The Impact of AI Attachment, Perceived Stress, and Self-Reliance among College Students in a Newly Established State University Campus

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ABSTRACT

This study examined the relationship between AI attachment, perceived stress, and self-reliance among college students at Cebu Technological University-Toledo City during School Year 2025-2026. Employing a descriptive correlational design, data were collected from 239 respondents selected through stratified sampling using a four-part adopted questionnaire. Descriptive statistics and Pearson Product-Moment Correlation Coefficient were utilized for data analysis. Findings indicated that the majority of respondents were 20-21 years old, predominantly male, with three to four siblings, and enrolled as second-year Bachelor of Science in Hospitality Management students. ChatGPT emerged as the most frequently used AI application, primarily for academic purposes. Participants demonstrated moderate levels of AI attachment and perceived stress, alongside a high level of self-reliance. Correlation analysis revealed negligible relationships between variables: a weak positive correlation between AI attachment and self-reliance, and a weak negative correlation between perceived stress and self-reliance. However, both relationships were not statistically significant. Therefore, self-reliance may be considered as a distinct construct that operates independently of how students perceive stress or interact with AI. Based on these findings, the study recommends the implementation of psychoeducational wellness program to address students' emotional and behavioral stress, promote responsible and balanced used of AI technologies and further enhance self-reliance.

Keywords: Education-Guidance and Counseling, AI Attachment, Perceived Stress, Self-reliance, Stress, Descriptive-Correlation Method, CTU-Toledo City Campus

INTRODUCTION

The transition to higher education is a period of profound change in which students encounter new academic, social, and personal challenges (Crawford et al.,2024, Muladauzi, 2023; Worsley et al., 2021). During this stage, students adapt to increased academic demands, greater independence, and unfamiliar social environments. To cope with these challenges, they often seek comfort, reassurance, and guidance from people around them. Traditionally, support has been obtained through family members, friends, teachers, and peer mentors who provide emotional and academic assistance (Restrepo et al., 2023). These relationships foster a sense of belonging and help students manage stress more effectively. However, technological advancements have begun to reshape how students seek and receive support.

The rapid growth of Artificial Intelligence (AI) has transformed the ways students access information, assistance, and emotional support. AI chatbots are available at any time and can provide academic guidance, encouragement, and personalized responses (Stohr et al., 2024). Unlike traditional support systems, AI tools offer immediate access without direct interaction with another person. This convenience has encouraged many students to integrate AI into their daily academic activities. Some students use AI for motivation and emotional reassurance during stressful situations. Studies indicate that some individuals find it easier to discuss their concerns with artificial intelligence than with other people.

As students increasingly engage with AI, some begin to develop emotional connections with these technologies. This phenomenon, known as AI attachment, occurs when individuals perceive AI systems as helpful, responsive,

and supportive companions (Kasturiratna & Hartanto, 2025). Frequent interactions lead students to rely on AI for guidance, reassurance, and decision-making. Such reliance can be particularly appealing to students who experience stress. Because AI provides immediate responses without criticism and judgement, it serves as a dependable source of support. Consequently, AI attachment has emerged as an important area of studying in understanding students' psychological experiences and behaviors.

The growing presence of AI in students' lives has also raised questions regarding its influence on stress and self-reliance. For students facing academic and personal pressures, AI may function as a convenient coping mechanism that provides immediate assistance and reduces stress in the short term (Umashankar & Geethanjali, 2024). However, researchers have expressed concerns that excessive reliance on AI may affect students' ability to cope independently with challenges (Ajlouni et al., 2025; Liu et al, 2026). Self-reliance refers to an individual's capacity to manage emotions, solve problems, and make decisions using personal resources and abilities (Arceley-Rojas, 2019). The concept of self-reliance pertains to person's capacity to effectively handle emotions, solve problems, and make decisions using personal resources, and abilities (Arceley-Rojas. 2019). Some students who become overly dependent on AI may have fewer opportunities to strengthen these essential skills (Klimova & Pikhart, 2025). As a result, educators continue to debate whether AI promotes student development or contributes to dependency that may hinder long-term growth.

These concerns are particularly relevant in a newly established higher education institutions such as Cebu Technological University-Toledo City Campus. Unlike long-established universities with mature support systems, CTU-Toledo City Campus only began operations in School Year 2024–2025. Research indicates that students in newly established universities often encounter unique environmental and academic stressors because institutional traditions, student organizations, and support services are still developing (Akhtar & Akhtar, 2024; Aloka, 2023). These conditions may make the transition to college more challenging for students. Furthermore, limited institutional resources may affect the availability of academic and psychosocial support. Students may seek alternative sources of assistance to help them cope with academic and personal demands.

Most students enrolled at CTU-Toledo City Campus belong to the pioneer first and second year cohorts. Because the campus is relatively new, there are few senior students available to provide mentorship and guidance to younger students, unlike in more established universities (Akinla et al., 2018). In the Philippine context, senior students often serve as "ate" and "kuya" figures who offer advice, encouragement, and emotional support to those adjusting to college life (Tsang, 2020). These informal mentoring relationships help students navigate academic challenges and social adjustments (Mishra, 2023). Without such support systems, students are vulnerable to elevated level of stress, uncertainty, and difficulty adapting to college life. As a result, they may increasingly turn to digital technologies such as AI chatbots to obtain guidance, reassurance, and support (Abarientos et al., 2025; Lane, 2018).

