Research Article



EFFECT OF CAREER CHOICE AND PARENTAL SUPPORT TO STUDENT'S ACADEMIC PERFORMANCE AS MEDIATED BY PSYCHOLOGICAL ADJUSTMENT

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ABSTRACT

This study aimed to investigate the effect of career choice and parental support on academic performance, as mediated by psychological adjustment. The author of the present study aims to broaden and fill in gaps from the early studies involving these two factors, the career choice and parental support. The sample included 195 freshman engineering students from St. Peter's College in Iligan City, Philippines. The participants completed questionnaires on their career choice, parental support, psychological adjustment, and academic performance. The results showed that career choice and parental support had a significant direct effect on academic performance. Additionally, psychological adjustment significantly mediated the relationship between career choice and academic performance, as well as between parental support and academic performance. Students who reported high levels of psychological adjustment showed better academic performance compared to those with low or moderate levels of psychological adjustment. These findings highlight the importance of considering the role of the psychological adjustment in the relationship between the career choice, parental support, and academic performance. The study recommends that schools should provide career guidance programs and parental support to help students achieve better psychological adjustment, which can ultimately improve their academic performance. The research also includes ideas for future study.

Keywords: career choice, parental support, psychological adjustment, academic performance.

INTRODUCTION

Academic performance is a critical aspect of a student's success in college. Career choice, parental support, and psychological adjustment are essential factors that have a significant impact on students' academic performance. However, the relationship between these factors and their impact on academic performance is complex and not well understood. Therefore, it is imperative to investigate how these factors affect the academic performance of students.

The identification of factors that affect academic performance can help educational institutions and policymakers develop effective strategies to enhance students' academic success. This study's findings could provide valuable insights into the importance of career choice, parental support, and psychological adjustment on students' academic performance, which can guide educators and policymakers in their efforts to improve academic outcomes.

Previous studies have identified career choice, parental support, and psychological adjustment as critical factors influencing academic performance. According to Lent, Brown, and Hackett (2020), career choice is an important predictor of academic and career success. Additionally, parental support has been found to positively impact academic performance (Dumais, 2021). Finally, psychological adjustment, such as self-esteem and coping mechanisms, has been found to significantly predict academic achievement (Benisovich and Govorin, 2017).

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Objectives of the study

The primary objective of this study is to investigate the influence of career choice and parental support on students' academic performance, mediated by psychological adjustment. Specifically, this study aims to (1) determine the effect between career choice and psychological adjustment, (2) explore the effect between psychological adjustment and academic performance, (3) determine the effect of career choice on their academic performance and (4) examine the mediating role of psychological adjustment in the influence between career choice and academic performance, (5) determine the effect of parental support and psychological adjustment, (6) explore the effect of parental support and academic performance and (7) determine the influence of parental support on academic performance as mediated by psychological adjustment and (8) to have an enhance guidance program that help the student in their parental relationship. psychological, and academic development.

METHODS

A quantitative research approach was used for this investigation. Additionally, a descriptive-correlational research design was used using survey method such as questionnaires to determine the influence between career choice, parental support and psychological adjustment to students' academic performance. And how career choice and parental support effect academic performance as mediated by psychological adjustment of the respondents. A total of 195 Engineering freshmen students of St. Peter's College who are officially enrolled for the First Semester of School Year 2022–2023 academic year was employed in this research study. Due to the fact that the majority of the respondents' senior high school strands did not align with their intended courses, they were regarded as the study's responders. The Brief Adjustment Scale- 6 is for their Psychological Adjustment assessment. The Brief Adjustment Scale-6 (BASE-6), a six-item self-report measure of general psychological adjustment (OQ-45.2). The BASE-6 took a little over a minute to complete. Each of the six items was scored on a seven-point Likert scale (1 = not at all, 4 = somewhat, and 7 = extremely). Higher scores indicated lower overall psychological adjustment.

To gauge parental support, the Career-Related Parent Support Scale employed in this study. A 27-item scale with four subscales, including Verbal Encouragement (expectations for participation in activities that advance career goals), Career-Related Modeling (presence to parent's employment and job role), Instrumental Assistance (guidance and direction with career-related tasks and decisions), and Emotional Support (discussion of child's best interests and academic goals). Except for the Verbal Encouragement subscale, each subscale has seven items. On a Likert scale of 1 to 5, items are scored (1 1/4 strongly), and higher scores suggest better parental support for the profession (ranging from strongly disagree to 5 1/4 strongly agree). More so, the internal consistency estimates for the scores across the four CRPSS subscales ranged from.78 to.85. Table I provides descriptive data for the CRPSS and its subscales as well as internal consistency (alpha) values for the scores across each of the measures. Alpha was equivalent to.92 for the total CRPSS scale scores, which represent the overall strength of perceived careerrelated parental support for academic and professional growth (CRPSS; Turner, Alliman-Brissett, Lapan, Udipi, and Ergun03).

