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To Med or Not to Med: Factors Affecting Career Choice among Filipino Third-Year Medical Technology Students

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Abstract: In the Philippines, there has been an observable trend of students enrolling in Medical Technology with the intention of taking it as a pre-medical program instead of a professional program. This led the researchers to wonder what possible factors could have contributed to making that choice. The study sought to describe the respondents based on their demographic profile and determine their proportion based on their career paths. It will also evaluate and correlate the factors that affect the choice of Filipino third-year medical technology students in a university in Manila, Philippines and determine what is the least and most significant factor that affects the respondents. This is a quantitative study that uses a survey questionnaire conducted online. The researchers utilized a stratified random sampling technique to select 274 participants using the Raosoft Sample Size Calculator. Statistical analysis of the collected data involved mean and percentage, and the use of chi-square test to demonstrate any relationship between the different factors. Viable participants in the study were asked to accomplish a consent form. Results showed that the majority of the respondents (90.15%) have plans to pursue medical school. Moreover, individual-related factors have an impact on the decision of students to work in the Philippines and to work abroad. Social-related factors are taken into consideration by the students who plan to work abroad while competencies-related factors affect the decision of the students to proceed to medical school. In addition, the most significant factors affecting the career choice of the respondents are competencies-related (overall weighted mean = 4.126, agree) while the least significant factors are family-related (overall weighted mean = 2.626, neutral).

***Keywords*:** career choice, medical school, medical technology, pre-med

I. INTRODUCTION

In the Philippines, there has been an observable trend of students enrolling in the program of Medical Technology. The majority of the student population classified it as a pre-medical program instead of a professional program. This gradual increase of students observed to pursue the medical field has led the researchers to wonder what possible factors could have led them to choose this.

The researchers observed the increase in the number of students taking up BS Medical Technology mainly for two reasons: 1) to practice the profession and 2) to prepare for medical school. While the medical technology profession's future has been promising, the degree program

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builds a good foundation for students who will take up Doctor of Medicine and other higher degrees of education. The researchers wanted to determine the statistics of Medical Technology students who are dedicated to pursuing the profession and the factors that affected their decision if they chose the program as a preparation for medical school.

A lot of medical technology graduates opt to go after the medical technology profession. There is an increasing demand for medical technologists globally (Berninger, 2020). Based on a report published by the U.S. Bureau of Labor Statistics, the number of jobs for medical technologists or clinical laboratory scientists would increase 11% from 2018 to 2028. The majority of these professionals are employed in hospitals (48%) while others work in laboratories, physicians' offices, colleges, and universities.

With the vast advancements in medical technology, the career opportunities for the profession have also expanded. From working in the laboratory, graduates can opt to explore their career in research and the academe (McGlasson, 2011). The degree program is designed to hone different skills expected to a competent medical technologist. A study conducted by Valdez (2010) showed that the graduates demonstrated the expected competencies in various areas like professional responsibility, laboratory skills, and safe work practices. However, further improvement is needed to enhance the following skills: critical thinking, problem-solving & decision making, communication, teamwork, interactive skills, instrumentation, computer skills, leadership, management, teaching, and training responsibilities, Bangayan- Manera (2019).

CHED Memorandum Order No. 18 Series of 2016 established the Doctor of Medicine program's minimum curricular content in the Philippines. Among these courses, Human Anatomy & Physiology, Biochemistry, Molecular Biology, Pharmacology, Microbiology, Parasitology, and Immunology are reflected in the Medical Technology program curriculum. Other specialized courses are incorporated into other curricula, depending on the institution. The familiarity of courses became a practical reason for aspiring doctors to take Bachelor of Science in Medical Technology as their preparatory degree for medicine.

In the Philippines, health allied programs are the usual choices as pre-medical degrees. Among these programs include Nursing, Biology, Psychology, Pharmacy, Biochemistry, Microbiology, Radio Technology, Physical Therapy, and Medical Technology (Medical Education, Professional Regulation Commission of the Philippines, 2007). Aspiring medical students have the privilege to choose their preparatory degree for medicine, including the non-health-allied programs.