Despite the increasing use of AI among students, research examining the relationship among AI attachment, perceived stress, and self-reliance remains limited (Kaur, 2026; Zhang et al., 2024). This gap is evident in the Philippine context where studies exploring students' interactions with AI technologies are still emerging (Asirit & Hua, 2023). Moreover, many educational institutions in the country are only beginning to develop policy frameworks related to the use of AI in academic settings (Asio & Soriano, 2024; Toquero, 2025).Existing studies have focused primarily on the benefits and challenges of AI rather than its psychological implications for students. Understanding how AI attachment relates to perceived stress and self-reliance may provide valuable insights into student well-being and adjustment. Such knowledge is especially important for students in newly established universities where traditional support systems are still evolving.

Therefore, this study aimed to examine the relationship between AI attachment, perceived stress, and self-reliance among students at Cebu Technological University-Toledo City Campus during School Year 2025-2026. The study focused on first-and second year students because they represent the pioneer cohorts and face unique academic and social adjustment challenges. As Artificial Intelligence becomes increasingly integrated into students' daily lives, understanding its influence on psychological well-being and independence has become both timely and essential. Investigating these variables may provide a deeper understanding of how students cope with stress in a technology-driven environment. The findings may provide useful data for psycho-education wellness program that strengthens healthy coping strategies and peer support systems. Furthermore, the study

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contributes to the growing literature on technological dependency by providing evidence-based data on the psychological experiences of students in a newly established university (Zhang et al., 2024).

Theoretical Background

This study is anchored on Attachment Theory (Bowlby, 1969), the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984), and Self-Determination Theory (Deci & Ryan, 1985). It is also supported by Republic Act No. 9258 (Guidance and Counseling Act of 2004), Republic Act No. 11036 (Philippine Mental Health Act), and CHED Memorandum Order No. 4, s. 2020 (Guidelines on the Implementation of Flexible Learning).

Attachment Theory, developed by Bowlby and Ainsworth (1969) explains the formation of emotional bonds and the human tendency to seek security and support (Fearson & Roisman, 2017). Although originally applied to human relationships, the theory can extend to human-AI interaction (Shu et al., 2026; Yang & Oshio, 2025). In this study, it explains how students may develop emotional connections with AI tools despite their non-human nature. When experiencing stress, individuals tend to seek sources of support (Xie & Pentina, 2023), and in digital contexts, this may occur through techno-emotional projection, where users attribute human-like qualities to AI (Saracini et al., 2025).

The rapid, predictable, and non-judgmental responses of AI systems are often perceived as safe and supportive spaces particularly for students experiencing anxiety, and fear of rejection (Erfani, 2025; Liu et al., 2026; Yang & Oshio, 2025). Consequently, students may use AI as a compensatory source of academic and emotional support (Kasturiratna & Hartanto, 2025). However, this interaction may lack the natural boundaries found in human relationships. It leads to recursive reinforcement of reliance as consistent AI responses that validate expectations (Delcker et al., 2024; Saracini et al., 2025). While beneficial in short term, this dynamic may gradually foster dependency (Kasturiratna & Hartanto, 2025; Yin et al., 2024).

The Transactional Theory of Stress and Coping explain that stress occurs when individuals perceive that situational demands exceed their coping resources (Dael et al., 2025; Zeijen et al., 2024). In academic settings, stressors such as deadlines and workload trigger cognitive appraisal processes (Restrepo et al., 2023; Deng et al., 2022). Coping strategies are categorized as problem-focused which aims to address the stressor directly, and emotion-focused which regulates emotional responses (Charoenpornsook & Thumvichit, 2023; Jalil & Ali, 2023). In this context, AI may serve both coping functions. As a problem-focused tool, it supports task completion, understanding, and self-regulated learning (Xu et al., 2026). However, when used primarily to relieve anxiety, such as seeking quick answers, it may lead to maladaptive dependence and reduced self-reliance (Zhai et al. 2025; Zhang et al., 2024). Cognitive appraisal further influences AI use. Students who perceive tasks as overwhelming may rely more heavily on AI as a compensatory resource (Hohne et al., 2022; Huang & Wu, 2025). Repeated reliance may create a reinforcement loop where immediate stress relief encourages continued dependence (Ajlouni et al., 2025).

The Self-Determination Theory (Deci & Ryan, 1985) emphasizes the role of autonomy, competence, and relatedness in promoting well-being. Autonomy refers to independent decision-making, competence to mastery, and relatedness to social connection (Chavez & Palaoag, 2024; Sims et al., 2026).

