

Depression, Stress, and Anxiety Profiles Based on DASS Youth Among Vocational High School Students

Donny Tri Jayadi¹, Fauzan Rifaldi², Muhammad Farras Hafidz³, Galih Firmansyah⁴, Chandra Yudistira Purnama^{5*}, Winna Andini Handayani⁶

^{1,2,3,4,5,6}Fakultas Psikologi, Universitas Jenderal Achmad Yani, Cimahi, Indonesia

Corresponding author: chandra.yudistira@lecture.unjani.ac.id

Abstract

Depression, stress, and anxiety among vocational school students are influenced by academic and social pressures, as well as differences in gender, major of study, and participation in extracurricular activities. Female students and students in certain programs are more vulnerable, while extracurricular activities can help reduce these risks. This study aims to examine differences in levels of depression, anxiety, and stress based on these factors, to provide a foundation for more appropriate interventions in supporting students' mental health. This study involved 238 participants ($F=156$, $Mage=16.56$, $SD=0.55$; $M=82$, $Mage=16.56$, $SD=0.55$). The measurement tool used in this study, the DASS-Y, consists of 21 items across three dimensions and has a reliability coefficient of $\alpha=0.90$. Data analysis employed an independent samples t -test. Results indicated significant differences in levels of depression, stress, and anxiety based on gender ($p \leq 0.001$), major ($p=0.010$), and extracurricular activities ($p=0.118$). These findings suggest the need for mental health intervention approaches that account for students' specific characteristics. Further research is recommended to examine the coping strategies used by vocational high school students in dealing with mental stress, as well as the role of social support and the school environment. Longitudinal studies and qualitative approaches can also enrich our understanding of the dynamics of their mental health over time.

Keywords: DASS-Y, Independent T-Test, vocational student

Abstrak

Depresi, stres, dan kecemasan pada siswa sekolah kejuruan dipengaruhi oleh tekanan akademis dan sosial, serta perbedaan gender, jurusan, dan keterlibatan dalam kegiatan ekstrakurikuler. Siswa perempuan dan siswa dari jurusan tertentu lebih rentan, sementara kegiatan ekstrakurikuler dapat membantu mengurangi risiko tersebut. Penelitian ini bertujuan untuk mengkaji perbedaan tingkat depresi, kecemasan, dan stres berdasarkan faktor-faktor tersebut, guna memberikan landasan bagi intervensi yang lebih tepat dalam mendukung kesehatan mental siswa. Penelitian ini melibatkan 238 peserta ($L=156$, $Rerata\ usia=16,56$, $SD=0,55$; $P=82$, $Rerata\ usia=16,56$, $SD=0,55$). Alat ukur yang digunakan dalam penelitian ini, DASS-Y, terdiri dari 21 item dengan tiga dimensi dan memiliki reliabilitas $\alpha = 0,90$. Teknik analisis data menggunakan uji-t sampel independen. Hasil menunjukkan adanya perbedaan tingkat depresi, stres, dan kecemasan berdasarkan gender ($p < 0,001$), jurusan ($p=0,010$), dan kegiatan ekstrakurikuler ($p=0,118$). Temuan ini menunjukkan perlunya pendekatan intervensi kesehatan mental yang mempertimbangkan karakteristik siswa secara spesifik. Penelitian lebih lanjut direkomendasikan untuk mengkaji strategi koping yang digunakan siswa SMK dalam menghadapi stres mental serta peran dukungan sosial dan lingkungan sekolah. Studi longitudinal dan pendekatan kualitatif juga dapat memperkaya pemahaman mengenai dinamika kesehatan mental mereka dari waktu ke waktu.

Kata Kunci: DASS-Y, Uji-t Independen, siswa sekolah kejuruan

I. Introduction

Education is one of the main pillars of national development, because through education, people not only gain knowledge, but also develop the character, skills, and values necessary to contribute to society. In Indonesia, the education system is designed in stages, starting from elementary school (SD) to higher education, with different objectives at each level. One of the



levels that plays a strategic role is vocational high school (SMK). SMK is designed to prepare graduates who are ready to work by emphasizing the mastery of practical and technical skills in accordance with the needs of the industrial world. Data from Central Bureau of Statistics Indonesia indicates that in the 2024-2025 academic year, Vocational High Schools (SMK) became the preferred choice for students who want to enter the workforce immediately (Hakiki, 2025).

