

Leadership Behavior and Job Satisfaction as Predictors of Turnover Intention of Radiologic Technologists Working in Academic Institutions in Region XI, Philippines

Francisco J. Sedillo Jr., RRT, MSRT, RSO

Felix C. Chavez Jr., PhD

ABSTRACT

Turnover intention is the most prevalent issue nowadays in every organization. It is widely understood that recognizing and dealing with antecedents of turnover intentions is a good way to reduce real turnover. This quantitative study utilized the descriptive-correlational method. The selection of respondents was limited only to all full-time radiologic technologist instructors working in 5 higher education institutions of Radiologic Technology program in Region XI, Philippines. Moreover, sets of standardized questionnaires were used as instruments in gathering information from the respondents. Mean, Pearson Product-Moment Correlation, and Multiple Regression Analysis were the statistical methods used in the study. The findings showed that radiologic technology administrators' overall leadership behavior (3.76) was high, radiologic technologists' job satisfaction (3.45) was moderate, and radiologic technologists' intention to leave (3.37) was moderate. Moreover, the results yielded leadership behavior ($r = -0.520$, $p < .05 = 0.019$) and job satisfaction ($r = -0.484$, $p < .05 = 0.030$) had a negative correlation with the turnover intention of radiologic technologists. Increased leadership behavior and job satisfaction would reduce radiologic technologists' intention to leave. Furthermore, the results of regression analysis revealed that leadership behavior significantly predicts turnover intention ($\beta = -0.520$, $p < .05 = 0.019$) while job satisfaction was not a significant predictor of turnover intention ($\beta = -0.238$, $p > .05 = 0.410$). This study discovered new information that will help researchers and policymakers in reducing turnover intentions of the employees.

Keywords: *Social Science, Leadership Behavior, Job Satisfaction, Turnover Intention, Descriptive-Correlation, Region XI, Philippines*

INTRODUCTION

Employee turnover is among the most complex challenges that any company faces, and it has long-term implications (Javed, Balouch, & Hassan, 2014). Turnover has appeared to be one of the most daunting and almost insurmountable obstacles that many companies face around the world (Shamsuzzoha & Shumon, 2013). When employees and faculty members are subjected to the possibility of quitting their employment, the educational institution is one such entity that is threatened (Feng & Angeline, 2010). Ideally, academicians are the most important asset for the

university in producing the highly capable and holistic graduates to be satisfied and eventually stay longer in the organization (Anca, 2013).

However, Gappa and Austin (2010) reported that 23% were likely to leave their institutions in the United States, and who did not expect to retire, stated that they were likely to accept non-academic positions. The 40% stated that they were likely to accept full-time faculty positions at different institutions and 27% indicated they had received at least one firm offer. The study conducted by Satterfield (2015) revealed that the current shortage of radiologic sciences faculty in the United States predicted to increase shortly because 75% of the educative body of radiologic sciences is retiring and resigning from their post. Similarly, according to Gwavuya (2011), some respondents in Zimbabwe universities reported that they would leave the organization if they felt that the leadership was not encouraging them and that their chairmen/deans were not people-focused.

In the Asian scenario, in Saudi Arabia, the determinants of faculty members' turnover intention are shown to be the working environment, payment justice, and job satisfaction (Albaqami, 2016). In Malaysia, the industry's average annual turnover rate has risen from 12.3% in 2012 to 13.2% in 2013 signifying that staff turnover will continue to be a problem for employers (Ramasamy & Abbudullah, 2020). Furthermore, private universities in Malaysia have an even higher turnover rate. Turnover is 18 percent, according to human resource workers at a few private universities (Watson, 2013). This may be because as academic workload increases, stress levels rise as well, potentially affecting their personal or family lives. One possible explanation is that academicians may believe there are numerous opportunities for alternative employment. As a result, quitting the job is a viable option (Ramasamy & Abbudullah, 2020).

