

***THE INFLUENCE OF TEAM WORK ENGAGEMENT ON THE PERFORMANCE OF
MEDICAL DEVICE CALIBRATION
(Study at Pasuruan Regency Health Center)***

Authors:

****Endang Lestari¹, Ririn Widyowati Supangat², Djazuly Chalidyanto³***

¹ Faculty of Public Health, Airlangga University ; Mulyorejo Surabaya Indonesia

² Faculty of Public Health, Airlangga University ; Mulyorejo Surabaya Indonesia

³ Faculty of Public Health, Airlangga University ; Mulyorejo Surabaya Indonesia

Correspondence e-mail: ririn.widyowati.supangat-2021@fkm.unair.ac.id

About the Author

- 1st Author : Endang Lestari, S.M.
Affiliation : Magister program of Health Policy Administration Interest in hospital Administration Management, Faculty of Public Health, Airlangga University Surabaya
Mailing address : Jl. Dr. Ir. H. Soekarno, Kecamatan Mulyorejo, Kota Surabaya, Jawa Timur – Indonesia 60115
Email of author : endang_lestari08@yahoo.com
Orcid ID : <https://orcid.org/0009-0000-6138-6195>
Google Scholar URL:
Phone number : 081330136823
- 2nd Author : Ririn Widyowati Supangat, S.KM
Affiliation : Magister program of Health Policy Administration Interest in Health Care Management, Faculty of Public Health, Airlangga University Surabaya
Mailing address : Jl. Dr. Ir. H. Soekarno, Kecamatan Mulyorejo, Kota Surabaya, Jawa Timur – Indonesia 60115
Email of author : ririn.widyowati.supangat-2021@fkm.unair.ac.id
Orcid ID : <https://orcid.org/0000-0002-3520-6151>
Google Scholar URL: https://scholar.google.com/citations?view_op=new_profile&hl=id
Phone number : 085648466239
- 3rd Author : Dr. Djazuly Chalidyanto, S.KM., M.ARS.
Affiliation : Lecturer, Faculty of Public Health, Airlangga University Surabaya
Mailing address : Jl. Dr. Ir. H. Soekarno, Kecamatan Mulyorejo, Kota Surabaya, Jawa Timur – Indonesia 60115
Email of author : djazulych@fkm.unair.ac.id
Orcid ID : <https://orcid.org/0000-0002-1498-0957>
Google Scholar URL:
Phone number :

ABSTRACT

Medical devices that have been calibrated at the Primary Health Center in the work area of the Pasuruan District Health Office 10.02% and have been proposed in planning 21.17% in 2021. The purpose of this study was to analyze the effect of team work engagement on the performance results of medical device calibration at Pasuruan District Health Center. This type of research is analytic observational with a cross-sectional research design on 86 informants. Linear regression test was used to analyze the data.

The results showed that the medical device calibration team at the Primary Health Center was at the team work engagement level of dedication and the results of medical device calibration performance were low (36.4%). The results of the analysis show that the effect of team work engagement has a significant effect on the management of preparing medical device calibration application letters. In addition, the results of the analysis of the effect of team work engagement showed a significant effect on the performance results of medical device calibration.

Conclusion: There is an influence of team work engagement showing a significant effect on the performance results of medical device calibration. Recommendations for improving the results of medical device calibration performance at the primary health center in Pasuruan Regency were carried out through discussion and research by researchers.

Keywords *team work engagement, performance, calibration, medical devices*

ABSTRAK

Alat kesehatan yang sudah terkalibrasi di Puskesmas pada wilayah kerja Dinkes Kabupaten Pasuruan 10,02% dan sudah diusulkan dalam perencanaan 21,17% pada Tahun 2021. Tujuan penelitian ini adalah menganalisis pengaruh team work engagement terhadap hasil kinerja kalibrasi alat kesehatan di Puskesmas Kabupaten Pasuruan. Jenis penelitian ini observasional analitik dengan rancang bangun penelitian cross sectional pada 86 informan. Uji regresi linear digunakan untuk menganalisis data.

Hasil penelitian menunjukkan tim kalibrasi alat kesehatan di Puskesmas berada pada team work engagement level dedication dan hasil kinerja kalibrasi alat kesehatan kurang (36,4%). Hasil analisis menunjukkan bahwa pengaruh team work engagement berpengaruh secara signifikan terhadap manajemen penyusunan surat permohonan kalibrasi alat kesehatan. Selain itu hasil analisis pengaruh team work engagement menunjukkan berpengaruh signifikan terhadap hasil kinerja kalibrasi alat kesehatan.

