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Effect of Remuneration and Staff Management to Filipino Registered Medical Technologist's Professional Overseas Application

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Abstract: Healthcare workers are the lifeblood of the healthcare system of a country, and they are entitled to better working conditions. An increase of migration of human resources in the health sector from developing countries can have consequences in the sustainability of the health systems. The Philippines is a reservoir for competent healthcare workers; however, it is found that they have the lowest salary grade among the Southeast Asian countries. Poor working conditions such as low salary and poor management can influence an individual to look for better opportunities locally or overseas. This study aims to determine the effect and correlation of remuneration and staff management to the registered medical technologists' professional overseas application through the descriptive-correlational approach. Sample size taken for this study is 110 and have been gathered from hospitals and laboratories within Metro Manila, Philippines. By using Pearson r correlation, findings of the study showed that both remuneration and staff management have a significant negative correlation with the medical technology professional overseas application. The lower satisfaction rate for both remuneration and staff management can intensify employee turnover, and vice versa. Other factors such as safety of the workplace and fulfillment in serving patients can influence the medical technologists' motivation to look for other career opportunities. This study is a guide to government and hospital administrators to get a good understanding of the factors that influence employee turnover and migration.

Keywords: *Migration, Motivation, Overseas application, Pull factors, Push factors, Registered Medical Technologist, Remuneration, Staff management*

I. INTRODUCTION

Healthcare workers are entitled to better remuneration and staff management. The motivation of human resources improves both the workplace environment and employee productivity that can help promote an institution's growth and development (Rotea, Logofatu, & Ploscaru, 2018). It is regarded to be one of the most crucial aspects of both private and public sectors in all organizations (Baldoni, 2005 as cited in Sarker, 2016). Motivation is defined as a psychological process that drives the stimulation and orientation of behavior and its persistence (Campbell, et al., 1970; Luthans, 1977 as cited in Llaci & Shoraj 2015). It is also defined as the utilization of methods by the heads of organizations to prompt an employee's efficiency (Aung, 2008 as cited in Sarker, 2016). In an instance where an employee is motivated, there is a display of enthusiasm and dedication, and duties are accomplished with determination (Moran, 2013 as

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cited in Nguyen, 2017). Motivation encompasses numerous forms and methods of applying into execution (Bocean, 2009 as cited in Rotea, et al., 2018).

Alan Coppin discussed in The Human Capital Imperative (2017) that workers receive payment, rewards, and benefits in numerous ways. He defined remuneration (based on WorldofWork, 2014) as 'the sum of the financial and non-financial value of an employee's package (i.e. salary, incentives, benefits, perquisites, job satisfaction, organizational affiliation, status, etc.) and any other intrinsic or extrinsic rewards of the employment exchange that the employee values'. Adequate remuneration is an effort to attain healthcare workers' retention and enhance the work motivation, which, in turn, can exert a positive impact on the nurses' performance, enabling them to deliver quality services (Gayatri, et al., n.d.). This is proven in a study conducted by Hung, et al. (2018), that showed reversely proportional results regarding salary and overall moderating effect. Lower working pressure of moderating effect is correlated with high salary satisfaction and higher working pressure with low salary satisfaction.

Nwokolo and Sam-Kalagbor (2019) defined management as the organization's initiative to comply with its employees' needs and in return have them satisfy basic organizational requirements. Employees are termed to be the life-blood of an organization (Kossivi, Xu, Kalgora, 2016). Being able to hire and retain staff that are well-versed in the laboratory is imperative for laboratories and organizations to avoid manpower shortage and high staff turnover. To address this challenge, staff should be valued as assets and advantage of the organization (Wakabi, 2016). It is reasonable to anticipate that management will strive to promote good leadership (Robbins & Davidhizar, 2020). Cited in Morsiani, Bagnasco, and Sasso (2017), Chiok Foong Lok (2011) defined leadership as 'the ability to guide, motivate, and lead other people to achieve an envisioned goal, and the ongoing search for good leadership'. Wakabi's (2016) findings showed an inverse relationship between leadership style and employee's intention to leave. Leadership that promotes support and consideration, with high visibility and willingness to let the staff take part in leadership responsibilities gives off positive influence (Kleinman, 2004).

In a research conducted in 2020 by a data aggregator company based in Kuala Lumpur, Malaysia called "iPrice Group", the Philippines was discovered to have the lowest salary for healthcare workers among Southeast Asian countries. According to the data, mid-level experienced Filipino registered nurses and medical technologists earn 468% and 612% lower than the highest paid healthcare workers from Singapore, respectively. Neighboring countries such as Malaysia, Thailand, and Indonesia show large wage differences compared to the Philippines earning 178%, 95%, and 104% more, respectively, despite having similar costs of living. In the 2018 Philippine Family Income and Expenditure Survey released by the Philippine Statistical Authority (PSA), data showed that the average expenditure of a Filipino household is at an estimated PHP 20,000 per month.

According to Castro-Palaganas, Spitzer, Kabamalan, et al. (2017), Filipino healthcare professionals had a history of pursuing their careers in another country. Based on the Commission on Filipinos Overseas (CFO), from the years 1981 to 2018, a total of 248, 299 professionals have migrated and according to the International Standard Classification of Occupations (ICSO), healthcare workers are under the major group professionals. More recently, in the 2019 Survey on Overseas Filipinos by the Philippine Statistics Authority out of the estimated 2.2 million Overseas Filipino Workers (OFW), 8.5% of which are professionals. This research study is aimed to find

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correlations between remuneration and staff management to registered medical technologist's professional overseas applications. An online survey will be deployed to chosen hospitals and laboratories to gather data which will be statistically analyzed.

