

# HOSPITAL ADMINISTRATION AS FACTOR ASSOCIATED WITH QUALITY WORK LIFE AMONG NURSES: A META-ANALYSIS

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## ABSTRACT

**Background:** Maintaining hospital quality is the most important thing to consider in hospital service indicators. Quality work life (QWL) is one of the important factors in maintaining hospital quality. This study aimed to analyzed the associated between hospital administration with quality work life among nurses.

**Subjects and Method:** This study is a meta-analysis with PICO, population: nurses. Intervention: good hospital administration. Comparison: poor hospital administration. Outcome: quality work life. The articles used in this study were obtained from three databases, namely Google Scholar, Pubmed, and Science Direct. Keywords to search for articles are "Hospital Administration" OR "Good Administration" OR "Hospital Services" AND "Quality Work Life" OR "QWL" AND "Multivariate". Articles included are full-text English from 2009 to 2021. Articles were selected using a PRISMA flow diagram. Articles were analyzed using the Review Manager 5.3 application.

**Results:** A total of 8 cross-sectional study articles from Asia (Iran), Europe (Germany), Africa (Ethiopia), and North America (United States) were reviewed in the meta-analysis. Based on the results of the analysis, it was found that good hospital administration has the possibility to increase quality work life 3.49 times compared with poor hospital administration (aOR= 3.49; 95% CI= 2.12 to 5.74; p<0.001) and the results were statistically significant.

**Conclusion:** Good hospital administration increase QWL among nurses.

**Keywords:** hospital, hospital administration, quality work life, nurses.

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## BACKGROUND

Quality of work life (QWL) is a multi-faceted variable that shows a worker's feelings about various dimensions in regard to his/her job. These involve the job content, workplace conditions, enough and fair recompense, job promotional opportunities, duty discretion, involvement in decision-making processes, job safety, occupational

stress, organizational security in employment and individual relations, and work-life stability (Raeissi et al., 2019)

Hospitals as an integral part of health services experience a change in value orientation and thinking. To survive and thrive in a rapidly changing and competitive environment, hospitals must change the para-

digm of hospital management by taking into account the perspectives of employees and consumers. Improving the hospital administration system is an important strategy for improving the quality of work for nurses so as to improve hospital services (Jannah, 2017).

From a nursing perspective, Brooks defines QWL as the extent to which the ability of registered nurses to meet important personal needs through their experience in their work organization while achieving organization goals. Therefore, the notion of staff satisfaction is a broad concept that encompasses the issues at hand more important than just giving some jobs and wages to individuals (Brooks et al., 2007).

Maintaining the quality of the hospital so that the quality of service is maintained the government has developed service standards and hospital service indicators. The quality of nursing services as the main indicator that can play a role in maintaining the quality of hospital services must prioritize the parties served (client oriented), because patients are the most clients, so there are many benefits that can be obtained by a hospital if prioritizing patient satisfaction (Tambunan, 2016).

The role of comprehensive management in nursing is to support all aspects of nursing practice itself. Included in nursing management information system development with integrated clinical pathway to improve service quality in the provision of care nursing, education, research, and management (Meo, 2015).

Based on this background, a comprehensive study is needed from various primary studies on hospital administration and their relationship to quality work life. This study aimed to analyze the analyze the associated between hospital administration and quality work life among nurse.

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## SUBJECTS AND METHOD

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### 1. Study Design

This was a systematic review and meta-analysis. Data collection was obtained from 3 databases, namely: Google Scholar, PubMed, and Science Direct. The analysis of this research was carried out using RevMan 5.3 software. The keywords used were "Hospital Administration" OR "Good Administration" OR "Hospital Services" AND "Quality Work Life" OR "QWL" AND "Multivariate".

### 2. Steps to Perform Meta-Analysis

The meta-analysis was carried out in five steps as follows:

1. Formulate research questions in the PICO format (Population, Intervention, Comparison, Outcome).
2. Search for primary study articles from various electronic databases including Google Scholar, PubMed, and Science Direct and non-electronics.
3. Conduct screening and critical appraisal (Critical Appraisal) of primary research articles.
4. Perform data extraction and synthesize effect estimates into RevMan 5.3.
5. Interpret and conclude the results.