Kesimpulan: Terdapat pengaruh team work engagement menunjukkan berpengaruh signifikan terhadap Hasil kinerja kalibrasi alat kesehatan. Rekomendasi untuk peningkatan hasil kinerja kalibrasi alat kesehatan di Puskesmas Kabupaten Pasuruan dilakukan dengan diskusi dan telaah peneliti.

Kata Kunci: *keterlibatan kerja tim, kinerja, kalibrasi, alat kesehatan*

INTRODUCTION

Calibration is a way to detect the accuracy and value of a device that is used to prove the feasibility of a device in accordance with national or international standard values. Calibration is a contributing factor related to medical device validation in patient safety incidents. Contributing factors here are factors that influence and play a role in developing and or increasing the risk of an event (Kemkes RI, 2015).

The positive influence between maintenance of haemodialysis equipment on the quality of patient service in the haemodialysis unit at Al Ihsan Bandung Hospital where calibration is one of the components in the maintenance activities of the equipment (Handari & Agusriani, 2019). In addition, the accuracy of central venous pressure measurement is influenced by, among others, improper calibration (Lesmana, 2018).

There are 33 primary health care in Pasuruan Regency with details of 17 units of Inpatient primary health care and 16 units of Outpatient primary health care (District Health Office, 2020). Medical devices that have been calibrated at the primary health care of the Pasuruan District Office Work Area in 2021 were found to have 10.02% calibrated medical devices and 89.98% uncalibrated medical devices at the primary health care in 2021. However, the medical devices that have been proposed in the planning of the Pasuruan District Health Office are only 21.17% in 2021.

In this study, the researcher proposes several hypotheses, namely the first hypothesis that there is a positive and significant effect of team work engagement on the management of the preparation of requests for calibration of medical devices at the primary health care at Pasuruan regency, and the second hypothesis that there is a positive and significant effect of team work engagement on the performance of medical device calibration.

METHOD

Analytical observational research with quantitative methods is the type of research used in this study. This type of research is quantitative research that uses statement and checklist tools to measure the variables studied. The design of this study is cross sectional because data collection is carried out once at a certain period of time and simultaneously on the variables studied. Data collection starts from December 2022 to June 2023. The research institution is the Primary health center at Pasuruan Regency and the Pasuruan District Health Office. The unit of analysis in this study was the primary health center at Pasuruan Regency. The research subject is the medical device calibration team at 33 primary health center at Pasuruan regency. 1 team consists of the Head of Primary health center, storage manager, and ASPAK application management officer. So that the informants of this research are the primary health center medical device calibration team of 86 informants.

The initial stage is to measure the condition of the medical device calibration team at the primary health center from the variable level of Team Work Engagement, management of the preparation of medical device calibration requests, and the results of medical device calibration performance. Team work engagement is a state related to joint work, positive and satisfying and motivating in medical device calibration activities in which consists of 3 levels, namely team vigor, team dedication, team absorption. Then the researcher processed and analyzed the data on the informant's answers.

Researchers analyzed the effect of team work engagement on the medical device calibration team at the Puskesmas on the management of the preparation of medical device calibration application letters. After that the researchers analyzed the effect of team work engagement on the performance results of medical device calibration at the primary health center. The measurement of team work engagement begins by gathering the medical device calibration team at the Puskesmas then the researcher explains that the opinions of all team members are important then the researcher explores the opinions of all team members using discussion and will be assessed by the researcher with the value of the answers given for each statement using the UWES scale (Table 1). Then the value of all components on team work engagement is composited and then made in the form of intervals from the median value of 49.38 as follows:

- a. Values 34-42 are said to be team work engagement level team vigor
- b. Values 43-54 are said to be team work engagement level team dedication
- c. Values 52-62 are said to be team work engagement level team absorption

Table 1. UWES Scale Terms

| Number | Answer | Value |
|--------|--------|-------|
| 1 | Never | 1 |
| 2 | Ever | 2 |
| 3 | Rarely | 3 |
| 4 | Often | 4 |
| 5 | Always | 5 |

The third stage analyzes the results of the performance of medical device calibration seen from documents containing expenditures at the primary health center which are used as the basis for budget use including calibration of medical devices and a request letter for calibration of medical devices which is a submission letter from the primary health center to the testing institution to propose a medical device calibration and planning budget implementation documents. The analysis used interviews with a checklist guide with the answer choices of presence and absence. Then the value of

all components in the performance results of medical device calibration is composited and then made in the form of an interval with a median value of 3.6 as follows:

a. Value 0-2.9 then the performance is said to be less

b. Value 3-6 then the performance is said to be good

In the fourth stage, the data will be analyzed using SPSS using validity and reliability tests. For statistical analysis, researchers used descriptive analysis, cross tabulation test and linear regression test.