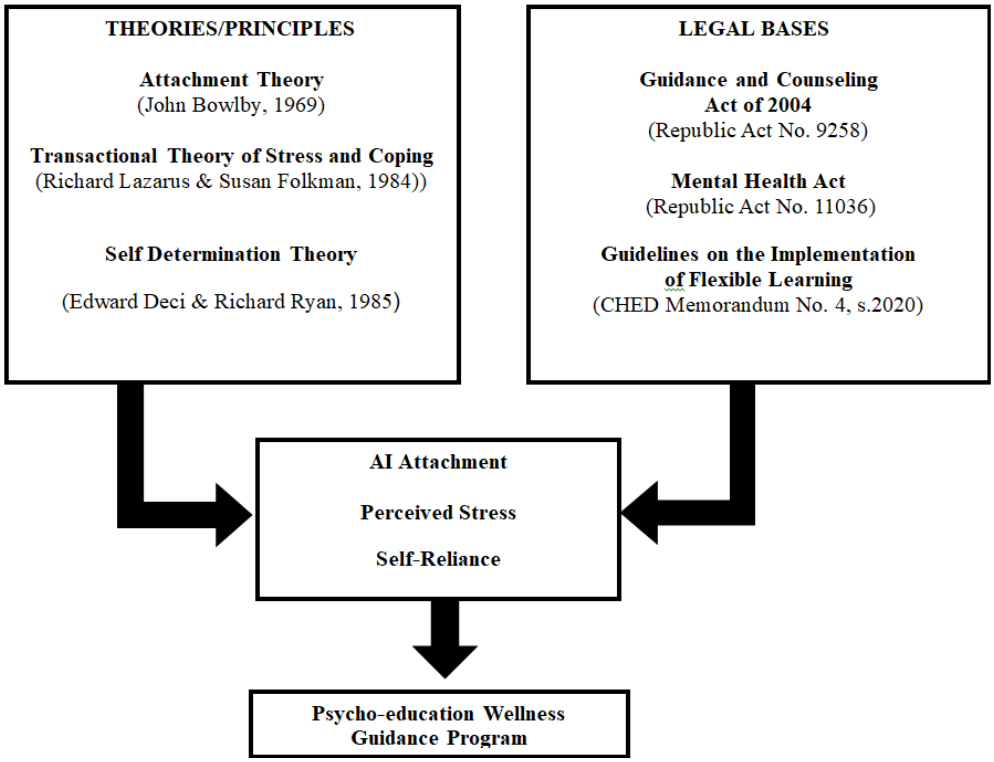

Figure 1 Theoretical-Conceptual Framework of the Study

In this study, self-reliance is closely linked to autonomy and competence. AI can support these needs by providing structured guidance and feedback that enhance self-regulated learning (Chiu, 2024; Wu et al., 2026). It may also promote digital autonomy by offering diverse learning resources (Sims et al., 2026). However, excessive dependence on AI may weaken autonomy by limiting opportunities for independent thinking and decision making.Thus, SDT provides a balanced perspective on viewing AI as both a supportive scaffold and a potential risk to self-reliance depending on usage patterns (Chiu, 2024; Xia et al., 2026).

The integration of these theories explains the relationship between AI attachment, perceived stress, and self-reliance. Attachment Theory clarifies emotional bonds with AI, the Transactional Theory explains stress-related coping behaviors, and Self-Determination Theory highlights their implications for autonomy and independent functioning.

The study is further supported by legal frameworks emphasizing mental health and responsible technology use. Republic Act No. 9258 ensures access to professional counseling services, supporting students' emotional well-being, and coping development (Dionaldo & Espinosa, 2024). Republic Act No. 11036 promotes mental health programs and recognizes the importance of addressing stress in educational settings. CHED Memorandum Order No. 4, s. 2020 provides the context for increased reliance on digital tools, including AI, and emphasizes learner-centered, quality-driven education.

Overall, these theoretical and legal foundations provide a coherent framework for understanding how AI attachment and perceived stress relate to students' self-reliance. They highlight the need for balanced AI use, effective coping strategies, and the development of independent learners in a technology-driven academic environment.

METHODOLOGY

Research Design

This study utilized a quantitative, non-experimental correlational research design to examine the relationships among AI attachment, perceived stress, and self-reliance among college students at Cebu Technological University-Toledo City Campus. The quantitative research approach involves the use of standardized measurement tools, with data collected in numerical form and analyzed through statistical methods (Mohajan, 2020). The

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descriptive component was implemented by collecting quantitative data on the perceived level of AI attachment, perceived level of stress, and perceived extent of self-reliance of the college students of Cebu Technological University-Toledo Campus.

Moreover, the non-experimental correlational design was suitable because the study did not intend to manipulate variables or establish causal relationships, but rather to examine whether significant relationships exist among naturally occurring variables (Putri et al., 2025). Through this systematic approach, the study provided a deeper understanding of how AI attachment influenced students' behavioral and psychological responses in academic settings.

Research Locale

This study was conducted at Cebu Technological University-Toledo City Campus. At present, classes are conducted at Mega Dome, M.A. Barba Sports Complex, Toledo-Barili Road, Poblacion, Toledo City. At the same time, the school building is still under construction in Sangi, Toledo City. Figure 3 shows the location of the research environment.

Cebu Technological University-Toledo City Campus was enacted into law through Republic Act No. 11788 in May 2022. It is a public, non-sectarian higher education focusing on technical and vocational education. It began operating for School Year 2024–2025. For this School Year 2025-2026, there are 591 students with six (6) courses on Bachelor of Technology and Livelihood Education major in Home Economics, Bachelor of Technology and Vocational Teacher Education major in Civil and Construction Technology, Bachelor in Industrial Technology major in Automotive technology (BIT-AutoTech), Bachelor in Industrial Technology major in Civil Technology (BIT-CivilTech), Bachelor in Industrial Technology major in Machine Shop Technology (BIT-MachineTech), and Bachelor of Science in Hospitality Management (BSHM).

Research Participants

The respondents of this study were College students ages 18-25 years old studying at Cebu Technological University-Toledo City Campus. They were selected because they belong to the pioneering cohorts of a newly established university campus which commenced operations during School Year 2024–2025. As pioneer students, they encounter unique academic, social, and institutional adjustment challenges associated with studying in a developing educational environment (Zeng et al.,2023) Such experiences may influence their levels of perceived stress, coping behaviors, and reliance on available academic resources, including Artificial Intelligence (AI) technologies. Furthermore, first-and second-year students are in a transitional stage of higher education where they are developing independence, and self-reliance in managing academic and personal demands. Their frequent exposure to and utilization of AI tools for learning, problem solving, and academic support made them appropriate population for investigating the relationship among AI attachment, perceived stress, and self-reliance.

Stratified sampling was used to ensure proportional representation of college students from different six (6) offered courses. Stratified sampling is a method of selecting participants in which a population is divided into smaller groups called strata so that each group is fairly represented and the results will be more accurate and reliable (Etikan, 2017; Firmansyah & Dede, 2022; Taherdoost, 2016).

The sample size was 239 out of 591 enrolled students of Cebu Technological University-Toledo City Campus for School Year 2025-2026. It was calculated using Slovin's Formula to determine the minimum number of samples needed to represent the population (Aryadinata & Samopa, 2019). Furthermore, to ensure proper representation across groups, each course was determined using a proportional allocation formula.

