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Research

Psychological difficulties and the needs for psychological services for high school students

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Abstract
Adolescents experience numerous changes, both psychologically and physically, and they are also the age group with a high prevalence of mental problems that need counseling help. The study aims to assess the difficulties and the needs for psychological support, factors affecting the need to use psychological services among adolescents. A cross-sectional study was conducted on 672 high school students in Thu Duc City, Vietnam. The results showed that there was a statistically significant difference between grades 10–12 in student's difficulties (DS) and a statistically significant difference in needs for psychological services (NPS, RPS). Additionally, there was a statistically significant difference in academic performance for DS. The findings also implied that RPS was predicted by a DS, NPS, and factors affecting the need to use psychological services (FA), in which NPS and DS were mediators in the relationship between FA and RPS. The study significantly contributes to research practices and the theoretical framework that the parliament and the government use to make counselors mandatory in schools. Meanwhile, the study suggested that school counselors, educators, and teachers must appropriately evaluate students' counseling needs and psychological difficulties; this is essential to providing support and interventions when students deal with challenges promptly.

Keywords Psychological difficulties · Counseling needs · High school students · Psychological services · Request for psychology services

1 Introduction

High school students are adolescents who experience rapid physical and psychological growth. This is also a period of transition between childhood and adulthood, influencing how individuals are feeling, thinking, making decisions, and interacting with the world surrounding them [1]. As a result, this is a difficult time for adolescents. Because this is puberty, the difficulties that adolescents might meet during this phase are tied to their physical growth [2]. Rapid development in height, weight, and changes in reproductive organs can confuse them. For instance, they become ashamed of their bodies [3]. Therefore, emotional and behavioral issues have been the topic of extensive research for many years, and they are tied to the development of the adolescent's identity [4]. It is commonly understood that emotional and behavioral challenges have a substantial influence on the personal, academic, familial, and social life of adolescents [5]. Difficulties

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in social relationships, particularly with parents [6], and friends [7], are noticed during the process of exploring identity. Additionally, school can be a source of stress for adolescents since they are under pressure to do well in order to pass university admission examinations at this age [8, 9].

Change brings challenges that can easily expose adolescents to mental health issues [10]. Further, the period of adolescence are essential for enhancing mental health since more than half of problems with mental health begin at this age and many remain into adulthood [11]. However, these issues go mostly unnoticed and untreated, especially in low and middle-income countries (LMICs) [12]. The evidence shows that the prevalence of mental illness among persons aged 16 to 19 years old in Malaysian is 29.2%, with an estimated 4.2 million people affected [13]. In Vietnam, high school students who reported stress, depression, and anxiety symptoms were 36.1%, 39.8%, and 59.8%, respectively [14]. While Vietnamese high school students reported significant levels of stress, depression, and anxiety, non-professionals were selected as their first choice for support [14]. The use of non-professional support sources rather than professional sources (doctors, psychologists, etc.) raises issues regarding the need for adolescents to seek and utilize psychological services, as well as the hurdles that adolescents may have in seeking and utilizing these services. Especially, students who are confronting many difficulties in the adolescence phase, only around two-thirds of young people with mental health problems received professional assistance [15] and 7,28% of the common population youth received school mental health services [16].

This data has increased awareness of the need to address adolescents' mental health needs, especially in the school context because adolescents spend most of their time at school. Schools play an important role in the development of adolescents and also are one of the most important community settings for promoting mental health [17]. The evidence shows that mental health promotion programs in schools, particularly those that use a whole-school approach, result in improved mental health, social, and educational results [18, 19]. Identifying the difficulties that adolescents are experiencing might be the first step so that school psychologists can support adolescents in accordance with their needs. Accordingly, the aim of this study was to investigate the difficulties of adolescents and their needs to use psychological services.

1.1 Difficulties of adolescents

The period of adolescence is characterized by a swift progression of physical, cognitive, emotional, and social transformations [20]. According to the findings of Cameron and Karabanow [21], adolescents encounter a range of developmental obstacles at varying frequencies. These challenges encompass educational transitions, cognitive capabilities, familial and social relationships, legal obligations, and personal moral growth. Adolescents will experience feelings of insecurity and intense emotions as a result of negative familial relationships, feelings of inadequacy, and social expectations of more mature behavior. In addition, Karimi, Karimi [22] asserted that adolescents would have difficulty determining who they are, what they stand for, and where they would go in life when confronted with a variety of roles, ranging from professional to romantic while attempting to discover their true selves. Tountas and Dimitrakaki [23] revealed that adolescents' health and risk behaviors, including substance use and abuse, are crucial determinants of their current and future health and well-being. Students susceptible to psychological stressors may develop socially undesirable behaviors and severe mental health issues that persist into maturity [24]. Evidence prompted that adolescents' depression and other mental health issues are rising [25]. Noland, Price [26] discovered that 42% of students in grades 9–12 reported that tension prevented them from sleeping well. Additionally, high school students encounter numerous stressors related to the necessity of continuous learning. Consequently, high school students frequently report experiencing constant tension related to schoolwork, such as the pressure to achieve high scores and the fear of receiving poor grades. According to Cairns and Lloyd [27], coursework and exams are the most frequently cited sources of adolescent tension.