In the Philippines, specifically in Manila, results revealed that among the faculty members 17.5% intent to leave due to stress, campus governance, and salary. Salary is identified as a major reason for leaving the academe. While stress is associated with excessive time demands to explain 11% of the variance intent to leave academia and the type of governance also affects a faculty's likelihood to leave the institution (Loquias & Sana, 2012). In Pangasinan, the study found out that most of the faculty member reasons for leaving the institutions are seeking a salary increase, giving scholarship grants, competitive benefits packages, giving rewards and recognition, and provision of faculty development programs (Reyes, 2017). In Davao City among the 165 faculty members in selected higher education institutions (HEIs), 21% of the variances of turnover intention are due to organizational climate, emotional competence, and organizational commitment (Laya, 2014). Also, the study of Dela Peña (2018) found out that turnover intention offered a new perspective that even satisfied employees may decide to quit their jobs, and leadership behavior significantly influences the turnover intention of teachers.

In the meantime, the turnover intention has become a critical but unresolved issue. To counter this issue, several researchers have attempted to investigate the various antecedents of turnover intention in recent years (Jeswani & Dave, 2012). Thus, there are so many extensive researches regarding leadership behavior, job satisfaction, and turnover intention (Romig, Denmark, & Maillet, 2011; Ng'ethe, 2012; Rahman & Chowdhury, 2012; Harpert, 2013; Shah &

Khan, 2015; & Lu et al., 2016) but only individual association and less has been done in the academe particularly in allied health programs such as Radiologic Technology. Hence, most of the study conducted in Radiologic Sciences Faculty is all about the factors affecting job satisfaction: its implications for recruitment and retention (Satterfield, 2015) and the educational challenge of faculty workforce shortage in Radiologic Sciences (Undie & Passmore, 2010) and none of them studied the leadership behavior and job satisfaction as predictors for Turnover Intention.

With these scenarios, the study investigated the relationship between leadership behavior and job satisfaction as predictors for the turnover intention of Radiologic Technologists working in an academic institution. In this way, it can be used as a basis by the school management for conducting programs that can reduce the turnover intention of the employee. Moreover, this study can determine and provide additional information in the body of knowledge on how leadership behavior and job satisfaction contribute to the turnover intention of Radiologic technologists in academic institutions.

Statement of the Problem

This study aimed to determine the relationship between leadership behavior and job satisfaction as the predictors for the turnover intention of Radiologic Technologists working in academic institutions in Region XI. Specifically, this sought to answers to the following questions:

1. What is the level of leadership behavior of Radiologic Technology administrators in academic institutions in Region XI in terms of:
 - 1.1 Initiating Structure
 - 1.2 Consideration Structure?
2. What is the level of Job Satisfaction of Radiologic Technologists working in academic institutions in Region XI in terms of:
 - 2.1 Pay
 - 2.2 Promotion
 - 2.3 Supervision
 - 2.4 Fringe Benefits
 - 2.5 Contingent Rewards
 - 2.6 Operating Procedures
 - 2.7 Coworkers
 - 2.8 Nature of Work
 - 2.9 Communication?

3. What is the level of Turnover Intention of Radiologic Technologists working in academic institutions in Region XI?
4. Is there a significant relationship between Leadership Behavior and Turnover Intention of Radiologic Technologists working in academic institutions in Region XI?
5. Is there a significant relationship between Job Satisfaction and Turnover Intention of Radiologic Technologists working in academic institutions in Region XI?
6. Do Leadership Behavior and Job Satisfaction significantly predict the Turnover Intention of Radiologic Technologists working in academic institutions in Region XI?