The breakdown of the respondents in this research is presented in Table 1 below.

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Table 1 Distribution of the Respondents

College Courses	N	n	%
Bachelor of Technology and Livelihood Education major in Home Economics	45	18	7.53
Bachelor of Technology and Vocational Teacher Education major in Civil and Construction Technology	14	6	2.51
Bachelor in Industrial Technology major in Automotive Technology	154	62	25.94
Bachelor in Industrial Technology major in Civil Technology	123	50	20.92
Bachelor in Industrial Technology major in Machine Shop Technology	50	20	8.37
Bachelor of Science in Hospitality Management	205	83	34.73
TOTAL	**591**	**239**	**100.00**

Research Instrument

The researcher utilized an adopted survey questionnaires namely; AI Attachment Scale by Kasturiratna and Hartanto (2025); Student's Stress Rating Scale by Balamurugan and Kumaran (2008); and Self-Reliance Scale by Meera Padhy et al., (2024) to gather information on the level of AI attachment, level of perceived stress, and level of self-reliance.

RESULTS

The results of the gathered data such as the profile of the respondents, level of AI attachment, perceived stress, and self-reliance are presented here.

Table 2 Age of the Respondents

Age	f	%
24-25	18	7.53
22-23	34	14.23
20-21	109	45.61
18-19	78	32.64
Total	**239**	**100.00**

Table 2 showed the age distribution of the respondents. Most of the proportion belonged to 20-21 age group, representing 45.61% of the total respondents. This was followed by those aged 18-19, who comprised 32.64%. Meanwhile, respondents aged 22-23 accounted for 14.23%, while the smallest group was those aged 24-25, representing 7.53%.

The findings revealed that majority of the participants belonged to the typical age group of first-and second-year college students in the Philippines. The dominance of 20-21 age group suggested that many respondents may already have some level of exposure to college life, including academic requirements, classroom expectations, and adjustment to higher education environment. Meanwhile, 18-19 age group may represent students who recently transitioned from senior high school to college and are still in the early phase of adapting to university-

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level learning. The smaller proportion of respondents aged 22-25 may indicate delayed college entry, shifting of programs, returning to school, working students, or other academic interruptions.

Table 3 Sex of the Respondents

Sex	f	%
Female	102	42.68
Male	137	57.32
Total	**239**	**100.00**

Table 3 presented the sex distribution of the respondents. The majority of the respondents were male, comprising 57.32%, while female respondents accounted for 42.68% of the total population.

Table 4 Number of Siblings

Number of Siblings	f	%
above 6	43	17.99
5-6	47	19.67
3-4	79	33.05
1-2	54	22.59
None	16	6.69
Total	**239**	**100.00**

Table 4 showed the distribution of respondents based on the number of siblings. Among the 239 respondents, the largest group consisted of those with 3-4 siblings, comprising 33.05%. This was followed by respondents with 1-2 siblings, with 22.59%. Respondents with 5-6 siblings accounted for 19.67%, while those with more than 6 siblings comprised 17.99%. Meanwhile, the least-represented group was respondents with no siblings, at 6.69%.

Table 5 Course of the Respondents

Course	f	%
BIT-Civil Technology	50	20.92
BIT-Automotive Technology	62	25.94
BIT-Machine Shop Technology	20	8.37
BS in Hospitality Management	83	34.73
BTL-Home Economics	18	7.53
BTTE-Civil and Construction Technology	6	2.51
Total	**239**	**100.00**

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Table 5 presented the respondents' respective courses. Among the 239 respondents, the largest group came from Bachelor of Science in Hospitality Management with 34.73%. It is followed by BIT-Civil Technology with 25.94% and BIT-Automotive Technology with 20.92%. Meanwhile, BIT-Machine Shop Technology accounted for 8.37%. The smallest group of respondents belonged to BTTE-Civil and Construction Technology with 2.51%.

Table 6 Year Level of the Respondents

Year Level	f	%
Second	121	50.63
First	118	49.37
Total	**239**	**100.00**

Table 6 presented the distribution of respondents according to year level. Majority were second year students with 50.63% while first year students accounted for 49.37%.

Table 7 AI Application Used

AI Application Used	f	Rank
ChatGPT	208	1
Google Gemini	50	2
Character AI	13	3
CoPilot	12	4
DOLA	6	5
Meta AI	5	6
Others	4	7
*multiple response		

Table 7 showed the AI applications used by the respondents. The results indicated that ChatGPT was the most frequently used AI application with 208 responses which ranked first among all applications. Google Gemini ranked second with 50 responses followed by Character AI with 13 responses and CoPilot with 12 responses. DOLA obtained 6 responses while Meta AI had 5 responses. Other AI applications were identified by 4 respondents which placed last in the ranking.

Table 8 Respondents' Purpose of Using AI Application

Purpose of using AI application	f	Rank
Academic Assistance	169	1
Information Searching	115	2
Emotional Support	52	5

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Seeking Advice	81	3
Problem Solving	73	4
Entertainment	9	7
Coping Strategies	37	6
*multiple response		

Table 8 presented the respondents' purpose for using AI applications according to rank order. Academic assistance ranked first, which made it the most common purpose among the respondents. Information searching ranked second, followed by seeking advice in third place and problem solving in fourth place. Emotional support ranked fifth, while coping strategies ranked sixth. Entertainment ranked last, indicating that it was least common purpose for using AI applications.