1.2 The differences in difficulties of high school students and the counseling needs when considering academic achievement and grade-level

Although many similarities are detected when analyzing high school students' issues, there were disparities in perceived difficulties when considering academic achievement of students and grade-level so that having differences between demands. Research by Leonard, Gwadz [28] in the United States found that students in the 11th grade face significant stress levels, particularly in relation to their academic performance and the process of gaining admission into higher education institutions. The study also highlighted the prevalence of drug and alcohol use among these students.

Friedman [29] conducted a study with Israeli 9th and 10th graders and discovered that educational issues are the main concern for adolescents, with 43% of issues revolving around studies and careers. Furthermore, it is noteworthy that the mean score achieved by 11th-grade high school students in Turkey was significantly worse than that of those in 9th, 10th, and 12th grades [30]. Similarly, Hakkarainen, Holopainen [31] revealed the indirect impact of word reading and mathematical difficulties on dropping out of school in grade 9 and grade 11 through achievement. According to Dietrich, Zimmermann [32], positive connections between teachers and students are a significant aspect of addressing student difficulties, it improves social-emotional and academic results in classes with more students experiencing severe psycho-social difficulties. Guo [33] found the differences between teachers of grade-level, in which teacher feedback and students' self-regulated learning levels differ by grade level, with praise being the greatest correlation and directive feedback positively associated with 11th and 12th graders. Therefore, counseling needs or support needs of students need to consider specific difficulties. For example, students with academic learning challenges get assistance to learn [31] and negative teacher-student relationships may need help from counselors/psychologists due to negative consequences such as disobedience or skipping classes [34].

1.3 The relationship between difficulties of high school students, needs for psychological services and factors affecting the need to use psychological service

Psychological counseling is one sort of professional psychological help. Counseling psychologists are becoming increasingly popular in a number of contexts, including hospitals, medical centers, private clinics, forensic institutions, industry, education, and other organizations [35]. Psychological counseling is also a common approach to psychotherapy for adolescents in a number of countries [36, 37]. There is plenty of evidence demonstrating the beneficial impact of school-based psychological counseling on adolescents. According to Cooper [36], psychological counseling works effectively at reducing psychological distress and assisting adolescents in achieving their own goals and it is seen beneficially as a method of improving their mental health and emotional well-being. Students who were treated in schools or for school-related issues got better [38]. Additionally, school mental health services have been found to improve clinical productivity because pupils are more approachable to mental health professionals [39]. Despite previous studies having shown that the majority of schools provide some level of mental health services, these services are lacking to meet the needs of adolescents [40]. According to Elliott and Larson [41], despite adolescents' need for psychological help, they reported avoiding mental health care. Adolescents expressed a felt need for any sort of care, with counseling having the highest perceived need and medicine having the lowest [42].

For many years, experts have been investigating the factors that impact adolescents' demand for mental health services. The research by Aguirre Velasco, Cruz [43] conducted a systematic review of fifty-four studies that reported barriers and/or facilitators, in which help-seeking behavior includes stigma, family beliefs, mental health literacy, and autonomy. In addition, problems with service and human resources availability, as well as other structural concerns (such as cost, transportation, and waiting time), were noted as barriers to getting help [43]. According to Reardon, Harvey [44], trust and confidence in experts, as well as the presence or absence of a relationship of trust with professionals, were identified as a barriers/facilitator. To the best of our knowledge, there has been little study on the need for using mental health services among Vietnamese adolescents. Factors associated with mental health service use have been studied, including mental health literacy, and stigma [7, 14, 45]. According to Nguyen Thai and Nguyen [45], students who recognize symptoms of depression tend to seek help from both non-professional and professional sources; however, the latter is not deemed as useful as the former.

Researchers in the educational context of Vietnam are also concerned about mental health issues and difficulties among high school students. Therefore, counseling has become a practical resource for assisting students in overcoming academic and life challenges. According to research by Thai, Vu [14], Vietnamese high school students with elevated levels of depression, stress, and anxiety were more likely to seek non-professional help. In the study by Nguyen, Go [46], the majority of participants rated mental health services as highly essential, and counseling was ordered as more critical than medication. The previous research in Vietnam showed that high school students need advising and counseling, but only in the academic aspect [47]. This will be the first cross-sectional study in Vietnamese to investigate the relationship between students' difficulties, needs for psychological services, and factors influencing the use of psychological services among high school students.

The current study proposes four hypotheses based on the analysis provided, a cross-sectional survey was used to investigate difficulties of high school students and the need to use psychological services.

Hypothesis 1: There is a significant difference in the needs for psychological services (NPS, RPS) between grades 10, 11 and 12.

Hypothesis 2: There is a significant difference in perceived difficulties between the academic performance of students.

Hypothesis 3: The need to use psychological support (NPS) would mediate the relationship between factors affecting the need to use psychological service (FA) and requests for psychology services (RPS).

Hypothesis 4: Difficulties of high school students (DS) positively influence the need to use psychological support (NPS).

2 Method

2.1 Participants

A total of 719 questionnaires were distributed, with 672 of them being valid. Participants were high school students from three districts in Thu Duc city, Vietnam: district 9, district 2, and Thu Duc district. The sample included 354 males (52.7%) and 318 females (47.3%). The majority of participants (n = 352; 52.4%) rated "Very Good" academic performance, followed by "Excellent" (n = 195; 29.0%), "Good" (n = 122; 18.2%), and "Average" (n = 3; 0.4%). Most participants (n = 244; 36.3%) were in grade 12, followed by grade 11 (n = 228; 33.9%) and grade 10 (n = 200; 29.8%). Table 1 displays all of the participant distributions.