Frequency and Percent. These basic descriptive statistical tools were used to describe the respondents' career choices. These are appropriate statistical tools to answer and analyze research problem number one (1) as stated in the statement of the problem. This is because the career choice of the respondents considered in this study as one of the variables is categorically limited to STEM and non-STEM. Thus, to describe them the most frequent observation is considered using frequency and percentage equivalent.

Mean and Standard Deviation. These basic descriptive statistical tools were used to describe and measure the central location and variation of the respondents' self-report assessment on psychological adjustment and parental support. These tools also were used to describe their academic performance which is defined operationally as the academic grades. These descriptive statistics are appropriate to answer and analyze the research problems stated in number two (2), number three (3), and number four (4) since these variables are measurable quantitatively through a Likert-scaled instrument with an appropriate scoring system.

Linear Regression. A series of simple linear regressions were conducted to test the research questions in numbers five (5), six (6), seven (7), nine (9), and ten (10). This tool is appropriate to verify the ground for mediation analysis. Moreover, the data sets met the necessary assumptions required for this test. Independent variable such as parental support has a ratio level of measurement while career choice is coded in 0 (non-STEM) and 1 (STEM). Both mediator and dependent variables are also ratio levels of measurement. Hence, the requirements for the independent, mediator, and dependent variables to be at a continuous scale are met.

RESULTS AND DISCUSSION

Results and findings of the study are presented chronologically based on the objectives of the study as presented therein.

Problem 1: Is there an influence of career choice on the respondent's psychological adjustment?

Table 5 Influence of the Career Choice on the Respondents' Psychological Adjustment

Career Choice	Psychological Adjustment		Standardized Coefficients	p-value
	Mean	QI		
Non-STEM	3.46	SH	.164	.022*
STEM	3.85	Μ		

Qualitative Interpretation (QI): SH - Slightly High; M – Moderate

* Significant at 0.05 level

Table 5 shows the influence of career choice on the psychological adjustment of the respondents. The mean psychological adjustment score for those who chose a career in STEM (science, technology, engineering, and mathematics) is 3.85, which is higher than the mean score of 3.46 for those who chose a non-STEM career. The standardized coefficient for STEM is 0, indicating that the comparison group is non-STEM. The standardized coefficient for non-STEM is 0.164, which means that non-STEM career choice has a slightly high positive effect on psychological adjustment. The results suggest that students who choose STEM careers have better psychological adjustment than those who choose non-STEM careers. The finding that non-STEM career choice has a slightly high positive effect on psychological adjustment may be due to the fact that non-STEM careers offer a wider range of career options that may fit different personalities and interests. However, it is important to note that the effect size is relatively small. The results suggest that students who choose STEM careers may have better psychological adjustment, which may lead to better academic and career outcomes. Therefore, educators and counselors should provide more information and guidance to students about STEM careers and their potential benefits. Additionally, parents can play an important role in encouraging their children to pursue STEM careers and supporting their interests in STEM fields. Previous studies have found a positive relationship between STEM career choice and psychological wellbeing. For example, a study by Stetzer and colleagues (2019) found that students who choose STEM careers have higher levels of selfefficacy and career decision-making self-efficacy, which are associated with better psychological well-being. Another study by Wang and colleagues (2018) found that STEM college students have higher levels of career adaptability and lower levels of career decision-making difficulties than non-STEM students.

Problem 2: Is there an influence of psychological adjustment on the respondent's academic performance?

Table 6 Influence of the Psychological Adjustment on the Respondents' Academic Performance

Psychological Adjustment(Level)	Academic Performance		Standardized Coefficients	p-value
	Grade	DE	-	
High	2.14	Р	.180	.012*
Moderate	2.51	Р		
Low	2.06	Р		

Description (DE): P - Passed

* Significant at 0.05 level

Table 6 shows the influence of psychological adjustment on the academic performance of the respondents. The table presents the mean grade for each level of psychological adjustment, as well as the standardized coefficients and p-values for each level.

The results show that respondents with a high level of psychological adjustment (mean grade = 2.14) have a significantly higher academic performance than those with moderate (mean grade = 2.51) or low (mean grade = 2.06) levels of psychological adjustment. The standardized coefficients also indicate a positive relationship between psychological adjustment and academic performance, with a higher level of psychological adjustment associated with a higher academic performance. The p-value for the high level of psychological adjustment is also significant at 0.05, indicating that this relationship is unlikely due to chance.