Table 9 Extent of respondents' AI attachment

Components	**WM**	**SD**	**Verbal Description**
Emotional Closeness	3.11	1.03	Moderate
Social Substitution	3.05	1.17	Moderate
Normative Regard	3.43	0.96	High
Grand Mean	**3.20**		**Moderate**
Grand Standard Deviation		**1.05**	

Legend: 4.21-5.00-Very High; 3.41-4.20-High;2.61-3.40-Moderate; 1.81-2.60-Low;1.00-1.80-Very Low

The data in Table 9 highlighted the summary on the extent of the respondents' AI attachment. The results showed that the respondents had a high extent of AI attachment in terms of normative regard with 3.43 VM and 0.96 SD. This indicated that the respondents generally treat AI with respect, friendliness, and consideration during their interactions.

Meanwhile, the respondents showed a moderate extent of AI attachment in terms of emotional closeness at 3.11 VM and 1.03 SD, and social substitution at 3.05 VM and 1.17 SD. These results suggested that the respondents experience a fair level of comfort and connection with AI and may sometimes use it as an alternative source of interaction or support.

Consequently, the overall results showed that the respondents had a moderate extent of AI attachment, with a grand mean of 3.20 and a grand standard deviation of 1.05. This implied that while respondents demonstrate attachment to AI, it is more evident in their respectful and considerate treatment of AI rather than in deep emotional closeness or using AI as a full substitute for human interaction.

Table 10 Level of respondents' perceived stress

Components	**WM**	**SD**	**Verbal Description**
Physiological Stress	3.77	2.09	Moderate
Emotional Stress	4.47	2.09	Moderately High

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Social Stress	4.39	2.13	Moderate
Examination Stress	4.37	2.14	Moderate
Behavioral Stress	4.81	2.04	Moderately High
Grand Mean	**4.36**		Moderate
Grand Standard Deviation		**2.10**	

Legend: 6.15-7.00-Very High;5.29-6.14-High;4.43-5.28-Moderately High; 3.57-4.42-Moderate;2.71-3.56-Low;1.85-2.70-Very Low;1.00-1.84-Very Much Low

The data in Table 10 highlighted the summary on the level of the respondents' perceived stress. The results showed that the respondents had a moderately high level of stress at 4.81 VM and 2.04 SD, and emotional stress at 4.47 VM and 2.09 SD. This indicates that the respondents experienced stress more evidently through their behavior and emotional experiences.

Meanwhile, the respondents showed a moderate level of social stress at 4.39 VM and 2.13 SD, examination stress at 4.37 VM and 2.14 SD, and physiological stress at 3.77 VM and 2.09 SD. These results suggest that the respondents also experienced stress in their social interactions, examination-related situations, and physical conditions, but only to a moderate extent.

Table 11 Respondents' level of self-reliance

Components	**WM**	**SD**	**Verbal Description**
Self-efficacy	3.30	0.74	Very High
External Dependence	3.08	0.85	High
Autonomy	2.69	0.91	High
Self-confidence Deficit	3.01	0.81	High
Grand Mean	**3.02**		**High**
Grand Standard Deviation		**0.83**	

Legend: 3.25-4.00-Very High;2.50-3.24-High;1.75-2.49-Low;1.00-1.74-Very Low

The data in Table 11 showed that respondents had a very high level of self-reliance in terms of self-efficacy with a VM of 3.30 and SD of 0.74. It indicated strong confidence in achieving goals, learning independently, and persevering through challenges. In terms of external dependence, respondents showed high level with a VM of 3.08 and SD of 0.85, suggesting that they still seek guidance, advice, and support from others when making decisions and performing tasks.

Regarding the dimension of Autonomy, the respondents had a high level with a VM of 2.69 and SD of 0.91. It reflected a general preference for handling tasks independently, though some situations may challenge their ability to act fully on their own. For self-confidence deficit, respondents also scored high with a VM of 3.01 and SD of 0.81. It indicated occasional nervousness, hesitation, and difficulty in convincing others when undertaking new activities.

Overall, the grand mean of 3.02 and grand standard deviation of 0.83 suggested that the respondents demonstrated a high level of self-reliance.

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Table 12 Test of significance of the relationship between the respondents' AI attachment and self-reliance

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
AI Attachment and Self-reliance	0.119	Negligible Positive	0.067	Do not reject Ho	Not Significant
*significant at p<0.05 (two-tailed)					

Table 12 highlighted the test of significance of the relationship between the respondents' AI attachment and self-reliance. The results showed an r-value of 0.119, indicating a negligible positive correlation between AI attachment and self-reliance. This means that as the respondents' AI attachment increases, their level of self-reliance also tends to slightly increase; however, the relationship is very weak. Furthermore, since the computed p-value of 0.067 exceeded the 0.05 level of significance, the null hypothesis was retained. This indicates that there was no statistically significant relationship between AI attachment and self-reliance.

Table 13 Test of significance of the relationship between the respondents' perceived stress and self-reliance

Variables	r-value	Strength of Correlation	p - value	Decision	Remarks
Perceived Stress and Self-reliance	-0.030	Negligible Negative	0.644	Do not reject Ho	Not Significant
*significant at p<0.05 (two-tailed)					

The data in Table 25 highlighted the test of significance of the relationship between the respondents' perceived stress and self-reliance. The results showed an r-value of -0.030, indicating a negligible negative correlation between perceived stress and self-reliance. This means that as the respondents' perceived stress increases, their level of self-reliance tends to slightly decrease; however, the relationship is extremely weak.

Furthermore, the computed p-values of 0.644 is greater than the 0.05 level of significance, leading to the decision to not reject the null hypothesis, Therefore, the relationship between perceived stress and self-reliance was found to be not significant.