Objectives of the Study:

The proposed study has similar research in other professions in the Philippines. However, in the field of Medical Technology, it is not yet a very well-studied topic. This study generally aims to:

- Determine the effect of remuneration and staff management to Filipino Medical Technologist's Professional Overseas Application.

Furthermore, this study specifically aims to:

- Determine the effect of remuneration to Registered Medical Technologists through online survey forms and its influence on professional overseas application.
- Determine the effect of staff management to Registered Medical Technologists under public and private laboratories and its influence on professional overseas application.
- Enumerate the motivating and demotivating factors of remuneration and staff management to Registered Medical Technologist's consideration for professional overseas application.

Statement of the Problem:

Determining the effects of remuneration and staff management to the medical techonologist's professional overseas application serves as the main problem of this study.

The following questions specifically answer to the following:

1. Does remuneration have a significant effect on Registered Medical Technologist professionals' overseas application?
2. Does staff management significantly affect overseas applications of Registered Medical Technologists?
3. What are the motivating and demotivating factors for Registered Medical Technologists that affect their employment?
4. What are the factors for Registered Medical Technologists to apply overseas?
5. Is there a significant difference in the laboratory management of public and private laboratories which affects the employment of Registered Medical Technologists?

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Hypothesis:

H1: The remuneration received by medical technologists has a significant effect on their professional overseas application.

H2: There is a correlation between staff management and professional overseas application of medical technologists.

Research Impediments (Scope and limitations of the Study):

This study is focused on identifying the effects of remuneration and staff management to registered medical technologists' professional overseas application. Due to movement restrictions and quarantine protocols brought by the COVID-19 pandemic, the data gathering will be conducted online through Google forms. The respondents are limited to registered medical technologists affiliated with public and private laboratories in Metro Manila or the National Capital Region (NCR) only. This study does not represent the population outside NCR. Moreover, the age of respondents must be at least 21 years old, should be a Filipino citizen, and there is no specific minimum work experience for the respondents.

The scope of questions is restricted to their experiences regarding staff management such as personal satisfaction, job satisfaction, work environment, remuneration, and other factors that may influence their decision of applying overseas. Other experiences that are not within the scope of the survey will not be included in the analysis.

Significance of the Study:

The study of the effect of remuneration and staff management on Registered Filipino Medical Technologist's migration will:

- Determine the different factors and underlying reasons affecting the decision making on overseas application.
- Be beneficial for the Philippine government, laboratory administrators, and Medical Technologists to provide a deeper understanding and more profound knowledge on the impact of remuneration and laboratory management, and how it can increase work efficiency and productivity of workers.
- Help in strengthening and improving the policies that affect the human resources department.
- Bridge the gap between medical technologists and the underlying issues in employment.

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II. METHODOLOGY

The following chapter presents the research design, subjects and study site, data measure and instrumentation, data gathering procedure, ethical considerations, and data analysis used in the study.

Research Design

The study employed a descriptive-correlational research design to explore and describe the different variables as well as examine their relationship or interdependence. This type of research design is utilized to primarily explore how remuneration and staff management correlates to the Registered Filipino Medical Technologist's professional overseas application and to empirically present the other factors that may contribute to their motivation/demotivation. The independent variables (remuneration and staff management) are intrinsic to the respondents and the researchers have no control over them (Torneo & Clamor-Torneo, 2017).

Subjects and Study Site

The study will be conducted in chosen private and public laboratories, either hospital-based or stand alone, located in Metro Manila or the National Capital Region (NCR) of the Philippines, as it houses the greatest number of registered medical technologists in the country (Sanchez, 2020). The method of sampling to be used is the purposive sampling technique. It is a non-probability sampling technique that is dependent on the ability of the researchers' judgment in choosing the appropriate subjects for the study (Sharma, 2017). It is traditionally associated with small-sized samples (Barrat, Ferris, & Lenton, 2015), but in the previous years, online purposive sampling has benefited researchers as it is economical, and contrary to its traditional application, it can be employed to a large number of samples who are difficult to come face to face with (Miller & Soderlund 2010 as cited in Barrat et al., 2015). Utilizing Power Analysis to determine the ideal sample size, 100 respondents were computed.

Target survey respondents must meet the following criteria set by the researchers: (1) a registered medical technologist, (2) currently employed as a medical technologist with no minimum work experience, (3) working in a public or private health facility situated in Metro Manila, (4) at least 21 years of age, (5) a Filipino citizen, and (6) is either a male or female. (1) Individuals that are not employed in the chosen laboratories, (2) laboratory staff that are not medical technologists, (3) individuals younger than 21 years old, (4) individuals who are not citizens of the Philippines, (5) and relatives or acquaintances of the researchers will be ineligible for the study.

Data Measure/Instrumentation

Likert Scale

Likert scale questionnaires are the most commonly used type of instrument for measurement affective variables such as motivation and self-efficacy. It is a psychometric scale

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that has multiple categories from which respondents choose to indicate their opinions, altitudes, or feelings about a particular issue. This instrument allows the researchers to gather large amounts of data easier compared to other instruments. The advantages of likert scale are: it can gather data relatively quickly from large number of respondents, it can provide highly reliable person ability estimates, the validity of the interpretations made from the data provided can be established through a variety of means, and it can provide profitable compare and combined with qualitative data-gathering techniques like open-ended questions, participant observation and interviews (Nemoto & Belgar 2014).