Conceptual Framework

Independent Variables

Dependent Variable

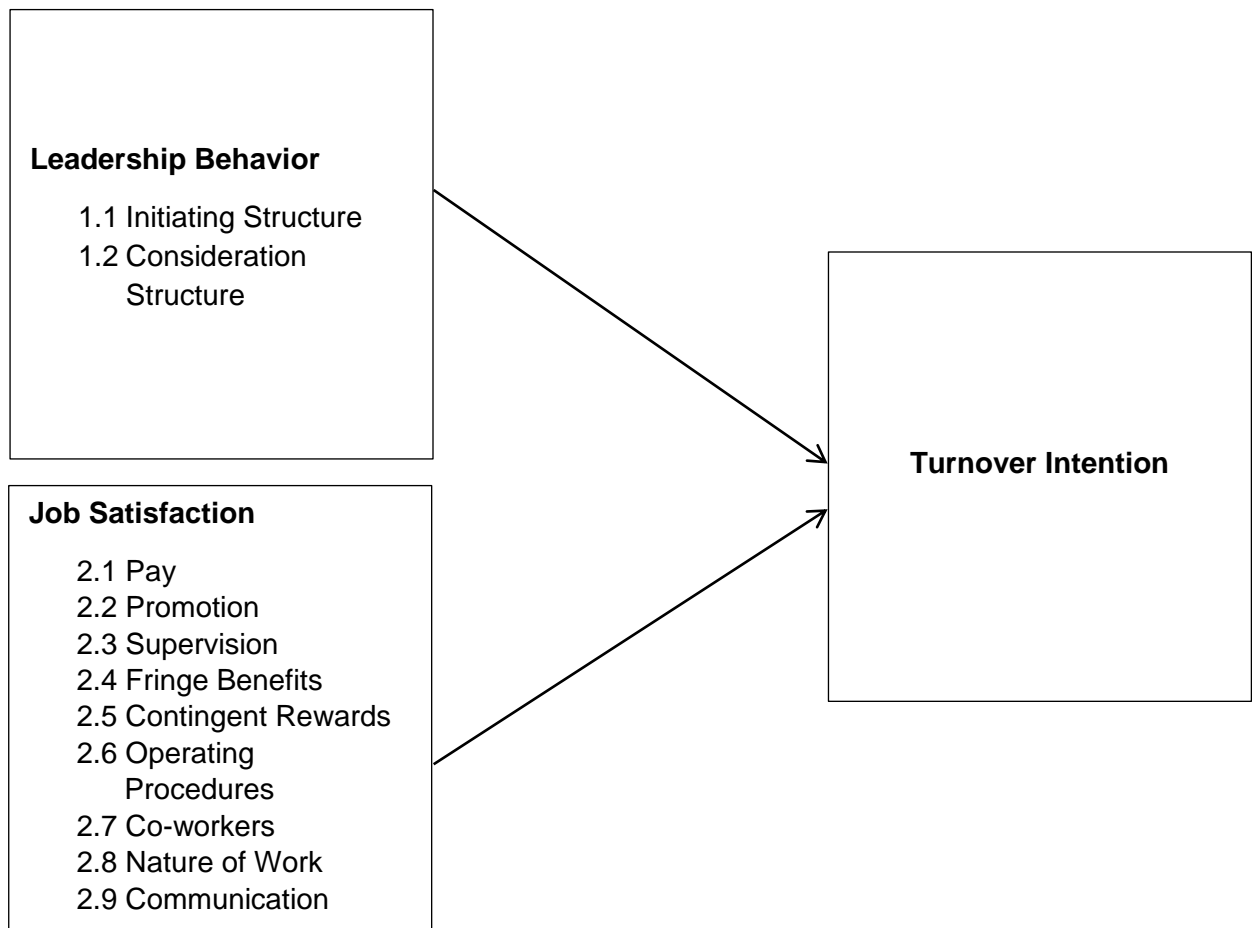


Figure 1. Conceptual Framework Showing the Relationships of the Variables

Figure 1 shows the conceptual framework of the study. As shown in the framework, the first independent variable is leadership behavior and has two indicators, namely: initiating structure and consideration structure. The second independent variable is job satisfaction and has nine indicators, namely: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Meanwhile, the dependent variable is turnover intention. Hence, the independent variables Leadership Behavior and Job Satisfaction are assumed to have a correlational relationship on the dependent variable Turnover Intention. Consequently, variable Turnover Intention is assumed to have no correlational relationship with the variables Leadership Behavior and Job Satisfaction.