### 3. Inclusion Criteria

The inclusion criteria used are full English papers with a cross sectional design, the relationship measure used is the adjusted Odds Ratio (aOR), the research subjects are nurses, the outcome of the study is quality work life.

### 4. Exclusion Criteria

Exclusion criteria in this study were articles published in languages other than English, statistical results reported in the form of bivariate analysis and not include 95% CI also aOR value.

### 5. Operational Definition of Variables

The search for articles was carried out by considering the eligibility criteria determined using the PICO model.

**Hospital Administration** is the form of health services aimed at individuals and or groups to develop, maintain and be able to develop the quality and services of hospitals, and assessment of the good and bad of hospital administration is assessed by patients usually using a questionnaire filled by patients or inpatients who used the health care services.

**Quality work life** is state of a person's work environment that is regulated by the organization with the aim of job enrichment, policies promotion from within, democratic supervision, participation employees and safe working conditions, it was measured using questionnaire.

### 6. Study Instruments

The instrument used in this research is the Critical Appraisal Checklist Center for Evidence Based Management (CEBMA).

The following are indicators in critical assessment:

- a. Do the research objectives clearly address the focus/problem of the research?
- b. Is the research method (research design) suitable for answering the research question?
- c. Is the research subject selection method clearly written?
- d. Does the sampling method give rise to bias (selection)?
- e. Does the research sample take represent the designated population?
- f. Was the sample size based on pre-study considerations?
- g. Is the measurement method achievable?
- h. Are the research instruments valid and reliable?
- i. Was statistical significance assessed?
- j. Was a confidence interval given for the main outcome?
- k. Are there any confounding factors that have not been taken into account?
- l. Are the results applicable to your research?

### 7. Data Analysis

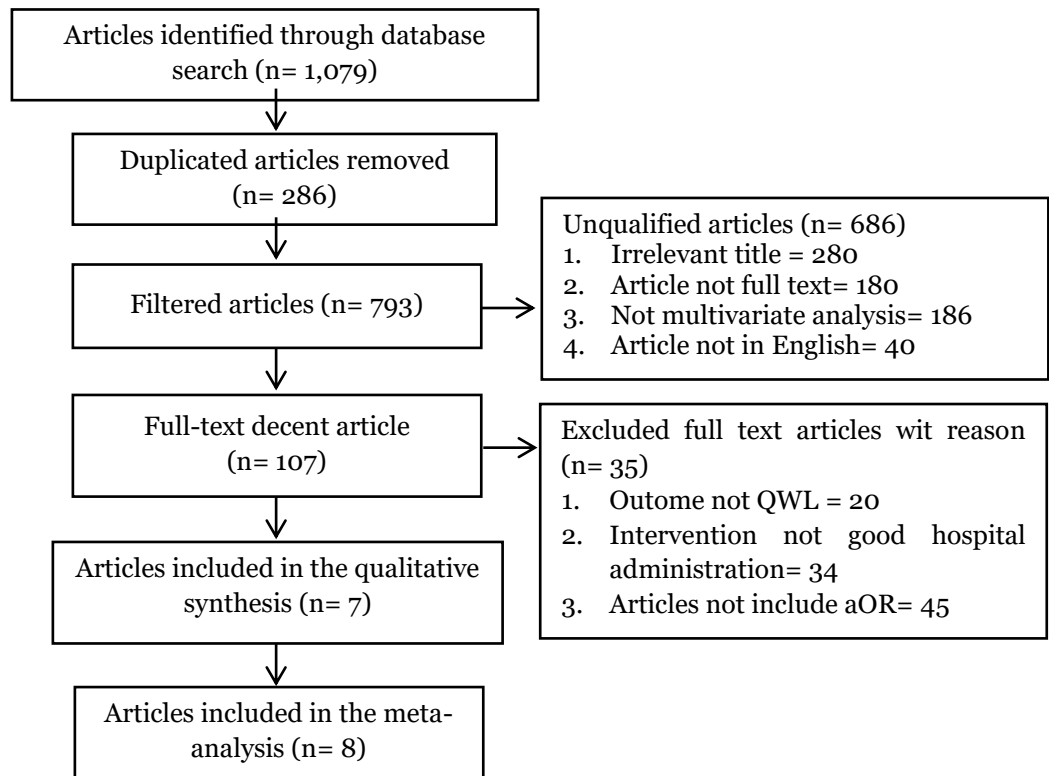
The collected articles were then processed using the Review Manager (RevMan 5.3). Data processing is done by calculating aOR. Forest plots and funnel plots are used to determine the size of the relationship and the heterogeneity of the data.