Students should explore three considerations in choosing their premed (Kosarek, 2018). The first thing to consider is the interest level in the program. According to Kosarek, choosing a program with the thought of enhancing a resume is a weak reason. While practicalities of choosing a premed that meets the prerequisites for medical school should be considered, one must know that anything "simple" or "easy" does not make it the right choice. The next subject to consider is medical career goals. Students should consider choosing a program that may help them succeed in specific areas of medicine. These programs are not confined to allied health degrees, but also include the other areas. Lastly, students should consider the available mentorships and advising

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resources of the program they would like to enroll in. Ideally, premed degrees should have professors, advisers, counselors, and events that would answer the students' questions regarding their career paths.

There is an increase in the number of medical technology graduates who took the licensure exam from 2017 (3,216 examinees) to 2019 (6,453), as published by the Professional Regulation Commission. It might be inferred that there is an increase with the students who took up medical technology for the past few years. However, the reasons for choosing the program are not clear; to choose it as a premed program or to live up to the profession.

This study aimed to determine the factors that affect Filipino third-year medical technology students' career choice after finishing their undergraduate education. The factors were derived from existing theories on Maslow's Hierarchy of Needs and the Social Cognitive career theory. These factors are the basis of the selection of questions in the questionnaire. The survey questionnaire was distributed to the participants through an online platform. Then, the data collected through the questionnaire was analyzed.

II. METHODOLOGY

Research Design

This quantitative study is drawn upon survey data collected from third-year medical technology students from a university in Manila, Philippines to determine the factors on whether to proceed with medical school or not. The data collected from the population are observed, analyzed, and interpreted, resulting in creating inferences about possible relationships among the collected data. This includes sex, section, semestral average in the first term of the academic year 2020-2021, monthly family income, and career path. Other factors are also determined through the use of the Likert scale and then evaluated statistically. A nonexperimental correlational design is used to determine the differences and relationship between variables.

Sample and Study Site

Third-year medical technology students from a university in Manila, Philippines are the chosen respondents for the study. Due to COVID-19, the study is conducted online through the distribution of questionnaires using Google Forms. With the population size of one selected institution of nine hundred fifty-one (951), the Raosoft sample size calculator is used to compute the sample size with a 95% confidence level, a 5% margin of error, and a 50% response distribution from the total population. The computed sample size using the Raosoft sampling size calculator is two hundred seventy-four (274). The sampling method utilized is stratified random sampling, which involves dividing the entire population into strata and random samples are selected from each stratum which ensures equal opportunity for third-year Filipino medical technology students in the selected institution to become a participant in the study. The link of the Google Forms is disseminated through the block presidents from each section. To assure voluntariness, a consent form is given as part of the survey questionnaire stating that the respondents are not required to participate in the study. Instructions on how to access the link are also given. The link to the questionnaire is accessible for two weeks, from March 28 to April 10, 2021, and a follow up is

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done after deployment. This study's inclusion criteria include being a Filipino citizen and a third-year medical technology student during the academic year 2020-2021 from the selected institution. The study excludes individuals who are not of Filipino nationality and medical technology students of a different year level in the selected institution in the said academic year. The participants may withdraw if there is an intent to change the degree program and intent to discontinue studying permanently. Participants also have the right to discontinue answering the questionnaire at any stage and withdraw from the study for any reason without any fear of penalty and loss of benefits that they currently have.

Instrumentation

The researchers collected the data through the use of a 5-minute online survey questionnaire via Google Forms. The questionnaire is used to achieve the goal of the study, which is to determine the factors affecting Filipino third-year medical technology students' career choice. The survey questionnaire measured the respondents' different perspectives regarding what they think affects their career choice as a medical technology student. The survey questionnaire is divided into three parts. The first part contained questions about the respondents' profiles such as their name, nationality, sex, section, semestral average for the first term of the academic year 2020-2021, and monthly family income. The second part focused on the respondents' career path, whether they will pursue medicine, postgraduate studies (master's degree), or continue working inside the laboratory as a medical technologist after graduation. Lastly, the third part focused on the factors that the researchers think to affect the respondents' career choice. This part is divided into four (4) factors: family-related factors, individual-related factors, social-related factors, and competencies-related factors.