DISCUSSION

The findings revealed that majority of the participants belonged to the typical age group of first-and second-year college students in the Philippines. The dominance of 20-21 age group suggested that many respondents may already have some level of exposure to college life, including academic requirements, classroom expectations, and adjustment to higher education environment. Meanwhile, 18-19 age group may represent students who recently transitioned from senior high school to college and are still in the early phase of adapting to university-level learning. The smaller proportion of respondents aged 22-25 may indicate delayed college entry, shifting of programs, returning to school, working students, or other academic interruptions. This demographic pattern is consistent with the usual profile of college students who are commonly in their late teenage years to early twenties (Acosta & Acosta, 2016; Terano, 2023). Research also indicates that in four-year institutions, the 20-21 age bracket often represents a large segment of the full-time undergraduate population (Gerald & Hussar, 2020). Similarly, studies on early-stage university learners confirm that many students in this cohort are under the age of 21 (Kilis & Yildirim, 2018; Sestanovic & Siddiqui, 2021). However, the presence of respondents aged 24-25 though a minority in this study, may also reflect the growing demographic diversity in higher education where non-traditional learners and students with varied educational pathways are becoming more visible. This supports the view that while 18-21 age range remains the typical college profile, higher education is increasingly shaped by learners from different age groups and life circumstances (Zawacki-Richter et al., 2015; Gwosc et al., 2021; Morrow-Howell et al., 2020).

This finding indicated a predominance of male students among respondents which may be influenced by the different course offerings of the university. One possible explanation was that students tend to choose courses aligned with traditional gender roles which resulted in male-heavy cohorts technical-vocational programs. These observations aligned with previous studies highlighting gendered patterns in technical-vocational education. Trasmote and Fajardo (2023) reported that students in Philippine technical schools often adhered to gender-dictated choices which led to disproportionate male presence in certain skills training programs. Similarly, Albert et al., (2023) noted persistent gender gap in Philippine vocational education, with female enrollment consistently lagging behind male enrollment.

The findings indicated that most respondents came from moderately large families which suggested that they were raised in environments where shared sibling interactions and responsibilities were common. This pattern reflected the traditional Filipino family structure, where household roles and sibling interactions showed an important role in the social and personal development of children (Pabatang & Naparan, 2024). For students pursuing four-year college degree programs with technical-vocational orientation, growing up in families with multiple siblings often implied reliance on intergenerational support systems (Beladro & Candelaria, 2023) .Additionally, socio-economic factors associated with larger families may influenced these students to choose programs that combine academic learning with practical skills that aligned with technical-vocational career paths (Khan & Ali, 2024). However, this trend was gradually changing as national fertility rates and family structures shift. Recent studies indicated that Filipino families were increasingly smaller, with rising preferences for fewer children or childfree households particularly in urbanized areas (Chua et al., 2025; Infiesto & Porras, 2025).

The high enrollment in BSHM appeared to be driven by intrinsic and social factors including personal passion, strong interest, and the perceived job security offered by the local and global tourism and hospitality industry. The hands-on nature of the program also bridged theoretical knowledge with practical workplace skills which made it attractive to students. Conversely, significant participation in BIT programs suggested that students valued acquiring technical skills and competencies aligned with long-term industrial career goals. These course choices reflected strategic decision-making for immediate employability offered by technical-vocational oriented programs. Supporting studies highlighted that BSHM course attracted students who are motivated for future job opportunities and personal passion (Velasco et al., 2025) while strong interest and motivation are key predictors for choosing hospitality management (Santos & Nagaño, 2025). In addition, the high representation of BSHM respondents reflected the students' interest in service-oriented, skills-based, and career-related programs, and work-related opportunities (Orpia & Cacabelos, 2023). Global tourism further increases the appeal of BSHM programs (Majarocon et al., 2024). Contrastingly, some technical programs may show lower total enrollment but still attract strong initial interest from students (Bual et al., 2025).

The findings showed that the respondents were almost equally represented by first year and second year students although second year students comprised a slightly larger proportion of the sample. This suggests that the institution maintains a stable pipeline of students with incoming freshmen closely matching those progressing into second year. The balanced enrollment between the first and second year is a positive indicator of student retention and institutional stability. In the Philippine technical-vocational context, the first year is often a critical period during which students decide whether to continue in their chosen course (Santillan et al., 2025). The slightly higher proportion of second-year students implies that attrition after the first year occurs in the Technical and Vocational and Education Training (TVET) pipeline (Abao et al., 2025). Persistence into the second year is often driven by factors such as student motivation and effective teaching handling which are crucial for maintaining interest in technical vocational livelihood education (Santillan et al., 2025). Moreover, the trend aligns with national patterns in Technical and Vocational Education and Training (TVET) where students increasingly pursue skill-based certification and courses that provide direct pathways to employment of at least the first two years of their programs (Edralin & Pastrana, 2023; Technical and Vocational Education and Training in the Philippines in the Age of Industry 4.0,2021).Supporting studies confirmed these observations. Abao et al. (2025) reported that the most students studying in TVET programs successfully advance beyond the first year.

Since the respondents were allowed to select multiple answers, the findings suggests that many respondents used more than one AI application with ChatGPT being the most widely used platform among the participants. It suggested that students rely on ChatGPT as primary and accessible tool to support their academic tasks because

it is easy to access, simple to use, and useful for many tasks. Since it is free and works on smartphones, students can use it even they have limited money or devices. In addition, its easy-to-understand interface, quick answers, and wide range of information make it helpful tool for schoolwork, especially for students who have several technical-vocational subjects to manage at the same time. This finding is consistent with Peteros (2026) who reported that ChatGPT was the generative AI tool most commonly used by students. Internationally, the Digital Education Council's 2024 Global Student AI Survey, ChatGPT emerged as the AI tool most commonly used by the students. The findings suggest that high frequency of ChatGPT use maybe attributed to its accessibility, ease of use, and usefulness for academic tasks (Abdaljaleel et al., 2024; Ammari, 2025).