However, behind this practical orientation, vocational high school (SMK) students face complex and unique challenges that directly compromise their mental health. Unlike regular high school students who primarily focus on general academic curricula, SMK students bear a demanding dual burden. They are not only required to fulfill rigorous academic expectations but are simultaneously pressured to master specific technical skills and adapt to strict industrial standards within their educational environment. This specific dual-demand setting acts as a primary catalyst for psychological distress, directly causing elevated levels of stress, anxiety, and depression. Rachmawati and Setiawan (2020) found that around 30% of vocational high school students experience symptoms of depression, while more than 40% report significant anxiety. If left unaddressed, these mental health disturbances can lead to severe detrimental impacts. Prolonged psychological distress not only impairs their academic achievement but significantly diminishes their practical competence and work readiness, increases the risk of school dropouts, and ultimately compromises their long-term quality of life and future career prospects.

The factors that affect the mental health of vocational school students are very diverse. First, gender has been proven to be an important variable. Research shows that female students tend to be more prone to anxiety and depression than males (Nolen-Hoeksema, 2001; Susanti & Prabowo, 2020). This can be influenced by biological and socio-cultural factors, where women are more allowed to express their emotions, while men are often pressured to appear tough. As a result, male students tend to ignore the psychological symptoms they experience, so they do not get adequate support (Hidayati et al., 2021). Second, the major chosen also affects students' psychological condition. A mismatch between students' interests and their chosen major can even worsen their mental condition, as it decreases their motivation to study and increases the risk of depression (Setiawan & Wulandari, 2020). Third, extracurricular activities also have a dual effect on mental health. On the one hand, involvement in sports, arts, or student organizations can be a positive means of reducing stress, improving social skills, and building self-confidence (Lestari & Nugroho, 2020). However, excessive involvement can actually create additional pressure, especially when students have to divide their time between academic and non-academic activities. This condition has the potential to cause mental and physical fatigue, which ultimately worsens mental health (Prasetyo, 2021).

Thus, it can be assumed that the mental health of vocational high school students is

influenced by a combination of internal and external factors, ranging from gender, chosen major, to involvement in extracurricular activities. This complexity requires a deeper understanding of the psychological condition of vocational school students so that the interventions designed can be more targeted. Early identification of symptoms of stress, anxiety, and depression is very important to prevent more serious negative impacts, both on academic achievement and their readiness to enter the workforce. For example, in the academic context, unmanaged psychological distress can manifest chronic absenteeism, failure in vocational competency exams, and a higher risk of school dropout. Furthermore, regarding their readiness to enter the workforce, poor mental health may lead to decreased concentration, which significantly increases the risk of workplace accidents during practical training in workshops and an inability to cope with the rigorous professional demands during industrial internships.

Despite the growing body of research on adolescent mental health, prior studies have largely focused on general high school populations, with limited attention to the unique context of vocational high schools. Vocational education emphasizes practical skill mastery, industry readiness, and intensive academic–technical demands, which may create distinct psychological pressures. However, empirical evidence on how these contextual characteristics influence depression, anxiety, and stress among vocational students remains limited and fragmented. In addition, previous research often examines factors such as gender or academic stress in isolation, without integrating variables like major selection and extracurricular involvement, leaving a gap in understanding their combined effects on students' mental health.

Therefore, this study aims to address this gap by providing an integrated analysis of depression, anxiety, and stress among vocational high school students based on gender, major, and extracurricular participation using the DASS-Y framework. The novelty of this study lies in its focus on the vocational education context and its comparative approach in examining multiple influencing factors simultaneously. The findings are expected to contribute to the development of more targeted mental health interventions, as well as to inform schools, teachers, and parents in designing effective support programs, including early detection, counseling services, and the creation of a more supportive learning environment.

II. Research Methods

2.1 Research Design

This study employed a quantitative cross-sectional design to examine differences in depression, anxiety, and stress levels among vocational high school students based on gender, major, and extracurricular participation.



