A FRAMEWORK TO IMPROVE THE PERFORMANCE APPRAISAL OF HEALTHCARE ASSISTANTS DURING COVID-19 AND ANOTHER PANDEMIC ERA

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Abstract

A working environment that allows personnel to accomplish their jobs at their greatest level in a favorable and comfortable atmosphere is a basic requirement for healthcare authorities. In Covid-19, the working environment has a significant impact on healthcare assistants, as well as the impact on healthcare workers on enhanced performance appraisal. This performance evaluation also improves the hospital's performance. In the Covid era, the performance appraisal of healthcare assistants is reviewed and improved. This project aims to influence the working environment of healthcare officials and increased performance at the hospital with the tools of improvement and provide collegial support among participating hospitals. Working conditions, training and treatment, benefits, career advancement, and employment stability and security were all factors addressed in the study. However, these factors contribute significantly which indicates the improvement in healthcare assistants' performance. Using parametric and non-parametric testing, a questionnaire was created and verified. The data has been collected from employees using simple random sampling from middle and lower management levels for this study. A total of 70 questionnaires were distributed. The result was analyzed through Statistical Package for Social Sciences (SPSS) to predict improvement in the performance appraisal of healthcare officials. Multiple regression analysis and nonparametric tests were used to predict the correlations. The findings indicate that there is a strong causal effect which is indicated between the work environment and healthcare officials which leads to improved performance appraisal in the pandemic era.

Keywords: Healthcare Assistants, Working Environment, Improved Performance Appraisal, Hospital Performance, Covid-19 Pandemic

INTRODUCTION

Human resource management is critical for organizations to manage, organize, and use their available human resources to function successfully and efficiently. Human resource management (HRM) in healthcare centres seeks attention all over the world (Kabene, Howard, Soriani, Leduc, (2006). The hospital is a service business, and the intangible product is created by the service provider, in this case, the officer or human resources. Human resources rely completely on production and delivery services. The human resource (HR) capabilities to be improved and achieve long-term objectives effectively (Papke-Shields, & Boyer-Wright, 2017). In the healthcare sector, the strategic planning of human resources affects the health of the community, costs associated with the availability of health providers who fulfill the needs of the community, also it can provide high costs for their training needs. Human resources related to healthcare can face many challenges such as highly dynamic healthcare systems, resource availability and the performance of health assistants. The Healthcare Human Resource (HR) planning structure of the health center can be based on demands, utilization, targeted service resource availability, or human force. This healthcare center is disturbed much during Covid-19.

At the beginning of this crisis, the healthcare industry was not prepared to provide treatment to Covid-19 patients. Yet the contributions from the nurse assistant's side to provide health for the patients are significant despite not being trained for this contagious disease (Travers, Teitelman, Jenkins and Castle 2020). Nurse assistants are a significant element to care for the patients. The continued spread of the Coronavirus demands medical equipment such as ventilators, approved treatments (antivirals and antimalarial chloroquine), as well as the establishment of separate sections for Coronavirus patients. In the event of a staffing shortfall, particularly during Covid-19, reserved medical personnel can be recommended to limit the spread of the disease (Ehrlich, McKenney, & Elkbuli, 2020). It also has an impact on the performance evaluation of health centers, particularly during pandemics.

One of the most significant aspects of the rational and methodical process of human resource management is performance appraisal. Performance assessment data lays the groundwork for hiring and selecting new employees, training and developing current employees, and inspiring and sustaining a high quality by appropriately rewarding their efforts. To monitor the performance of nurse assistants the focus should be on healthcare centers that can consume more than half of the healthcare budget. However, quality improvement in healthcare centers is desirable and urgent (Chassin and Galvin,1998)

The outbreak of Covid-19 has created unprecedented impacts on healthcare services as well as information management criteria with the smart hospital (Aman et al., ,2021). The healthcare center performs its duties with the assistance of resources such as manpower, machines, healthcare officials, materials and money. Each of these resources depends on the other for total production and improvement of hospital performance during the Covid-19 era. The key predictor for the safety system implementation in the accreditation is to provide better patient safety in hospitals (Longo, Hewett, Ge and Shubert 2007; Devers, Pham, and Liu 2004) The trauma centres which can reduce patient mortality are associated with accredited systems. The better compliance linked with the accreditation is based on the abuse treatment (DeBritz and Pollak, 2006).