METHOD

Research Design

This study employed the descriptive-correlational research design which describes and interprets data and characteristics about the population being studied. The purpose of utilizing the descriptive method was to obtain information that includes the use of a set of a questionnaire as a main tool of the study. Instruments that include numerical inputs or direct measurements of parameters that describe the investigation's subject are used in such surveys (Regoniel, 2015). Furthermore, the correlational design was used to identify the strength and nature of the association between two or more variables (Creswell, 2013). This also aids the researcher to have an accurate interpretation of the findings. This study, determined the levels of leadership behavior, job satisfaction, and turnover intention. Moreover, the relationship between leadership behavior and job satisfaction and turnover intention was investigated. Furthermore, predictive research design was utilized to examine the influence of leadership behavior, job satisfaction as predictors for turnover intention. Basically, predictive research design determined the likelihood of forecasting outcomes (Creswell & Creswell, 2018).

Locale

The research study was conducted in Region 11, Mindanao, Philippines particularly in Davao City, Davao del Norte, and Davao del Sur that CHED recognized Higher Educational Institutions offering Radiologic Technology Program. Davao Region, also known as Region 11, is made up of five provinces: Davao de Oro, Davao del Norte, Davao Oriental, Davao Occidental, and Davao del Sur, and it is located on the southeastern tip of Mindanao. Davao, Digos, Mati, Panabo, Samal, and Tagum are among the region's six towns. The region has five (5) CHED Recognized Higher Educational Institutions for Radiologic Technology Program in Davao City (3), Digos City (1), and in Tagum City (1).

Respondents

The respondents in this study were full-time radiologic technologists employed in academic institutions in Region XI. The respondents were chosen using purposive sampling. This was a form of non-probability sampling in which the researcher made decisions on who should be included in the sample based on a variety of factors, such as specialist knowledge of the research problem or capacity and willingness to participate in the study (Oliver, 2013). The research included a total of 20 full-time radiologic technologist instructors. Only those Radiologic Technologist Instructors with six months or more of experience in teaching in the selected institutions were included as respondents in this study to ensure homogeneity. Employees in supervisory/managerial, part-time, and entry-level roles, as well as those with fewer than six months of experience, were excluded from the study.

Instruments

This study employed an adopted questionnaire from different works of literature. First survey tool was adopted from Stogdill (1963) which contains 20 statements reflecting the two areas of leadership behavior: initiating structure (task-oriented) and consideration structure (people-oriented). Second survey tool was adopted from Spector (1985). The Job Satisfaction Survey (JSS) was a questionnaire that measured nine aspects of job satisfaction concerning overall satisfaction. The third questionnaire was adapted from Martin and Roodt (2008), and it assesses how much an individual thinks about or considers turnover intention. The researcher submitted the questionnaire to the panel of experts for comments, suggestions, improvements, and refinements with an overall rating of 4.76. After which the researcher conducted a pilot study to ensure whether the items and questions are clear and understandable to the respondents. The result of the pilot study measures the internal consistency initiating structure ($\alpha=.97$), consideration structure ($\alpha=.96$) with a total Cronbach $\alpha=.98$ of all items in leadership behavior. For job satisfaction measures the internal consistency of pay ($\alpha=.86$), promotion ($\alpha=.94$), supervision ($\alpha=.95$), fringe benefits ($\alpha=.87$), contingent rewards ($\alpha=.95$), operating procedures ($\alpha=.87$), co-workers ($\alpha=.81$), nature of work ($\alpha=.83$), communication ($\alpha=.80$) with a total Cronbach $\alpha=.97$ of all items. While turnover intention measures the internal consistency of ($\alpha=.87$).

