($\bar{X} = 2.7 \pm 0.91$). According to Gol and Cook, high levels of problem-focused coping represent active problem-solving abilities (Gol & Cook, 2004) [3]. Regularly using these coping strategies helps students recognize the cause of stress, and then find appropriate ways to handle it, bringing about longer-term results. In addition to problem-focused coping strategies, students also used emotion-focused coping styles ($\bar{X} = 2.49 \pm 0.99$). To explain this result, in their 1989 study, Tobin and colleagues said that expressing emotions externally is a relatively effective way to cope with stress, because excessive emotional control increases the risk of stress-related depression (Tobin et al., 1989). However, focusing on emotional regulation is only effective in the short term, after which it is still necessary to find strategies to focus on solving the problem. However, in some situations, students still use avoidant coping ($\bar{X} = 2,23 \pm 0.503$) when faced with stressors.

The results show that the number of students with no religion is 95.4%, while the number of students with religion is only a small portion of 4.6%. Regarding Ethnicity, the Tay ethnic group accounts for the highest percentage of students with 40%, followed by the Nung ethnic group with about 18%, then the Kinh, Mong, Thai, Dao, and Bo Y ethnic groups. This result has a huge difference from other studies, such as the research of author Phan Thanh Hai and colleagues on the research subjects being 10th grade students at Dinh Tien Hoang school, Dong Nai province [5], Nguyen Thi Que Lam on students of Le Quy Don High School, Khanh Hoa province [6] or Nguyen Minh Nghia [7] on a research subject of 10th grade students in Hanoi city, the rate of Kinh ethnicity is almost 100%. These large disparities and differences make the research results richer and more meaningful because ethnic minority children change their place of study and living environment to be different from mountainous areas. More specifically, children are not allowed to use their mother tongue, language barriers can also be one of the reasons why children become more stressed and tense. However, a large number of ethnic minority children move to Viet Bac highland high school to study, interact with their peers and also share the same situation in the mountains. This may be an opportunity for them. Children learn and grow together.

4.2. Comment on the results of the coping methods that students choose

Table 2 results show that 2/6 strategies students use

regularly, in order are Acceptance ($\bar{X} = 2.75$; $SD = 0.95$) and Emotional support ($\bar{X} = 2.68$; $SD = 0.91$). Among them, accepting the reality of the fact of the Acceptance strategy ($\bar{X} = 2.77$; $SD = 0.94$) is used the most. The remaining four strategies are applied to a lesser extent: Venting ($\bar{X} = 2.64$; $SD = 1.005$), Humor ($\bar{X} = 2.46$; $SD = 1.02$), Self-Blame ($\bar{X} = 2.375$; $SD = 1.02$) and Religion ($\bar{X} = 2.3$; $SD = 1.045$); Searching comfortably by religion is the least applied strategy. Emotion-focused coping includes all regulatory efforts to reduce the emotional consequences of stressful events. Emotion-focused coping primarily draws resources from within. The results show that, among students who often cope with stress by focusing on emotions, the most common coping strategy is "accepting the reality of the fact" ($\bar{X} = 2.77$; $SD = 0.94$). Accordingly, acceptance is an attitude, a state of mind that the subject practices by recognizing the situation and identifying and admitting the emotions and events that are causing him or her stress. Coping strategy such as Emotional Support ($\bar{X} = 2.68$; $SD = 0.91$) are also used a lot by students. At this young age, when encountering difficult problems, students can easily share their stories with family and relatives and receive emotional support, understanding and help. Coping strategy such as Humor ($\bar{X} = 2.46$; $SD = 1.02$) and religion ($\bar{X} = 2.3$; $SD = 1.045$) are rarely used by students, perhaps because of their individuality, not everyone has the talent. humorous and in research, about 90% do not have religious beliefs. Common average for all 4 Problem-focused strategies: Active coping ($\bar{X} = 2.73$; $SD = 0.845$), Planning ($\bar{X} = 2.685$; $SD = 0.93$), Positive reframing ($\bar{X} = 2.71$; $SD = 0.93$), Use of informational support ($\bar{X} = 2.695$; $SD = 0.95$) were frequently used by students and "Taking action to try to make the situation better" ($\bar{X} = 2.86$; $SD = 0.89$) of the Active coping strategy was used more. The difference between the 4 strategies is very small.