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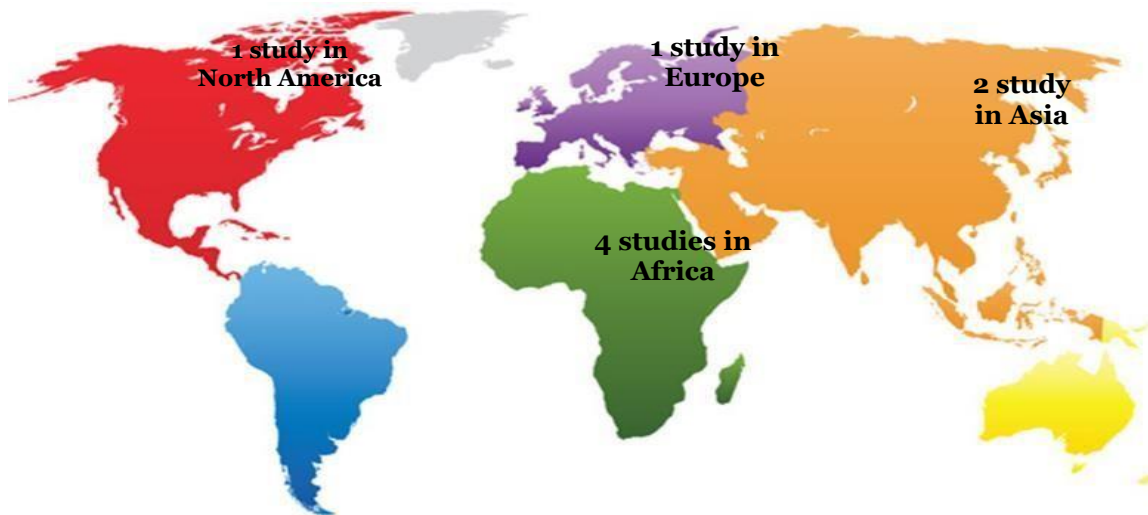
## RESULTS

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Process of searching article was carried out by searching several journal databases PubMed, Google Scholar, and Science Direct it can be seen using the PRISMA FLOW flowchart shown in Figure 1.



**Figure 1. Results of Prisma Flow Diagrams**



**Figure 2. Research Distribution Map**

The initial search process resulted in a total of 1,079 articles, after deleting the duplicated articles, 786 articles were found, of which 107 articles were eligible for a full text review. A total of 8 articles that meet

the criteria according to the quantitative synthesis meta-analysis.

It can be seen in Figure 2 that the research articles come from fourth continents such as Asia, Africa, and Europe.

Table 1 showed about study quality assessment using CEBM, then table 2 showed the details of the articles provide hospital administration on patients satisfaction.

**a. Forest plot Hospital Administration as Factors Associated with Quality Work Life among Nurse.**

The good hospital administration possibility to increase quality work life among nurse compared with poor

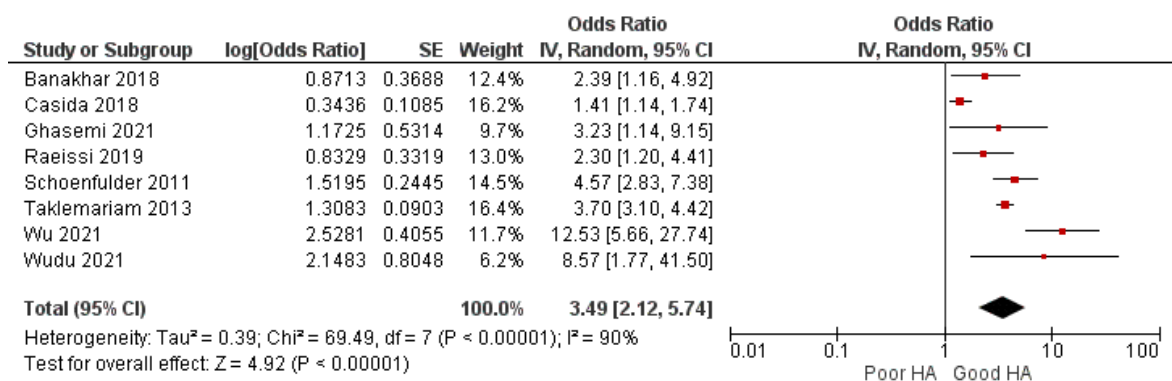
hospital administration (aOR= 3.49; 95% CI= 2.12 to 5.74; p<0.001), and the results was statistically significant.