Face Validity

To ensure that the questionnaire accurately measures what it ought to quantify, face validity will be conducted through a testrun particularly to a subset population. This will include two parties with different familiarity and knowledge regarding the research topic. The first party will consist of at least 10 percent of the total population. The second party will be an expert on question construction and evaluation. Both of such will assess and review the testrun questionnaire and answer the question: *Does the questionnaire or test measure what it intends to measure?* Results will be subjective and will be correlated with internal consistency.

Responses will be collated into a spreadsheet and will be checked for its minimum and maximum values. To determine the minimum and the maximum length, the range is calculated by $(5 - 1 = 4)$ then divided by five as it is the greatest value in the scale $(4 \div 5 = 0.80)$. The least value in the scale, which is number one, will be added to determine the maximum of the scale (Ngulube, 2018).

Internal Consistency

Internal consistency checks the reliability of questions to produce consistent responses. Cronbach's alpha test will be employed to measure the reliability of the questions. This test can also show the variability in the respondents' conscientiousness and openness. The reliability of the tool is .905. An acceptable internal consistency would be 0.7 or higher values (Statistics How To, 2014).

Pearson r

Pearson product-moment correlation coefficient (also known as Pearson r) is a tool of measurement for the strength of linear association between two variables (AERD Statistics, n.d.). This tool illustrates a line of best fit between the data of two variables, and the Pearson r shows how distant all these data from the line of best fit. Pearson r values can be in a range of values from +1 to -1. No association between two variables is indicated by a value of 0. Values greater than 0 show a positive relationship that as one value of the one variable increases, the value of another variable also increases. Meanwhile, values less than 0 show a negative relationship that as one value of one variable increases, the value of another variable decreases.

Mean and Standard Deviation

Mean is the average and the sum of data divided by the number of data. Standard deviation is the statistic that measures the variability of the observations from the mean in the dataset. A standard deviation is high in a data set when the data points are far from the mean or spread out.

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A low standard deviation results when the values are close to the mean. In the empirical rule in normal distribution, the standard deviation and mean tell where most of the values lie. The standard deviation is less reliable on non-normal distributions, and it should be used with other measures like range (Bhandari, 2020).

Data Gathering Procedure

Once the ethical clearance has been approved and secured, the study can now be conducted. The researchers sent an email to Ms. Amy Hagopian, PhD, a director from Community Oriented Public Health Practice and a professor from the University of Washington School of Public Health, for permission to use their questionnaire from their study entitled *"Job satisfaction and morale in the Ugandan Health Workforce*". The researchers will then modify the questionnaire based on this nature of research as to focus on the remuneration and the staff management specifically to registered Medical Technologists, and the effects on their motivation either to stay or apply overseas.

The researchers will be able to obtain registered medical technology respondents by contacting the Chief Medical Technologist or the human resources through email from both public and private laboratory hospitals within Metro Manila. Permission to carry out our survey shall be obtained from the chief medical technologist and/or the human resources. The respondents should be currently employed as an RMT, with no minimum laboratory experience working in the laboratory clinic, at least 21 years of age, a Filipino citizen and no gender limitation.

Once permitted, the respondents will then be informed of the online survey questionnaire. An email will be sent to the respondents detailing the brief description, objectives of the study, significance of the study, the benefits, and protocols as well as assurance that the data provided is confidential and will only be used solely for the study. The online survey questionnaire will be utilizing Google Forms and the link will be included in the email. Their consent will again be inquired in the Google Forms before proceeding to the survey. Subjects have the right to refuse or cease their participation in the study anytime for any reason, stated or unstated, without any repercussions. The online survey would take approximately 25 minutes to finish. Once the respondents have answered the online survey, the researchers will then gather the accumulated data from the respondents and will then be processing and analyzing its results.