The findings suggest that psychological adjustment is an important factor in academic performance among the respondents. Students with a high level of psychological adjustment are more likely to have better academic performance than those with moderate or low levels of psychological adjustment. Therefore, it is important for educators and counselors to focus on improving the psychological adjustment of students to improve their academic performance.

The results of this study are consistent with previous research on the relationship between psychological adjustment and academic performance. For example, a study by Chen et al. (2020) found that students with higher levels of psychological adjustment had better academic performance.

Problem 3: Is there an influence of respondents' career choice on their academic performance?

Table 7 Influence of the Career Choice on the Respondents' Academic Performance

Career Choice	Academic Performance		Standardized Coefficients	p-value	
	Grade	DE			
Non-STEM	2.48	Р	168	.019*	
STEM	2.20	Р			

Description (DE): P - Passed

* Significant at 0.05 level

Table 7 presented the influence of career choice to their academic performance. It reveals that career choice significantly influence their academic performance. STEM students got higher grades on their math major subjects as compared to Non-STEM. This implies that STEM students perform well in their major math subjects.

It is a fact that STEM students have much background on math subjects and got higher grades than with the Non- STEM students. Nevertheless, both STEM and non-STEM students obtained passing grades as they focus in studying harder and keep motivated as they want to pursue their courses. According to Lumboy (2019), that the students' perceptions of their college courses' difficulty are strongly correlated with the senior high school strand they chose. The college academic performance of those with STEM degrees was higher than the other groups. However, according to Formanan (2022), mismatch may have an impact on some results, such as major choices, but any adverse effects on college completion are minimal if they exist. Moreover, strand mismatch has provided college students with opportunities for personal growth and development.

Problem 4: Does the respondents' psychological adjustment mediate the effect of career choice on their academic performance?

 Table 8 Simple Mediation Model Analysis of the Psychological

 Adjustment Mediation Effect on the Influence of Career Choice

 on the Respondents' Academic Performance

Path	Variables/ Effect	В	SE	p-value
С	Career Choice \rightarrow Academic Performance	276*	.117	.019
а	Career Choice →Psychological Adjustment	.395*	.171	.022
b	Career Choice →Psychological Adjustment→ Academic Performance	.145*	.048	.003
	Effects			
	Direct	334*	.116	.004
	Indirect	.057*	.030	<.05
	Total	276*	.117	.019
	Percentage Mediated (%)	20.7%		

B- Unstandardized Regression Coefficient; SE- Standard Error

**Significant at 0.01 level (Highly Significant)

As shown in the previous tables, career choice influences psychological adjustment while psychological adjustment influences academic performance. Finally, career choice influences academic performance. Hence with these findings, there is a ground for mediation analysis.

A bootstrapping method was performed using Hayes' Process Macro approach to examine if psychological adjustment mediated the influence of career choice on the student's academic performance. First, the results of the regression analysis show that the career choice independent variable) significantly influenced the students' psychological adjustment (B = .395, p = .022). Next, while controlling for psychological adjustment (mediator variable), the results of the second regression analysis show that career choice significantly influenced the students' academic performance (dependent variable (B = -.334, p =.019)). The results of the indirect effect based on 5000 bootstrap samples show a significant indirect positive relationship between career choice and academic performance mediated by psychological adjustment (a*b = .057, p < .05) based on the bootstrap confidence interval.

The mediator, psychological adjustment, accounted for approximately only 20.7% of the total effect on the student's academic performance [PM = (.057) / (.276)]. Moreover, there was a statistically significant direct effect between career choice and the student's academic performance (B = -.334, p = .004). Hence, the psychological adjustment of the respondents partially mediated the effect of the student's career choices on their academic performance.

The influence of the respondent's career choice on their academic performance was partly mediated by psychological adjustment. This indicates that psychological adjustment, which was found to be moderate in the previous studies, somewhat mediated the respondents' career choice on their academic performance. But career choice has direct influence to respondents' academic performance. This implies that, good adaptation will help the students perform well in school and able to develop his/her capacity as they continue to strive harder in their studies. More so, with the positive outlook, students may productive whatever path they make take in.

According to Hassel and Ridout (2018), most students anticipate that their college experience will improve their academic and career while also giving them opportunities to be autonomous and have fun.

Problem 5: Is there an influence of parental support on the respondents' psychological adjustment?