The performance of healthcare assistants refers to whether the healthcare staff do their job responsibilities and duties to their best ability or not. Performance appraisal has proven to have either a positive or negative effect on healthcare centers. The role of healthcare elements was very significant in the hospital's contribution to improving the performance during Covid-19 and other contagious diseases. Some of the questions discussed in this research paper include are: how to improve the performance appraisal of healthcare assistants in Covid era, how to improve the organizational performance of medical assistants, how to identify the performance appraisal that affects the overall hospital performance.

The objective of the study is to examine the relationship between healthcare assistants' performance during covid-19. It was hypothesized to improve the medical assistant' performance and then overall organizational performance. The variables are to assess through the Statistical Package for Social Sciences (SPSS).

In light of this concept, the important is to comprehend the challenges that affect the degree of employee appraisal and medical centers. For this purpose, the healthcare assistant's performance can improve during contagious diseases which results to improve the hospital's performance.

PROBLEM STATEMENT

- To check out the performance appraisal of healthcare officials during Covid faced certain challenges.
- To cope with these issues, pertinent measures must be needed in true letter and spirit.

OBJECTIVES OF THE STUDY

The study aims to make a framework to improve the performance appraisal of healthcare assistants during Covid-19 and another pandemic era.

The objectives of the study can be achieved through the following objectives:

- To look over the improvement in performance appraisal of healthcare assistants during Covid-19 and other pandemic era.
- To determine the performance appraisal of healthcare assistants in pandemics and leads to enhance the overall benefits to the health center.
- To find out the performance improvement using the questionnaire survey at different levels.
- To examine the performance appraisal through Statistical Package for Social Sciences (SPSS) by developing a hypothesis for testing of factors
- To investigate the effect of healthcare assistants on improved performance of healthcare centers.

LITERATURE REVIEW

Determinants of Working Environment

There were five determinants which were identified and purposed of this study. The determinants are working conditions, training, benefits, career development, treatment handling and job security and stability.

- The working condition of an organization are considered as it infrastructure and equipment such as heating and cooling, ventilation systems, oxygen level and need of patients, controlled noise, neat and clean furnishings, safety and security etc. These conditions can effect employees and can contribute or to distract their work performance (Visher, 2008 and Davis, 2011).

- Training of all staff of hospital especially those which are associated with vivid duties and responsibilities. This training is either temporary or permanent which leads to greater commitment. The investment in employee training and development has significant benefits for an organization as well as employees related to health center (Cannon-bowers and Salas,2001). The handling of corona patient's treatment is a new learning in the field of health center. This could bring hospital and healthcare employees towards new thing and new patients to deal in. The handling of patients treatment effect the performance of healthcare officials and hospital organization both (Colquitt, 2001: Cohen-Charash and Spector, 2001).
- Benefits to healthcare assistants could be viewed as a strong control mechanism Benefited strategies leads to contribute to commitment, flexibility, and efficiency of staff within the hospital premises (Kessler, Shapiro and Purcell, 1999). Similarly, Stuurman and Walsh (2014)) examined the most significant aspects of benefits and performance appraisal of employee.
    - The career of healthcare employee is associated with the hospital. This may be of on temporary basis or permanent. While, to make there effective hospital management, the employee performance can have positive and bright future to learn new things after Covid era. This could help the employees to perform better and make their future career efficient.
    - This is the extent to which the hospital organization provides stability to employees. As suggested by Neumark (2000), job stability, is the duration of jobs or the probability of keeping or leaving a job; and job security, refers to the prospect of experiencing loss of a job.

Based on these determinants, the following hypothesis was developed.

H1: There is a positive and significant relationship between these determinants of working environment and healthcare assistants.