2.2 Participants

The participants consisted of 238 vocational high school students at SMK 1 Cimahi, West Java, Indonesia. Participants were selected based on their enrollment as active students in vocational education programs. There were 156 male students ($M_{age}=16.58$, $SD=0.57$) and 82 female students ($M_{age}=16.52$, $SD=0.50$).

2.3 Ethical Consideration

Ethical approval was obtained prior to data collection. Participants were informed about the purpose of the study, and their participation was voluntary. Informed consent was obtained, and confidentiality of responses was ensured.

2.4 Instrumen

The measuring tool used in this study is DASS-Y which consists of 21 items, three dimensions namely, Depression, Anxiety and Stress and has a reliability coefficient of $\alpha=0.90$. The likert scale is used in this questionnaire with values of 0 = never, 1 = sometimes, 2 = quite often and 3 = often. The interpretation of DASS-Y measurement results was grouped into 3 criteria, namely less experience (score 0 – 7), moderately experienced (score 8 – 14), and very experienced (score 15 – 21).

2.5 Procedure

The study was conducted at SMK 1 Cimahi, West Java, Indonesia. Participants were recruited using a purposive sampling technique, specifically targeting active students enrolled in various vocational education programs at the school. Data collection was conducted online utilizing Google Forms. Prior to distributing the questionnaire, ethical approval was obtained. The link to the Google Form was subsequently disseminated to the students. The first section of the online form served as an informed consent page; participants were informed about the purpose of the study, and their participation was voluntary. Informed consent was obtained, and confidentiality of responses was ensured. Only participants who electronically agreed to the informed consent could proceed to the next section to complete the 21 items of the DASS-Y instrument

2.6 Data Analysis

The data obtained was analyzed using JASP software version 09.5.3. Data analysis began with descriptive data to provide an overview of demographic data and DASS-Y profiles based on gender, extracurricular participation and majors taken. In addition, a differential test of DASS-Y

based on gender and extracurricular participation was carried out using an independent sample test and a differential test of DASS-Y based on the major taken using ANOVA.

III. Results and Discussion

3.1 Results

Table I. Respondent Demographic Data

| Gender | f | % |
|------------|-----|---------|
| Male | 156 | 65.55 |
| Female | 82 | 34.45 |
| Total | 238 | 100.00% |
| Age | | |
| 15 | 2 | 0.84% |
| 16 | 104 | 43.70% |
| 17 | 130 | 54.62% |
| 18 | 1 | 0.42% |
| 19 | 1 | 0.42% |
| Total | 238 | 100.00% |
| Department | | |
| IOP | 23 | 9.66% |
| MEKA | 33 | 13.87% |
| PSPT | 30 | 12.61% |
| RPL | 34 | 14.29% |
| SIJA | 30 | 12.61% |
| TOI | 32 | 13.45% |
| TPTU | 56 | 23.53% |
| Total | 238 | 100.00% |

This survey involved a total of 238 respondents, showing a clear demographic distribution across various categories. In terms of gender, the respondents were dominated by males ($M_{Age}=16.58$, $SD=0.57$), numbering 156 people or equivalent to 65.55% of the total population. This number far exceeds the number of female respondents, who only numbered 82 ($M_{Age}=16.52$, $SD=0.50$), or 34.45%. In line with the age profile of students, the distribution of respondents based on age was highly concentrated in the 16 and 17 age groups, which collectively comprised 98.32% of the total sample. Specifically, the 17-year-old age group was the largest with 130 people (54.62%), followed by 16-year-olds with 104 people (43.70%). Other age groups (15, 18, and 19 years old) only contributed a very small portion, each with less than 1%. In terms of majors, the distribution of respondents was quite varied, but the TPTU major contributed the most respondents with 56 people (23.53%). The next three majors with significant numbers were RPL (34 people or 14.29%), MEKA (33 people or 13.87%), and TOI (32 people or 13.45%). Meanwhile, the PSPT and SIJA departments had the same number of respondents, namely 30 people (12.61% for each). The IOP department had the fewest respondents, namely 23 people or 9.66%.