RESULTS AND DISCUSSION

1. Validity and reliability test

Primary data collection was carried out through interviews with informants using a list of statements that had been provided where the research instrument was tested first in order to have validity and reliability in accordance with the requirements of the research instrument that had been determined and then statistically analyzed. The trial was conducted on 18 informants at 2 primary health center in Sidoarjo Regency, 2 primary health center in Jember Regency, 2 primary health center in Malang Regency, 2 primary health center in Bondowoso Regency, 2 primary health center in Trenggalek Regency, 2 primary health center in Pasuruan City, 2 primary health center in Malang Regency, 2 primary health center in Surabaya City, 2 primary health center in Mojokerto City. Validity test by calculating Pearson correlation and reliability test using Cronbach's alpha. The results of validity and reliability measurements are shown in Table 2 and Table 3.

Table 2 Validity And Reliability Test Of Team Work Engagement Variables

| Variable Name | Statement | Pearson Correlation | Description |
|---|------------------------------------|---------------------|-------------|
| <i>Team Work Engagement (Team vigor)</i> (Cronbach's alpha 0,935 >0,602 meaning Reliabel) | <i>Statement team vigor 1</i> | 0,889 | Valid |
| | <i>Statement team vigor 2</i> | 0,932 | Valid |
| | <i>Statement team vigor 3</i> | 0,791 | Valid |
| | <i>Statement team vigor 4</i> | 0,627 | Valid |
| | <i>Statement team vigor 5</i> | 0,957 | Valid |
| | <i>Statement team vigor 6</i> | 0,702 | Valid |
| <i>Team Work Engagement (Team Dedication)</i> (Cronbach's alpha 0,821 >0,602 meaning Reliabel) | <i>Statement team dedication 1</i> | 0,677 | Valid |
| | <i>Statement team dedication 2</i> | 0,642 | Valid |
| | <i>Statement team dedication 3</i> | 0,600 | Valid |
| | <i>Statement team dedication 4</i> | 0,662 | Valid |
| | <i>Statement team dedication 5</i> | 0,623 | Valid |
| <i>Team Work Engagement (Team Absorption)</i> (Cronbach's alpha 0,864 >0,602 meaning Reliabel) | <i>Statement team absorption 1</i> | 0,613 | Valid |
| | <i>Statement team absorption 2</i> | 0,745 | Valid |
| | <i>Statement team absorption 3</i> | 0,682 | Valid |
| | <i>Statement team absorption 4</i> | 0,744 | Valid |
| | <i>Statement team absorption 5</i> | 0,730 | Valid |
| | <i>Statement team absorption 6</i> | 0,541 | Valid |

Table 3 Validity and reliability tests on the variable performance results of medical device calibration

| Variable Name | Statement | Pearson Correlation | Description |
|--|-------------------------|---------------------|-------------|
| Performance results of medical device calibration at primary health center (<i>Cronbach's alpha</i> 0,982>0,602 meaning Reliabel) | Performance Statement 1 | 0,965 | Valid |
| | Performance Statement 2 | 0,981 | Valid |

Based on the table above, the list of questions and checklists can be used for research because after the validity and reliability tests have proven to be valid and reliable.

2. Analysis Of Team Work Engagement In The Medical Device Calibration Team Of Primary Health Center At Pasuruan Regency

Team work engagement has 3 levels, namely team vigor, team dedication, and team absorption. An overview of team work engagement in the medical device calibration team of the primary health center at Pasuruan Regency can be seen in table 4.

Table 4 Level of Team Work Engagement in the Health Equipment Calibration Team of Primary Health Center at Pasuruan Regency in 2023