For the third part, there were twenty-six (26) questions answered through a Likert scale. The questions were based on the literature review. Due to the pandemic, the researchers utilized an online survey questionnaire to ensure the safety of the respondents in the data collection. The researchers used the Google Forms platform for easy access and distribution of the survey questionnaire. The form underwent reliability testing to determine the reliability of the survey questionnaire before proceeding with the data gathering.

Data Gathering Procedure

The researchers of this study wanted to explore the factors affecting the career choices of third-year medical technology students in a university in Manila, Philippines. During the first term of the academic year 2020-2021, a research proposal was made which was subject to approval by the ethics committee. Upon the approval of the ethics committee, the data gathering procedure began. Respondents were chosen based on the following inclusion criteria:

1. Filipino nationality
2. Third-year medical technology student during the academic year 2020-2021 in a university in Manila, Philippines

A sample size of 274 was used in the study with a confidence level of 95%. An adapted survey from Umar et al. was used for the data gathering procedure and was deployed through Google Forms. Data gathered was treated using SPSS with the following statistical treatments: Chi-squared, frequency, mean, and percentage.

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Statistical Analysis

In this study, the data collected was subjected to statistical analyses using the statistical software IBM® Statistical Package for Social Science (SPSS®) Statistics version 20 and Microsoft Excel. As mentioned in the introduction's objectives, the factors affecting the future career choice of Filipino third-year medical technology students was evaluated and correlated. Descriptive statistics was employed to properly present the data gathered from the survey and guide the researchers and readers for the interpretation of data. The demographic variables of sex, monthly family income, and semestral average from the first term of the academic year 2020-2021 are analyzed using frequency and simple percentage. Likewise, the overall weighted mean was used to determine the least and most common factors that affect the future career choice of the students in the said university. Tabular and graphical representations were shown in the study for a more organized and meaningful presentation of data. Additionally, all data gathered was subjected to statistical procedures such as weighted mean and percentage computation. More importantly, inferential statistics was applied in order to establish relationships between the different variables, or factors in this case. The survey questionnaire utilizes an ordinal scale. In this case, the chi-square test, which is a non-parametric test, was used to demonstrate the relationship between two different variables. In addition, the probability value (p-value) was determined whether it is below 0.05 or not ($\leq$0.05), as this would indicate that the obtained value from the statistical test is statistically significant.

Ethical Consideration

This study observed a critical ethical consideration. This research is intended not to exploit the education of the participants, but the data collected were used to achieve the objectives of the study.

The researchers ensured full disclosure about the participant's roles in the conduct of research. Along with the questionnaire, the respondents were given consent forms, which they agreed to before they answered the provided questions. This step ensured that participants agreed to give their full consent to participate in the study actively and willingly. At the same time, they were given the option not to participate in the study.

Participation would potentially expand the knowledge one has regarding their self-interests and priorities. No direct benefit from the study would be given to the willing participants.

Additionally, the data would also be kept confidential in accordance with the Republic Act No. 10173 or the "Data Privacy Act of 2012" for the safety of all participants. The researchers ensured that this step is strictly followed. The questionnaires provided, which were through the medium Google Forms, are accessible to the researchers of this study. The participants' information provided were kept with utmost confidentiality and were only used for academic purposes. The participants were given a unique identifier code based on the order they answered the Google Forms survey questionnaire. The respondents had an option to request a copy of their responses. Risks were mitigated since participants answered the questionnaires from the comfort of their homes and on their own time. The respondents were also entitled to a copy of the research once completed, which can be accessed publicly if preferred. Furthermore, the researchers

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maintained the anonymity of the schools and the participants took part in the study. This is also to eliminate the biases which are ever-present in research such as this.