3.1.1 DASS-Youth Profile of Vocational High School Students

3.1.1.1 Depression Level

The following presents the results of the depression profile analysis based on DASS-Youth according to gender, extracurricular participation, and program choice at vocational high schools.

Table II. Depression Level Based on Gender

| Level | Male | | Female | | Grand Total | |
|------------------|------|--------|--------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 133 | 71.12% | 54 | 28.88% | 187 | 100.00% |
| Moderate | 18 | 47.37% | 20 | 52.63% | 38 | 100.00% |
| Very Experienced | 5 | 38.46% | 8 | 61.54% | 13 | 100.00% |
| Grand Total | 156 | 65.55% | 82 | 34.45% | 238 | 100.00% |

In the data comparing gender, there were 156 male respondents and 82 female respondents. The dominant pattern seen in both groups was Less Experiencing Depression, namely 133 males and 54 females. However, when looking at cases of higher depression (Moderate and Severe), female respondents showed a slightly higher frequency than males, even though the total number of female respondents was much smaller. There were 20 females who experienced Moderate depression and 8 females who experienced Severe depression, exceeding the number of males in the same categories (18 and 5, respectively).

Table III. Degree of Depression Based on Extracurricular Participation

| Level | Participating in Extracurricular | | Not Participating in Extracurricular | | Grand Total | |
|------------------|----------------------------------|--------|--------------------------------------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 109 | 58.29% | 78 | 41.71% | 187 | 100.00% |
| Moderate | 25 | 65.79% | 13 | 34.21% | 38 | 100.00% |
| Very Experienced | 9 | 69.23% | 4 | 30.77% | 13 | 100.00% |
| Grand Total | 143 | 60.08% | 95 | 39.92% | 238 | 100.00% |

Analysis based on participation in extracurricular activities divided respondents into 143 who *participated* and 95 who *did not participate*. In line with the general trend, the category of Less Experienced was the highest in both groups (109 for those *who participated* and 78 for those *who did not participate*). Uniquely, the number of high depression cases (Moderate and Severe) was actually higher among respondents who participated in extracurricular activities (25 *Moderate* and 9 *Severe*), compared to those who did not participate in extracurricular activities (13 *Moderate* and 4 *Severe*). This may indicate that respondents who participated in extracurricular activities, despite being more numerous, contributed to a higher number of depression cases.

Table IV. Degree of Depression Based on Choice of Major

| Level | IOP | | MEKA | | PSPT | | RPL | | SIJA | | TOI | | TPTU | | Total | |
|------------------------|-----|--------|------|--------|------|--------|-----|--------|------|--------|-----|--------|------|--------|-------|---------|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Less Experienced | 17 | 9.09% | 28 | 14.97% | 20 | 10.70% | 27 | 14.44% | 24 | 12.83% | 23 | 12.30% | 48 | 25.67% | 187 | 100.00% |
| Moderately Experienced | 5 | 13.16% | 5 | 13.16% | 8 | 21.05% | 5 | 13.16% | 4 | 10.53% | 5 | 13.16% | 6 | 15.79% | 38 | 100.00% |
| Very Experienced | 1 | 7.69% | 0 | 0.00% | 2 | 15.38% | 2 | 15.38% | 2 | 15.38% | 4 | 30.77% | 2 | 15.38% | 13 | 100.00% |
| Grand Total | 23 | 9.66% | 33 | 13.87% | 30 | 12.61% | 34 | 14.29% | 30 | 12.61% | 32 | 13.45% | 56 | 23.53% | 238 | 100.00% |

The distribution of respondents based on major shows that TPTU is the major with the highest number of respondents (56 people), while IOP has the fewest respondents (23 people). The pattern of Less Experiencing depression is strong in all majors, with TPTU contributing the highest number (48 people) followed by MEKA (28 people). Meanwhile, the "Moderately Experiencing" category is most prevalent in the PSPT major (8 people). For the "Severely Experiencing" category, the TOI major has the highest frequency (4 people), while the MEKA major is the only major with no respondents in the "Severely Experiencing Depression" category.

3.1.1.2 Anxiety Level

The following presents the results of anxiety profile analysis based on the DASS-Youth scale, categorized by gender, extracurricular participation, and program choice at the vocational school.