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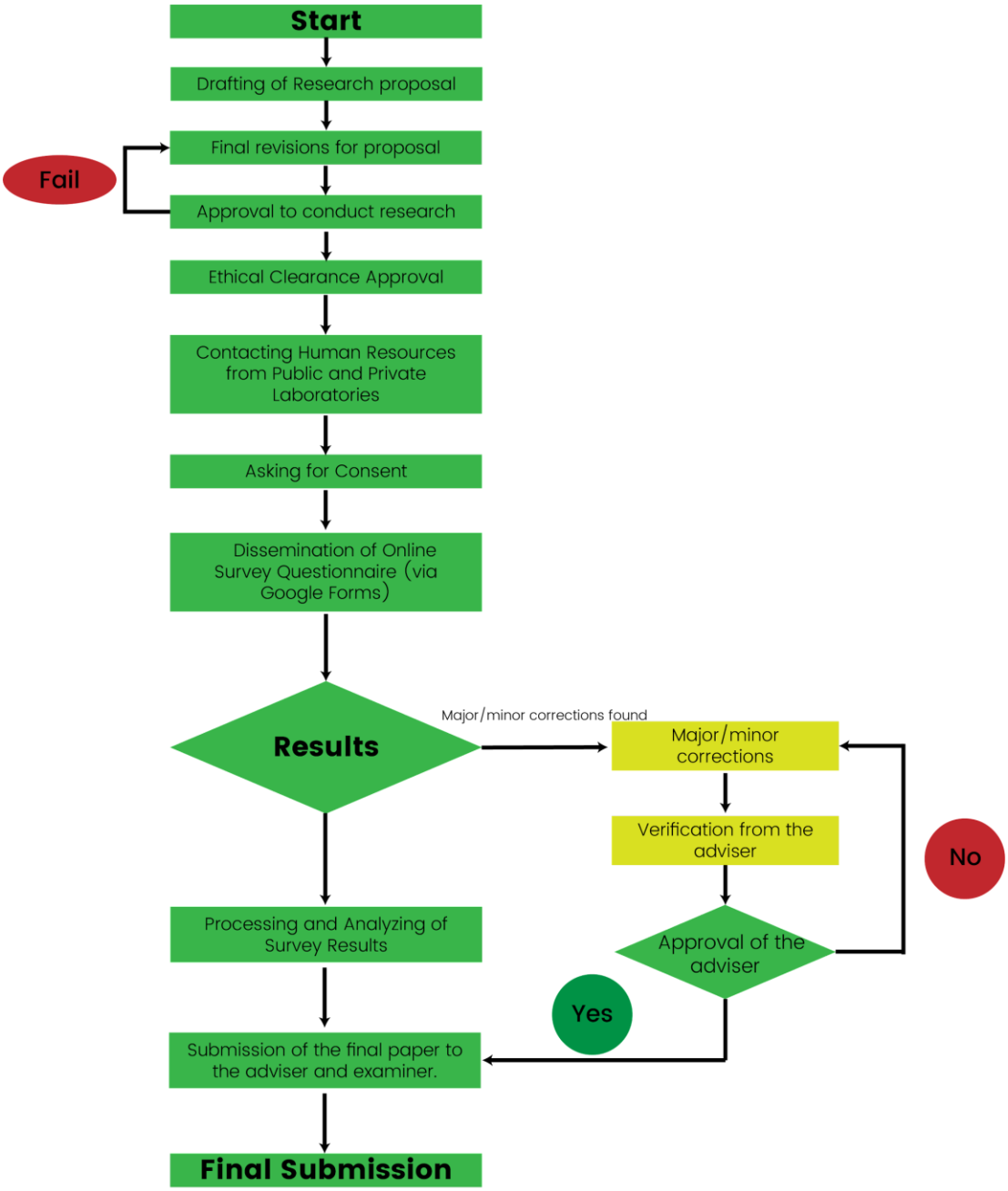

Fig 3. Research procedural flowchart

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Ethical Considerations

Informed Consent and Voluntary Participation

In the process of obtaining a consent, it must be given voluntarily which means that they should understand what is being asked of them and they must be pertinent to consent. The participant should also be well-informed about the research to be conducted, comprehend the information and they have the choice to decide whether to participate or decline. The agreement must be obtained from the participant's participation in the research only after a thorough explanation about the research process.

The participants in this research will be given a consent form. The targeted participants are contacted individually and will be given an explanation about the purpose of the research and its process. The participant's information sheet is provided for the expounded explanation of the research. The participants have the right to withdraw even if they have signed the consent. Consent to record their personal information will remain confidential.

Anonymity and Confidentiality

Anonymity and confidentiality is preserved by not revealing the participants' name, gender, and other personal information. All information that would be gathered will be kept confidential and will only be utilized for the completion of the data collection. The participants will be identified through the type of workplace they are affiliated to that can either be a public or private institution.

Ethical Approval and Respondent Access

The ethical approval will be secured from the Faculty of Pharmacy Research Ethics Committee (FOPREC). The files will be sent through email and upon getting the permission and approval, the research survey will be conducted. Any request for access in the collected data from the participants will be granted to provide transparency.

Data Protection

The data would be stored in encrypted devices and will be password protected. Transfer of data will be through password-protected emails of the university. Any occurrence of adverse events such as calamities will be immediately reported to FOPREC to avoid data destruction and leakage.

Conflict of Interest

The authors declare that they have no competing interests. The authors of the study certify that they have no affiliation with or any involvement in any organization or entity with any membership, consultancies, employment, and non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

Risks

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Participants will not be in any form of risk before, during or after answering the survey for this study.

Incentives and Compensation

Participants will not be receiving any form of financial incentive or reimbursement since no out-of-pocket expenses will be made while answering the survey. Compensation will not be provided due to lack of resources and the time the survey will be conducted.

Data Analysis

The data gathered will be analyzed with the use of different statistical analysis. Demographic profiles will be analyzed using frequency and percentages to see the classification of respondents. The researchers will primarily use Pearson r Correlation to determine the effect of remuneration and staff management to the perception of Medical Technologists on professional overseas application and the Independent T-Test to test the significance. The researchers will also make use of Descriptive Statistics to solve other points such as the relationship of the mentioned factors and the level of how Medical Technologists perceive these factors.

III. RESULTS AND DISCUSSION

This chapter shows the accumulated data from the online questionnaire which analyzes the effect of remuneration and staff management in the overseas application of Filipino Registered Medical Technologists. The data was analyzed and interpreted to answer the research questions and be able to determine whether the hypotheses are accepted or rejected.

Section I: Socio-Demographic Profile

Table 1. Tabulated frequency and percentage of the respondents' age.

	Frequency	Percent (%)
21 - 25 years old	58	52.7
26 - 30 years old	35	31.8
31 - 35 years old	7	6.4
36 - 40 years old	6	5.4
41 - 45 years old	3	2.7
46 - 50 years old	0	0

Corresponding author: jtdiaz@ust.edu.ph

51 - 55 years old	1	1
Total	**110**	**100.0**

Table 1 presents the respondent's age in range using frequency and percentage. The researchers gathered a total of 110 respondents and majority of them ranged from 21-25 years old (52.7%).