Moreover, community considerations were also taken into account. Rest assured that the researchers have reviewed and considered the study's impact on the community involved. The researchers declared that there is no conflict of interest in this study.

Furthermore, no participation of vulnerable populations such as the elderly, children, homeless, prisoners, and the like in this study since research participants are students.

Equally important, matters on any funding, or compensation was given to any of the participants.

Overall, the researchers ensured the highest level of objectivity in the analysis and discussion throughout the study. The researchers made sure to cite and indicate the references used in conducting the study.

I. RESULTS AND DISCUSSION

Demographic Profile of the Respondents

Table 1. Percentage Distribution of the Respondents' Sex, Family Income, and Semestral Average

Gender	Frequency	Percentage %
Male	82	29.9
Female	182	66.4
Total	264	96.4
Missing	10	3.6
Total	**274**	**100**
Income		
Below 10000	2	0.7
10001 - 20000	7	2.6
20001 - 30000	6	2.2
30001 - 40000	15	5.5

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40001 - 50000	21	7.7
50001 - 60000	31	11.3
60001 - 70000	18	6.6
70001 - 80000	15	5.5
80001 - 90000	18	6.6
90001 - 100000	28	10.2
Above 100000	113	41.2
Total	**274**	**100**
Semestral Average	**Frequency**	**Percentage %**
1.000 - 1.200	12	4.4
1.201 - 1.450	97	35.4
1.451 - 1.750	103	37.6
1.750 – 3.000	62	22.6
Total	**274**	**100**

Career Plans of Filipino Third-Year Medical Technology Students

Table 2. Frequency and Percentage Distribution of the Respondents' Career Plans

Career Decision	Frequency	Percentage (%)
Medical School	247	90.15%
Other Postgraduate Studies	89	32.48%
Work in the Philippines	124	45.26%
Work Abroad	119	43.43%

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Table 2 shows the frequency and percentage distribution of the planned career decisions provided. Most of the respondents are planning to pursue medical school which is 90.15% of the total. This is followed by the plan to work in the Philippines as a medical technologist which is 45.26% of the respondents. 43.43% of the respondents had plans to work abroad while least of the respondents (32.48%) have plans to pursue other postgraduate studies. It should be noted however that the respondents were not restricted to one career option and were allowed to tick off more than one depending on their plans.

Factors Affecting the Career Choices of Filipino Third-Year Medical Technology Students

Family-related Factors

Table 3. Frequency and Interpretation of Family-related Factors.

Family-related Factors	Frequency					Weighted Mean	Verbal Interpretation
	1	2	3	4	5		
My family encouraged me to take this program.	26	41	64	79	64	3.42	Neutral
I have family members in this field, and it has encouraged me to take this program.	97	55	26	50	46	2.61	Neutral
The decision to take this program was imposed by my parents	98	64	53	39	20	2.34	Disagree
I have an obligation to continue what my family has started in this field.	105	49	27	41	52	2.58	Neutral
My family wants me to take this degree program so I can give back to them financially.	110	69	46	35	14	2.18	Disagree
Overall Weighted Mean						**2.626**	**Neutral**

Legend: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

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The table above exhibits the frequency and distribution of the respondents for Family-related Factors. The table shows that the respondents are neutral based on these factors related to the family, with a 2.626 mean response. Based on the computed results, family-related factors do not serve as a significant influence on the career choice of the respondents. In contrast with the study conducted by Ibrahim et al. (2017), the family has dramatically affected students' career preferences. This study states how their ability to support the students financially contributes to pursuing the profession.

On the other hand, a study conducted by Palos and Drobot (2010) specified that although parents contribute to their children's career decision-making, it can be through different ways depending on what type of support they give to them. Their paper has specified different types of support that can be considered on how parents influence their children, and this support can either be interpreted differently per individual. In the case of this study, students perceived it as a neutral factor in their career decision-making.