| Statement | Never | | Ever | | Rarely | | Often | | Always | | Total | |
|--|-------|------|------|------|--------|------|-------|------|--------|------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % | n | % |
| <i>Team vigor</i> | | | | | | | | | | | | |
| Team felt enthusiasm in the medical device calibration activity | 0 | 0,0 | 2 | 6,1 | 9 | 27,3 | 15 | 45,5 | 7 | 21,2 | 33 | 100,0 |
| Team felt confident in calibrating medical devices | 0 | 0,0 | 3 | 9,1 | 4 | 12,1 | 20 | 60,6 | 6 | 18,2 | 33 | 100,0 |
| Team feels excited to work when he wakes up in the morning | 0 | 0,0 | 2 | 6,1 | 4 | 12,1 | 16 | 48,5 | 11 | 33,3 | 33 | 100,0 |
| Team feels capable of carrying out the calibration of medical devices to completion | 3 | 9,1 | 4 | 12,1 | 7 | 21,2 | 14 | 42,4 | 5 | 15,2 | 33 | 100,0 |
| Team was able to face obstacles in medical device calibration activities | 1 | 3,0 | 5 | 15,2 | 12 | 36,4 | 10 | 30,3 | 5 | 15,2 | 33 | 100,0 |
| Team was able to overcome obstacles when something didn't go well in the medical device calibration activities | 1 | 3,0 | 3 | 9,1 | 10 | 30,3 | 12 | 36,4 | 7 | 21,2 | 33 | 100,0 |
| <i>Team Dedication</i> | | | | | | | | | | | | |
| Team found that medical device calibration was important | 0 | 0,0 | 0 | 0,0 | 0 | 0,0 | 16 | 48,5 | 17 | 51,5 | 33 | 100,0 |
| Team was enthusiastic about the medical device calibration work | 0 | 0,0 | 0 | 0,0 | 1 | 3 | 20 | 60,6 | 12 | 36,4 | 33 | 100,0 |
| Team feels proud when medical devices are calibrated | 0 | 0,0 | 0 | 0,0 | 1 | 3 | 13 | 39,4 | 19 | 57,6 | 33 | 100,0 |
| Team found the work of calibrating medical devices challenging | 1 | 3 | 3 | 9,1 | 5 | 15,2 | 18 | 54,6 | 6 | 18,2 | 33 | 100,0 |
| Team feels that completing medical devices that have been calibrated is very important for patient safety | 0 | 0,0 | 0 | 0,0 | 3 | 9,2 | 10 | 30,3 | 20 | 60,6 | 33 | 100,0 |
| <i>Team Absorption</i> | | | | | | | | | | | | |
| Team felt that there was not enough time to complete the calibration of medical devices | 4 | 12,1 | 3 | 9,1 | 6 | 18,2 | 14 | 42,4 | 6 | 18,2 | 33 | 100,0 |

| Statement | Never | | Ever | | Rarely | | Often | | Always | | Total | |
|---|-------|------|------|------|--------|------|-------|------|--------|------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % | n | % |
| Team's attention was entirely focused on the calibration of medical devices | 1 | 3 | 2 | 6,1 | 8 | 24,2 | 14 | 42,4 | 8 | 24,2 | 33 | 100,0 |
| Team feels happy when carrying out intensely | 1 | 3 | 1 | 3 | 19 | 57,6 | 0 | 0,0 | 0 | 0,0 | 33 | 100,0 |
| Team felt immersed in the medical device calibration activities | 4 | 12,1 | 4 | 12,1 | 9 | 27,3 | 13 | 39,4 | 3 | 9,1 | 33 | 100,0 |
| Team found it difficult to leave medical device calibration activities | 6 | 18,2 | 5 | 15,2 | 11 | 33,3 | 8 | 24,2 | 3 | 9,1 | 33 | 100,0 |
| Team often brings work when he returns home | 11 | 33,3 | 6 | 18,2 | 9 | 27,3 | 3 | 9,1 | 4 | 12,1 | 33 | 100,0 |

Source: Data processed in 2023

Table 4 shows that most of the team felt experienced, enthusiastic, proud and challenged in completing medical device calibration activities at the team dedication level, and a small number of teams felt happy that their attention was occupied by medical device calibration activities, immersed in their work and found it difficult to leave medical device calibration activities.

Table 5 Recapitulation of Team Work Engagement Levels in the Primary Health Center at Pasuruan Regency Health Equipment Calibration Team in 2023

| <i>Team Work Engagement Level</i> | n | % |
|-----------------------------------|----|-------|
| <i>Team vigor</i> | 6 | 18,2 |
| <i>Team dedication</i> | 18 | 54,5 |
| <i>Team absorption</i> | 9 | 27,3 |
| Total | 33 | 100,0 |

Source: Data Processed in 2023

The recapitulation shown in table 5 explains that the level of team work engagement at each Primary Health Center was dominated by a team at the team absorption level of 27.3%, meaning that they are happy to be preoccupied with medical device calibration activities, immerse themselves in their work and find it difficult to leave medical device calibration activities.

3. Analysis of the Results of Performance Conditions for Calibration of Medical Devices In Primary Health Center At Pasuruan Regency

Performance itself is a variable that is able to describe the work results of the team in carrying out medical device calibration activities at the Primary Health Center. In this study, performance was explained through 2 indicators, namely the Budget Execution Document and the medical device calibration request letter. The results of the descriptive analysis regarding the performance results of medical device calibration at the Primary Health Center can be seen in table 6.