Procedures

The researcher took the requisite steps during the data collection process. A letter authorizing the study was sent to each of the academic institutions in Region XI that offers a Radiologic Technology program. On the day of data collection, the study utilized web-based survey methods due to the pandemic situation brought about the COVID-19 to collect empirical data on the leadership behavior and job satisfaction as predictors for the turnover intention of Radiologic Technologists working in academic institutions. No face-to-face interaction was made in the context of the new normal. Since respondents could complete web surveys on their own time and at their speed without having to wait for an interviewer, web surveys had less social desirability bias than interviewer-administered modes (Pew Research Center, 2014). The respondents were requested to affix their confirmation on the informed consent online via google form which was specified in the instrument for their voluntary participation in the study. Only those who attest their consent were considered as part of this study.

Statistical Tools

The following were the statistical methods used in this study:

Mean was used to measure the levels of leadership behavior, job satisfaction, and turnover intention of Radiologic Technologists working in academic institutions in Region XI.

Pearson Product Moment Correlation was utilized to investigate the relationships of leadership behavior, job satisfaction, and turnover intention of Radiologic Technologists working in academic institutions in Region XI.

Multiple Linear Regression Analysis was used to investigate the influence of leadership behavior, and job satisfaction as predictors of the turnover intention of Radiologic Technologists working in academic institutions in Region XI.

RESULTS AND DISCUSSIONS

Table 1
Level of Leadership behavior of Radiologic Technology administrators

Leadership Behavior	Mean Rating	Std. Deviation	Descriptive Level
Initiating Structure	3.85	0.598	High
Consideration Structure	3.67	0.880	High
OVERALL Mean & SD	3.76	0.720	High

Legend: 4.50-5.00 = Very High; 3.50-4.49 = High; 2.50-3.49 = Moderate;
1.50-2.49 = Low; 1.00-1.49 = Very Low

Level of Leadership Behavior of Radiologic Technology Administrators. It can be gleaned in Table 1 that combining both consideration (3.67) and initiating structure (3.85) indicates a high level of leadership behavior among radiologic technology administrators that was observed by the radiologic technologists with an overall mean of 3.76. This means that consideration and initiating structure of leadership behaviors are oftentimes evident among radiologic technology administrators. Thus, this indicates a remarkable leadership among administrators by showing their concern not only in the job productivity but also in the human needs of the radiologic technologists. Meanwhile, the overall standard deviation (0.720), normal values are presented. This means that most of the data points are relative to the average. This is supported by the study of Chavez (2012) showing high level of initiating structure and consideration structure leadership behavior. Thus, this is further supported by the study of Rahman and Nas (2013) that high leadership behavior creates a sustainable and an effective workforce.

Table 2
Level of Job Satisfaction of Radiologic Technologists
working in an academic institution

Job Satisfaction	Mean Rating	Std. Deviation	Descriptive Level
Pay	3.39	0.937	Moderate
Promotion	3.56	0.949	High
Supervision	3.55	1.126	High
Fringe Benefits	3.63	0.988	High
Contingent Rewards	3.26	1.018	Moderate
Operating Procedures	3.50	0.768	High
Co-workers	3.84	0.592	High
Nature of Work	3.39	0.714	Moderate
Communication	2.98	0.550	Moderate
OVERALL Mean & SD	3.45	0.594	Moderate

Legend: 4.50-.5.00 = Very High; 3.50-4.49 = High; 2.50-3.49 = Moderate;
1.50-2.49 = Low; 1.00-1.49 = Very Low

Level of Job Satisfaction of Radiologic Technologists. Table 2 illustrates the radiologic technologist's level of job satisfaction. The nine indicators of job satisfaction have an overall mean of 3.45, described as a moderate level with an overall standard deviation of 0.594. This denotes that radiologic technologists sometimes agree that they are moderately satisfied with their job. When it comes to standard deviation, average values indicate that the majority of the numbers are near to the average. As to extrinsic and intrinsic measures of job satisfaction, results revealed that the radiologic technologists have high level of satisfaction in promotion, supervision, fringe benefits, operating procedures, and co-workers with the mean of 3.56, 3.55, 3.63, 3.50, and 3.84, respectively. Generally, it is presented from the table that most of the respondents have a good working relationship with their colleagues and that they enjoy working with their co-workers, where their colleagues usually support them at work. On the contrary, this result is higher compared to the findings of Raddaha et al. (2012) which yielded low satisfaction in terms of contingent rewards, fringe benefits, and pay. He also reported that supervision and a co-worker relationship highly influence job satisfaction.