Individual-related Factors

Table 4. Frequency and Interpretation of Individual-related Factors

Individual-related Factors	Frequency					Weighted Mean	Verbal Interpretation
	1	2	3	4	5		
I have been deeply interested in this program since high school.	15	30	51	101	77	3.71	Agree
I envision myself doing this job in the near future.	19	27	69	97	62	3.57	Agree
I feel that this degree suits my personality.	10	23	75	109	57	3.66	Agree
I envision myself working in the laboratory.	10	21	73	122	48	3.65	Agree
I feel that this degree program will help me in the future financially.	20	28	72	104	50	3.5	Neutral
I feel that this degree program will help me live out the life I envisioned.	7	15	61	115	76	3.87	Agree

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I feel that this degree would give me good job opportunities.	4	14	53	130	73	3.93	Agree
Overall Weighted Mean						**3.699**	**Agree**

Legend: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

The table above exhibits the frequency and distribution of the respondents for Individual-related Factors. The table shows that the respondents agree to this factor with a 3.699 mean response. The outcome corresponds to the study conducted by Goetz et al. (2011), wherein the individual aspects are favored when choosing specific paths in deciding a career. Furthermore, it also corresponds to the study of Wang et al. (2006), wherein an individual's personality contributes to one's career choice and commitment.

Social-related Factors

Table 5. Frequency and Interpretation of Social-related Factors

Social-related Factors	Frequency					Weighted Mean	Verbal Interpretation
	1	2	3	4	5		
I think that this degree program will help me lift my social status.	12	38	106	86	32	3.32	Neutral
I believe that this may lead to a career that has a sizable salary and generous benefits package.	20	47	72	86	49	3.35	Neutral
I took this degree because most people surrounding me expected me to.	60	77	52	56	29	2.7	Neutral
I think that this degree program will lead me to a career that is beneficial to Filipino patients.	2	4	14	102	152	4.45	Agree
I am inspired to pursue this degree program because of the healthcare professionals that I encountered in various healthcare settings.	7	9	50	112	96	4.03	Neutral
I think that the environment that I will be working in after finishing my degree program will be safe.	36	45	100	75	18	2.98	Neutral

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I took this program because most of my friends took this degree.	128	96	26	19	5	1.82	Disagree
I took this degree program because of job opportunities in the Philippines.	54	73	84	47	16	2.63	Neutral
I took this degree program because of job opportunities abroad.	29	30	58	93	64	3.49	Neutral
Overall Weighted Mean						**3.197**	**Neutral**

Legend: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

The table above displays the frequency and distribution of the respondents for Social-related Factors. The table shows that the respondents are neutral based on these factors with 3.197 mean responses. This result is aligned with the study conducted by Abarro in 2006, wherein school preferences, sex, average monthly income of the family, average scholastic rating, and occupation of the head of the family are the factors found out to contribute to an individual's decision-making when it comes to their career choice. Some of the factors mentioned above can be categorized into social-related factors while some fit into a different category. Therefore, the study supports the result seen in the table above.

Competencies-related Factors

Table 6. Frequency and Interpretation of Competencies-related Factors

Competencies-related Factors	**Frequency**					**Weighted Mean**	**Verbal Interpretation**
	1	**2**	**3**	**4**	**5**		
I feel that this degree would benefit me when I take up graduate school.	32	1	40	102	99	3.86	Agree
I feel like my strongest field is health science among other subjects.	9	33	57	96	79	3.74	Agree
I consider this career as both challenging and rewarding.	2	3	20	111	138	4.39	Agree
I am aware of the program and its possible career paths before pursuing it.	2	11	19	125	117	4.26	Agree

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The curses in the degree program are aligned with my future plans to study medicine	16	0	16	77	165	4.37	Agree
Overall Weighted Mean						**4.124**	**Agree**

Legend: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

The table above exhibits the frequency and distribution of the respondents for competencies-related factors. The table shows that respondents agree that competencies-related factors have a significant influence on their career choice, based on the 4.124 mean response.

