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## **Correlation of the job satisfaction of Medical Technologist-Frontliners in a public tertiary hospital in Manila: Their implications to clinical laboratory science profession during the COVID-19 pandemic**

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**ABSTRACT:** *Due to the COVID-19 pandemic, the medical workforce was placed at the forefront of the battle, with medical technologists playing a central role in processing specimens. This aims to investigate the correlation between job satisfaction of Medical Technologists working in a public tertiary hospital located in Manila with the hygiene factors brought about by the pandemic. Quantitative research design was used following descriptive statistics and correlation analysis. Two standardized survey questionnaires were distributed to 42 participants. First was to assess their job satisfaction, while the other focused on their perceptions towards hygiene factors. Overall, results showed a strong correlation between job satisfaction and hygiene factors ( $r=0.639$ ), with working conditions being the most influential ( $r=0.621$ ), and that job satisfaction was held in ambivalence. The study recognized the need to reassess the pay/salary, promotion, fringe benefits, contingent rewards and operating conditions to improve their overall job satisfaction.*

**Keywords:** job satisfaction, medical technologist, COVID-19 pandemic.

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## **INTRODUCTION**

With the sudden emergence of the COVID-19 pandemic, many were left rattled and helpless, as world economies plummeted to big time lows, hundreds of thousands got afflicted with the virus resulting in deaths of catastrophic proportions. Critical situations

such as this, blow up particularly to medical frontliners' role in the battle against the pandemic, and their previously commonplace responsibilities become one of utmost magnitude. COVID-19 is highly infectious, easily transmitted through respiratory droplets from one person to another. This crisis calls for highly responsive and efficient emergency care. However, at this stage of the pandemic, the Philippines still struggles with lack of quality health care due to lack of facilities, equipment, and staffing (Van Arsdale, 2021). As of December 18 of 2020, there have been 489,736 confirmed cases of COVID-19 (Esguerra, 2021), and as of January 7, 2021 the newer and more infectious variant of COVID-19 was detected in the Philippines (Esguerra, 2021).

The severity of the pandemic has taken its heavy toll on the medical frontliners. One out of four reported cases of the virus were healthcare workers, with this high proportion possibly attributed to the lack of compliance with infection control and Personal Protective Equipment or PPE shortage (Haw, Uy, Sy, & Abrigo, 2020). Working conditions were unfavorable as hospitals are understaffed with low salaries and lack of PPE; healthcare workers are also demoralized due to lack of support (Lalu, 2020).

The medical technology profession is at the forefront of the medical forces as they are responsible for producing precise and accurate clinical data for the diagnosis of different diseases and conditions of the human body (American Society of Clinical Pathologists, 1999). Due to the emergence of COVID-19 in the Philippines, medical technologists have experienced exhaustion and frustration. The long working hours, coupled with heavy workloads caused by the shortage of medical technologists in the Philippines, resulted in this exhaustion (Tomacruz, 2020); (Jaymalin & Crisostomo, 2020). Frustration stems from the unfavorable working environments brought about by the shortage of PPEs and the dangers that the virus poses to individuals (Biana & Joaquin, 2020).

It is undeniable that the position of the frontliners, especially that of the role of medical technologists in combating this pandemic, is vital, making the prioritization of their welfare is critical because the nature of their job is both physically and mentally demanding, and to prioritize their well-being will surely generate a multiplier effect that ultimately benefits people (Jecker et al, 2020). This act of prioritization can be demonstrated by evaluating their job satisfaction.

With Medical Technologists playing a central role in this crucial undertaking, there is a need to conduct a study particularly focused on understanding their job satisfaction and whether such significantly affects their work performance in the clinical laboratory.

## **LITERATURE/THEORETICAL UNDERPINNING**

This chapter presents the related literature and studies about the different hygiene factors and its relationship with job satisfaction. It also discusses job satisfaction among

medical frontliners and their experiences during the COVID-19 pandemic. Moreover, all information included in this chapter will facilitate familiarization with particular points which are similar and relevant to this study.

### Conceptual Framework

The conceptual framework (Figure 1) provides a visual cue of the variables involved in the study and their relationship with one another. The main variables comprise the hygiene factors as faced by the medical technologist-frontliners, job satisfaction in their work, and the implications to the clinical laboratory science profession. The hygiene factors of Herzberg's Two-Factor theory are defined as factors in the profession that encourage job dissatisfaction if they are insufficient or not present. These factors are heavily influenced by the drawbacks brought about by the COVID-19 pandemic. Determining the relationship of the hygiene factors with job satisfaction of the medical technologists would then help in drawing out its implications to the clinical laboratory science profession.