3 Research instrument

Previous studies have assessed the needs for psychological services and student challenges, as well as conducted reliability and validity scales related to these problems in Vietnam. Nevertheless, no research has been undertaken in Vietnam to develop a scale that evaluates the difficulties and needs of psychological services among Vietnamese students. Therefore, establishing this novel scale facilitates the modernization and advancement of measurement instruments suitable for present conditions. The measures that have been previously developed may not provide an appropriate representation of the unique requirements and challenges faced by Vietnamese students. The development of an alternative scale has the potential to improve the accuracy of measuring and assessing variables about students' psychology within distinct cultural and social settings. In the present study, the needs for psychological services scale were developed consist of four scales: the Student's Difficulties Scale (DS), the Need for Psychological Support (NPS), the Request for Psychological Services (RPS), and the Factors Affecting the Need to Use Psychological Services (FA). The theoretical foundation was employed to develop a valid instrument based on Maslow's theory of personality, which encompasses five needs: physical health, security, self-esteem, love-belongingness, and self-actualization [48]. In addition, the scale referenced in the Self-Determination theory, which is based on the constructs of the three natural, universal, and nonhierarchical psychological needs for autonomy, competence, and relatedness [49], is designed to address the needs satisfaction, motivate behavior, and promote psychological well-being. Furthermore, the student's difficulties

Table 1 Socio-demographic characteristics of samples (N = 672)

Variables	Category	Frequency (%
Gender	Male	354 (52.7)
	Female	318 (47.3)
Grade	Grade 10	200 (29.8)
	Grade 11	228 (33.9)
	Grade 12	244 (36.3)
Academic performance	Excellent	195 (29.0)
	Very Good	352 (52.4)
	Good	122 (18.2)
	Average	3 (0.4)
	Poor	0 (0)

aspect was developed using the Adolescent Functioning Scale [50] self-reports of parents and adolescents on concerns such as oppositional defiant behavior, positive development (including the development of social skills, resilience, and positive engagement with family, peers, and others), adolescent's experience difficulties in school, and internalizing experiences. Simultaneously, this scale may efficiently represent the cultural values and perspectives of the Vietnamese population, thereby enhancing the consistency and reliability of measurement outcomes.

3.1 The student's difficulties scale (DS)

All construct items in the current investigation were derived from existing literature. After synthesizing the theories, including18 items was created for this scale. The authors used a Likert 4 points scale that ranged from 1 = "Strongly disagree", 2 = "Disagree", 3 = "Agree", and 4 = "Strongly agree" to evaluate the level of perceived difficulty in high school students' lives. The Student's Difficulties Scale (DS) was divided into subscales that included difficulties in physical development, academic difficulties, socialization difficulties, family relationship difficulties, emotional and psychological difficulties, and personal identity difficulties that were based on theories of adolescent development. The CFA indicated that the measurement was a good fit, CMIN/df = 2.216 ($p < 0.001$); GFI = 0.957; CFI = 0.965; TLI = 0.955; RMSEA = 0.043. Additionally, the instrument showed good reliability via Cronbach's Alpha value 0.90.

3.2 The need for psychological support (NPS)

The same process is followed to create the need to use psychological support (NPS) including 18 items. NPS describe student's need related to physical development problems, academic activity, family and social relationship, and emotional problems. The authors used a Likert 4 points scale that ranged from 1 = "Strongly disagree", 2 = "Disagree", 3 = "Agree", and 4 = "Strongly agree". The CFA showed that the measurement was a good fit, CMIN/df = 3.941 ($p < 0.001$); GFI = 0.925; CFI = 0.969; TLI = 0.960; RMSEA = 0.066. The Crobach's Alpha value is 0.96 that showed good reliability.

3.3 The request for psychological services (RPS)

The authors developed the RPS to examine the requests of high school students about psychological support, especially in school context. The RPS was divided into scales that included requirements of factors related to counselors, students would feel that who are the counselors who can help them to solve difficulties (For example, psychologists or teachers); requirements of factors related to context factors (For example, when does the meeting between counselors and students take place, where is the work location, and is the form of work direct or indirect?); requirements of factors related to characteristics of counselors (gender, age, qualifications). The authors created 15 items based on those requirements. RPS also used a Likert 4 points scale that ranged from 1 = "Strongly disagree", 2 = "Disagree", 3 = "Agree", and 4 = "Strongly agree" to evaluate the importance of requirements. In the present study, the CFA showed that the measurement was an adequate fit, CMIN/df = 4.088 ($p < 0.001$); GFI = 0.948; CFI = 0.962; TLI = 0.943; RMSEA = 0.068. Besides, Cronbach's Alpha reached 0.91 that revealed good reliability.

4 The factors affecting the need to use psychological services (FA)

The FA was developed that included subjective and objective factors affecting the need to use psychological services. The authors created 6 items based on research related to barriers in seeking and using psychological services. The Likert 4 points scale was used that ranged from 1 = "Strongly disagree", 2 = "Disagree", 3 = "Agree", and 4 = "Strongly agree". The CFA revealed that the measurement was a good fit, CMIN/df = 1.279 ($p < 0.001$); GFI = 0.997; CFI = 0.999; TLI = 0.998; RMSEA = 0.020. In addition, Cronbach's Alpha reached 0.83 that revealed good reliability.