This result coincides with the results of the study conducted by Richardson et al. (2014) wherein students' passion and aptitude for science was identified as one of the factors influencing senior pre-med students to persist in preparing for medical school. Also, the study conducted by Narayanasamy et al. (2019) on career choices of medical technology students in India showed that 83.3% of the total student responses indicated academic merit as one of the influence factors for their chosen career choice.

Relationship Between the Factors that Influence the Career Choice of Filipino Third-Year Medical Technology Students

Relationship between Family-related factors and career decisions

Table 7. Correlation Between Family-related Factors and Identified Career Paths

	Family-related Factors			
	Correlation Coefficient	**P value**	**Decision**	**Remarks**
Medical School	3.112	0.551	Retain Ho	Not Significant
Other Postgraduate Studies	6.633	0.157	Retain Ho	Not Significant
Work in the Philippines	2.950	0.574	Retain Ho	Not Significant
Work Abroad	1.448	0.839	Retain Ho	Not Significant

The table above shows the relationship between family-related factors and the decision of the respondents regarding their career path after graduation. The relationship between the variables was tested using the Chi-square test. For its correlation between medical school, a positive correlation coefficient of 3.112 was obtained based on the 274 observations and a p-value of 0.551

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This value is higher than the 0.05 level of significance, which indicates that these variables are not associated with each other.

The relationship between family-related factors and the decision of the respondents if they have plans to take other postgraduate Studies after graduation was also correlated. The table reveals a positive correlation coefficient of 6.633 based on the 274 observations and a p-value of 0.157. The obtained value is higher than the level of significance (0.05) which indicates that the relationship is not significant.

The fourth row shows the correlation between family-related factors and the respondents' decision when asked if they have plans to work here in the Philippines after graduation. The table shows a positive correlation coefficient of 2.950 based on the 274 observations and a p-value of 0.574. This value is higher than the significance value of 0.05, which indicates that these variables are not associated with each other.

On the last row, the relationship between family-related factors and the respondents' plans to work abroad after graduation was evaluated. The table shows a correlation coefficient of 1.448 based on the 274 observations and a p-value of 0.839, which is higher than the level of significance 0.05, indicating that these variables are not associated with one another.

Relationship Between Individual-related Factors and Career Decisions

Table 8. Correlation Between Individual-related Factors and Identified Career Paths

	Individual-related Factors			
	Correlation Coefficient	**P value**	**Decision**	**Remarks**
Medical School	4.389	0.342	Retain Ho	Not Significant
Other Postgraduate Studies	4.671	0.323	Retain Ho	Not Significant
Work in the Philippines	10.746	0.026	Reject Ho	Significant
Work Abroad	9.387	0.048	Reject Ho	Significant

Table 8 exhibits the relationship between individual-related factors and the different career decisions of the respondents. The correlation between individual-related factors and going to medical school shows a correlation coefficient of 4.389 based on the 274 observations and a p value of 0.342 that is higher than the level of significance (0.05). With this, it can be said that these variables are not associated with each other.

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Next, the relationship between individual-related factors and the decision of the respondents to pursue other postgraduate studies after graduation. The table shows a correlation coefficient of 4.671 based on the 274 observations and p-value of 0.323 that is higher than the level of significance 0.05 which indicates that these variables are not associated with each other.

The relationship between individual-related factors and the decision of the respondents if they have plans to work here in the Philippines after graduation is also evaluated. A correlation coefficient of 10.746 based on the 274 observations was obtained and a p-value of 0.026 that is less than the 0.05 level of significance. This value indicates that these variables have a significant relationship.

On the last row, individual-related factors and the decision of the respondents to work overseas as a medical technologist after graduation was correlated. It shows a correlation coefficient of 9.387 based on the 274 observations and p-value of 0.048. The obtained value is less than the level of significance (0.05) which indicates that there is a significant relationship between these variables.