Table 3
Level of Turnover Intention of Radiologic Technologists
working in academic institutions

Turnover Intention	Mean Rating	Std. Deviation	Descriptive Level
OVERALL Mean & SD	3.37	0.518	Moderate

Legend: 4.50-5.00 = Very High; 3.50-4.49 = High; 2.50-3.49 = Moderate;
1.50-2.49 = Low; 1.00-1.49 = Very Low

Level of Turnover Intention. Table 3 exhibits the turnover intention of radiologic technologists. The mean value of participant's answers ranged from (2.85) to (4.15) with a (0.518) standard deviation value. It appears that the average mean value (3.37), it can be observed that the sample has moderate turnover intention. The findings indicate that respondents sometimes consider leaving their current job on occasion. This indicates that radiologic technologist sometimes scans the newspapers in seeking for other job opportunities. Thus, the result is lower than Surbhi's (2013) findings that indicates a high turnover intention for academic staff. This is supported by Robyn and Du-Preez (2013) since the number of private higher education institutions continues to grow year after year, academicians now have the opportunity to leave their current institutions if their expectations were not met.

Table 4
Relationship between Leadership Behavior and Turnover Intention of Radiologic Technologists
working in academic institutions

INDEPENDENT VARIABLE	TURNOVER INTENTION			
	R	p-value	Remarks	Decision on Ho
LEADERSHIP BEHAVIOR	-0.520	0.019	Significant	Rejected

Relationship of Leadership Behavior and Turnover Intention. Table 4 shows the test of correlation of leadership behavior and turnover intention of radiologic technologists working in an academic institution. The results revealed a significant correlation between leadership behavior and the turnover intention ($r = -0.520$, $p\text{-value} < 0.05$). Hence, the null hypothesis was rejected stating there is no significant relationship between leadership behavior and turnover intention of radiologic technologists working in an academic institution. The negative correlation coefficient, on the other hand, indicates that leadership behavior and turnover intention are inversely related. This implies that high leadership behavior among the administrators would essentially decrease the turnover intention of radiologic technologists while low leadership behavior would also likely increase the turnover intention. This result can be confirmed by the recent research of Smith, Wong, and Regan (2019) showing an inverse correlational relationship between leadership behavior and turnover intention. This is supported by Gwavuya (2011) who pointed out that the quality of the leadership impacts on turnover decision and employees are more likely to remain within an organization if they believe that their administrators show interest and concern for them.

Table 5
Relationship between Job Satisfaction and Turnover Intention of Radiologic Technologists working in academic institutions

INDEPENDENT VARIABLE	TURNOVER INTENTION			
	R	p-value	Remarks	Decision on Ho
JOB SATISFACTION	-0.484	0.030	Significant	Rejected

Relationship of Job Satisfaction and Turnover Intention. Data reflected in Table 5 manifest that job satisfaction is significantly related to turnover intention ($p < 0.05$) and correlation coefficient, $r = -0.484$. As a result, the null hypothesis was rejected, indicating that there is no substantial association between job satisfaction and the intention to leave an academic institution for radiologic technologists. The negative correlation coefficient indicates that job satisfaction and radiologic technologist turnover intention are inversely related. This implies that those who are highly satisfied in all aspects of their job are more likely to have lower turnover intention while those who have lower job satisfaction would more likely to have higher turnover intention. This result also supports the findings of Guixia and Rashid (2019), Esra et al. (2013), Faris et al. (2014), and John and Zerihun (2014), which revealed that increased job satisfaction reduces the likelihood of employee turnover. Similarly, Dorance (2014) further supported the findings that job satisfaction has been stated as one of the determinants of turnover intention. Meanwhile, Scanlan and Still (2013) also revealed that a higher level of job satisfaction would lead to a lower likelihood of leaving.