Table 6 Results of Performance Calibration of Medical Devices at the Primary Health Center Pasuruan Regency in 2023

| Statement | Not Listed | | Listed | | Total | |
|---|------------|------|--------|------|-------|-------|
| | n | % | n | % | n | % |
| Medical device calibration request letter | 19 | 57,6 | 14 | 42,4 | 33 | 100,0 |
| Budget execution document | 21 | 63,6 | 12 | 36,4 | 33 | 100,0 |

Source: Data processed in 2023

Table 6 shows the performance of medical device calibration at the Primary Health Center in Pasuruan Regency in 2023 that on average the team has not made a medical device calibration request letter and then categorized into 2 categories which can be seen in table 7

Table 7 Conditions of Medical Devices Calibration Performance Results at the Primary Health Center in Pasuruan Regency 2023

| Conditions of Medical Devices Calibration Performance | n | % |
|---|----|-------|
| Good | 21 | 63,6 |
| Not Good | 12 | 36,4 |
| Total | 33 | 100,0 |

Source: Data Processed in 2023

The results of the study obtained information that the results of the performance calibration of medical devices at the Primary Health Center in Pasuruan Regency in 2023 were mostly in good condition (63.6%) but some were still in not good condition (36.4%).

4. Analysis of the Influence of Team Work Engagement on Performance Results of Medical Device Calibration at the Primary Health Center in Pasuruan Regency

The next step is to analyze the effect of team work engagement on the performance results of medical device calibration

Table 8 Cross Tabulation Between Team Work Engagement On Performance Results Of Medical Devices Calibration At The Primary Health Center Pasuruan Regency In 2023

| Team Work Engagement | Performance Results of Medical Devices Calibration | | | | | |
|------------------------|--|-------|----------|-------|-------|-------|
| | Good | | Not Good | | Total | |
| | n | % | n | % | n | % |
| <i>Team vigor</i> | 0 | 0,0 | 6 | 100,0 | 6 | 100,0 |
| <i>Team Dedication</i> | 12 | 66,7 | 6 | 33,3 | 18 | 100,0 |
| <i>Team Absorption</i> | 9 | 100,0 | 0 | 0,0 | 9 | 100,0 |
| Total | 21 | 63,6 | 12 | 36,4 | 33 | 100,0 |

Table 8 shows that the largest percentage when team work engagement is at the level of team absorption and the results of good medical device calibration performance are 100%. After analyzing the relationship of team work engagement to the results of medical device calibration performance, we will then analyze the effect of team work engagement on the results of medical device calibration

performance at the Primary Health Center in Pasuruan Regency which will be explained in the next paragraph.

Table 9 Effect of Team Work Engagement on Performance Results of Calibration of Medical Devices at the Primary Health Center Pasuruan Regency in 2023

| Variabel Name | Performance Results of Medical Devices Calibration | |
|-----------------------------|--|-------|
| | b | P |
| <i>Team Work Engagement</i> | 0,107 | 0,001 |

Table 9 can be analyzed that team work engagement significantly affects the performance of the results of medical device calibration activities at the primary health center in Pasuruan Regency. Team performance cannot be separated from how to relate to other colleagues, relate to superiors, follow organizational rules and policies, adhere to performance standards and often live in working conditions that are not ideal. However, a team that is already engaged will always be excited when it encounters difficulties and obstacles. To get the team to engage with medical device calibration activities, create a comfortable atmosphere by establishing clear procedures for carrying out medical device calibration activities at primary health center.

The team interaction process will be different in each primary health center because the various characteristics of the team and environment will influence it, but with clear and similar roles and procedures in the work area of the primary health center in Pasuruan Regency it will bring about teamwork involvement. Performance is a function of alignment, competency, engagement (Supriyanto, et al., 2021). A good and dynamic team must understand the vision, mission and procedures of medical device calibration activities, besides that they must be focused and engaged with the results to be achieved. So that the results of the calibration performance of medical devices get good results. Team work engagement affects the performance of medical device calibration activities, the higher the team work engagement, the better the performance of medical device calibration activities is 0.107 times.

To increase team work engagement with the results of medical device calibration performance, it is recommended that the medical device calibration team be made more focused on completing medical device calibration activities at the Primary Health Center, Increase the sense of unity in a work team and assume that through the team they will work better, members of the medical device calibration team strive not to feel any pressure at work, and develop a mature attitude for each team member in facing the changes and challenges they face.

LIMITATION OF THE STUDY

The researcher limited the research that analyzed the team work engagement of the medical device calibration team to the performance results of medical device calibration, which only reached the letter of submission for medical device calibration activities to the testing institution, not until the medical device calibration certificate was issued.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the analysis the medical device calibration team at the primary health center is at the team work engagement level of absorption of 27.1%. Most of the performance results for the calibration of medical devices at Primary health Center are still not good. Team work engagement has a significant effect on the management of preparing calibration request letters and the results of medical device calibration performance at primary health center.