**b. Funnel plot Hospital Administration as Factors Associated with Patient Satisfaction Quality Work Life among Nurse.**

This study showed the results of a symmetrical funnel plot, indicating that there is no publication bias in this study.

**Table 1. Critical Appraisal Checklist Center for Evidence Based Management (CEBMA) for Nursing Management on Patients Satisfaction.**

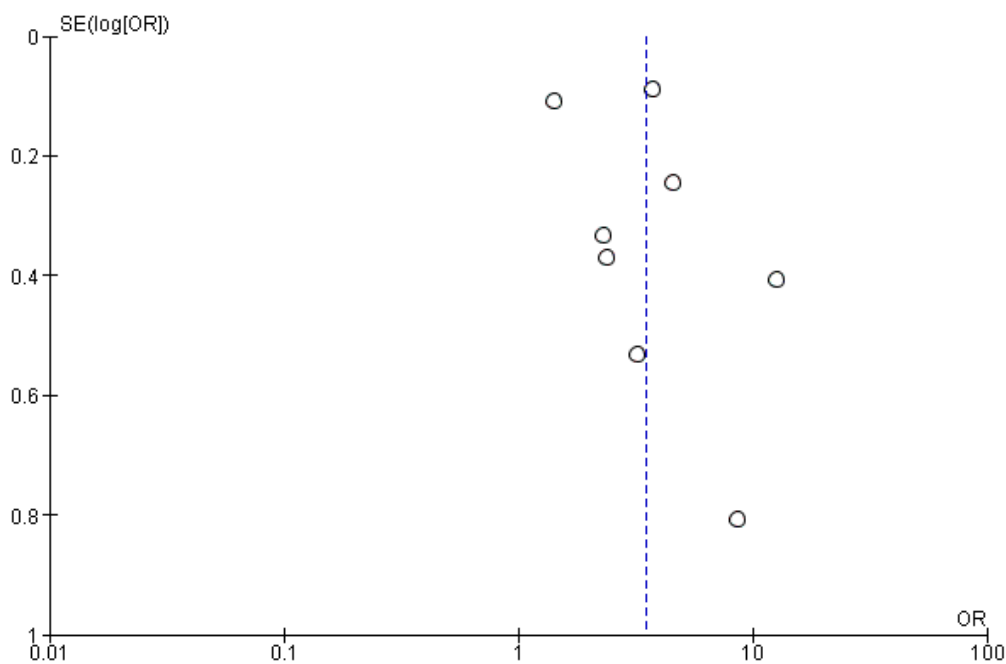
Primary Study	Criteria												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Ghasemi et al. (2021)	2	2	2	2	2	2	2	2	2	2	2	2	24
Raeissi et al. (2019)	2	2	2	2	2	2	2	2	2	2	2	2	24
Teklemariam et al. (2013)	2	2	2	2	2	2	2	2	2	2	2	2	24
Schoenfulder et al. (2011)	2	2	2	2	2	2	2	2	2	2	2	2	24
Wu et al. (2021)	2	2	2	2	2	2	2	2	2	2	2	2	24
Banakhar (2018)	2	2	2	2	2	2	2	2	2	1	2	2	23
Wudu et al. (2021)	2	2	0	2	2	2	2	2	2	2	2	2	22
Casida et al. (2018)	2	2	0	2	2	2	2	2	2	2	2	2	22