Relationship Between Social-related Factors and Career Decisions

Table 9. Correlation Between Social-related Factors and Identified Career Paths

	Social-related Factors			
	Correlation Coefficient	**P value**	**Decision**	**Remarks**
Medical School	3.025	0.568	Retain Ho	Not Significant
Other Postgraduate Studies	5.686	0.226	Retain Ho	Not Significant
Work in the Philippines	5.131	0.28	Retain Ho	Not Significant
Work Abroad	14.137	0.006	Reject Ho	Significant

Table 9 above exhibits the relationship between social-related factors and the respondents' decision regarding their career plans using Chi-Square. The correlation between social-related factors and going to medical school shows a correlation coefficient of 3.025 based on the 274 observations. The given table also includes the computed p-value of 0.568, which is higher than the level of significance 0.05. This value indicates that these variables are not associated with each other.

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The following row exhibits the relationship between social-related factors and the respondents' decision to pursue other postgraduate education/studies after graduation. The table shows a correlation coefficient of 5.686 based on the 274 observations and a p-value of 0.226, which is higher than the level of significance 0.05, indicating that these variables are not associated with each other.

Next, the relationship between social-related factors and the decision of the respondents to work here in the Philippines after graduation is determined. This shows a correlation coefficient of 5.131 based on the 274 observations. It also shows a p-value of 0.280 which is higher than the level of significance (0.05). This is an indication that these variables are not associated with each other.

Lastly, the relationship between social-related factors and the decision of the respondents to work abroad after graduation using Chi-square. A correlation coefficient of 14.137 was obtained based on the 274 observations and p-value of 0.006 that is less than the level of significance 0.05 which indicates that these variables are associated with each other.

Relationship between Competencies-related Factors and Career Decisions

Table 10. Correlation Between Competencies-related Factors and Identified Career Paths

	Competencies-related Factors			
	Correlation Coefficient	**P value**	**Decision**	**Remarks**
Medical School	57.241	0.000	Reject Ho	Significant
Other Postgraduate Studies	1.953	0.801	Retain Ho	Not Significant
Work in the Philippines	0.37	0.985	Retain Ho	Not Significant
Work Abroad	1.736	0.798	Retain Ho	Not Significant

The table above demonstrates the relationship between competencies-related factors and the decision of the respondents regarding their career paths. The second row shows a correlation coefficient of 57.241 for competencies-related factors and going to medical school. A p-value of 0.000 that is less than the 0.05 level of significance, which indicates that these variables are associated with each other.

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Next, the relationship between competencies-related factors and the decision of the respondents to pursue other postgraduate studies after graduation was shown. The correlation of the two variables obtained a coefficient of 1.953 based on the 274 observations and a p-value of 0.801. The obtained value is higher than the level of significance 0.05 which indicates that there is no significant relationship between the mentioned variables.

The fourth row exhibits the relationship between competencies-related factors and the respondents' decision to work here in the Philippines after graduation. The table shows a correlation coefficient of 0.370 based on the 274 observations and a p-value of 0.985. The given p-value is higher than the level of significance 0.05, which indicates that these variables are not associated with each other.

On the last row, the relationship between competencies-related factors and the respondents' decision to work here overseas was exhibited. The table shows a correlation coefficient of 1.736 based on the 274 observations and a p-value of 0.798, which is higher than the level of significance 0.05. This means that these variables do not have a significant relationship with each other.

III. RESULTS AND DISCUSSION

Based on the data gathered, the most relevant factor affecting the career decisions of the respondents were competencies-related factors (Overall Weighted Mean: 4.124 = Agree). Meanwhile, the least relevant among the categories were family-related factors (Overall Weighted Mean: 2.626 = Neutral). Since competencies related-factors are the most relevant, students are mainly focused on satisfying their self-actualization and esteem needs, while a non-importance placed on satisfying belonging or love needs could explain why family-related factors were seen to be the least relevant factors. Results of the monthly family income show that most of the respondents have a monthly family income of Php100,000 or higher. This means that physiological and security needs are sustained, allowing students to pursue other needs on Maslow's Hierarchy of Needs.