 Table 9 Influence of the Parents' Parental Support on the Respondents' Psychological Adjustment

Parental Support (Level)	Psychological Adjustment		Standardized Coefficients	p-value
	Mean	QI		
Very High	3.60	М	142	.049*
High	3.44	М		
Average	3.76	М		
Low	3.73	М		

Qualitative Interpretation (QI): M - Moderate

* Significant at 0.05 level

Table 9 shows influence of the respondent's parental support to their psychological adjustment. The analysis's findings indicated that their parents' support had influence their ability to adjust psychologically. This implies that parental encouragement had moderate effect on the psychological adjustment of first-year engineering students. With parental support, it is assumed that children adopt and handle as they enter college life. Furthermore, the interaction between parents and adolescents is important for adolescent development, including effects for behaviour, physical health, and mental health.

This signifies that with strong parental support, children get through life much easier than with children with weaker parental support. According to Baig, *et al.*, (2021), the level and type of parental interaction with their children can have an impact on how they develop physically, mentally, and socially

Problem 6: Is there an influence of parental support on the respondents' academic performance?

Table 10 Influence of the Parental Support on the Respondents' Academic Performance

Parental Support (Level)	Academic Performance		Standardized Coefficients	p-value
	Grade	DE		
Very High	1.93	Р	259	.001*
High	2.27	Р		
Average	2.57	Р		
Low	2.88	Р		

Description (DE): P - Passed

* Significant at 0.05 level

Table 10 displays how the respondents' academic achievement is influence by their parents' support. It is clear that parental support has a significant impact on the respondents' academic success. As shown in the previous results, respondents' parental support is in at high level. This indicates that parental encouragement of their children's education has a positive impact on their academic success. This suggests that a significant factor in children's success was their parents' support. Children will perform at their best with the unwavering support of their parents.

Additionally, the more closely parents are involved in their children's education, the more likely it is that their students will do well in school and perform better on examinations (Nisbet, 2021).

Problem 7: Does the respondents' psychological adjustment mediate the effect of parental support to their academic performance?

 Table 11 Simple Mediation Model Analysis of the Psychological

 Adjustment Mediation Effect on the Influence of Parental

 Support on the Respondents' Academic Performance

Path	Variables/ Effect	В	SE	p-value
С	Parental Support → Academic Performance	342*	.092	.001
а	Parental Support →Psychological Adjustment	275*	.138	.048
b	Parental Support →Psychological Adjustment→ Academic Performance	.100*	.047	.037
	<u>Effects</u>			
	Direct	314*	.092	.001
	Indirect	027*	.020	<.05
	Total	342*	.117	.019
	Percentage Mediated (%)	8.1%		

B– Unstandardized Regression Coefficient; **SE**– Standard Error **Significant at 0.01 level (Highly Significant)

Career choice influences psychological adjustment, while psychological adjustment influences academic success, as demonstrated in the previous tables. The last factor influencing academic performance is parental support. Therefore, there is a basis for mediation analysis given these findings.

In order to determine if psychological adjustment moderated the impact of parental support on the student's academic achievement, a bootstrapping method was used with Hayes' Process Macro methodology. The regression analysis's findings first indicate that parental support (an independent variable) had a substantial impact on students' psychological adjustment (B = .275, p = .048). The results of the second regression analysis then reveal that parental support had a significant impact on student's academic performance while adjusting for psychological adjustment (mediator variable; dependent variable; B = -.345, p = .001). Based on 5000 bootstrap samples, the results of the indirect effect demonstrate a significant association between parental support and academic performance, which is moderated by psychological adjustment (a*b = .027, p .05.)

Only about 8.1% of the overall influence on the student's academic performance was attributable to the mediator, psychological adjustment [PM = (-.027) / (-.342)]. Additionally, there was a clear influence between parental support and the student's academic achievement that was statistically significant (B = -.342, p <.001). As a result, the impact of students' parental support on their academic achievement was only minimally mediated by the respondents' psychological adjustment.

This implies that strong parents support is a big factor to children's success even though there is a minimal contribution of the students' psychological adjustment between parent support and academic performance. According to Llego (2022), the success of children's education is significantly influenced by parental involvement. Children are more likely to succeed academically and develop more successful socially and emotionally when parents are actively involved in their education.

Problem 8: What Guidance Enhancement Guidance Program can be crafted based on the findings of the study?

Rationale

The Guidance Enhancement Program provides students guidance and support to promote parental relationship among students, improve their academic performance and psychological adjustment, which, in turn, can positively affect their career choices.

Nurturing Academic Success: A Guidance Enhancement Program for Students' Psychological and Career Development

OBJECTIVES:

- 1. To enhance parental support and involvement in students' academic and career development.
- 2. To increase students' awareness and understanding of the psychological factors that influence their academic performance and career choices.
- 3. To promote the importance of education and careers among Filipino students.
- 4. Enhance students' academic performance, career readiness, and psychological adjustment, leading to improved overall well-being and better career prospects.