HEALTH EMPLOYEE SATISFACTION AND IMPROVE PERFORMANCE

The employee satisfaction is a measure that how happy or satisfied medical assistants are with their job during pandemic and epidemic diseases. The working environment also affect in this scenario. The hospital organization should institute which encourages and enforces employee satisfaction. Employees such as doctors, nurses, and paramedics are loyal to hospital and productive in their jobs when they work and satisfied with hospital management. The human resource in this regard plays a crucial role. These employees affect customer satisfaction and leads to organization performance (Hunter and Tietyen, 1997: Spector, 1997). There are various factors which influence employee satisfaction within hospitals. The most important factors which were identified are working conditions, training, benefits, career development, handling treatment and job security and stability by(Sousa-Poza, 2000). Training and development coupled with work-life balance, also play an important role in healthcare officials satisfaction by (Burke,2005: Amir and Shamim, 2014). Prior studies have supported the notion that employee satisfaction and appraisal is a critical deliver/motivator to improve performance (Brown, Gray, McHardy and Taylor , 2015: Garter, Schmidt and Theodore, 2002. In order to meet patients requirements, hospital attempt to improve their performance by ensuring job satisfaction of employees (Fisher, 2010). Related studies have proved that employee satisfaction and Improve performance are positively correlated (Judge and Colquitt, 2004: Beckerman and Ilmakunnas, 2012). Furthermore, it can be stated that more employees are satisfied with their work and working environment, the more performance improve can be observed. Based on this premise, the following hypothesis was developed.

H2: There is a positive and significant relationship that exists between employee appraisal of healthcare assistants and Improve performance.

HOSPITAL PERFORMANCE

Many hospital that have adopted quality management, have seen an improvement in the

Attitudes, commitment, and retention of employees. Since quality management is intended create an environment which demonstrates the best in each employee, it is expected to improve medical assistants and job satisfaction through training, involvement and empowerment (Karia and Asaari, 2006). The hospital management should take steps to organize the paramedics that trained them to deal with pandemics and epidemics.

Therefore, the following hypothesis is developed:

H3: There is a positive relationship and significant relationship between healthcare assistant satisfaction and Improve performance of hospital.

The study was conducted using a research method that is based on the improvement of healthcare officials. A questionnaire was created to assess the impact of a hospital's performa nce appraisal. The questionnaire was given to the hospital center's medical staff. During Covid-19, the questionnaire was designed to improve frontline performance evaluations. However, to measure the variables through comment-based and general questions, the respondents were to rate each item on a Likert scale from strongly agree[5] to strongly disagree[1]. Also, non-parametric tests were done to make the output of the hospital more efficient and effective. Therefore, the following hypothesis was generated for non-parametric testing. Moreover, the health assistants who are associated with different units presented a variety of views on it (Thomas and Magaly, 2011). The impact of public reporting influences a positive impact on hospital performance (Hibbard, Stockard and Tusler, 2003). It is helpful to provide information to the public and health care assistants linked with health center quality (Williams, Morton, Koss, and Loeb, 2006). The care measures for the patients are particularly for quality improvement

purposes, but the deficiency faced by the hospitals does not necessarily identify the performance improvement opportunities (Palmer, 1998; Chassin 2006).

Using Sample data for Non-parametric

Using non-parametric tests on the Likert-based questions to analyze the performance appraisals of healthcare assistants also provides an effective way to deal with patients with contagious diseases. This method is also helpful to measure the performance of healthcare staff and also overall the performance of the hospital.

H1: There is a significant relationship between environments

H2: There is a significant relationship between training

H3: There is a significant relationship between Treatment handling

H4: There is a significant relationship between Career Development

H5: There is a significant relationship between Benefits

H6: There is a significant relationship between job security and stability

H7: There is a significant relationship between improved performances

H8: There is a significant relationship between hospital relationships

TESTING OF H1

Use Wilcoxon signed rank test to determine the relationship of working environment determinant. This rank is given after finding the difference in working environment conditions. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health assistants in the working environment.

TESTING OF H2

Use Wilcoxon signed rank test to determine the relationship of training determinants. This rank is given after finding the difference in training conditions. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health officials in the training.

TESTING OF H3

Use the U-Mann Whitney test to determine the relationship of benefit determinants. In this, the value can be found by using a formula to check the relationship. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health officials by providing them with benefits.

$$U(B)=N1*N2+Nx(Nx*1)/2-Tx \quad (1)$$

N1=first sample for before condition N2=second sample for after condition Nx=sample having a maximum value Tx = maximum value taken

TESTING OF H4

Use Wilcoxon signed rank test to determine the relationship of career development determinants. This rank is given after finding the difference in career development conditions. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health assistants in their career development.