4.1 Procedure

This study selected the data directly from high schools located in District 9, District 2, and Thu Duc District, Vietnam. Prior to participation in the survey, students agreed to all terms of the study, and information confidentiality and anonymity were also thoroughly explained. Participants were informed of the research purpose and the potential benefits and risks. Participants might withdraw at any time if they feel discomfort or uncertainty. According to ethical standards, informed

consent was obtained from students, and this study was allowed by legally authorized representatives of students who are under 16 years old.

Participants completed the questionnaires under the guidance of a member of the research team. If they require clarification at any time during the survey, a member of the research team might explain directly. The survey includes characteristic demographics questions and the questionnaires: Student's Difficulties Scale (DS), Needs for Psychological Support (NPS), Requests for Psychological Services (RPS), and Factors Affecting the Need to Use Psychological Services (FA). The survey took about 15 -20 minutes to complete.

4.2 Ethical aspects

The ethics of this study align with the standards outlined in the Declaration of Helsinki and the guidelines set forth by the American Psychological Association in 2017 regarding requirements for human research, which were approved including respect for the autonomy and confidentiality of individuals throughout the study process. The Ethical Committee of the Graduate Academy of Social Sciences, Vietnam, approved this study on April 17, 2021 (Ref. No. 586/QD-HVKHXH).

4.3 Data analysis

The Social Sciences Statistics Program (SPSS) version 26.0 was used to process the data. Kolmogorov–Smirnov was used to evaluate the distribution and the normality of the gathered data (our sample size was more than 50 observations). The results revealed that all DS, NPS, RPS, and FA were non-normally distributed, with p-values more than 0.05. Therefore, Mann–Whitney and Kruskal–Wallis were used as non-parametric approaches to measure the difference of dependence variables between characteristic variables (grade, academic achievement,…).

This study also used AMOS, a structural equation modeling, route analysis, and confirmatory factor analysis software tool. Additionally, the mediation relationship in this study was assessed by using smart partial least squares (SmartPLS)-SEM analysis, a variance-based statistical modeling technique that allows for the exploration of both the measurement adequacy of latent variables and the subsequent evaluation of those variables' structural relationships. A complete PLS-SEM analysis was performed on 5000 bootstrap samples to determine route coefficients, P-values, and direct, indirect, and total effects. The fact that 5000 sample bootstrapping is commonly employed, 5000 sample approaches was used in this study, the size of our sample (n = 672). With FA and DS as input variables and NPS and RPS as output variables, we ran a multiple-mediated PLS path model.

5 Findings

5.1 Validity

5.1.1 Measurement model

Indicator reliability is calculated by squaring the outer loadings of reflective constructs, and when combined, they provide a necessary and sufficient measure of the measurement model, clearly explaining the link between the latent variables and their measurements. To use them, first ensure that the reflective constructs' outer loadings are well above the threshold value of 0.708. However, indicators with outer loadings less than 0.7 are still permitted with some caveats, such as the retention or lowering of AVE and CR values if the items are eliminated [51]. The results showed that the CR value of DS, NPS, RPS and FA reached 0.903, 0.966, 0.914 and 0.838 respectively; besides, the AVE value of DS, NPS, RPS, and FA reached 0.366, 0.615, 0.624, and 0.607 respectively. Indicators with outer loadings less than 0.3 should be deleted immediately [52]. Therefore, we removed the indicators RPS1, RPS4, RPS6, RPS7, RPS8, RPS10, and FA6 because their outer loading is less than 0.3 and they impact the values of AVE, CR, and CA. Besides, even though the outer loadings D1, D2, D3, D4, D5, D6, D7, D8, D10, D12, D13, D14, D16, D17, D18, NPS1, NPS2 are less than 0,7, we accepted them because these indicator thresholds exceeded the 0.4 level [51].

Cronbach's Alpha (CA) and Composite reliability (CR) are used to assess construct reliability. CA is sensitive to the amount of items on the scale and overestimates the internal consistency reliability. As a result, CR is offered for usage. Values between 0.60 and 0.70 indicate that construct reliability is "acceptable in exploratory research"; values between 0.70 and 0.90 indicate that it is "satisfactory to good"; and values above 0.90 indicate a problem because the

indicators are redundant, reducing construct validity. The CA and CR values of our measurement model are shown in Table 2.

According to Hair Jr, Hair Jr [51], convergent validity is established when items in a given measure converge to reflect the underlying concept. The AVE is determined as the mean of the squared loadings of each indicator associated with a construct. Statistically, convergent validity is demonstrated when the Average Variance Extracted (AVE) is greater than 0.50. In Table 2, NPS, RPS, and FA have AVE values more than 0.50, but DS has an AVE value less than 0.50. However, if all of their CR values are more than 0.6, the AVE limitation is acceptable.

Table 3 reports the results of HTMT. Hair, Ringle [53] advocate using a cut-off value of 0.90 for HTMT. The results showed that all of these values are less than the maximum threshold of acceptability.

5.1.2 Structural model

Variable inflation factor values are evaluated to determine the severity of the structural model's collinearity problem. Collinearity happens when two indicators are closely related. When two indicators are highly connected, collinearity occurs. If VIF is less than 5, multicollinearity is not a concern in the structural model. Because all of the VIF values in this obtained data were less than 5, there was no concern of collinearity. The VIF values are displayed in Table 4.

R^2 is a model prediction accuracy measurement. The coefficients of determination show the proportion of variance in the endogenous constructs explained by the structural model. R^2 should be more than 0.1 [54] to be considered significant [55]. The adjusted R^2 ranged from 12.3% to 51.5% for the variance predicted in the endogenous constructs, demonstrating a low to moderate level of predictive accuracy [53, 56].