Overall, the data indicated that students mainly use AI for academic and informational purposes rather than for emotional and recreational reasons. Students primarily use AI for academic purposes because it helps them complete tasks more efficiently such as writing assignments, researching information, and solving problems. AI tools are easily accessible and user-friendly which made them practical for managing heavy workloads in technical-vocational college programs. Additionally, AI served as an intelligent assistant that allowed students to focus on understanding complex concepts while automating routine and time-consuming academic workloads. This trend is consistent with local research showing Filipino students rely on AI for homework, research, idea generation, and language refinement (Miranda et al., 2025; Ceneciro, 2025). The findings indicated a clear hierarchy of utility where students focus on high-stakes academic tasks and selectively apply AI to support their learning. The prioritization of academic purposes reflected the high-pressure academic environment common in the Philippine higher education where students in technical-vocational programs use AI to manage workloads and complex assignments (Abbas et al.,2024). Although emotional support and coping strategies were less common, their presence suggested that a subset of students is beginning to explore AI for mental health and stress-related needs which indicated emerging interest in academic mental health support (Chirayath et al., 2025; Sharma & Gandhi, 2025). Insights from previous studies confirmed that AI enhanced productivity and efficiency in academic tasks which include writing, research, brainstorming, and reference formatting (Miranda et al., 2025; Ceneciro, 2025; Johnston et al., 2024; Iskender, 2023). At the same time, some research highlighted potential risks. Mogavi et al. (2023) warned that heavy reliance on AI for academic tasks may encourage superficial learning and reduce critical thinking (Mogavi et al., 2023; Zhai et al., 2024; Chang, 2023) while Manalese et al (2025) and Gomez (2025) suggested that AI play a growing role in addressing emotional strain and coping needs, even if these purposes remain secondary for most students (Manalese et al., 2025; Gomez, 2025).

The respondents showed a moderate level of attachment to AI. This implied that they feel connection with AI, but the connection was not very strong. Their highest score was in normative regard which showed that they usually treat AI with respect, friendliness, and proper behavior. This supported the idea that people often treat interactive technology, like AI, as if they were communicating with another social being (Adam et al., 2020; Lombard & Xu, 2021). However, the respondents showed moderate emotional closeness to AI. This presented that while they felt comfortable using AI, they did not usually feel a deep emotional bond with it. This was because the relationship between humans and AI was often one-way which showed that AI can respond but it did not truly felt emotions like a real person would do (Shu et al., 2026). The respondents also had a moderate score in social substitution. This suggested that AI may help people when they feel lonely, need someone to talk to, or need support but it did not fully replace real human relationships. This showed that AI can full some social gaps but it not the same as having real friends, family, or classmates (Kasturiratna & Hartanto, 2025; Tran et al., 2025). Research also showed that people's attachment to AI may not always last. At first, users may treat AI politely but overtime, they may start seeing it more as a tool that should quickly follow commands rather than a conversation partner (Elsweiler et al., 2026; Lazebnik et al., 2025; Tschoop et al., 2023). Overall, the findings suggested that respondents feel a fair level of comfort and connection with AI. However, their relationship with AI was still mostly focused on tasks, such as asking questions or getting help, rather than forming a deep personal connection (Bekerman, 2024; Tschopp et al., 2023).

The results showed that students experienced a moderate level of overall stress. This means that the students feel stress, but it is not extremely high. Among the different type of stress, the highest were behavioral and emotional stress. This suggests that stress is mostly seen in the way students act, feel, and respond to pressure. The findings are supported by Lunio et al. (2026) that showed that the students in areas of technical-vocational course experience stress because of school work and pressure of doing both practical and written requirements. As explained

by Barbayannis et al (2022), first and second year college students may feel pressure as they adjust to college life and begin taking more difficult subjects. This may explain that respondents in the study experienced stress in their behavior and emotions. Austria-Cruz (2019) also found Filipino college students often show stress through mood changes, irritability, and emotional outbursts. This is also supported by Barrot et al. (2021) that explained that academic changes and school demands can affect student's emotional and behavior.

The respondents demonstrated a high level of self-reliance. This indicated that while respondents were generally confident, capable, and willing to act independently, there remain areas where reliance on others and fluctuations in confidence can influence their autonomy. The very high level of self-efficacy showed that students feel confident in their abilities. Previous research mentioned that possessing high levels of self-efficacy is important for adjusting to school and staying motivated to achieve goals (Basileo et al., 2024; Girelli et al., 2018). This strong sense of confidence helped students turn their own motivation into consistent effort and engagement in learning (Ghbari et al., 2024). The respondents showed a high level of autonomy which showed that they like to make their own choices and take responsibility for their learning. This independence is linked to better thinking skills and a stronger sense of responsibility for their academic progress (Lan & Hew, 2020; Rosenkranz et al., 2015).Students also showed a high level of external dependence and some self-confidence challenges. This showed that even independent students need guidance and support. Anchored to Self-Determination Theory, asking help does not mean a student is not self-reliant. Instead, it showed that they are seeking structure such as clear instructions or feedback which helps them handle new and difficult tasks (Chiu, 2021; Evans et al., 2024). The hesitation and nervousness students feel when trying new activities may come from temporary doubts about their abilities. These feelings are natural when independence is tested by difficult and unfamiliar situations (Lakanen & Isomottonen, 2023; Sulea et al., 2015). The study suggests that true self-reliance develops best in a supportive environment where students feel connected to teachers, peers, family and have the security to make choices confidently (Ghbari et al., 2024; Kassis et al., 2019).