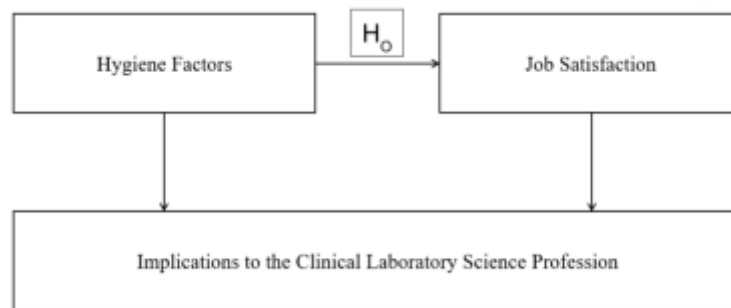


Figure 1. Conceptual Framework.

### Theoretical Framework

The study utilized the Two-Factor Theory by Frederick Herzberg. Herzberg identified the different motivator and hygiene factors that can be observed in the workplace. Motivators are factors that contribute to improvement of a person's satisfaction in his/her work, while Hygiene Factors are factors that do not influence a person to do better in his/her work, but its absence creates dissatisfaction.

In this study, the researchers only focused on the hygiene factors, specifically hospital policies, salary, and working conditions in determining the job satisfaction of medical technologists. Hygiene Factors have a different set of factors in which their absence will create dissatisfaction to an employee. Hospital policies allow transparency and equality among employers and employees. Salary should at least start at a living minimum and an increase is given according to the performance of an employee. Working conditions refer to the environment in which the employee is immersed in. This includes provision of precautionary materials, such as PPEs, safety shower stations, and emergency eyewash to ensure safety from work hazards, injuries and

accidents. Finally, it also includes equipment and environment being proper and safe for work in accordance with the guidelines set by the Department of Health (DOH).

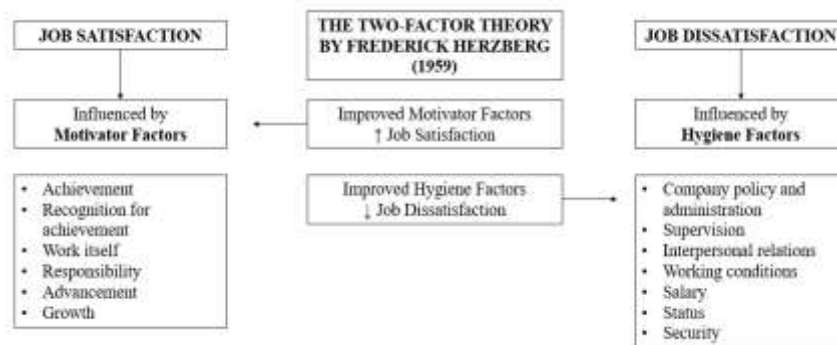


Figure 2. The Two-Factor Theory by Frederick Herzberg.

## METHODOLOGY

To answer the research questions presented in the first chapter of this study, a quantitative method was performed. Specifically, a cross-sectional descriptive quantitative research design was utilized. In selecting the participants, the researchers made use of purposive sampling technique. The medical technologists working at a public tertiary hospital located in Manila, Philippines were the target population of this study. 42 out of the 73 medical technologists in the chosen hospital participated in the data gathering procedure. The inclusion criteria include: (A) currently employed and working in a COVID-19 facility of a public tertiary hospital located in Manila, and (B) willing to participate and has understood the purpose of the study.

As for the data gathering instrument, two standardized survey questionnaires - the first being the “Job Satisfaction Survey” developed by Spector (1994) and second being the “Measure of Hygiene and Motivational Factors” developed by Ewen et al. (1966), Graen (1966), Sergiovanni (1966), House and Wigdor (1967), Lindsay et al (1967), Maidani (1991), and Pizam and Ellis (1999), as used in the research paper of Teck-Hong & Waheed (2011). The former focused on the perceptions or feelings of the participants regarding the different factors present in their job. The latter assessed the respondents’ perception on the hygiene factors in their line of work. It is important to highlight that the authors of both surveys allowed the use of their work and that the Cronbach’s alpha coefficient was no longer computed because both have been validated, are considered as public domain, and are applicable to the chosen sample population.

Ethical approval was sought by the researchers from the Faculty of Pharmacy Ethical Review Committee (FOPREC) of the University of Santo Tomas and was approved. Given the health crisis in the country, digital means were used in gathering data to minimize person-to-person contact. A letter of invitation together with the informed consent form were sent to the prospective respondents through email. As soon as they

acknowledged the email and agreed to participate in the study, a Google Forms link containing both the consent form and questionnaires were sent to them. The respondents can only proceed to answer the set of questionnaires if and only if they clicked the option that indicated their consent. The researchers assured the respondents that all information they will provide will be kept confidential and will only be used for academic purposes; furthermore, their rights will always be upheld and respected. Furthermore, respondents were not required to disclose their name, thereby ensuring their anonymity and participation in this study posed no risks to the respondents since this study collected data only through survey questionnaires.