Table V. Anxiety Level Based on Gender

| Level | Male | | Female | | Grand Total | |
|------------------|------|--------|--------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 140 | 73.68% | 50 | 26.32% | 190 | 100.00% |
| Moderate | 15 | 35.71% | 27 | 64.29% | 42 | 100.00% |
| Very Experienced | 1 | 16.67% | 5 | 83.33% | 6 | 100.00% |
| Grand Total | 156 | 65.55% | 82 | 34.45% | 238 | 100.00% |

The distribution of respondents based on gender consisted of 156 males and 82 females. The dominance of low anxiety was very prominent in both male (140 people) and female (50 people) respondents. However, a higher proportion of anxiety was more common in females. There were 27 female respondents who *experienced moderate* anxiety, far more than males (15 people). In addition, of the total 6 respondents who *experienced high* anxiety, 5 were female, while only 1 was male. This shows that female respondents tend to have higher anxiety levels than males in this sample.



Table VI. Level of Anxiety Based on Extracurricular Participation

| Level | Participating in Extracurricular | | Not Participating in Extracurricular | | Grand Total | |
|------------------|----------------------------------|--------|--------------------------------------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 111 | 58.42% | 79 | 41.58% | 190 | 100.00% |
| Moderate | 30 | 71.43% | 12 | 28.57% | 42 | 100.00% |
| Very Experienced | 2 | 33.33% | 4 | 66.67% | 6 | 100.00% |
| Grand Total | 143 | 60.08% | 95 | 39.92% | 238 | 100.00% |

Analysis based on extracurricular participation divided respondents into 143 who *participated* and 95 who *did not participate*. In line with previous findings, most respondents in both groups were in the Less Experienced category (111 for those *who participated* and 79 for those *who did not*). In cases of higher anxiety, respondents who participated in extracurricular activities showed a much higher frequency of *Moderately Experienced* anxiety (30 people) compared to those *who did not participate* (12 people). Conversely, in the *"Very Experienced"* anxiety category, respondents who did not participate in extracurricular activities contributed a slightly higher number (4 people) compared to those *who participated* (2 people).

Table VII. Level of Anxiety Based on Major Choice

| Level | IOP | | MEKA | | PSPT | | RPL | | SIJA | | TOI | | TPTU | | Grand Total | |
|------------------------|-----|--------|------|--------|------|--------|-----|--------|------|--------|-----|--------|------|--------|-------------|---------|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Less Experienced | 17 | 8.95% | 29 | 15.26% | 15 | 7.89% | 29 | 15.26% | 23 | 12.11% | 25 | 13.16% | 52 | 27.37% | 190 | 100.00% |
| Moderately Experienced | 6 | 14.29% | 4 | 9.52% | 13 | 30.95% | 3 | 7.14% | 6 | 14.29% | 6 | 14.29% | 4 | 9.52% | 42 | 100.00% |
| Very Experienced | 0 | 0.00% | 0 | 0.00% | 2 | 33.33% | 2 | 33.33% | 1 | 16.67% | 1 | 16.67% | 0 | 0.00% | 6 | 100.00% |
| Grand Total | 23 | 9.66% | 33 | 13.87% | 30 | 12.61% | 34 | 14.29% | 30 | 12.61% | 32 | 13.45% | 56 | 23.53% | 238 | 100.00% |

The distribution of anxiety among various departments shows variation in the number of cases with higher scores. The TPTU department had the highest number of respondents (56), while the MEKA department had the most respondents with a score of *Less Experienced* (29 people). For cases of Moderately Experienced anxiety, the PSPT department showed the highest number (13 people) among all departments. Meanwhile, for the highest level of anxiety, namely *"Very Experienced"* (with a total of 6 cases), the cases were evenly distributed, with the RPL department contributing the most (2 people), and the MEKA department being the only department that did not have any respondents in the *"Very Experienced"* anxiety category.

3.1.1.3 Stress Level

The following presents the results of stress profile analysis based on the DASS-Youth scale, categorized by gender, extracurricular participation, and program choice at the vocational school.