Specific Objective	Strategies/Program	Target Client	Personnel Involved	Accomplishment Indicators
To improve parental support for career-related modeling	 Conduct a seminar for parents on the importance of career-related modeling for their children's career development. Establish a "Bring Your Child to Work Day" program in partnership with local businesses to give children exposure to various careers Provide resources for parents on how to talk to their children about their jobs and career paths Develop a mentoring program for children to be paired with professionals in their desired career fields 	Parents and Children	School Administrators, Guidance Counselor and volunteers from local business group.	 Increased attendance and participation in the seminar for parents Increased participation in the "Bring Your Child to Work Day" program Increased utilization of the provided resources for parents Positive feedback from parents and children involved in the mentoring program
To enhance verbal encouragement from parents for academic performance	 Conduct a workshop for parents on the importance of verbal encouragement and effective communication with their children about academic performance. Establish a recognition program for students who achieve high academic performance. Provide resources for parents on how to provide positive reinforcement for their children's academic achievements. Develop a program where parents can receive regular updates on their children's academic progress. 	Parents and their children	School administrators, guidance counselors, teachers, and volunteers	 Increased attendance and participation in the workshop for parents Increased participation and engagement in the recognition program for students Increased utilization of the provided resources for parents Positive feedback from parents regarding the effectiveness of the program
To guide students on the appropriate course to take in college	Short- Term Counselling	Incoming Freshmen Students	Guidance Counselor/ Department Heads	Assessment report from the Guidance Counselor/Department Heads
To improve the psychological adjustment of students	 Conduct a series of counseling sessions to help students deal with stress and anxiety related to academic performance and career decisions. Provide resources and workshops on mindfulness and self-care techniques. Establish a peer support program where students can seek guidance and support from their peers. Develop a program to promote a positive school culture and create a sense of belonging among students. 	Students	Guidance Counselor/ Personnel, teachers, and volunteers	 Increased attendance and participation in counseling sessions Increased utilization of provided resources and attendance in workshops Positive feedback from students involved in the peer support program Improved student engagement and participation in school activities.
To improve academic performance	 Establish a tutoring program for students who need additional academic support. Provide resources and workshops on study skills and time management techniques. Develop a program to promote a positive school culture and create a sense of belonging among students. Provide feedback and support to students and parents on academic progress. 	Students and Parents	Teachers, guidance counselors, tutors, and volunteers	 Increased participation and engagement in the tutoring program Increased utilization of provided resources and attendance in workshops Improved student engagement and participation in school activities Positive feedback from students and parents regarding academic progress

CONCLUSIONS

This study investigated the impact of career choice and parental support on the academic performance of freshmen engineering students, as mediated by psychological adjustment. The study utilized a guantitative research design and involved 195 participants from St. Peter's College, Iligan City. Findings suggest that career choice and parental support have a significant impact on students' academic performance, with psychological adjustment serving as a mediator between the two factors. These findings highlight the importance of career guidance and parental involvement in supporting students' academic success. The findings of this study highlight the importance of career choice, parental support, and psychological adjustment in shaping the academic performance of students. As such, educational institutions should prioritize the development of guidance and counseling programs that address these factors in order to enhance the academic success of their students. Such programs can involve providing students with career guidance and exploration opportunities, encouraging parents to provide academic support and encouragement, and promoting the development of psychological coping mechanisms among students. By doing so, educational institutions can help their students achieve their full academic potential, leading to better opportunities and outcomes in their future careers.

RECOMMENDATIONS

The following are some recommendations based on the data and conclusion presented:

School Administrators: Develop programs and initiatives that encourage students to explore and discover their interests and passions to aid them in making informed career choices. Encourage parents to actively participate in their children's education and provide them with the necessary support and resources to help them excel academically.

Guidance Counselors: Help students in their career exploration and decision-making process by providing them with the necessary guidance, resources, and support. Conduct seminars and workshops that promote positive psychological adjustment and mental health among students.

Teachers: Provide students with a supportive and conducive learning environment that promotes academic success and psychological wellbeing. Incorporate psychological adjustment strategies into classroom instruction to help students develop the necessary coping skills and resilience to overcome academic challenges.

Future Researchers: Conduct studies that investigate the impact of other factors, such as socio-economic status and gender, on the relationship between career choice, parental support, psychological adjustment, and academic performance. Utilize qualitative research methods to gain a deeper understanding of the lived experiences of students in relation to career choice, parental support, psychological adjustment, and academic performance.

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