The researcher can see the influence of each external construct on the endogenous construct by assessing effect size (f^2). The f^2 values in this study are within Cohen [57] recommended range. DS to RPS and FA to DS have small effects of 0.028 and 0.142, respectively; DS to NPS; FA to NPS; FA to RPS and NPS to RPS have average effects of 0.181, 0.176, 0.161, 0.232, respectively.

5.2 Mann–Whitney U test and Kruskal Wallis test

The results of Mann–Whitney U test indicated that female students had significantly greater RPS than male students, z = [-2.69], p = [0.007]. In addition, we used the Kruskal–Wallis test to evaluate the difference between grade and academic performance. The results revealed that there was a significant difference between the grade 10, grade 11 and grade 12 of DS, $H(2) = 34.24$, $p < 0.001$; NPS, $H(2) = 14.04$, $p = 0.001$; and RPS, $H(2) = 31.66$, $p < 0.001$. Post-hoc pairwise comparison by using Dunn test indicated that DS are statistically significant differences higher in grade 11 than grade 10 ($p < 0.001$) and higher in grade 12 than grade 10 ($p < 0.001$). There was no statistically significant difference between grade 11 and grade 12. Post-hoc pairwise comparison showed that NPS are significantly different in grade 12 higher than grade 10 ($p < 0.05$), higher in grade 11 than grade 10 ($p < 0.05$). There was no significant difference between grade 11 and grade 12 ($p = 1.000$). Post-hoc pairwise comparison also revealed that RPS are significantly different in grade 12 higher than grade 10 ($p < 0.05$), greater in grade 11 than grade 10 ($p < 0.001$), and higher in grade 11 than grade 12 ($p < 0.05$). Therefore, the first hypothesis was accepted.

The results show that there was a statistically significant difference between academic performance (excellent, very good, good, average) in DS, $H(3) = 14.61$, $p = 0.002$. Hypothesis 2 was proved since there was a significant difference in academic performance in DS. Post-hoc pairwise comparison showed that DS are significantly different in excellent students higher than average students ($p < 0.05$), and greater in very good students than good students ($p < 0.05$).

5.3 Results of PLS-SEM analysis

In Table 5, the result supported the Hypothesis 3 because the findings showed an indirect effect of FA on RPS, mediated by NPS [$\beta = 0.150$, $p < 0.001$, 95% CI = (0.110; 0.193)]. Furthermore, Hypothesis 4 was confirmed because it revealed the positive effect of DS [$\beta = 0.365$, $p < 0.001$, 95% CI = (0.300; 0.433)] on NPS.

Table 2 Convergent validity results

Construct and items	Loadings	CR	α	AVE
DS	–	0.903	0.897	0.366
D1	0.525	–	–	–
D2	0.571	–	–	–
D3	0.657	–	–	–
D4	0.517	–	–	–
D5	0.509	–	–	–
D6	0.477	–	–	–
D7	0.635	–	–	–
D8	0.555	–	–	–
D9	0.720	–	–	–
D10	0.661	–	–	–
D11	0.583	–	–	–
D12	0.671	–	–	–
D13	0.606	–	–	–
D14	0.642	–	–	–
D15	0.701	–	–	–
D16	0.616	–	–	–
D17	0.565	–	–	–
D18	0.615	–	–	–
NPS	–	0.966	0.963	0.615
NPS1	0.665	–	–	–
NPS2	0.682	–	–	–
NPS3	0.713	–	–	–
NPS4	0.719	–	–	–
NPS5	0.757	–	–	–
NPS6	0.749	–	–	–
NPS7	0.831	–	–	–
NPS8	0.809	–	–	–
NPS9	0.834	–	–	–
NPS10	0.808	–	–	–
NPS11	0.813	–	–	–
NPS12	0.819	–	–	–
NPS13	0.839	–	–	–
NPS14	0.814	–	–	–
NPS15	0.808	–	–	–
NPS16	0.837	–	–	–
NPS17	0.768	–	–	–
NPS18	0.821	–	–	–
RPS	–	0.914	0.914	0.624
RPS2	0.746	–	–	–
RPS3	0.745	–	–	–
RPS9	0.824	–	–	–
RPS11	0.770	–	–	–
RPS12	0.831	–	–	–
RPS13	0.789	–	–	–
RPS14	0.824	–	–	–
RPS15	0.787	–	–	–
FA	–	0.838	0.838	0.607
FA1	0.794	–	–	–
FA2	0.753	–	–	–
FA3	0.753	–	–	–
FA4	0.813	–	–	–
FA5	0.780	–	–	–

Table 2 (continued)

CR, composite reliability; α, Cronbach's alpha; AVE, average variance extracted

Abbreviations: DS, Student's Difficulties; NPS, Need for Psychological Support; RPS, Request for Psychological Services; FA, Factors Affecting the Need to Use Psychological Services

Table 3 Heterotrait-monotrait (HTMT) criterion

	DS	NPS	RPS	FA
DS	–	–	–	–
FA	0.397	–	–	–
NPS	0.519	0.536	–	–
RPS	0.485	0.654	0.676	–

Abbreviations: DS, Student's Difficulties; NPS, Need for Psychological Support; RPS, Request for Psychological Services; FA, Factors Affecting the Need to Use Psychological Services