TESTING OF H5

Use Wilcoxon signed rank test to determine the relationship of treatment handling determinant. This rank is given after finding the difference in treatment handling conditions. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health assistants in treatment handling.

TESTING OF H6

Use the U-Mann Whitney test to determine the relationship between job security and stability determinant. In this, the value can be found by using a formula to check the relationship. The values were compared with tabulated values at a significant level of 95%. Use these tests to

improve the performance appraisal of health officials by providing them job security and stability.

U(B)=N1*Nx(Nx*1)/2-Tx (2)

N1=first sample for before condition N2=second sample for after condition Nx=sample having a maximum value Tx=maximum value taken

TESTING OF H7

Use Wilcoxon signed rank test to determine the relationship of improved performance determinant. In this, rank is given after finding the difference in before and after Covid conditions. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health assistants.

TESTING OF H8

Use Wilcoxon signed rank test to determine the relationship of Hospital performance determinants. In this, rank is given after finding the difference. The values were compared with tabulated values at a significant level of 95%. Use these tests to improve the performance appraisal of health assistants in the hospital performance.

SAMPLING AND DATA COLLECTION FOR MULTIPLE REGRESSIONS

Simple random sampling was used to select the employees from higher to lower levels within the hospital. A questionnaire was distributed in the medical center and collect the responses through questionnaires were to measure the output. Around 70-100 samples were distributed to collect the data. The data was put on the Statistical Package for Social Sciences (SPSS).

3.2.1 Testing of H1

Use multiple linear models or analyses to determine the relationship of determinants (Independent Variable) which can improve the performance of healthcare assistants.

Y (HA) = Bo+b1(x1) +b2(x2) +b3(x3) +b4(x4) +b5(x5) +e (3)

Y(HA)= Dependent variable Healthcare assistants Bo=Intercept of Y(HA)

B1= Change in mean of Y(HA) per unit change in x1, where x2, x3, x4, and x5, are held constant

B2= Change in mean of Y(HA) per unit change in x2, where x1, x3, x4, and x5, are held constant

B3= Change in mean of Y(HA) per unit change in x3, where x1, x2, x4, and x5, are held constant

B4=Change in mean of Y(HA) per unit change in x4, where x1, x2, x3, and x5, are held constant

B5= Change in mean of Y(HA) per unit change in x5, where x1, x2, x3, and x4, are held constant

e=Random error

TESTING OF H2

Use linear regression analysis or model to determine the relationship between healthcare officials (Independent Variable) and improve performance (Dependent Variable).

Y (IP) = b0+b1(x1) (4)

Y(IP)=Dependent variable of improved performance

TESTING OF H3

Use multiple linear analyses to determine the relationship between healthcare assistants and improve performance (Independent Variable) and hospital performance (Dependent Variable).

Y(HP)=Bo+B1(x1) +B2(x2) (5)

Y(HP)= Dependent Variable Bo=Intercept of Y(HP)

B1=Change in mean of Y(HP) per unit change in x1, while x2 is held constant

B2= Change in mean of Y(HP) per unit change in x2, while x1 is held constant

e=Random error

RESULTS AND DISCUSSIONS

NON-PARAMETRIC TESTS

The questionnaires were tested by using non-parametric tests. The tests conducted for this are U-Mann Whitney and Wilcoxon tests. The purpose of the study is to measure the healthcare official's performance which leads

to hospital performance during the Covid era. The determinants were checked to find out the values. If the absolute value is less than the critical value it shows the results were significant and it shows the performance appraisal of healthcare assistants improved. These values were checked at 95% significant values. Table 1 below shows the indicated values. If it shows significant behavior then it proves the research analysis of determinants is accurate and it also improves the performance appraisal of healthcare officials as well as health centers.