Consequently, the results imply that AI attachment does not have a significant relationship with the respondents' level of self-reliance. This suggests that the respondents' attachment to AI may not strongly influence their ability to act independently, make decisions, or rely on themselves. Supporting studies aligned with findings. Asio and Soriano (2024) described AI usage in the Philippines as a helpful too rather than a replacement for independent learning. Moreover, Enriquez et al. (2025) found that students expressed strong agreement on the importance of ethical awareness and critical evaluation of AI outputs. Conversely, some research suggested potential negative impacts. Estrada-Araoz et l. (2025) found that academic self-efficacy decreased with higher AI dependence. Kaur (2026) reported negative correlations between AI dependence and self-esteem and Zhang et al. (2024) noted that problematic AI usage can harm academic performance and mental health which indicated that attachment may become detrimental if it evolved into dependency. The lack of significant relationship between AI attachment and self-reliance could be explained by several contextual factors. First, as first-and second-year students, respondents were in a transitional developmental stage where self-reliance was still forming and strongly influenced by family support and foundational academic skills (Pelobello, 2025; Velasco et al., 2025). Second, in the Philippine context, students tend to view AI as a smart shortcut wherein students use AI primarily for efficiency rather than as a psychological support that affects independence (Ceneciro, 2025; Giray et al., 2024). Finally, from the perspective of Self-Determination Theory, AI attachment may satisfy the need for relatedness, but it does not automatically enhance competence. It showed that students can feel connected to AI without it impacting their core self-reliance (Manalese et al., 2025; Sharma & Gandhi, 2025; Imran, 2026; Kaur, 2026).

The findings suggested that while students are beginning to form emotional bonds with AI, they are using AI for practical support while their core self-reliance remains an internal, still developing trait driven by their identity formation (Ruiz & Yabut, 2024). Students formed emotional bond with AI but they primarily used it for practical academic support rather than developing independence. Their core self-reliance is still growing and is influenced mainly by personal experiences, family support, and teacher guidance. AI provides convenience and efficiency which helped students complete tasks faster, but it does not replace the skills and decision-making for self-reliance. The limited impact of self-reliance is also due to student's transitional stage as first-and second-year learners where autonomy is still being shaped. Overall, AI was seen as a useful tool. However, students' ability to act independently remains as an internal trait that develops through experience and personal growth

The results imply that perceived stress does not have a significant influence on the respondents' level of self-reliance. The results showed that personal resources such as self-reliance were not always sufficient to buffer against stress. This claim was supported by Baldonado (2026) that mentioned that Filipino students with higher self-efficacy may experience more stress from academic pressures than those with lower self-efficacy. Moreover, Elsayed (2025) noted that personality traits and coping strategies can influence how stress affects personal outcomes, which may explain why there was not direct link between stress and self-reliance. However, Zeqah and Sula (2025) found that many students expressed a need for psychological support as they did not feel fully capable of managing stress on their own. On the other hand, some studies showed that high stress can reduce students' confidence and ability to cope. Regalado (2024) found that increased academic demands lowered students' coping abilities. In addition, Aprillia and Affandi (2025) reported that students with lower self-efficacy experienced higher academic stress. It was further supported by Sun et al. (2025) that mentioned that low self-efficacy can make students feel helpless, which increases stress even more. The lack of significant relationship between perceived stress and self-reliance suggested that students may see academic stress as something external rather than a threat to their independence. Many students likely use problem-solving strategies to manage their tasks without letting stress reduce their self-reliance (Amatayev, 2025). Because these students were in first and second years of college, their ability to act independently is still developing; so short-term stress does not yet strongly affect it. Overall, the results indicated that students maintain a stable sense of responsibility and decision-making even when facing the usual pressures of their academic environment (Elsayed, 2025)

CONCLUSION

As indicated by the results of the study, the respondents demonstrated moderate levels of AI attachment and perceived stress, with emotional and behavioral stress reaching moderately high levels, and a high level of self-reliance. While students actively used AI, particularly for academic assistance, their attachment was largely practical rather than emotional, and they do not rely on AI to influence their independence. The study further revealed that AI attachment and perceived stress were not significantly related to self-reliance. It indicated that students' self-reliance was not strongly affected by how attached they are to AI or by how much stress they experience.

For professional practice, guidance counselors could use these findings to focus on building students' coping strategies, emotional regulation, and self-management skills to recognize that moderate stress does not weaken self-reliance. Counselors can integrate AI tools into academic support programs to enhance productivity and learning efficiency while simultaneously emphasizing independent decision-making and problem-solving. In terms of program development, schools can design workshops and modules that teach students how to use AI responsibly for academic tasks while cultivating self-reliance. For policy implementation, schools may adopt guidelines that promote ethical AI use and structured stress management programs to ensure students benefit from technology without undermining personal growth.

Overall, these findings highlight that self-reliance may be considered as a distinct construct that operate independently of how students perceive stress or interact with AI. Thus, while AI and moderate skills were part of students' academic and personal experience, guidance practices should prioritize fostering self-reliance, confidence, and emotional well-being to prepare students for personal and professional success.

Therefore, self-reliance may be considered a distinct construct that operates independently of students' perceptions of stress or their interactions with AI.

RECOMMENDATIONS

It is recommended that the school implement a psychoeducation wellness program as part of its Guidance Program. The program should focus on healthy AI engagement, stress management, digital wellness, resilience, self-regulation, and preventive psychoeducation. These programs aim to address the moderately high levels of emotional and behavioral stress, promote responsible use of AI, and continually foster self-reliance among students.

Future research could adopt a longitudinal design to examine how AI attachment influences self-reliance over time. This can provide a clearer picture of the possible long-term effects of AI on students' academic performance and psychological well-being.

In addition, future researchers should consider interviews or focus group discussions to gain a deeper understanding of students' thoughts, feelings, and experiences with AI. Comparing students from different universities including both established and newly founded institutions is also recommended to determine whether the findings apply across different educational settings and to identify any important differences among them.

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