Weighted mean was used to analyze the data gathered using both questionnaires. To correlate each hygiene factor with job satisfaction, the Pearson-Product Moment Correlation Coefficient was used.

## RESULTS/FINDINGS

Two standardized survey questionnaires were used to obtain the job satisfaction and hygiene factors of the respondents. The former was developed by Spector in 1994 and the latter was developed by Ewen et al. (1966), Graen (1966), Sergiovanni (1966), House and Wigdor (1967), Lindsay et al (1967), Maidani (1991), and Pizam and Ellis (1999).

To answer the first research question of this study, both job satisfaction and perceptions towards hygiene factors were assessed. The interpretations of the weighted mean results are given in Table 1, as provided by the creator of the questionnaire.

Variable	Range	Verbal Interpretation
Job Satisfaction	1.00 - 3.00	Satisfaction
	3.01 - 3.99	Ambivalence
	4.00 - 6.00	Dissatisfaction
Perception towards Hygiene Factors caused by the pandemic	1.00 - 2.66	Positive Perception
	2.67 - 4.33	Neutral Perception
	4.34 - 6.00	Negative Perception

**Table 1. Legend for interpretation of the weighted mean on the level of job satisfaction and on the perceptions on hygiene factors**

Table 2 provides an overview of the variables directly related to job satisfaction. In five out of the nine job satisfaction variables, the respondents are ambivalent, or felt satisfied yet dissatisfied at the same time, specifically with regard to their pay, promotion, fringe benefits, contingent rewards, and operating conditions in their field of work. On the

other hand, the participants were satisfied with the other four variables namely, with supervision, their coworkers, nature of work, and communication.

In the **Pay** facet, statements in the questionnaire focused on current salary and chances of attaining pay raises. On the other hand, they felt dissatisfied about how they received a salary raise, with a weighted mean of 2.88. On the average, the participants are ambivalent (MW = 3.81) regarding the pay aspects of their job. Although they are seen to be ambivalent regarding how they are appreciated by their employer based on how they are paid, it is seen that 22 out of 42 participants generally disagree with this claim, thus they slightly show more job satisfaction regarding this.

Statements pertaining to the **Promotion** facet indicate the respondents felt ambivalent (MW = 3.24) toward receiving promotions in their work as they expressed satisfaction about how their work can get them promoted yet are dissatisfied with their chances of being promoted as evidenced by their responses.

Following the **Supervision** facet, the respondents are generally satisfied (MW = 4.46) in terms of supervision over their job, with the exception of how their supervisors are not empathetic towards their subordinates. Maintaining a positive relationship between a superior and a subordinate increases the probability of the latter to be satisfied in their job (Hampton Jr., 2019). 25 of the 42 participants disagree that the supervisors show too little interest thus this result leans more towards job satisfaction.

Focusing on statements pertaining to **Fringe benefits**, it was evident that the participants showed satisfaction in their work benefits as statements regarding presence of such benefits exist and whether they are equitable was held at satisfactory. Although it was present, the respondents are overall ambivalent (MW = 3.53) in job satisfaction when it comes to the fringe benefits they receive at work.

In statements regarding **Contingent rewards**, respondents of this study showed ambivalence (MW = 3.56) to every survey question regarding contingent rewards, with weighted means ranging from 3.01 to 3.99. The respondents felt neither dissatisfied nor satisfied towards recognition, appreciation, and reward. Thus, ambivalence was held. From the conducted survey, 13 respondents felt that their good work is recognized; 10 respondents felt appreciated; and 11 respondents thought the reward is adequate from their exerted effort. However, a good number of respondents counteracted these claims. In addition, many of the respondents perceived that the rewards granted to them are only few. This neutrality may be caused by lack of implementation of granting contingent reward or the promised contingent reward may not be attractive to the employees at all.

In terms of **Operation conditions**, ambivalence was held at WM = 3.13. Statements pertaining to the rules, procedures, and paper works are neither satisfactory or unsatisfactory. Many of the respondents are dissatisfied with their hospital's operating conditions but the weighted means of questions 6, 15, and 31 (Appendix A) are verbally



interpreted as ambivalence due to a good number of respondents counteracting the dissatisfaction of the majority. However, the respondents are dissatisfied with the workload they were given as seen from the majority of the respondents in question 24 agreeing in various levels that the workload is heavier than usual.

Statement on **Coworkers** showed an average weighted mean of 4.27 verbally means they are satisfied. Coworkers are people that work and collaborate with others in order for a work operation to run smoothly. Question 16 has 10 respondents slightly agreeing that their workload became harder due to the incompetence of their coworkers but other respondents say otherwise which resulted in verbal interpretation of ambivalence. Majority of the participants who answered questions 7 and 25 agreed that they like and enjoy the people they work with (Appendix A).