Table 1: non-parametric test results

S. No	Type	Tabsolute< Tcritical or Uabsolute < U critical	Values α=0.05	Remarks
1	Working Environment	N=11	Tabs=2.5 Tcritical=11	Significant
2	Training	Tabs<Tcritical N=10	Tabs=7 Tcritical=8	Significant
3	Benefits	Tabs<Tcritical N=8	Uabs=10 Ucritical=15	Significant
4	Career Development	Uabs<Ucritical N=8	Tabs=3 Tcritical=4	Significant
5	Treatment Handling	Tabs<Tcritical N=11	Tabs=11 Tcritical=11	Significant
6	Job Security and Stability	Tabs<Tcritical N=13	Uabs= 34	Significant
7	Improved performance	Uabs<Ucritical N=8	Ucritical=37 Tabs=2.5 Tcritical=4	Significant
8	appraisal Hospital Performance	Tabs<Tcritical N=11	Tabs=8 Tcritical=11	Significant
9	Overall performance	Tabs<Tcritical Tabs<Tcritical	Improved	Significant

From the above table, the tabulated and calculated values were compared. Data was taken on Likert-based questionnaires of around 50-75 samples

DISCUSSION

The above table shows that non-parametric tests were developed for the hypothesis.

- To proceed further we have to look at the benefits of health assistants, the two levels were taken before and after the covid situation. After that by taking their samples to find the difference between two specimens, finally rank positive and negative values and zero can be considered as ignored. The value which shows the least result should be compared with the tabulated value at given specimens which generate the least value. The value for the benefits at the absolute level is 10 which is less than at the critical level which is 15. If the
- The working environment contains two levels. One at silent and the other at the noisy level by taking their samples and finding the contrast between two specimens, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given specimens which generate the least value. If the absolute value is less

than the critical value then it shows a significant level. In the absolute value is less than the critical value then it shows a significant level. Therefore, the parameter of benefits is proved and is significant in relation.

- For career development of health officials at two levels before and after Covid situation. For this taking their samples to find the contrast between two samples, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given samples which generate the least value. The value for career development at the absolute level is 3 which is less at the critical level which is 4. If the absolute value is less than the critical value then it shows a significant level. Therefore, the parameter of career development is proven and significant.
- For treatment handling of health officials at two levels before and after Covid situation. For this taking their samples to find the difference between two specimens, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given samples which generate the least value. The value for treatment handling at the absolute level is 11 equal to the critical level If the absolute value is less than the critical value then it shows a significant level. Therefore, the treatment handling can also show a level of significance.
- For job security and stability of health officials at two levels before and after Covid situation. It may either increase or decrease for different health assistants. For this taking their samples to find the difference, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given samples which generate the least value. The value for job security and stability at the absolute level is 34 which is less than at the critical level which is 37. If the absolute value is less than the critical value then it shows a significant level. Therefore, job security and stability can also show a level of significance.
- For improved performance of health officials at two levels before and after Covid situation. It may either increase or decrease for different health assistants. For this taking their samples to find the difference between the two, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given samples which generate the least value. The value for improved performance at the absolute level is 2.5 which is less than at the critical level which is 4. If the absolute value is less than the critical value then it shows a significant level. Therefore, improved performance can also show a level of significance.
- For hospital performance of health officials at two levels before and after Covid situation. It may either increase or decrease for different health assistants. For this taking their samples to find the contrast

between the two, finally rank positive and negative values and zero can be considered as ignore. The value which shows the least result should be compared with the tabulated value at given samples which generate the least value. The value for the hospital performance at the absolute level is 8 which is less than at the critical level which is 11. If the absolute value is less than the critical value then it shows a significant level. Therefore, hospital performance can also show a level of significance.