Table 2. Tabulated frequency and percentage of the respondents' gender.

	Frequency	Percent (%)
Male	39	35.5
Female	71	64.5
Total	**110**	**100.0**

Table 2 shows the tabulated gender of the respondents through frequency and percentage. Majority of the respondents were female (64.5%).

Table 3. Tabulated frequency and percentage of the respondents' work experience in years.

	Frequency	Percent (%)
Less than 1 year	7	6.4
1 year	23	20.9
2 years	13	11.8
3 years	18	16.4
4 or more years	49	44.4
Total	**110**	**100.0**

Table 3 presents the frequency and percentage of the respondents' work experience in years. The majority of the respondents have worked for 4 or more years (44.5%).

Table 4. Tabulated frequency and percentage of the respondents' workplace classification.

	Frequency	Percent (%)

Corresponding author: jtdiaz@ust.edu.ph

Public	50	45.5
Private	60	54.5
Total	110	100.0

Table 4 shows the type of workplace of the respondents using frequency and percentage. The majority of the respondents works in a private institution (54.5%).

Table 5. Tabulated frequency and percentage of the respondents' monthly basic pay in Philippine peso.

	Frequency	Percent (%)
Less than 15,000	10	9.1
15,000-19,999	29	26.4
20,000-24,999	28	25.5
25,000-30,000	18	16.4
More than 30,000	25	22.7
Total	**110**	**100.0**

Table 5 depicts the income range of the respondents using frequency and percentage. The majority of the respondents receive a monthly income ranging from Php 15,000-19,999 (26.4%).

Section II: Motivating Factors (Push factors)

Table 6. Tabulated mean, standard deviation (SD), interpretation, and ranking of the respondents' motivating factors within the workplace.

No.	To what extent do you agree with the following statements?	Mean (X)	Standard Deviation (SD)	Interpretation

Corresponding author: jtdiaz@ust.edu.ph

1	Considering everything, I am satisfied with my job.	3.7000	.89391	Agree
2	My opinion matters at work; I feel respected.	3.9727	.97170	Agree
3	I have a good friend(s) at work.	4.3364	.76957	Strongly Agree
4	I find fulfilment in serving my patients.	4.3636	.78667	Strongly Agree
5	The *laboratory administration and community (patients)* to which I am working in appreciate my work.	3.8364	.90389	Agree
6	I enjoy working as a RMT; the work I am doing is meaningful and stimulating.	4.1091	.80532	Agree
7	I receive encouragement to develop myself from my colleagues/supervisors	3.9091	.88354	Agree
8	I am satisfied with the quality of care that my health center can provide.	3.8182	.96908	Agree
9	I have safe and efficient transportation to work.	3.9000	1.07473	Agree
10	Supplies for my personal needs are available in my area of assignment.	3.9000	.99494	Agree
11	I feel safe in my area of assignment.	4.0727	.91581	Agree

Corresponding author: jtdiaz@ust.edu.ph

Overall	4.000	.75419	Agree

(Interpretation: **1-1.80**: Strongly Disagree; **1.81-2.60**: Disagree; **2.61-3.40**: Neutral; **3.41-4.20**: Agree; **4.21-5.00**: Strongly Agree)

Table 6 presents their perception regarding the motivating factors within the workplace which may influence the overseas application. The respondents predominantly answered agree and strongly agree to the factors, scoring a mean of **3.700** to **4.3364** with an overall mean of **4.000.** The top three factors are fulfilment in serving patients, good friends at work, and enjoying working as RMT.

Section III: Staff Management

Table 7. Tabulated mean, standard deviation (SD), and interpretation of the respondents' perception regarding their workplace staff management.

No.	To what extent do you agree with the following statements?	Mean (X)	Standard Deviation (SD)	Interpretation
13	The job matches my skills and experience.	4.2182	.80573	Strongly Agree
14	When I come to work, I know what is expected of me.	4.2636	.78609	Strongly Agree
15	I receive recognition for doing good work.	3.6818	.98551	Agree
16	I am fairly evaluated on my work.	3.7545	.84795	Agree
17	I have been given the training needed to perform the work expected of me.	4.0364	.89778	Agree

Corresponding author: jtdiaz@ust.edu.ph

18	I have a pleasant work environment; I am satisfied with the morale level of my health center staff.	3.8273	.95648	Agree
19	The workload is manageable.	3.5545	1.02793	Agree
20	I have flexibility to balance the demands of my workplace and my personal life.	3.8182	.98783	Agree
21	I have the supplies which I need to do my job well and safely.	4.0000	.93847	Agree
22	I have the equipment which I need to do my job well and efficiently.	4.1182	.89578	Agree
Overall		4.0091	.76020	Agree

(Interpretation: **1-1.80**: Strongly Disagree; **1.81-2.60**: Disagree; **2.61-3.40**: Neutral; **3.41-4.20**: Agree; **4.21-5.00**: Strongly Agree)

Table 7 displays the respondents' perception on staff management in their respective workplace which may have significant influence on the Registered Medical Technologists to apply overseas.

Respondents were asked to answer Likert scale survey questions regarding staff management. 91 out of 110 respondents (82.7%) answered Strongly Agree and Agree. 16 respondents (14.5%) answered Neutral, 2 respondents (1.8%) answered Disagree and 1 respondent (0.9%) answered Strongly Disagree.

Section IV: Salary

Table 8. Tabulated mean, standard deviation (SD), and interpretation of the respondents' perception over their remuneration.