The researchers correlated the identified factors affecting career decisions and their chosen career paths. Four correlations were considered significant and are as follows: 1) Individual-related Factors and Work in the Philippines, 2) Individual-related Factors and Work Abroad, 3) Social-related Factors and Work Abroad, 4) Competencies-related Factors and Medical School.

Family-related factors had no significant relationship with the career decisions. These factors mostly include familial influence and financial capability, which might have impacts on the career choices of the respondents. In the survey, data regarding the family income were gathered, which can assess their financial capability to afford medical school and/or assess their needs to work right after graduation. Based on the results, the majority of the respondents have a monthly family income greater than Php100,000, and the majority have plans to pursue medical school.

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Individual-related factors have significant relationships with working in the Philippines and overseas. Interestingly, a higher proportion of the respondents have plans to work in the Philippines than working abroad despite the salary comparison from COMELEC and USBLS. Goetz et al. (2011) have identified individual-related factors, which are as follows: personal ambition, future perspective, and work-life balance, one of which may be the main reason of each respondent.

Social-related factors have a significant relationship with working overseas. As per a study conducted by Jadhav (2013), he identified that hospital infrastructures, working environment, and specialization status are the main factors why students choose medical technology as a profession. Clinical laboratories overseas are much more equipped with advanced facilities as compared to the laboratories in the Philippines. In the survey questionnaire, 3 (Neutral) and 4 (Agree) had the highest frequency when the respondents were asked if the profession would uplift their social status. Financially, overseas job opportunities as a medical technologist would give a higher salary than staying in the Philippines based on USBLS and COMELEC.

Individual-related and social-related factors involved questions about financial considerations, such as getting a sizable salary and good employee benefits as a medical technologist. Thus, working as a medical technologist after finishing the degree program and passing the board licensure examination can be related to Maslow's Hierarchy of Needs, specifically the physiological and safety needs. Being employed after graduation allows individuals to earn money and provide for their basic needs. In addition, employment can help these young healthcare professionals secure their future as they may use their earnings for investments and insurance policies.

A significant relationship was also determined between competencies-related factors and going to medical school. A vast majority of the respondents have indicated that they have plans to pursue medical school. This finding coincides with the academic competencies of the respondents since only a small percentage of the respondents had a semestral weighted average lower than 1.750, which is the University standard for Dean's Lister. Based on a research conducted by Ayuob et al. (2016), one of the reasons why students take up a Doctor of Medicine degree is because they had high grades enough for admission. However, it can also be looked at the other way around. Students who have plans to study medicine may be highly competitive academically, in preparation for the competitive admission of medical schools.

Due to the time and setting of the data gathering, it should be noted that the data gathered is confined in a single university located in Manila, Philippines, WHICH IS A PRIVATE INSTITUTION. A BETTER VARIATION MIGHT BE OBSERVED IF MULTIPLE UNIVERSITIES, BOTH PUBLIC AND PRIVATE, HAVE PARTICIPATED IN THE STUDY.

IV. CONCLUSION AND RECOMMENDATIONS

In this study, the researchers were able to identify the factors most and least affecting the third-year Medical Technology students; these would be the competencies-related factors and

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family-related factors, respectively. The findings would greatly benefit Filipino third-year medical technology students since they will gain more awareness of the factors that influence their career choice. Aside from this, course instructors and curriculum coordinators would be able to provide necessary improvements to the education of the students.

Based on the summary of findings and conclusion, the researchers of the study suggest a wider range of participants from different universities in the Philippines to give a better representation of Filipino third-year medical technology students. Data gathering procedure might be repeated during normal circumstances, as the study was conducted during a pandemic. Psychological distress during the time of collection might have an impact on the career decisions of the respondents. Along with this, the data gathering procedure should also be conducted in a physical setting so that technical errors brought upon by online survey platforms may be avoided.

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