Suggestions for primary Health Centers Judging from the results of the research, it is necessary to immediately carry out training actions for equipment coordinators and immediately implement what is contained in the handbook on medical device calibration

ETHICAL CONSIDERATIONS

Scientific work obtained ethical approval from the Health Research Ethics Committee of the Faculty of Public Health, Airlangga University with No: 26/EA/KEPK/2023

ACKNOWLEDGEMENT

This scientific work was not funded by any party and is original research conducted by the Authors

STATEMENT KONFLIK KEPENTINGAN

The author declares that there is no conflict of interest in writing this work.

REFERENCES

- Akbar, A., 2009, Pengaruh Karakteristik Pekerjaan, Karakteristik Organisasi, dan Karakteristik Individu Terhadap Kepuasan Kerja Karyawan Bank Swasta di Propinsi Sulawesi Selatan, *Analisis Journal*, 6(2), pp. 183-192.
- Amstrong, M., 2006. *A Handbook of Human Resource Management Practice*. 10th ed. London: Kogan Page.
- Amstrong, M., 2009. *A Handbook of Human Resources Management*. 11th ed. London: Kogan Page.
- Auliani, I., 2021, Evaluasi Sistem Pelaksanaan Manajemen Pemeliharaan Alat Medis di Instalasi Pemeliharaan dan Perbaikan Peralatan Medis Rumah Sakit (IP3MRS) RSUD Arifin Achmad Provinsi Riau Tahun 2020, *Jurnal Pengabdian Kesehatan Komunitas*, 1(1), pp. 38-5.
- Ayuningtyas, A., 2022. Pengembangan Sumber Daya Aparatur Menuju Era SMART ASN. *The Journalish: Social and Government*, 3(4), pp. 255-266.
- Bakker, A. B., Xanthopoulou, D., Demerouti, E., Schaufeli, W. B., 2003, Dual Processes At Work In A Call Centre: An Application Of The Job Demands-Resources Model, *European Journal Of Work And Organizational*, 12(4), Pp. 393-417.
- Bakker, A. B., Demerouti, E., Verbeke, W., 2004, Using The Job Demands-Resources Model to Predict Burnout and Performance, *Human resource management*, 43(1), pp. 83-104.
- Bakker, A. B., 2011, An evidence Based Model of work engagement, *Current Directions in psychological science*, 20(4), pp. 265-269.
- Bakker, A. B., Xanthopoulou, D., 2009, The Crossover of Daily Work Engagement: Test Of An Actor–Partner Interdependence Mode', *Journal of Applied Psychology*, 94(6), p. 1562.
- Bakker, A. B., Demerouti, E., Vergel, A. I. S., 2014, Burnout and Work Engagement: The JD–R Approach, *Annu. Rev. Organ. Behav.*, 1(1), pp. 389-411.
- Daft, R.L., 2010a. *Management*. 9th ed. Mason, Ohio: South-Western Cengage Learning.
- Daft, R.L., 2010b. *Organization Theor*. 166 10th ed. Mason, Ohio: South-Western Cengage Learning. .692