Responses to questions related to the **Nature of work** showed satisfaction, with question 27 pertaining to the respondents' pride in doing their work getting the highest weighted mean (WM = 4.79). As a result, the average weighted mean of 4.67 is verbally interpreted as they are satisfied with the nature of their work. A large number of respondents feel their work is meaningful and enjoyable since they are committed to help the patients and doctors. Only a handful of participants say otherwise (Appendix A). Question 35 has 13 respondents who strongly agree that their work is enjoyable while a good number of respondents answered either "slightly agree" or "agree" (Appendix A).

**Communication** between the medical technologists is proven to produce an effective and efficient performance, the result of which was a verbal interpretation of satisfaction. The weighted mean average for communication is 4.42, which also means satisfaction. The respondents of this study expressed their satisfaction with their way of communicating to their coworkers. Out of the 42 respondents, 20 respondents in question 9 agreed slightly on their communication being good in their workplace (Appendix A).

Overall, the medical technologist-frontliners expressed ambivalence toward job satisfaction in their workplace. Considering the weighted means of all the facets falling only between 3.00 and 5.00, the average weighted mean of all the job satisfaction facets is 3.90 and a verbal interpretation of ambivalence, with Operating Conditions and Promotion being the biggest contributors to the result. Supervision, Coworkers, Nature of Work, and Communication have weighted means that fall under the weighted mean range for satisfaction. It is notable that the weighted means of the said facets are also quite close to the highest weighted mean for ambivalence. Out of the four satisfaction facets, Nature of Work's weighted mean of 4.67 is the only one closest to reaching 5.00, the middle weighted mean for satisfaction. Even though the mentioned facets fall under verbal interpretation of satisfaction, there are aspects that need to be considered in order for the weighted means to increase. First, supervisors ought to show more concern to their subordinates. Second, all workers must do their own tasks properly so that repetition or correction in the procedures made are avoided. Third, activities that

highlight the importance of the medical technology profession may further improve their perspective in their nature of work. Lastly, updates about the workplace and upcoming events should be properly disseminated to the workers.

Variables affecting Job Satisfaction	Weighted Mean	Verbal Interpretation
Pay	3.81	Ambivalence
Promotion	3.24	Ambivalence
Supervision	4.46	Satisfaction
Fringe Benefits	3.53	Ambivalence
Contingent Rewards	3.56	Ambivalence
Operating Conditions	3.13	Ambivalence
Coworkers	4.27	Satisfaction
Nature of Work	4.67	Satisfaction
Communication	4.42	Satisfaction
<b>AVERAGE</b>	<b>3.90</b>	<b>Ambivalence</b>

Legend: 1. 00 to 3. 00 - Dissatisfaction; 3. 01 to 3. 99 - Ambivalence; 4. 00 to 6. 00 - Satisfaction

**Table 2. Descriptive statistics on the variables affecting job satisfaction of medical technologist-frontliners of a public tertiary hospital located in Manila.**

Table 3 shows the descriptive statistics of the perception of medical technologist-frontliners regarding their **Hospital policies** revealed that respondents thought the company policy is favorable towards them (WM = 4.74) and they completely understand the company's mission (WM = 4.81). However, there is a neutral perception about the accommodative attitude of the administration (WM = 4.21). Overall, the respondents showed a positive perception toward the policies of their hospital.

Statement/ Question	Weighted Mean	Verbal Interpretation
1. The attitude of the administration is very accommodative in my company.	4.21	Neutral Perception
2. I am proud to work for this company because the company policy is favourable for its workers.	4.74	Positive Perception
3. I completely understand the mission of my company.	4.81	Positive Perception
<b>AVERAGE</b>	<b>4.59</b>	<b>Positive Perception</b>

Legend: 1. 00 to 2. 66 - Negative Perception; 2. 67 to 4. 33 - Neutral Perception; 4. 34 to 6. 00 - Positive Perception

**Table 3. Descriptive statistics on the different statements related to the hygiene factor, company/hospital policies, as perceived by medical technologist-frontliners of a public tertiary hospital located in Manila.**

Table 4 describes how salary or income is perceived by the medical technologists of a public tertiary hospital located in Manila. Statements or questions associated with salary were put together and results showed that workers believe that their salary is fair (WM = 4.45) and what they receive encourages them to work harder (WM = 4.57). The



average of the weighted mean is 4.51 which verbally means they have a positive perception with respect to their work salary.

Statement/ Question	Weighted Mean	Verbal Interpretation
4. I am encouraged to work harder because of my salary.	4.57	Positive Perception
5. I believe my salary is fair	4.45	Positive Perception
<b>AVERAGE</b>	<b>4.51</b>	<b>Positive Perception</b>

*Legend: 1. 00 to 2. 66 - Negative Perception; 2. 67 to 4. 33 - Neutral Perception; 4. 34 to 6. 00 - Positive Perception*

**Table 4. Descriptive statistics on the different statements related to the hygiene factor, salary, as perceived by medical technologist-frontliners of a public tertiary hospital located in Manila.**

Table 5 focuses on the respondents' perception toward their working conditions. Results showed they agreed that their company provides pleasant working conditions (WM = 4.62) but they felt neutral with the comfort that they are given at work (WM = 4.31). Over-all, the respondents showed a positive perception regarding their working conditions inside the hospital.