Table 4 Collinearity statistics variance inflation factor (VIF)

	DS	NPS	RPS	FA
DS	–	–	1.142	1.349
FA	1.000	–	1.142	1.344
NPS	–	–	–	1.553
RPS	–	–	–	–

Abbreviations: DS, Student's Difficulties; NPS, Need for Psychological Support; RPS, Request for Psychological Services; FA, Factors Affecting the Need to Use Psychological Services

Table 5 Results of structural model: direct effect and indirect effect

Path	β coefficient	t	p	95% confidence intervals	95% BC confidence intervals
Direct effects					
DS → RPS	0.136	4.021	< 0.001	(0.072; 0.204)	(0.072; 0.204)
FA → RPS	0.324	8.997	< 0.001	(0.254; 0.394)	(0.253; 0.393)
NPS → RPS	0.417	11.313	< 0.001	(0.344; 0.490)	(0.343; 0.489)
DS → NPS	0.365	10.784	< 0.001	(0.300; 0.433)	(0.293; 0.426)
Indirect effects					
FA → DS → RPS	0.048	3.799	< 0.001	(0.025; 0.075)	(0.024; 0.074)
FA → DS → NPS → RPS	0.054	6.243	< 0.001	(0.040; 0.073)	(0.039; 0.072)
FA → NPS → RPS	0.150	7.136	< 0.001	(0.110; 0.193)	(0.111; 0.194)
DS → NPS → RPS	0.152	7.787	< 0.001	(0.118; 0.194)	(0.117; 0.193)

Abbreviations: DS, Student's Difficulties; NPS, Need for Psychological Support; RPS, Request for Psychological Services; FA, Factors Affecting the Need to Use Psychological Services

6 Discussion

This study aims to investigate the correlation between student's difficulties and the needs for psychological services. There was a statistically significant difference between grades 10–12 in DS, NPS, and RPS. Additionally, there was a statistically significant difference in student performance for DS. The findings also suggested that RPS was predicted by DS, NPS, and FA, with NPS and DS serving as mediators between FA and RPS.

The study indicated significant differences between grades 10, 11, and 12 in students' difficulties, need for psychological support, and request for psychological services. The results are similar to other studies, mathematics anxiety in 12th-grade is more significant than in 10th and 11th grades [58], whereas difficulties regarding external conflict in career-related decision-making in 11th grade are lower than in 9th grades and 10th grades [59]. McGuine, Biese [60]

additionally discovered an increase in moderate to severe symptoms of anxiety and depressive disorders in 12th-grade students compared to those in lower grades, and students in higher grades had symptoms of stress, anxiety, depression, and loneliness [61]. In addition, there are grade-level differences in sleep among high school students; the proportion of students getting eight or more hours of sleep per day decreases gradually as grade level increases, and fewer than a quarter of 12th grade students do not get enough sleep [62]. Therefore, the difficulty level of 12th grade is higher than that of 10th and 11th grade, as 12th-grade students must contend with career and academic pressure. In addition, there are differences in grade levels based on the need for psychological counseling and requests for psychological services. The findings of this research are comparable to those of other studies. Witko, Bernes [63] revealed that 10th, 11th, and 12th-grade students needed specific information about career courses, whereas 12th-grade students also needed career counseling. Witko, Bernes [63] also reported a difference between 10th and 12th grades in the need for enhanced career counseling and increased job experience. Gazmararian, Weingart [61] proposed that grade-specific support needs for the various forms of stress experienced by students should be identified. Sculli [64] demonstrated that there are differences in the needs of high school students, 10th grade reported a greater need than 9th and 11th-grade to learn about vocational education requirements and study skills; 9th-grade reported a greater than 10th and 11th-grade need to learn about psychological services and the topics of bullying and peer pressure; and 11th-grade reported a greater than 9th and 10th-grade students need to learn about career and college preparation.

Additionally, the study results indicated a substantial difference between student performance and student's difficulties in high school students. Previous study revealed that students with high anxiety levels will have poor academic performance and be less motivated to learn [65]. The results of this study are similar to those of previous studies. Talib and Zia-ur-Rehman [66] found that students with lower grade point averages experienced more significant anxiety levels than students with high academic achievement. In contrast, other studies by Deepika and Prema [67] found no difference in students' academic achievement across various obstacles, particularly peer pressure. In addition, the report by Luu-Thi, Ngo-Thi [58] showed a reverse result when determining significant differences in academic achievement on mathematics anxiety, including students with above-average mathematics scores having greater levels of mathematics anxiety than students with lower scores. Furthermore, this study found the difference between genders in level of importance requests for psychological services. This conclusion is consistent with previous studies in that males and females have different criteria and motivations for using mental health services. According to Drapeau, Boyer [68], females are more likely than males to use types of mental health services, including general, psychological and psychiatric services. In terms of gender, both men and women want their counselors to be of the same gender, in which male participants tend to prefer the gender of counselor more than female participants [69].