- Daft, R. L., 2014. *The leadership experience*. 6th ed. Tennessee: Cengage Learning.
- Dessler, G., 2013. *Human Resource Management*. 13th ed. Florida: Prentice Hall.
- Dubrin, A.J., 2003. *Essentials Of Management*. 6th Ed. Ontario: Thomson South-Western.
- Espert, M. D. C.G., Gasco, V. P., Rubio, A. S., 2020, Psychosocial Risks, Work Engagement and Job Satisfaction Nurses During Covid-19 Pandemic, *Frontiers in Public Health*, Volume 8:566896.
- Fitrianasari, D., Nimran, U., Utami, H. N., 2013, Pengaruh Kompensasi dan kepuasan Kerja Terhadap Organizational Citizenship Behaviour (OCB) dan Kinerja Karyawan (Studi Pada Perawat Rumah Sakit Umum Darmayu di Kabupaten Ponorogo), *LABA:Jurnal Administrasi Bisnis*, 7(1), pp 12-24.
- Franklin, S. G., Terry, G. R., 1994. *Principles of Management*. Madison: AITB Publisher.
- Gibson, J. L., Ivancevich, J. M., 1996. *Organizations: Behavior, Structure, Processes*. Jakarta: Bina Rupa Aksara.
- Gold, A., Evans, J.M.,1998. *Reflecting On School Management*. London: Psychology Press.
- Greenberg, J., Baron, R. A., 2003. *Behaviour in Organization: Understanding And Managing The Humanside Of Work. 18th Edition*.Canada: Prentice Hall, 12-17
- Handari, W.A, Agusriani, N. U., 2019, Pengaruh Pemeliharaan Alat Cuci Darah Terhadap Kualitas Pelayanan Pasien Pada Unit Hemodialisa di RSUD Al Ihsan Bandung, *Jurnal Informasi kesehatan*, 3(1), pp 120-134
- Hasibuan, M., 2016. *Manajemen Sumber Daya Manusia*. Jakarta: PT.Bumi Aksara.
- Idrus, S.I., 2020, Pengaruh Pelatihan dan Motivasi terhadap Kompetensi Manajerial Pegawai Negeri Sipil Sekretariat Jenderal dan Badan Keahlian Dewan Perwakilan Rakyat Republik Indonesia, *Jurnal Mirai Management* 5(1), 1-26.
- Jesse, A., Firdaus, A., Pramono, D., Purnomo, W., 2020, Pengembangan Sistem Informasi UPT Kalibrasi Dinas Kesehatan Kabupaten Malang Berbasis WEB, *Jurnal Sistem Informasi, Teknologi Informasi zDan Edukasi Sistem Informasi*, 1(1), pp 23-24.
- Dinkes, 2020. *Profil Dinas Kesehatan Kabupaten Pasuruan*, Pasuruan: Dinas Kesehatan.
- Dinkes, 2021. *Peraturan Bupati Pasuruan no.144 Tahun 2021 tentang Kedudukan, Susunan Organisasi, Tugas Dan Fungsi serta Tata Kerja, Unit Organisasi Bersifat Fungsional Pusat kesehatan Masyarakat (UOBF Puskesmas) dan Unit Pelaksana Teknis laboratorium Kesehatan daerah* , Pasuruan: Dinas Kesehatan
- Dinkes, 2022. *Surat Keputusan Bupati Pasuruan tentang Penunjukkan Pengguna Barang, Kuasa Pengguna Barang, Pejabat Penatausahaan Pengguna Barang, Pengurus Barang Pengguna dan Pengurus Barang Pembantu Pada Dinas Kesehatan Kabupaten Pasuruan*, Kabupaten Pasuruan: Dinas Kesehatan.
- Dinkes, 2022. *Profil Dinas Kesehatan Kabupaten Pasuruan*, Pasuruan: Dinas Kesehatan.

- Kahn, W. A., 1990, Psychological Conditions Of Personal Engagement And Disengagement At Work, *Academy Of Management Journal*, 33(4), Pp. 692-724.
- Kotter, J. P., Heskett, J.L., 1992. *Corporate culture and Performance*. NewYork: A Division of Mac Milan.
- Kramer, M.S., 1987, Determinants of low birth weight: methodological assessment and meta-analysis, *Bulletin of the world health organization*, 65(6), p. 663.
- Kaswan, 2014. *Teamworking (Membangun Tim Yang Efekif dan Berkinerja Tinggi Melalui Kepemimpinan)*. Bandung: Penerbit Alfabeta.
- Lepgold, J., Weiss, T. G., 1998. *Collective Conflict Management And Changing World Politics*. New York: Suny Press.
- Lesmana, H., 2018, Akurasi Pengukuran Tekanan Vena Sentral (Central Venous Presures), *Journal of Borneo Holistic Health*, 1(1) pp 1-13.
- Livnat, Y., Agutter, J., Moon, S. & Foresn, S., 2005. *Visual Correlation for Situational Awareness*. Mineapolis USA, s.n., pp. 95-102.
- Macey, W.H., Scneider, B., Barbara, K.M., Martin, N., 2009, Driving Customer Satisfaction And Financial Success Through Employee Engagement, *Jurnal People And Strategy* 32(2), 22-28.
- Maslichah, N.U., Hidayat, K., 2017, Pengaruh work-life balance dan lingkungan kerja terhadap kepuasan kerja karyawan (Studi pada perawat RS Lavalette Malang tahun 2016), *jurnal Administrasi Bisnis Universitas Brawijaya*, 49(1), pp 84-95.
- Mathis, R.L., Jackson, H.J., 2001. *Manajemen Sumber Daya Manusia*. Jakarta: Salemba Empat.
- Montani, F., Van De Bergh, C., Khedhaovia, A., Courcy, F., 2020, Examining the inverted U-Shaped relationship between workload and innovative work behaviour : the role of work engagement and mindfulness, *Human Relation journal*, 73(1), pp. 59-93.
- Kemkes RI, 2009. *Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 Tentang Kesehatan*, Jakarta: Republik Indonesia.
- KKI, 2012. *Standar Kompetensi Dokter Indonesia*. Cetakan pertama ed. Jakarta:Konsil Kedokteran Indonesia.
- Kemkes RI, 2015. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 54 Tahun 2015 Tentang Pengujian Dan Kalibrasi Alat Kesehatan*, Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kemkes RI, 2015. *Pedoman Pengelolaan Peralatan Kesehatan bagi Fasilitas Pelayanan Kesehatan*. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kemkes RI, 2015. *Pedoman Pelaporan Insiden Keselamatan Pasien (Ikp)(Patient Safety Incident Report)*, Jakarta: Komite Keselamatan Pasien Rumah Sakit.
- Kemkes RI, 2018. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 31 Tahun 2018. Tentang Aplikasi Sarana, Prasarana Dan Alat Kesehatan*, Jakarta: Kemenkes RI.
- Kemkes RI, 2018. *Kalibrasi Alat Kesehatan Dalam Rangka Peningkatan Pelayanan Kesehatan Publik Di Puskesmas.*, Jakarta: Ombudsman Republik Indonesia.