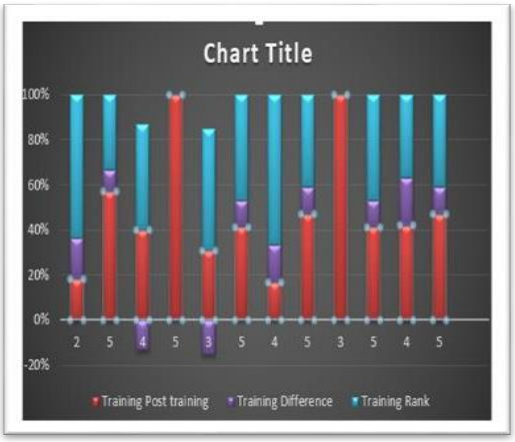

Figure 1: *Training*

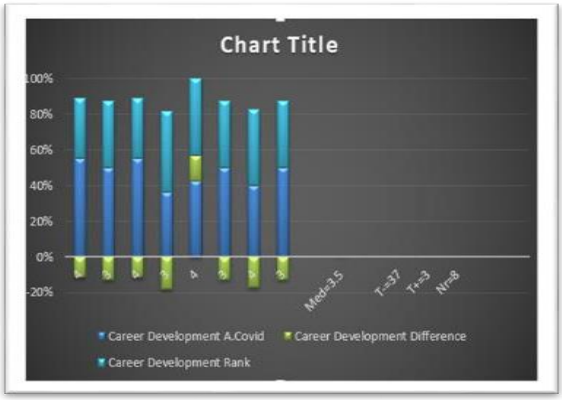

Figure 2: *Career Development*

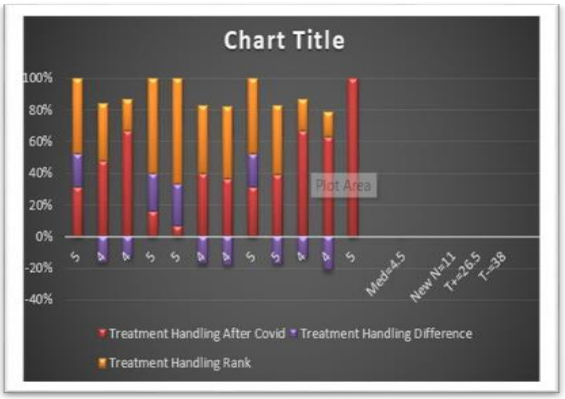

Figure 3: *Treatment Handling*

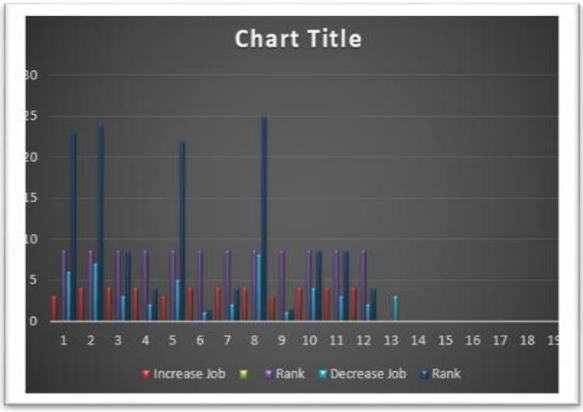

Figure 4: *Job Security and Stability*

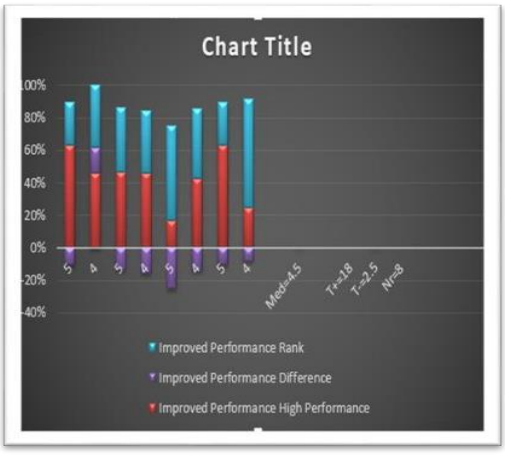

Figure 5: *Improved Performance*

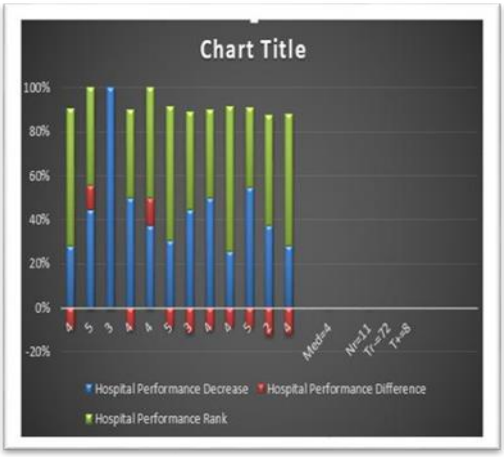

Figure 6: *Hospital Performance*

DISCUSSION

These are the excel charts which were drawn against the hypothesis developed for non-parametric tests. These values showed against each factor. The purpose of non-parametric tests was to compare the performance between the levels for two samples.