The results also indicated that RPS was predicted by DS, NPS, and FA, with NPS and DS serving as mediators between FA and RPS. Several prior studies have demonstrated the effect of student's difficulties on needs for psychological services. According to Flisher, Beer [70], stress is one of the main reasons students and adolescents seek psychological counseling help. Similarly, Milne [71] demonstrated that adolescents' need for psychological counseling stems from a need to validate their thoughts and feelings. In addition, the results suggested that the need for psychological support is a mediator between factors that influence the need to use and requests for psychological services. Other studies have identified factors that affect the request for and needs for psychological services. Flisher, Beer [70] have identified variables that affect the use of psychological services, including low expectations and negative attitudes about psychological services, lack of information about available psychological counseling services, mistrust of counselors, concerns about confidentiality, and confidence in the ability to solve problems. Other factors, such as stigma, influence the needs for psychological services, as the stigma of seeking help leads to reduced awareness of mental health problems [72], and perceptions of self-stigma influence attitudes and willingness to seek psychological help [73]. Indirectly, barriers to beliefs about psychological counseling, stigma associated with counseling [74], emotional openness, and symptom severity [75] influenced willingness to utilize available psychological services. Cultural factors and national identity also predict an individual's willingness to seek professional help [76]. Cultural factors in Vietnam affect students' needs due to the dread of bringing disgrace to their families, social stigma, and the belief that they can solve the problem by themself [77]. In addition, when the needs for psychological support and student's difficulties, that will affect requests for psychological services. Cheung and Liu [78] discovered that adolescents are more likely to seek help for academic issues than personal or emotional problems. Consequently, students will have different needs for psychological services, such that students in higher grades may require help with college and career planning. Lower grades may require help with issues of peer

interaction and adjusting to the high school environment. In addition, students' awareness of counseling requirements is a significant factor influencing requests and inquiries for psychological services [79]. If students recognize that their emotional or psychological distress affects their health, learning, or daily life, they are more likely to seek help. Therefore, to meet the various requirements of adolescents, a counseling psychologist must have the essential traits of warmth, acceptance, and personal empathy, fostering trust and confidence [80]. In order to become a professional, standard training from a recognized professional organization or agency is necessary [81]. Consulting activities must prioritize client benefits, the development of professional skills, the management of personal information and emotions, and a high level of problem-solving [82].

7 Implication and limitation

The current results have implications for future research theory and practice. This study initially looked into the difficulties that high school students face and the needs for psychological services. The study is not the first study in Vietnam to investigate the needs for psychological services; however, it is the first study to investigate the relationship between the difficulties that Vietnamese high school students confront and the needs for psychological services, specifically psychological services in school settings. Furthermore, this study provides new measurement tools like DS, NPS, RPS, and FA so that future studies may further investigate students' challenges and the needs for psychological services. These scales have demonstrated high reliability and construct validity. These results also help increase students' awareness of the issues they face and show them that psychological care services are one of the options they can consider. Students need mentors or counselors to teach social skills and support them because adolescence is a time of encountering various challenges with physical and mental health, as well as relationships with family, friends, and teachers [1, 2]. Many studies suggested that teaching adolescents life skills leads to healthy development, whereas a lack of life skills leads to dangerous conduct in adolescents [83]. According to Armacost [84], school counselors may assist children in recognizing and coping with problems in their lives. For guidance and counseling programs (such as career orientation, education, family, and soft skills) to be tailored to students' specific guidance and counseling needs (during the various phases of life), constant counseling needs evaluation is crucial.

The findings also have significant practical implications, particularly for Vietnamese high schools. The problems of high school students examined in this research revealed the reality of what students experience and need to help themselves at this age. In Vietnam, high school students begin in 10th grade and end in 12th grade. To graduate, students must pass the high school exam, so the curriculum is becoming increasingly complex and expansive in knowledge material, causing students to encounter continuous examination pressure, ongoing stress, and anxiety. Therefore, each grade level should have a unique set of goals and counseling subjects, and there should be more than one school counselor to support students in the case of an emergency. Students with elevated academic anxiety must be identified and treated immediately to improve academic performance and prevent mental health issues. Schools have a responsibility to enhance students' mental health. At the same time, they grow since adolescents spend most of their time at school, which is mixed with social experiences and obstacles, academic demands, mental overload, and psychological stress [85]. Our findings can help high schools in Vietnam develop intervention and prevention programs for mental health issues. Additionally, these findings also provided data for clinical practitioners in Vietnam. Because psychology is an emerging discipline in Vietnam compared to the rest of the globe, there is limited data for clinical psychologists to perform their work properly and effectively in the Vietnamese setting. For example, clinical psychologists may confront various difficulties in their work, such as a lack of knowledge of the barriers that hinder adolescents in high school from using psychological care. Based on the finding that the relationship between factors affecting the need to use psychological services and requests for psychological services is mediated by the need to use psychological support, it is critical to develop effective interventions and policies to increase the utilization of psychological services in high school students. Simultaneously, the findings have substantial implications for improving student's perceptions and reducing stigma. The study proposes that improving mental health literacy programs assists students in recognizing their psychological support needs and encourages more students to seek psychological services.

Nevertheless, it is crucial to recognize the several limitations included in this study. This study is investigated based on self-report data provided by high school students; thus, the evaluations remain subjective. Future research efforts may involve the

implementation of questionnaires targeting parents and teachers to evaluate adolescents' practical counseling requirements objectively. This study exclusively examined the challenges students face, focusing specifically on mental health concerns such as general anxiety, academic anxiety, and stress, which impact their requirements for seeking guidance and support. Therefore, it is essential for future research attempts to explore the association between mental health problems and the needs for psychological services. The authors developed the scale used in this study on high school students in Ho Chi Minh City; as a result, additional research is required to determine the validity and reliability of the scale on other subjects and larger populations. Furthermore, the study has not been conducted to measure the content validity of the need for psychological support scale, which is a crucial consideration when creating and developing a scale. The process of constructing a scale presents several obstacles for researchers because psychology is still a relatively emerging field in Vietnam; obtaining permission and access to high school students, as well as investigating mental health needs, faces several systemic barriers. These barriers include stigma surrounding mental problems, low mental health literacy, and tight teaching schedules that limit the study team's time for investigation. Therefore, future research could be founded on the need for a psychological services scale to redesign the scale with a more comprehensive content validity, which would guarantee the development of a measurement scale that is both consistent and suitable for the Vietnamese context.