- Kemkes RI, 2019. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 43 Tahun 2019 Tentang Puskesmas*, Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kemkes RI, 2023. *Peraturan Menteri Kesehatan nomor 15 Tahun 2023 tentang Pemeliharaan alat kesehatan di Fasilitas Pelayanan Kesehatan*, Jakarta: Kementerian Kesehatan Republik Indonesia.
- Robbins, S.P., 2001. *Perilaku Organisasi*. 8 Ed. Jakarta: Prentice Hall
- Robbins, S.P., Bergman, R., Stugg, I., Coutler, M., 2014. *Management*. 11th Ed. Saddle River: Prentice Hall.
- Rai, A., Maheshwani, S., 2021, Exploring The Mediating Role Of Work Engagement Between The Linkages Of Job Characteristics With Organizational Engagement And Job Satisfaction, *Management Research Review*, 44(1), Pp. 133-157.
- Robbins, S. P., Judge, T. A., 2011. *Organizational behavior*. 14 ed. Boston: Prentice Hall.
- Robbins, S. P., Judge, T. A., 2012. *Organizational Behavior*. 15th ed. New Jersey: Prentice Hall.
- Sawir, M., 2020. *Birokrasi Pelayanan Publik (Konsep, Teori Dan Aplikasi)*. Jakarta: Deep Publish.
- Samsudin, S., 2006. *Manajemen sumber daya manusia*. Bandung: Pustaka Setia.
- Saputra, A., 2022, Pengaruh Kompetensi Dan Self- Awareness Terhadap Kepuasan Kerja Melalui Keterikatan Kerja, *Jurnal Ilmiah Manajemen Kesatuan*, 10(2), 10(2).
- Schaufeli, W. B., Salanov, M., Roma, V. G., Bakker, A. B., 2002. The Measurement Of Engagement And Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal Of Happiness Studies*, 3(1), Pp. 71-92.
- Schaufeli, W. B., Bakker, A. B., Salanova, M., 2006. The Measurement Of Work Engagement With A Short Questionnaire A Cross-National Study. *Educational And Psychological Measurement*, 66(4), Pp. 701-716.
- Soemirat, S., 2000, *Komunikasi Organisasional*, Jakarta: Universitas Terbuka.
- Sopiah, 2008, Budaya Organisasi, Komitmen Organisasional Pimpinan Dan Pengaruhnya Terhadap Kepuasan Kerja Dan Kinerja Karyawan Bank, *Jurnal Keuangan Dan Perbankan*, 12(2), pp 308-317.
- Stacey, M., 2009. *Teamwork and Collaboration in Early Years Settings*. 1 ed. Southernhay East: Learning Matters Ltd.
- Sulaeman, E., 2011. *Manajemen Kesehatan Teori dan Praktek di Puskesmas*. Revisi ed. Yogyakarta: Gajah Mada University Press.
- Supriyanto, S., Wahyanto, T., Damayanti, N. A., Wulandari, R. D., 2021. *Human Capital Management As Competitive Advantages in Health Care*. 1 ed. Surabaya: Zifatama Publisher.
- Sutrisno, 2011. *Manajemen Sumber Daya Manusia*. 3 ed. Jakarta: Kencana Prenada Media Group.
- Torang, S., 2013. *Organisasi dan Manajemen (Perilaku, Struktur, Budaya dan Perubahan Organisasi)*. Bandung: Alfabeta.

- Umelo, J. C., 2021. *Staffing Process and employees performance in work organization: A Study of Emerald Leasing Nigeria Limited*, Prayer City, Ogun State: The Departement Of Business Administration, College of Humanities, Management, and Social Sciences Mountain Top Unibersity.
- Wauben, L. S., 2011. Discrepant perceptions of communication, teamwork and situation awareness among surgical teams members. *International Journal for Quality in Health Care*, 23(2), pp. 159-166.
- Winardi, 2007. *Motivasi dan Pemasivasian dalam Manajemen*. Jakarta: Rajawali Press.