MULTIPLE REGRESSION ANALYSIS

The data has been analyzed via SPSS by applying multiple regression models. To find out the relationship between dependent and independent variables the relationship must be significant.

The relationship between independent variables (determinants) and the dependent variable (healthcare assistants)

Table 2: *Summary of hypothesis 1*

R	R^2	Adjusted R^2	Standarderror of estimate
0.876	0.753	0.603	0.57403

DISCUSSION

The coefficient of determination (r2) forecasts how much the dependent variable (HA) will change due to the independent variable (determinants of the working environment). This coefficient the data's fit to the multiple regression models. A value near one suggests a good fit, whereas a value near zero indicates a bad. In table 2, the value for r2 is 0.753 which indicates that the five predictor variables in the regression equation can account for per cent of the variation in the data (HA).

The anticipated multiple regression models is given by the r egression equation produced from the b – values in the Table below:

Table 3: The coefficients of the dependent variable

Constant	*B*	*StandardError*	*t*	*Sig.*
Healthcare assistants	0.74	0.435	1.706	0.096
Working Environment	0.12	0.153	0.811	0.421
Benefits	0.15	0.157	0.991	0.324
Training andtreatment	0.26	0.155	1.735	0.086
Career Development	0.211	0.138	0.613	0.561

The regression analysis in Table 3, identified the relationship between the predictors (determinants of the working environment) and the dependent variable (healthcare assistants). Using the information in Table 3, the estimated regression model is as given in the following regression equation:

Y(HA) = 0.743 + 0.126(x1) + 0.156(x2) + 0.262(x3) + 0.211(x4)+0.377(x5)+ e (6)

Where HA = Healthcare Assistants

xi = relates to each element i = 1, 2, 3, 4, 5,

x1 = Working environment

x2 = Benefits

x3 = Training and treatment x4 = Career Development

x5 = Job security and stability

The beta (β) coefficients reflected in Table 3, are the values for the regression equation for predicting the dependent variable from the independent variable. The larger beta (β) coefficient is 0.377, corresponding to job security and stability (independent variable), which means that one standard deviation increase in job security and stability, is followed by a 0.377 standard deviation increase in HA. Similarly, the other positive beta coefficients corresponding to working conditions (0.126), benefits (0.156), training and treatment (0.262), and career development (0.211), mean that one standard deviation increase in either one of the beta coefficients would result in a standard deviation increase in HA. It is evident that job security and stability (t = 1.829) as well as training and development (t = 1.735), have a significantly higher impact on healthcare assistants. Therefore, based on the above multiple regression analysis, the H1 is supported. Therefore;

Every unit increase in the working conditions variable, a (0.126) unit increase in HA is predicted while the other independent variables are held constant.

a) Every unit increase in the benefits variable, a (0.156) unit increase in HA is predicted while the other independent variables are held constant.
b) Every unit increase in the training and treatment variable, a (0.262) unit increase is predicted while the other independent variables are held constant.
c) Every unit increase in career and development variable, a (0.211) unit increase is predicted while the other independent variables are held constant.
d) Every unit increase in the job security and stability variable, a (0.377) unit increase is predicted while the other independent variables are held constant. The relationship between independent variables (healthcare assistants) and the dependent variable (Improved Performance)

4.2.2. The relationship between independent variables (healthcare assistants) and the dependent variable (Improved Performance)

Table 4: *Relationship between healthcare assistants and Improved Performance*

R	R^2	*Adjusted* R^2	*Standarderror of estimate*
0.92	0.845	0.92	16.36

DISCUSSION

The coefficient of determination (r2) predicts the percentage change in the dependent variable (IP) due

to the independent variable (determinants of working environment). This coefficient indicates how well the linear regression mod el fits the data. Table 4's r2 value of 0.845 indicates that the predictor variable of healthcare assistants revealed in the regression equation can explain 92 percent of the variation in the outcome (IP).