No.	To what extent do you agree with the following statements?	Mean (X)	Standard Deviation	Interpretation

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			(SD)	
23	I am satisfied with my salary.	3.0364	1.14080	Neutral
24	My benefit package (e.g. PhilHealth, GSIS, etc.) is fair.	3.3909	1.10125	Neutral
25	My representation and travel allowances are fair.	2.9636	1.05732	Neutral
26	My additional benefits from the LGU and DOH are fair.	2.6909	1.05574	Neutral
Overall		3.1182	.94560	Neutral

(Interpretation: **1-1.80**: Strongly Disagree; **1.81-2.60**: Disagree; **2.61-3.40**: Neutral; **3.41-4.20**: Agree; **4.21-5.00**: Strongly Agree)

Table 8 shows the current perception of the respondents to their remuneration. This section includes their satisfaction with their salary, benefits received from the institution and from the DOH and LGU, as well as representation and travel allowances. Overall, the respondents felt neutral towards their salary, benefits and miscellaneous allowances.

Section V - A: Factors for Overseas Application (Pull factors)

Table 9. Tabulated mean, standard deviation (SD), and interpretation of the different pull factors for the respondents' overseas application.

No.	If you were to decide to leave your country for overseas application, how important would the following factors be in that decision?	Mean (X)	Standard Deviation (SD)	Interpretation
27	Good pay/allowances/benefits	3.4364	.62849	Non- Negotiable

Corresponding author: jtdiaz@ust.edu.ph

28	Reasonable workload	3.2727	.58903	Non- Negotiable
29	Availability and access to supplies & equipment needed for regular RHU operations	3.3545	.64376	Non- Negotiable
30	Access to resources for health programs and projects	3.3364	.60997	Non- Negotiable
31	Local good governance	3.3364	.68103	Non- Negotiable
32	Available career opportunities	3.4091	.61024	Non- Negotiable
33	Good social relations in the workplace	3.3000	.64324	Non- Negotiable
34	Ease of management and supervision	3.3545	.61460	Non- Negotiable
35	Quality and availability of transportation	3.3182	.70297	Non- Negotiable
36	Availability of communications services (internet, mobile phone signal, landline)	3.3818	.63509	Non- Negotiable
37	Low cost of living	3.2091	.67858	Non- Negotiable
38	Safety of the workplace	3.5364	.64506	Non- Negotiable
39	Educational opportunities for children	3.2909	.75838	Non- Negotiable

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40	Access to higher education for myself	3.3818	.62047	Non- Negotiable
Overall		3.3513	.64721	Non- Negotiable

(Interpretation: **1-1.75**: Not Important, **1.76-2.5**: May Not Be Considered, **2.51-3.25**: Negotiable, **3.26-4**: Non-Negotiable)

Table 9 delineates the different determining factors considered in leaving the country for overseas working conditions. Each factor was deemed non-negotiable by the respondents scoring a mean of **3.2091** to **3.5364** with an overall mean of **3.513**. The factors with the highest means that were considered significant by the respondents are the safety of the workplace, good pay/allowance benefits, and available career opportunities with mean scores of **3.5364**, **3.4364**, and **3.4091**, respectively.

Section V - B: Other Questions

Table 10. Tabulated mean, standard deviation, and interpretation of the respondents' intention regarding possible future career choice.

No.	Questions	Please encircle your answer	Mean (X)	Standard Deviation (SD)	Interpretation
41	If given the opportunity to work in another country, which of the following statements is true for you?	1 = I plan to stay as an RMT in my current affiliation 2 = I plan to stay as an RMT but in a different institution 3 = I plan to leave the country and work as an RMT 4 = I plan to leave the country and switch to another job outside of the health sector	2.7000	.81893	I plan to leave the country and work as an RMT

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(Interpretation: **1-1.75**: I plan to stay as an RMT in my current affiliation; **1.76-2.5**: I plan to stay as an RMT but in a different institution; **2.51-3.25**: I plan to leave the country and work as an RMT; **3.26-4**: I plan to leave the country and switch to another job outside of the health sector)

Table 10 discusses the respondents' future work plan if they were given the opportunity to leave the country. 83 out of 110 respondents (75.45%) have plans of leaving the country and to work overseas. 74 out of 83 respondents (89.16%) plan to work as an RMT and the remaining 9 respondents (10.84%) plan to work outside the health sector. 27 out of 110 respondents (24.55%) chose to work as an RMT in the country. 16 of these respondents (59.26%) plan to continue working in their current institution but 11 of these respondents (40.74%) plan to continue working in a different institution.

Table 11. Frequency of the respondents' chosen deciding factors to work outside the country.

No.	Questions	Please encircle your answer/s	Frequency (f)
42	If you answered 3 or 4, what is/are the deciding factor/s for you to work outside the country?	- Salary - Cost of living - Career opportunities - Continuing education - Quality of life - Recognition - Non-financial welfare benefits	78 28 69 34 68 21 19

Table 11 delineates the different deciding factors for the respondents to work outside the country if given the opportunity. This question was a supplementary question for the respondents who chose 3 or 4 from question 41. Out of the 83 respondents that chose to leave the country and work overseas, the majority included salary as one of their deciding factors (f = 78, 93.98%). Career opportunities (f = 69, 83.13%) came in second followed by quality of life (f = 68, 81.93%). Less than 50% of respondents, who chose to work abroad, considered continuing education (f = 34, 40.96%), cost of living (f = 28, 33.73), recognition (f = 21, 25.30%), and non-financial welfare benefits (f = 19, 22.89%) as crucial factors if given the chance to work overseas.