Table 6
Influence of Leadership Behavior, and Job Satisfaction on Turnover Intention of Radiologic Technologists working in academic institutions

	Standardized Coefficients	t	p-value	Remarks
	Beta			
Leadership Behavior	-0.520	8.631	0.019	Significant
Job Satisfaction	-0.238	-0.845	0.410	Not Significant

R = 0.520, R Square = 0.271, F = 6.682, p-value = 0.019

Influence of Leadership Behavior, and Job Satisfaction on Turnover Intention. The results of regression analysis are presented in Table 6, to identify significant predictors of turnover intention. The findings show that leadership behavior has a significant influence on turnover intention, with a p-value of less than 0.05. Job satisfaction, on the other hand, did not influence turnover intention, as shown by a p-value greater than 0.05. Joining together it's the leadership behavior that shows as best predictor of turnover intention of the radiologic technologists. This implies that among the two independent variables, only leadership behavior has a significant

contribution to the turnover intention of radiologic technologists working in academic institution. Therefore, leadership behavior contributes to turnover intention; however, job satisfaction can be associated to turnover intention but may not be a predictor.

In particular, it shows that the influence of leadership behavior on turnover intention has generated a p-value that is less than 0.05 (p-value = 0.019) and a negative standardized beta value of -0.520. This means that when leadership behavior goes up by 1, the turnover intention goes down by 0.520. This conforms to the recent studies showing leadership behavior as one of the significant predictors of turnover intention (Imran et al., 2016; Ng'ethe, 2012). In the same way, the job satisfaction variable has a negative standardized beta coefficient with a value of -0.238. Meanwhile, the beta coefficient is negative, implying that with every unit rise in job satisfaction, the beta coefficient value of 0.238 reduces the intention to leave. This is confirmed by Allen and Meuller (2013) that the intent to leave does not always result from job dissatisfaction, and considers that turnover may result from other contributing factors. Lastly, the findings were apparent in the results of the regression analysis where 27.1 percent of the variance of turnover intention can be explained by the model as indicated by $R^2 = 0.271$. The remaining 72.9 percent can be attributed to other factors aside from the two independent variables in the study. The result is lower compared to the findings of Yimer, Nega, & Ganfure (2017) showing a 75.6% amount of variance explained by the antecedents of turnover intention.

CONCLUSIONS

Based on the overall findings of the study, the following conclusions were drawn:

1. The radiologic technologists perceived that their administrators engaged well in both consideration and initiating structure leadership behavior. As a result, the radiologic technology administrators were concerned with the quality of the job and the human side of it.
2. The radiologic technologists were moderately satisfied with their job. Only promotion, supervision, fringe benefits, operating procedures, and co-workers have yielded high satisfaction while the remaining indicators were moderate. Thus, radiologic technologists agree that they are sometimes satisfied with their job.
3. Although the overall mean of turnover intention among radiologic technologists was moderate, it was noted that the desire to stay or leave in the organization was sometimes manifested.
4. Leadership behavior negatively correlates with turnover intention. An increase in leadership behavior would decrease the turnover intention of radiologic technologists and vice versa. In this way, the leader must be more cautious in dealing with the employee at work to prevent the feeling that they are planning to quit and seek other jobs.

5. Job satisfaction has a significant negative relationship with turnover intention. Highly satisfied in all aspects of their job were more likely to have lower turnover intention while those who have lower job satisfaction would more likely to have higher turnover intention. As a result, workers are more likely to consider changing jobs if their desires are not met.

6. Among the two independent variables-leadership behavior and job satisfaction, only leadership behavior significantly predicts the turnover intention of radiologic technologists. Therefore, an unstable relationship that exists between leaders and subordinates may result in employees losing their will and commitment to an organization and reduce their satisfaction with their jobs. On the other hand, job dissatisfaction does not always result in turnover intention; it may result from other contributing factors.

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