The estimated linear regression model is given by the regression equation produced from the b – values in Table 5 below:

Table 5: *Coefficients of the dependent variable (Improved Performance)*

Constant	B	Standard error		T	F
Improved Performance	0.2	0.433		4.05	16.36
Healthcare assistants	2.6	0.136	0.139	4.33	34.45

Y (IP)=0.20+2.6(x1)+e

Where

IP = Improved Performance

x_i = relates to each element

i = 1

x_1 = Healthcare assistants

The beta coefficients reflected in Table 5, are the values for the regression equation for predicting the dependent variable from the independent variable. The beta coefficient is 2.6, corresponding to healthcare assistants (independent variable), which means that one standard deviation increase in healthcare assistants, is followed by a 2.6 standard deviation increase in IP. It is evident that healthcare assistants (t = 4.33), have a significant impact on improved performance. Therefore, based on the above linear regression analysis, the H2 is supported.

Therefore;

a) For every unit increase in the healthcare assistants variable, a (2.6) unit increase in (IP) is predicted.

The relationship between independent variables (healthcare assistants and improved performance) and the dependent variable (Hospital performance)

Table 6: Relationship between healthcare assistants improved performance and Hospital performance

R	*R^2*	*Adjusted R^2*	*Standarderror of estimate*
0.998	0.997	0.996	4.2647

- The coefficient of determination (r2) is an estimate of the percentage variation in the dependent variable (HP) which can be predicted from the independent variable (determinants of the working environment).This coefficient demonstrates how well the multiple regression models fits the data. A value close to zero shows a weak fit whereas a value close to one implies a good fit. The r2 – the value of 0.997 in Table 6, indicates that 99.7% of the variation in (HP) can be explained by the predictor variable of

healthcare assistants, identified in the regression equation.

- The estimated multiple regression model is given in the regression equation derived from the b – values in Table 7 below:

Table 7: Coefficients of the Hospital performance

	B	*SE*	*B*	*T*	*Sig.*
Constant					
Hospital Performance	0.922	0.160	0.294	1.732	0.090
Healthcare assistants	0.122	0.172	0.087	1.597	0.565
Improved performance	0.149	0.145	0.062	1.833	0.810

Y(HP)=0.922+0.122(x1)+0.149(x2)+e

Where

HP = Hospital Performance

xi = relates to each element

i = 1, 2

x1 = Healthcare assistants

x2 = Improved Performance

The beta coefficients reflected in Table 7, are the values for the regression equation for predicting the dependent variable from the independent variable. The larger beta coefficient is 0.149, corresponding to improved performance (independent variable), which means that one standard deviation increase in healthcare assistants, is followed by a 0.149 standard deviation increase in HP. It is evident that improved performance (t = 1.833), has a significant impact on hospital performance. Therefore, based on the above multiple regression analysis, the H3 is supported.

CONCLUSION

To summarize, there is a substantial link between the use of healthcare assistants and enhanced hospital performance using the Statistical Package for Social Sciences (SPSS). The determinants of the working environment were discovered to have a substantial impact on the health workers. Health officials who are happy in their work are aware of the impact that their actions will have on the health center's overall success. Although satisfying medical care is more efficient and motivated in their work, this will lead to improved work performance and performance evaluation. The importance of improving the work performance of medical assistants is added to the improvement process. As a result of the study findings, health assistants are quite happy with their careers, owing to good training and treatment, professional advancement, pleasant working conditions, and improved job security. Health assistants believed that the hospital is an amusing and comfortable place to work as well as greater job satisfaction leads to happier and more productive to generate workers. Greater satisfaction of health assistants is the key to success in improving overall the performance of the hospital.

FUTURE RESEARCH GAP

In this research, the improvement in the performance of healthcare assistants would be discussed during the pandemic era. In this scenario, the focus is on developing the hypothesis for working environment factors using Statistical Package for Social Sciences (SPSS) and improved performance within the hospital during the pandemic.

Moreover, in the future, the research work will be based on artificial intelligence tools within the health sector to make hospitals more effective to resolve pandemic-related issues. It can provide the working conditions and improvement parameters more efficiently and effectively.

CONFLICT OF INTEREST

The author suggests that there is no conflict of interest with the current work and no unethical practices followed during the study. There is no plagiarism involved during the research work and the data taken was based on pure work in healthcare centers during the covid era. If found any copyright is, then cancellation at any time will be acceptable.

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There is no contribution related specifically to doing this research. I have done everything as a sole author.

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