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Table 12. Correlation between the factors and the Registered Medical Technologists professional overseas application.

	Mean	Standard Deviation	Pearson r	p-value
Motivating Factors (Push factors)	4.000	.75419	-0.73	< 0.001
Staff Management	4.0091	.76020	-0.68	0.002
Remuneration	3.1182	.94569	-0.91	< 0.001
Factors for Overseas application (Pull factors)	3.513	.64721	0.403	0.029

***Correlation is significant at the 0.05 level (two-tailed).*

Does remuneration have a significant effect on Registered Medical Technologist professionals' overseas application?

4.1 Remuneration

There is significant correlation (***p* = 0.000**) between remuneration and Registered Medical Technologists professional overseas application. The negative Pearson correlation (***r* = -0.91**) indicates an inversely proportional relationship between the salary and the overseas application. The near negative one (-1) Pearson r value suggests that the remuneration the respondents receive greatly correlates or influences their motivation to apply overseas even if the interpretation of their responses falls under neutral. The lower satisfaction for their salary and benefits, the higher their tendency to apply overseas if given the opportunity, and vice versa.

These findings can be supported by research studies by Arslan Yurumezoglu & Kocaman (2016), Labrague et al. (2018), Sabanciogullari & Dogan (2015) as a higher satisfaction for the salary can decrease the rate of employee turnover. A study by Mkoka et al. (2015) also states that employee motivation deteriorates if there is unfair and insufficient transparency regarding financial incentives.

However, a study by Daneshkohan et al. (2015) reported that financial rewards is ranked 15th out of 17 motivational factors among health workers in Tehran health centers, making it one of the least important motivating factors. The study also stated that monetary incentives are *hygiene factors* rather than motivating factors according to the Hezberg's two-factor model. According to Hezberg, hygiene factors do not result in positive satisfaction for employees but they

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are what causes dissatisfaction in the workplace (Gibson, Ivancevich, Donelly, & Konopaske, 2012 as cited in Daneshkoshan, et al., 2015).

Does staff management significantly affect overseas applications of Registered Medical Technologists?

4.2 Staff Management

Results yielded a significant correlation with an inversely proportional direction (***p* = 0.002 ; *r* = -0.68**). The survey showed that the majority of the Registered Medical Technologists, either working in a private or public clinical laboratory answered Strongly Agree and Agree to the questions regarding managerial practices in their respective working laboratory. This reveals that Registered Medical Technologists generally are knowledgeable of the task expected of them to accomplish provided that they are given manageable tasks within the time frame, are under a pleasant working environment and in a harmonious relationship with the working staff, and given equipment for them to accomplish the task efficiently and accurately. With an Inversely proportional direction, it means that a high rating or good staff management in the laboratory would lessen the tendency of the Medical Technology staff to apply overseas.

In the study of Pepple, et al. (2017), the physical environment consisting of basic amenities such as office design, ventilation, and lighting greatly affects the performance of workers in the health facility. Their analysis has revealed that 74.7% of the employees were satisfied with the office space and location where they are placed, and were also satisfied with the amenities provided. They have concluded that the Health worker's satisfaction is necessary for their intent to stay which is necessary for provisioning of the health care.

However, according to a study conducted in Serbia, about 22.6% of their respondents were unsatisfied with their job in the healthcare sector and only 14.3% planned to work abroad. Poor management and work environment raised job dissatisfaction, resulting in 1.5 and 3.6 times higher probabilities of dual practice and desire to apply overseas. It was also stated in an Iranian survey that inappropriate management was one of the factors that negatively affected nurses' job satisfaction (Gacevic et al., 2018).

A study by Zadeh et al. (2018) stated that physical environment, ergonomics, and workplace settings are important for healthcare workers in choosing their workplace. Preference over workplace setting may vary by gender so strategic planning over ergonomics and workplace design, operation, and maintenance should be adapted to suit the employees' needs.

What are the motivating and demotivating factors for Registered Medical Technologists that affect their employment?

4.3 Motivating Factors (Push factors)

Results of the survey show how the motivating and demotivating factors influence the Registered Medical Technologists. According to a study (Muthuri, Senkubuge, & Hongoro, 2020)

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motivation is when an individual that eagerly does the job and maintains effort, it is considered as a determinant characteristic that serves as a driving force, pushing one to achieve his or her goal.

It is noted that all the motivating factors have a positive response from the respondents overall, therefore each motivating factor is significant enough to have an effect on the respondents' motivation in working. This is further supported by the p-value of our Pearson correlation coefficient which helps justify the significance of the motivating factors. According to a study (Shah, Zaidi, Ahmed & Rehman, 2016), the lack of motivation is contributed by factors such as inadequate remuneration, unreasonable facilities at residence, poor work environment, inadequate supplies and medical facilities.

Results for Pearson r and P value are **-0.73** and **.000**, respectively, thus having a significantly negative correlation which indicates that the factors are inversely proportional. Dissatisfaction with work or negative motivating factors influence the overseas application of registered medical technologists.

The top factor for motivation is the fulfillment of serving the patients. As stated by Brady, Schrijver, & Trockel (2016), the most satisfying aspect in the profession of healthcare workers, specifically for physicians, is their service to patients. It is perceived that their relationship and interaction with patients and colleagues fulfill them in their profession.