Problem-focused coping is defined as actions aimed at eliminating a stressor or directly reducing its impact. The type of Problem-focused coping most used by students is "Taking action to try to make the situation better" ($\bar{X} = 2.86$; $SD = 0.89$); Next is "thinking hard about what steps to take" ($\bar{X} = 2.79$; $SD = 0.92$). Accordingly, Active coping is an attitude, a state of mind that the subject practices by recognizing the situation, identifying, and trying to make the emotions and events that are causing him stress become better. When subjects learn how to proactively deal with their current situation, they become more relaxed, so they are empowered to overcome the situation with the least amount of stress. With this explanation, it can be said that when faced with stress factors, students initially know how to proactively cope and accept life's challenges and build inner strength to move forward. before. This is a condition for students to choose specific actions that help resolve stress more effectively. Besides, planning to cope with difficulties and finding different solutions is also a coping strategy that many

students choose. The reason may be because first-year students are still young, have just stepped out of the protection of their families, dare to face new challenges, and find suitable solutions for themselves.

In table 5, the Substance use (\bar{X} = 1.665; SD = 0.985) is a strategy rarely used by students to cope with difficulties. In contrast, the Self-distraction strategy (\bar{X} = 2.64; SD = 0.985) is the most frequently used strategy and students often choose to go to movies, watch TV, read, daydream, sleep, or shopping to think about problems less (\bar{X} = 2.77; SD = 0.98). The remaining two strategies: Denial (\bar{X} = 2.355; SD = 1.015) and Behavioral disengagement (\bar{X} = 2.285; SD = 0.985) are used moderately. Although they often cope with stress by being Problem-focused and Emotion-focused, in some situations, students still use Avoidant coping. The results show that Avoidant coping that students most often apply: "Self-distraction (\bar{X} = 2.64; SD = 0.985) and students often choose: going to movies, watching TV, reading, daydreaming, sleeping, or shopping to think about problem less with \bar{X} = 2.77; SD = 0.98. Self-distraction is also the most used strategy out of a total of 14 ways to cope with stress. This is understandable and not too surprising. When faced with stress or psychological tension, most people first choose to relieve stress by doing something or participating in some activity to forget their worries; watch movies, watch TV, sleep... to think about it less. In addition, the results from Table 5 also show that negative avoidance coping like "Substance use" (\bar{X} = 1.665; SD = 0.985) is a strategy rarely used by students to cope with difficulties. Just a few used alcohol/stimulants to feel better or help overcome difficulties, this shows the healthy lifestyle of medical students.

4 strategies in table 6 found statistically significant differences between the two group of subjects related to chronic diseases: Acceptance ($p = 0.004 < 0.05$); Venting ($p = 0.004 < 0.05$); Humor ($p = 0.001 < 0.05$) and Substance use ($p = 0.004 < 0.05$). Children having chronic diseases often use Acceptance, Humor and Substance more often than Females, while Venting is a strategy. This result is slightly different from Nguyen Minh Nghia's research with the research subjects being 10th grade students in Hanoi city with only 98.7% of history of chronic diseases. A small number have chronic diseases (1.3%). This shows that students have chronic diseases and mental illnesses at a rate almost 10 times higher than students in the city, possibly due to poor living conditions, medical facilities, or lack of medical care. Medical health conditions are not guaranteed and are limited, so health care for children

is not properly implemented. Besides, being away from home to a new place of study, living situation as well as communication relationships that are almost completely new and unfamiliar to them is also seen as an invisible psychological pressure from children.

5. CONCLUSION

After studying 262 10th grade students at Viet Bac Highland High School, we came to some conclusions: Methods of coping with stress in 10th grade students at Viet Bac Highland High School. Among the 3 forms of coping: Focusing on emotions, focusing on problems and abnormal coping methods (a total of 14 coping methods), "Problem focusing" is the most popular form. used most often. Considering a total of 14 coping methods: the "Accepting the problem" method is the most used. Students with chronic diseases: this subject uses 5 methods: "Religion", "Denial", "Stimulant use", "Lack of engagement behavior", "Self-blame". "self" more than students without chronic diseases and the difference is statistically significant.

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