8 Conclusion

To deal with the mental health requirements of adolescents, it is crucial to assess their needs for psychological services. This investigation aims to identify any challenges that adolescents may be facing in their personal and academic lives. By doing so, it becomes possible to develop counseling programs that are tailored to solve particular problems, such as career guidance, family dynamics, and social relationships. The objective of this study is to investigate the relationship between students' difficulties, needs for psychological services, and factors affecting the need to use psychological services. The research findings suggested differences in student difficulties, counseling needs, and requests for psychological services across different grade levels. Further, differences in academic achievement have been noted among students with other difficulties. This study also examined the psychological services needs and the role of student difficulties as a mediator in the relationship between various factors influencing the need for psychological services and the actual utilization of those services. The need for psychological support (NPS) would mediate the relationship between factors affecting the need to use psychological services (FA) and requests for psychological services (RPS). Difficulties's students (DS) positively influence the need for psychological support (NPS).The proposed study proposes to assess the efficacy of counseling interventions offered in secondary educational institutions to examine students' unique requirements at different grade levels and develop appropriate support measures. Simultaneously, the study also argues the necessity of investigating the different requirements of high school students and attending to their psychological service needs to implement suitable methods and solutions to student's problems.

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Data availability All relevant data supporting the findings during the current study are available from the corresponding author on reasonable request.

Declarations

Competing interest The authors declare no competing interests

Appendix

Student's Difficulties Scale

	Items	Level			
		Strongly disagree	Disagree	Agree	Strongly agree
D1	Difficulty understanding bodily changes				
D2	Difficulty coping with bodily changes that one cannot control				
D3	Difficulty in dealing with emotions related to bodily changes				
D4	Difficulty in finding direction in learning				
D5	Difficulty in grasping lesson content				
D6	Difficulty in finding effective learning methods				
D7	Difficulty in socializing with teachers, classmates, or peers				
D8	Difficulty in expressing opinions in front of a group				
D9	Difficulty in seeking help				
D10	Difficulty in expressing opinions, communicating with parents, and relatives				
D11	Difficulty in maintaining relationships with parents and relatives				
D12	Difficulty in seeking help from family				
D13	Difficulty in recognizing, naming, and expressing emotions				
D14	Difficulty with new emotional states (love, friendship, etc.)				
D15	Difficulty in approaching, expressing emotions				
D16	Difficulty in searching for, exploring life issues				
D17	Difficulty in choosing a career orientation in the future				
D18	Difficulty in equipping oneself with essential life skills				

The Need for Psychological Support

	Items	Level			
		Strongly disagree	Disagree	Agree	Strongly agree
NPS1	Being provided with basic knowledge about physical development…				
NPS2	Being guided to participate in appropriate physical activities…				
NPS3	Being provided with comprehensive guidance on nutrition, health, …				
NPS4	Being equipped with relevant issues to enhance learning: guidance on study methods, effective learning strategies				
NPS5	Being guided to participate in supplementary activities for learning: experiences, fun activities, …				
NPS6	Being advised on the suitability of oneself with subjects that match strengths, …				
NPS7	Being involved in communication classes at school or guided on effective communication techniques				
NPS8	Being directed in socializing, making friends in person or on social media				
NPS9	Being provided with basic knowledge, skills to know how to communicate, maintain social relationships, …				
NPS10	Being connected with parents, teachers, and oneself				
NPS11	Being guided on effective communication with relatives, …				
NPS12	Being provided with comprehensive family issues in modern life, …				
NPS13	Being equipped with knowledge of adolescent psychology				
NPS14	Being guided on how to live proactively				
NPS15	Being counseled on issues related to significant emotions: romantic feelings, including those toward the opposite or same gender, …				
NPS16	Being guided on age-appropriate life skills				

	Items	Level			
		Strongly disagree	Disagree	Agree	Strongly agree
NPS17	Being counseled in a career orientation suitable for oneself				
NPS18	Being exposed to and experiencing social skills				

The request for psychological services

	Items	Level			
		Strongly disagree	Disagree	Agree	Strongly agree
RPS2	School counselors				
RPS3	External school psychologists or counseling centers				
RPS11	During class to avoid other students knowing				
RPS12	Outside (after school, weekends, …)				
RPS13	Through phone or social media				
RPS14	Through the school's mailbox				
RPS15	Through other external address: counseling centers, television, newspapers,				

The factors affecting the need to use psychological services

	Items	Level			
		Strongly disagree	Disagree	Agree	Strongly agree
FA1	Not believing in the school counseling team (lack of confidentiality, …)				
FA2	Feeling uncomfortable and hesitant to seek counseling help				
FA3	Belief in being able to overcome challenges on my own				
FA4	The school psychologist is not willing to support the students				
FA5	The physical facilities and activities at school for conducting psychological counseling are inadequate				
FA6	The school lacks activities to support psychological counseling for students				

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