Table VIII. Stress Level Based on Gender

| Level | Male | | Female | | Grand Total | |
|------------------|------|--------|--------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 92 | 75.41% | 30 | 24.59% | 122 | 100.00% |
| Moderate | 58 | 56.31% | 45 | 43.69% | 103 | 100.00% |
| Very Experienced | 6 | 46.15% | 7 | 53.85% | 13 | 100.00% |
| Grand Total | 156 | 65.55% | 82 | 34.45% | 238 | 100.00% |

The distribution of respondents based on gender consisted of 156 males and 82 females. In the male group, the category of experiencing less stress was more dominant, reaching 92 people, while 58 people experienced moderate stress. Conversely, in the female group, the frequency of Moderately Experiencing stress was higher (45 people) than Less Experiencing (30 people). For the highest level of stress (Very Experiencing), female respondents contributed slightly more (7 people) than males (6 people), indicating that women in this sample tended to report higher levels of stress.

Table IX. Stress Levels Based on Extracurricular Participation

| Level | Participating in Extracurricular | | Not Participating in Extracurricular | | Grand Total | |
|------------------|----------------------------------|--------|--------------------------------------|--------|-------------|---------|
| | n | % | n | % | n | % |
| Less Experienced | 62 | 50.82% | 60 | 49.18% | 122 | 100.00% |
| Moderate | 73 | 70.87% | 30 | 29.13% | 103 | 100.00% |
| Very Experienced | 8 | 61.54% | 5 | 38.46% | 13 | 100.00% |
| Grand Total | 143 | 60.08% | 95 | 39.92% | 238 | 100.00% |

Analysis based on extracurricular participation divided respondents into 143 who participated and 95 who did not participate. Respondents who participated in extracurricular activities showed a much higher frequency of experiencing moderate stress (73 people) compared to those who experienced less stress (62 people). This pattern is opposite to that of respondents who did not participate in extracurricular activities, where experiencing less stress was more dominant (60 people) than experiencing moderate stress (30 people). In the case of experiencing high levels of stress, respondents who participated in extracurricular activities were also more numerous (8 people) than those who did not participate (5 people), indicating that the burden of activities may be related to higher stress levels among extracurricular participants.

Table X. Level of Anxiety Based on Choice of Major

| Level | IOP | | MEKA | | PSPT | | RPL | | SIJA | | TOI | | TPTU | | Grand Total | |
|------------------------|-----|--------|------|--------|------|--------|-----|--------|------|--------|-----|--------|------|--------|-------------|---------|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Less Experienced | 11 | 9.02% | 18 | 14.75% | 10 | 8.20% | 14 | 11.48% | 20 | 16.39% | 15 | 12.30% | 34 | 27.87% | 122 | 100.00% |
| Moderately Experienced | 9 | 8.74% | 14 | 13.59% | 18 | 17.48% | 17 | 16.50% | 9 | 8.74% | 15 | 14.56% | 21 | 20.39% | 103 | 100.00% |
| Very Experienced | 3 | 23.08% | 1 | 7.69% | 2 | 15.38% | 3 | 23.08% | 1 | 7.69% | 2 | 15.38% | 1 | 7.69% | 13 | 100.00% |
| Grand Total | 23 | 9.66% | 33 | 13.87% | 30 | 12.61% | 34 | 14.29% | 30 | 12.61% | 32 | 13.45% | 56 | 23.53% | 238 | 100.00% |

The distribution of stress among various departments shows variation in the number of cases. The TPTU department had the most respondents (56 people). The "Moderately Stressed" category dominated in many departments, with the highest number in TPTU (21 people), followed by PSPT (18 people). Meanwhile, the "Less Experienced Stress" category had the most cases in the MEKA (18 people), SIJA (20 people), and TPTU (34 people) departments. For the highest stress level, "Very Experienced" (with a total of 13 cases), the cases were spread across almost all departments. IOP and RPL contributed the most cases (3 each), while MEKA, SIJA, and TPTU contributed the fewest (1 each).

3.1.2 DASS-Y Testing by Gender

The following presents the results of the DASS-Youth difference test data processing based on gender.

Table XI. Independent Samples T-Test

| | U | df | p |
|---------|----------|----|--------|
| DASS -Y | 9005.000 | | < .001 |

Note. Mann-Whitney U test.