Statement/ Question	Weighted Mean	Verbal Interpretation
8. I feel satisfied because of the comfort I am provided at work.	4.31	Neutral Perception
9. I am proud to work for my company because of the pleasant working conditions	4.62	Positive Perception
<b>AVERAGE</b>	<b>4.46</b>	<b>Positive Perception</b>

*Legend: 1. 00 to 2. 66 - Negative Perception; 2. 67 to 4. 33 - Neutral Perception; 4. 34 to 6. 00 - Positive Perception*

**Table 5. Descriptive statistics on the different statements related to the hygiene factor, working conditions, as perceived by medical technologist-frontliners of a public tertiary hospital located in Manila.**

Table 6 shows the correlation between the overall job satisfaction of medical technologist-frontliners and the individual hygiene factors including company/hospital policies, salary, and working conditions, obtained using Pearson Product-Moment Correlation Coefficient (Pearson  $r$ ). Results showed there is a moderately strong correlation between overall job satisfaction towards company/hospital policies ( $r = 0.567$ ) and salary ( $r = 0.503$ ). Also, it was found out that working conditions greatly affect the overall job satisfaction shown by a strong correlation at  $r = 0.621$ . A strong correlation likewise exists between job satisfaction and hygiene factors, shown by  $r = 0.639$ . This indicates that the collective hygiene factors affect overall job satisfaction.

Establishing fair and equal policies among different employees are crucial in every business entity as this will ensure a satisfactory or positive outcome. Table 6 shows that job satisfaction and company/hospital policies have a moderately strong correlation

with  $r = 0.567$ . Salary will always be intertwined with, and will have a significant effect on job satisfaction (Miller, 2017). Performing in an efficient way has been some of the productive outcomes brought by money. There exists a moderately strong correlation between job satisfaction and salary with  $r = 0.503$ . The correlation between job satisfaction and working condition demonstrates the highest significance when compared to other hygiene factors. Motivating employees in a certain workplace is quite crucial as this will further achieve the goals of a company on a certain working condition (Raziq and Maulabakhsh, 2015).

Variables Tested		Pearson r Correlation Coefficient	Interpretation
Job Satisfaction (as a whole)	Company/Hospital Policies	0.567	Moderately Strong Correlation
	Salary	0.503	Moderately Strong Correlation
	Working Conditions	0.621	Strong Correlation
	Hygiene Factors (as a whole)	0.639	Strong Correlation

*Legend:  $0.0 = |r|$  - no correlation;  $0.0 < |r| < 0.2$  - very weak correlation;  $0.2 \leq |r| < 0.4$  - weak correlation;  $0.4 \leq |r| < 0.6$  - moderately strong correlation;  $0.6 \leq |r| \leq 0.8$  - strong correlation;  $0.8 \leq |r| < 1.0$  - very strong correlation;  $1.0 = |r|$  - perfect correlation*

**Table 6. Correlation analysis between the overall job satisfaction and individual hygiene factors of medical technologist-frontliners of a public tertiary hospital located in Manila.**

In summary, Herzberg's Two-Factor theory points out that job satisfaction is achieved through management of both motivation and hygiene factors (Lumen, n.d.). Table 6 shows that job satisfaction and hygiene factors as a whole are strongly correlated with each other at  $r = 0.639$ . Understanding the perception of workers towards hygiene factors prevents dissatisfaction and is essential in avoiding bad feelings in the workplace (Teck-Hong & Waheed, 2011). Considering that there is a strong correlation between the variables, addressing issues in hygiene factors can potentially increase job satisfaction that will in turn raise worker's productivity (Shikdar & Das, 2003). In line with Islam and Ismail (2008), hygiene factors dominate the motivation factors when it comes to job satisfaction. Allowing this study to underscore the importance of addressing hygiene factors, while prioritizing the improvement of working conditions will ultimately increase job satisfaction and boost their morale and future outlook in the medical technology profession.

## DISCUSSION

**Pay** is an important determinant of how satisfied an employee is in their work, since according to Judge et. al (2010), the "level of pay bears a positive but quite modest relationship to job and pay satisfaction". In relation to job satisfaction, pay is an important determinant of how satisfied an employee is in their work, since according to Judge et. al (2010), the "level of pay bears a positive but quite modest relationship to job and pay satisfaction." This means that if the pay of the respondents are high, they

would show job satisfaction. Johnson (2018) even pointed out that being underpaid is one of the key reasons for job dissatisfaction, affirming the directly proportional relationship between the two variables.