The lowest factor is about job satisfaction. According to a study in Portugal, job satisfaction is positively correlated with all motivation factors and is a critical element in working. Job satisfaction is an extrinsic motivation outcome whereas it is the overall degree of contentment. The study found that intrinsic job satisfaction is greater than job satisfaction, the highest motivator among healthcare workers is an intrinsic factor of achievement (Muthuri, Senkubuge, & Hongoro, 2020).

However, we note that because of the negative correlation coefficient it indicates that demotivating factors can also influence the overseas application of the registered medical technologists. According to a study, the lack of motivation among healthcare workers affects their satisfaction and retention to their work and migration (Shah, Zaidi, Ahmed & Rehman, 2016).

With this further research could expound on the magnitude of such factors beyond the scope of this paper in determining motivation for medical technologists to apply overseas.

What are the factors for Registered Medical Technologists to apply overseas?

4.4 Factors for Overseas Application (Pull factors)

There is a significant moderate positive correlation between the determining factors and overseas application (**r = 0.403, p = 0.029**). This indicates that the higher accessibility to these factors, the higher probability of the respondents to move overseas.

According to Gacevic et al. (2018), job dissatisfaction leads to an individual's intent to leave and work overseas by approximately 4 times more. Similar to the data gathered, variables

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such as management, job valuation, organization, and work equipment and machinery contribute to discontentment and increase the likelihood of application abroad.

Safety of the workplace was the most significant factor considered by the participants for overseas application with a mean score of **3.5464**. As stated by Moyce, S., and Schenker, M. (2018), transnational migrants are subjected to strenuous hour shifts and in worse conditions, subjected to abuse, violence, and human trafficking. They are often exposed to occupational and workplace injuries that lead to poor health outcomes. These adversities may be associated with the difficulties in language barriers, political environment, access to health care, and documentation status of the health care worker. Thus, life and legal protection of the health care workers should be prioritized through safety training and fair recruitment policies of the local government as well as the global community.

As discussed by Castro-Palaganas et. al (2017), lack of better incentives and underfunding still creates a constant supply of health care workers for migration thus the relative response of the participants for available job opportunities in this section as one of their top choices. Meanwhile, the seek for good salary and allowance benefits also roots down to the underfunded health care system where in rural and remote areas being the most affected by underemployment and migration.

In addition to the top three factors, the other factors were also viewed by the respondents as non-negotiable. In a study conducted by Castelli (2018), greater job conditions are searched overseas when detrimental effects of a developing country influence a person's way of living. This is experienced by most healthcare workers and is explained by the 'brain drain' phenomenon wherein motivation, economically and professionally, is minimal. Hence, insufficient salary and social security are not able to nurture the cost of living.

According to Girsberger (2017), aside from external factors, personal drivers of migration such as access to educational opportunities increase income especially for skilled workers internationally. However, it was also mentioned in his study that receiving education comes with a great cost and a high risk of unemployment when job negotiation exists in, if not all, most parts of an industry.

What is the significant difference in the laboratory management of public and private laboratories which affects the employment of Registered Medical Technologists?

4.5 Differences between public and private healthcare institutions in terms of remuneration and staff management.

Table 13. Difference of remuneration between the public and private institutions.

Remuneration	Mean	Standard Deviation	T value	P value	Significance

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Public	3.22	1.07	1.03	0.305	Not significant
Private	3.03	0.82			

Table 14. Difference of staff management between the public and private institutions.

Staff Management	Mean	Standard Deviation	T value	P value	Significance
Public	4.02	0.87	1.03	0.305	Not significant
Private	4.00	0.66			

Healthcare institutions are based upon the ownership; public hospitals and laboratories are managed by the local government units, the Department of Health, and other government agencies, while private hospitals and facilities are owned by private, non-government agencies. There are around 40% public hospitals in the Philippines (Department of Health, 2009). A study by Molato (2015) stated that Philippine employees in the public sector receive higher hourly wage rates compared with their counterparts in the private sector, despite having fewer working hours. College graduates prefer to apply in the public sector but graduates with a more specialized degree tend to be employed in the private sector. Another study by Navarro and Selman (2015) found that hourly wage in the public sector was between 31 - 41% higher compared to the private sector. Table 10 and 11 shows the difference between public and private institutions in terms of remuneration and staff management. However, there is no significant difference (**p = 0.305**) between the public and private institutions in terms of remuneration and staff management. This may indicate that the respondents' overseas application is influenced by factors (such as salary, management, environmental factors, etc.) regardless of the nature of the institution. A poor pay grade or management would increase employee turnover.

IV. CONCLUSION

The Philippines has a huge reservoir for competent healthcare workers. However, these workers have a tendency to apply overseas due to a number of reasons. This study found that there is a significant effect between remuneration and staff management to Filipino Medical Technologists' professional overseas application. This applies to professionals coming from either public or private institutions. Both remuneration and staff management are inversely correlated with the medical technologists' professional overseas application, so the degree of consideration

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for professional overseas application increases with lower satisfaction in terms of remuneration and poor staff management and vice versa. Other factors are also at play in influencing the overseas application of medical technologists. Results showed that the most significant factors are finding fulfillment in serving patients and safety within the workplace.

It is only necessary for the national government and the global community to provide adequate allocation of funds for the protection and welfare of the healthcare sector. This study can help administrators in the public or private laboratories and hospitals to highlight how staff management affects workers. It is significant to reveal the antecedent and consequences of staff management that fosters the satisfaction and performance of healthcare workers. Furthermore, this study recognizes the different factors affecting the overseas application of Registered Medical Technologists as we found that remuneration and staff management plays a prominent role in overseas application.

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