Table XII. Group Descriptives

| | Group | N | Mean | SD | SE | Coef. of variation | Mean Rank | Sum Rank |
|--------|--------|-----|--------|--------|-------|--------------------|-----------|------------|
| DASS-Y | Female | 82 | 22,390 | 11,075 | 1,223 | 0.495 | 151,317 | 12,408.000 |
| | Male | 156 | 15,103 | 9,442 | 0.756 | 0.625 | 102,776 | 16,033.000 |

Based on the results of statistical analysis (Mann-Whitney U test), a statistically significant difference ($p < .001$) in DASS-Y scores between the two gender groups; the Female group (N=82) recorded a substantially higher mean DASS-Y score (Mean=22.390) compared to the Male group (N=156, Mean=15.103). This indicates that the DASS-Y scores of female respondents were significantly higher than those of male respondents.

3.1.3 DASS-Y Testing Based on Major

The following presents the results of the DASS-Youth difference test based on the selected major.

Table XIII. ANOVA analysis

ANOVA - DASS-Y

| Cases | Sum of Squares | df | Mean Square | F | p |
|------------|----------------|-----|-------------|-------|------|
| Department | 1858.725 | 6 | 309,787 | 2,891 | .010 |
| Residuals | 24,749.712 | 231 | 107,142 | | |

Descriptives

Descriptives - DASS-Y

| Department | N | Mean | SD | SE | Coefficient of variation |
|------------|----|--------|--------|-------|--------------------------|
| IOP | 23 | 20,000 | 10,996 | 2.293 | 0.550 |
| MEKA | 33 | 14,576 | 10,090 | 1,756 | 0.692 |
| PSPT | 30 | 22,867 | 10,830 | 1,977 | 0.474 |
| RPL | 34 | 18,971 | 9,411 | 1,614 | 0.496 |
| SIJA | 30 | 16,000 | 11,163 | 2,038 | 0.698 |
| TOI | 32 | 18,875 | 13,030 | 2,303 | 0.690 |
| TPTU | 56 | 14,929 | 8,124 | 1,086 | 0.544 |

The results of the ANOVA analysis show that there is a statistically significant difference in the average DASS-Y (Depression, Anxiety, Stress) scores among the various majors ($F=2.891$ with $p=0.010$). These findings indicate that the major factor has a significant influence on the DASS-Y scores of respondents. Descriptively, this difference is most noticeable in the PSPT major, which has the highest average score (22.867), indicating that this group tends to experience the highest levels of stress/negative emotions. Conversely, the MEKA major had the lowest average score (14.576), followed by TPTU (14.929), indicating the lowest DASS-Y levels. Additionally, the TOI major showed the highest individual score variability ($SD=13.030$), while TPTU showed the smallest variability ($SD=8.124$).

3.1.4 DASS-Y Testing Based on Extracurricular Activities

The following presents the results of processing the DASS-Youth difference test based on extracurricular activities



Table XIV. Independent Samples T-Test Analysis

Independent Samples T-Test

| | t | df | p |
|--------|--------|-----|------|
| DASS-Y | -1.570 | 236 | .118 |

Note. Student's T-test.

Group Descriptives

| | Group | N | Mean | SD | SE | Coef of variation |
|--------|---------------------|-----|--------|--------|-------|-------------------|
| DASS-Y | Did not participate | 95 | 16.295 | 11.280 | 1,157 | 0.692 |
| | Participate | 143 | 18,490 | 10,061 | 0.841 | 0.544 |

The results of the *Independent Samples T-Test* analysis show that there is no statistically significant difference in the average DASS-Y scores between respondents who participate in extracurricular activities and those who do not. This is supported by the significance value, which is greater than the general significance limit. Therefore, the hypothesis stating that there is a difference in the average DASS-Y scores between the two groups is rejected. Descriptively, respondents who participated in extracurricular activities (N=143) had a slightly higher average DASS-Y score than respondents who did not participate in extracurricular activities (18.490 > 16.295). Although there was a slight numerical difference in the means, statistical tests showed that the difference was not large enough to be considered significant in the population.