In terms of **promotion**, studies conducted by Kosteas (2011) and Malik, Danish, and Munir (2012) have shown that promotion in the workplace has a significant influence on the job satisfaction experienced by the employee. In fact, it bears a modest yet positive relationship with job satisfaction (Naveed, Usman & Bushra, 2011).

Apart from this, maintaining a positive relationship between a superior and a subordinate increases the probability of the latter to be satisfied in their job (Hampton Jr., 2019). 25 of the 42 participants disagree that the supervisors show too little interest thus this result leans more towards job satisfaction. Hampton Jr. (2019) elaborates on this showing that if there are more "intrinsically appealing" qualities perceived and higher similarities between the supervisor and subordinate, there would be a better relationship between the two. This in turn would foster a better relationship between the employer and employee.

On the other hand, Fringe benefits refer to the "additions to compensation that companies give their employees" which include provisions for insurance, paid leave, free items, and retirement plans among others (Kagan, 2020). According to Artz (2010), fringe benefits are shown to be "significant positive determinants of job satisfaction", wherein more benefits provided to the workers allow them to feel more satisfied in their work.

**Contingent rewards**, also known as incentives, are often used by employers to motivate employees in accomplishing tasks or going the extra mile. Armstrong (2009) said employee engagement is reliant on implementation of contingent rewards, whether through financial or non-financial means. In the study of Locke and Latham (1990), the authors discussed that an employee successfully receiving a contingent reward based on his/her performance raises the employee's overall job satisfaction. The direct relationship between the employee engagement and contingent reward system implies that respondents of this study feel the hospital could have done a better job in the implementation of their contingent rewards system.

**Operating conditions** are procedures, rules, and workload imposed upon the employees in doing their work. In the study of Munandar, Musnadi, and Sulaiman (2019), a heavy workload can hinder them from optimizing their performance which causes stress on the employee, resulting in negative effects on job satisfaction.

**Coworkers** are people that work and collaborate with others in order for a work operation to run smoothly. Cooperation between coworkers is essential in completing a one whole task through coworkers completing their part in that task. Hoyer and Jaegher (2015) stated that individuals or groups tend to work together and create a "stable and efficient network" when a common enemy is introduced. In this case, the

respondents' common enemy is the COVID-19 pandemic. Due to hurdles that medical technologists face currently, sympathy among coworkers is practiced which creates a support system that they can depend on.

With reference to, Avery, McKay, and Wilson (2007) stated that an employee's commitment is positively correlated to enjoyment at work. When an employee accomplishes his/her commitment, a sense of gratification is felt that makes all the work worthwhile. This feeling makes the employee more consistent with his/her commitment, resulting in work being perceived as enjoyable. As medical technologists are integral for reporting and confirming the number of COVID-19 cases per day in the Philippines, the respondents of this study feel proud of their profession despite the challenges and risks.

Meanwhile, In the study of King, Lahiff, and Hatfield (1988), clear **communication** between coworkers improves relationships which creates a strong link to job satisfaction. The same goes with medical technologists in a laboratory setting so that misplacement of specimens or misunderstandings can be avoided.

With regards to **hospital policies**, the implementation and efficacy of the strategies made for the prevention and control of big crises such as this COVID-19 pandemic is directly associated with the job satisfaction of medical frontliners (Yu et. al., 2020). The results obtained are in line with the study conducted by Kramer et al. (2017), which states that healthcare workers positively see hospital policies when they observe that the measures taken by their hospital's administration is favorable to them in terms of proper provision of clear information and appropriate work organization especially during this pandemic.

In particular, the Professional workers often recognize their **salary** as good if they feel that their payroll is just, which in return also makes them do their job better (Robbins, 2003). Good salaries are known to improve performance of workers (Umar, 2014) and is one of the reasons why workers retain their job (Gevrek, Spencer, Hudgins & Chambers, 2017). They would only have negative perception when they are given unfair or low salaries which also results in difficulties in keeping and recruiting hospital staff (Kiernan, 2019).

Lastly, Vischer (2007) states that workers are pleased when they are provided with good **working conditions** as it improves their behavior and emotion. Workers see working conditions as positive or good if it brings comfort to them and promotes their safety (Gartenstein, 2019) which is very important especially in the present situation. Negative perceptions are brought by poor working conditions, such as having an uncomfortable workplace as it affects their attitude leading to lack of motivation and job satisfaction (Edem, Akpan & Pepple, 2017).

## **IMPLICATION TO RESEARCH AND PRACTICE**

Job satisfaction is an important variable in the overall attitude of individuals towards their occupation (Judge and Klinger, 2008). For the management of the clinical laboratory, maintenance of it is necessary as employees with high job satisfaction "tend to achieve higher productivity" (Villanova University, 2019). Moreover, Bakotic (2016) found that there is a significant positive correlation between job satisfaction and organizational performance. Thus, keeping the medical technologist-frontliners satisfied with their work is beneficial to maximize their skills and performance in the clinical laboratory.