3.2 Discussion

The research sample was dominated by male respondents (65.55%) compared to female respondents (34.45%), with most ages centered on 16 and 17 years old. In general, most respondents were in the categories of Less Depressed (187 people) and Less Anxious (190 people). However, the Stress dimension showed a higher tendency, with respondents divided almost evenly between Less Experienced (122 people) and Moderately Experienced (103 people). This tendency indicates that stress is a more common and evenly distributed psychological burden than depression and anxiety in the sample population. This is in line with previous research which stated that for student's stress is a psychological burden that is commonly felt and experienced during the study period (Pramesti et al., 2026; Sriwahyuningsih & Barseli, 2024).

The Mann-Whitney U statistical test found a highly significant difference ($p < .001$) in total DASS-Y scores based on gender. Substantively, female respondents recorded a significantly higher average DASS-Y score (Mean=22.390) than male respondents (Mean=15.103). These findings were reinforced by descriptive data showing that women consistently contributed higher frequencies in the Moderate Experiencing, and Severely Experiencing categories in all three DASS-Y dimensions. Specifically, 5 out of 6 cases of Severely Experiencing Anxiety were

women. This is in line with previous research that explains that female students are more prone to depression (Utama et al., 2023), anxiety (Mubasyiroh et al., 2017), and stress (Pramesti et al., 2026; Sriwahyuningsih & Barseli, 2024) during learning at school.

The ANOVA test confirmed a significant difference in the mean DASS-Y scores between majors ($F=2.891$, $p=0.010$). This significant difference was most prominent in the PSPT major, which had the highest mean total DASS-Y score (22.867), making it the group with the highest risk of negative emotions. On the other hand, the MEKA department had the lowest average DASS-Y score (14.576) and was the only department that did not have respondents in the categories of experiencing severe depression or anxiety. Additionally, descriptively, PSPT contributed the most cases of Moderately Experiencing Depression (8 people) and Anxiety (13 people), while TPTU (the department with the most respondents) contributed the highest number of cases of Moderately Experiencing Stress (21 people). Different types of majors certainly have different demands. This can be one of the factors that differ in the appreciation of depression, anxiety and stress in vocational school students in each department. This is supported by previous research which explains that various majors in vocational schools produce different demands so that they can have a different impact on the appreciation of anxiety and stress (Agustin et al., 2026; Ahmad et al., 2025; Binuko et al., 2023)

Although descriptively, respondents who participated in extracurricular activities contributed to a higher number of Moderately Experienced cases in all three dimensions of the DASS-Y, the results of the Independent Samples T-Test showed that there was no statistically significant difference in the average total DASS-Y scores between the groups who participated and did not participate in extracurricular activities ($p = 0.118$). Specifically, in the Stress dimension, the group that participated in extracurricular activities was dominated by those who experienced moderate stress (73 people), while the group that did not participate was dominated by those who experienced low stress (60 people). Despite this difference in pattern, statistical tests concluded that the burden of extracurricular activities did not significantly increase the overall average DASS-Y score. This is in line with research from Green et al., who explain that extracurricular activities are not related to anxiety symptoms, only a marginal association with depression (Green et al., 2026).

Overall, the key findings of the study confirm that gender and major choice are significant discriminating factors for respondents' total DASS-Y scores. Psychological interventions focused on high-risk groups, especially female respondents and PSPT majors, are needed to reduce negative emotions.



IV. Conclusion

The study found that there were significant differences in the levels of depression, anxiety, and stress between male and female vocational high school students. This indicates that gender is a factor that influences the psychological condition of vocational high school students. Women tend to be more vulnerable to emotional pressure in the context of vocational education, which demands practical skills and work readiness. Therefore, it is important for schools to conduct regular psychological examinations to identify students at risk of emotional disorders. Psychological examinations such as DASS-Y can be an effective initial screening tool to detect symptoms of depression, anxiety, and stress. The results can be used as a basis for designing appropriate interventions, such as counseling services, coping skills training, and gender-based mental health support programs. In addition, this study opens opportunities for more in-depth follow-up studies on the factors that cause emotional disorders in vocational high schools and strategies for dealing with them.

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