Results yielded that pay, promotion, fringe benefits, contingent rewards and operating conditions are the job satisfaction variables that were found to be held in ambivalence. According to Doris Dumlao-Abadilla, Malaysian medical technologists earn 178% more than that of Filipino medical technologists, with the Philippines having the lowest salary for nurses and medical technologists in Southeast Asia as revealed by the study of iPrice Group (2020, Dumlao-Abadilla).

Hazard pays are considered fringe benefits and were offered as means of compensating workers for their continued exposure to the virus as suggested by the recently enacted Republic Act 11469 or the "Bayanihan to Heal as One Act" (RA 11469, 2020). Administrative Order 26 of series 2020 (AO 26, s. 2020). However, despite the intentions of the administrative order, the Alliance of Health Workers (AHW) pointed out their concerns in regards to Section 1 of AO 26, s. 2020 as it presents a situation in which health workers must choose which hazard pay they would like to receive, either the Magna Carta of Public Health Workers hazard pay or the COVID-19 hazard pay depending on which is higher (Gonzalez, 2020). AHW describes AO 26 as deceptive as this means that COVID-19 hazard pay is not applicable to all health workers, which defeats its purpose in the first place.

Ambivalence does not indicate satisfaction or dissatisfaction, and is not necessarily a bad thing. However in an era of uncertainty further intensified by the emergence of COVID-19, ambivalence should not be an outlook held by medical technologists. Medical technologist are an important part of the healthcare workforce due to their role in diagnostic testing. Thus, there is a need to shift the ambivalent outlook of the medical technologists to a more positive one as ambivalence is a state of mixed feelings capable of causing anxiety and tension (Reich, Taly & Wheeler, S., 2016). Hence, adopting a more positive attitude towards their work is vital as it influences their current and future outlook in their profession especially at the height of the COVID-19 pandemic.

Herzberg's two-factor theory suggests that job dissatisfaction is influenced by hygiene factors. This essentially means that the absence of hygiene factors would cause an individual to feel unmotivated towards his/her occupation. Thus, focusing on improving



the hygiene factors in a specific workplace could result in an increase in job satisfaction and eventually lead to increased productivity. Based on the results obtained on hygiene factors, a positive perception on hospital policies, salary and working conditions were shown by the respondents employed in a public tertiary hospital located in Manila. This indicates that the respondents' salaries are fair and starts at least at a living minimum; that policies are geared towards addressing their concerns and that their working environment provides comfort and promotes safety. On the other hand, as to job satisfaction, respondents were ambivalent, indicating that there may be a need to reassess their pay/salary, promotion, fringe benefits, contingent rewards and operating conditions to improve their job satisfaction.

In conclusion, while all hygiene factors were given a positive perception, other variables, including motivational factors continue to influence job satisfaction of the medical technologist-frontliners. Addressing these areas, especially in this ongoing pandemic would boost the positive outlook of the medical technology workforce towards their profession.

## CONCLUSION

This study revealed there is a high correlation between job satisfaction and hygiene factors, with working conditions being the most significant. Hence, improvements on their working conditions will help to boost the morale of the medical workforce, and this will consequently improve their overall job performance. This finding is considered to be of significance because it contradicts the Two-Factor Theory by Herzberg presented in the second chapter of this study. To reiterate, this theory states that hygiene factors influence job dissatisfaction only.

In addition, out of the nine job satisfaction variables, only four (supervision, coworker interaction, nature of their work and communication) are perceived positively by the respondents, while toward their pay, promotion, fringe benefits, contingent rewards, and operating conditions they showed ambivalence. This could be attributed to their satisfaction towards their employers' fairness. But at the same time, they expressed dissatisfaction over the lack of opportunities for the five factors cited to be improved. The fact that none of the job satisfaction variables were found to be unsatisfactory is also considered to be a significant finding. Having the result of ambivalence when it comes to pay, promotion, fringe benefits, contingent rewards, and operating conditions just goes to show that the respondents have gotten accustomed to what they receive or experience, despite it being inadequate.

In the face of the ongoing pandemic, the ambivalence of the respondents toward these 5 factors could be turned around to satisfaction by evaluating and gradually increasing their pay, promotion opportunities, fringe benefits, contingent rewards and operating conditions to improve their job satisfaction, effecting better job performance which is crucial in addressing the current health crisis.



## **FUTURE RESEARCH**

The findings of this study may be utilized by the management of medical institutions, such as stand-alone laboratories or hospitals to evaluate how they manage and regard their medical technologists. It is highly recommended that these administrators consider aspects in their organization that are parallel or similar to the hygiene factors cited here, such as the working conditions and hospital policies, and make an effort to correct them in order to boost the job satisfaction of the medical technologist-frontliners. This is also applicable to the lawmakers to help them craft more responsive laws that will alleviate the plight of medical technologists, and promulgate policies that will provide a better and safer working environment for these healthcare workers.

It is recommended to increase the sample size to a much larger scale and include more hospitals in succeeding research in order to better represent the medical technologists' population. It is also recommended to explore other qualitative methodologies such as utilizing interviews to further elaborate on the reasons contributing to job satisfaction, as well as to give more detailed descriptions on the perceptions of the respondents toward hygiene factors in their line of work.

Lastly, future researchers are enjoined to include the demographic profile of the participants, particularly age and years of service, among others, as these factors may provide significant information with respect to the level of job satisfaction and work performance of medical technologists.

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**APPENDIX**

**APPENDIX A**  
*Frequency Distribution of Responses*

**Level of Job Satisfaction**

Statement/ Question	Frequency						Total Responses
	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	
<i>Pay</i>							
1. I feel I am being paid a fair amount for the work I do.	1	3	4	10	18	6	42
10. Raises are too few and far between.	0	3	6	20	9	4	42
19. I feel unappreciated by the organization when I think about what they pay me.	5	8	9	11	7	2	42
28. I feel satisfied with my chances for salary increases.	2	0	7	14	14	5	42
<i>Promotion</i>							
2. There is really too little chance for promotion at my job.	0	1	6	15	5	15	42
11. Those who do well on the job stand a fair chance of being promoted.	2	1	11	12	11	5	42
20. People get ahead as fast here as they do in other places	1	9	11	11	6	4	42
33. I am satisfied with my chances for promotion.	6	9	12	12	1	2	42
<i>Supervision</i>							
3. My supervisor is quite competent in doing his/her job.	0	1	0	11	20	10	42
12. My supervisor is unfair to me.	10	13	12	3	2	2	42
21. My supervisor shows too little interest in the feelings of subordinates	7	8	10	11	5	1	42
30. I like my supervisor.	1	0	7	13	10	11	42
<i>Fringe benefits</i>							
4. I am not satisfied with the benefits I receive.	5	7	4	9	10	7	42
13. The benefits we receive are as good as most other organizations offer.	2	4	10	6	12	8	42
22. The benefit package we have is equitable.	1	2	7	16	8	8	42
29. There are benefits we do not have which we should have.	1	1	6	13	13	8	42

<i>Contingent rewards</i>							
5. When I do a good job, I receive the recognition for it that I should receive.	4	3	9	13	9	4	42
14. I do not feel that the work I do is appreciated.	5	10	6	10	8	3	42
23. There are few rewards for those who work here.	3	4	8	15	9	3	42
32. I don't feel my efforts are rewarded the way they should be.	4	8	11	10	4	5	42
<i>Operating conditions</i>							
6. Many of our rules and procedures make doing a good job difficult.	2	6	11	13	7	3	42
15. My efforts to do a good job are seldom blocked by red tape.	7	7	12	9	5	2	42
24. I have too much to do at work.	2	2	4	15	9	10	42
31. I have too much paperwork.	3	8	9	10	6	6	42
<i>Coworkers</i>							
7. I like the people I work with.	1	2	1	10	18	10	42
16. I find I have to work harder at my job because of the incompetence of people I work with.	7	8	7	10	8	2	42
25. I enjoy my coworkers.	1	0	6	10	16	9	42
34. There is too much bickering and fighting at work.	13	3	8	11	4	3	42
<i>Nature of work</i>							
8. I sometimes feel my job is meaningless.	13	9	6	11	2	1	42
17. I like doing the things I do at work.	1	1	3	12	10	15	42
27. I feel a sense of pride in doing my job.	0	1	4	11	13	13	42
35. My job is enjoyable.	0	3	1	13	12	13	42
<i>Communication</i>							
9. Communications seem good within this organization.	0	1	5	20	8	8	42
18. The goals of this organization are not clear to me.	17	8	8	5	2	2	42
26. I often feel that I do not know what is going on with the organization.	11	6	9	11	4	1	42
36. Work assignments are not fully explained.	16	7	10	3	3	3	42

**Perceptions on Hygiene Factors**

Statement/ Question	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	Total Responses
Hospital policies							
1. The attitude of the administration is very accommodative in my company.	1	3	7	13	11	7	42
2. I am proud to work for this company because the company policy is favourable for its workers.	1	0	4	10	16	11	42
3. I completely understand the mission of my company.	1	1	3	9	14	14	42
Salary/income							
4. I am encouraged to work harder because of my salary.	1	1	2	15	15	8	42
5. I believe my salary is fair	1	2	3	17	9	10	42
Working conditions							
8. I feel satisfied because of the comfort I am provided at work.	1	0	9	14	11	7	42
9. I am proud to work for my company because of the pleasant working conditions	1	1	2	14	15	9	42