**Figure 3. Forest Plot Hospital Administration as Factors Associated with Quality Work Life**

**Table 2. Summary of Articles Sources of Hospital Administration as Factors Associated with Quality Work Life (QWL).**

<b>Author (Year)</b>	<b>Country</b>	<b>Study Design</b>	<b>Sample</b>	<b>Population</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Outcome</b>	<b>aOR (CI 95%)</b>
Ghasemi et al., (2021)	Iran	Cross-sectional	155	Surgeons working in hospitals located in Zahedan	Good hospital administration	Poor hospital administration	QWL, Patient satisfaction.	3.23 (1.14 to 9.13)
Raeissi et al., (2019)	Iran	Cross-sectional	2391	Nurses in 85 Iranian public hospitals	Good hospital administration	Poor hospital administration	QWL	2.30 (1.20 to 4.10)
Teklemariam et al. (2013)	Ethiopia	Cross-sectional	245	All nurses in Hospital Ethiopia	Good hospital administration	Poor hospital administration	Patient satisfaction, QWL, Health service	3.70 (3.10 to 4.48)
Schoenfulder et al. (2011)	Germany	Cross-sectional	507	Nurses aged 20 years and over	Good hospital administration	Poor hospital administration	Job security, QWL.	4.57 (2.83 to 7.40)
Wu et al. (2021)	Ghana	Cross-sectional	126	Nurses in Ghana hospital	Good hospital administration	Poor services on administration	QWL	12.53 (5.66 to 27.72)
Banakhar (2018)	Ethiopia	Cross-sectional	413	Women aged 21 years and over	Good hospital administration	Poor services on administration	Patient satisfaction, QWL	2.39 (1.16 to 4.92)
Wudu et al. (2021)	Ethiopia	Cross-sectional	244	Women aged 20 to 65	Good hospital administration	Poor hospital administration	Work motivation, QWL.	8.57 (1.77 to 14.53)
Casida et al., (2018)	US	Cross-sectional	153	Nurse Practitioners in Ventricular Assist Device Programs	Good hospital administration	Poor hospital administration	QWL	1.41 (1.14 to 1.75)



**Figure 4. Funnel Plot Hospital Administration as Factors Associated with Quality Work Life**

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### DISCUSSION

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This study is based on a systematic review and meta-analysis investigating the hospital administration as associated factor to patients' satisfaction, from 8 cross-sectional studies conducted in Asia, Africa, North America and Europe showed that hospital administration will be affect to increase the quality work life.

Hospitals have the task of carrying out health efforts in an efficient and effective manner by prioritizing healing and recovery efforts that are carried out in a harmonious and preventive manner as well as carrying out referral efforts (Wendimagegn & Bezuidenhout, 2019).

Salarvand et al. (2017) stated that Health Sector Evolution Plan (HSEP) has led to increased workload, capped salaries, staff shortages, and negative impacts on physical,

mental, social, and professional outcomes previously identified as factors which reduces the job satisfaction of hospital nurses. In addition, the adoption of these reforms has increased burnout among nurses.

Another key factor in nurse dissatisfaction with their QWL is high work stress. Several studies have concluded that stress in the work environment decreases nurse's QWL level (Bonenberger et al., 2014). A recent study (2019) report long working hours, shift work, staff shortages, inadequate pay, discrimination at work, unsupportive management, and poor communication as the main causes. major source of job stress among Iranians (Kakemam et al., 2019).

In addition, the causes of low QWL are inadequate and unfair payments, lack of resolution of staff

problems by the organization and lack of management support, job insecurity, high work stress, unfair promotions, and lack of participation in decision making. that's what makes administration at the hospital should be better so that the quality of work of nurses can be guaranteed (Mosadeghrad, 2013).

Success in improving better hospital administration will have an impact on salary and financial support which are the determining factors in QWL for workers, especially nurses (Ghasemi et al., 2021).

In addition, it was stated that there was a significant relationship between nurse services on inpatient comfort and patient satisfaction at class III Medan Adventist Hospital. The results of multivariate statistical tests can be concluded that the variable of nursing care so that patients feel comfortable will increase the patient satisfaction rate by 15,308 times compared to patients who do not feel comfortable. This is also associated with easy service and administration provided by the hospital (Silalahi et al. 2019).

Another study also stated that communication is an important thing that can be done to improve better hospital administration so as to increase patient satisfaction, especially communication between health workers and patients about procedures used in treatment so that patients and their families understand their health conditions. problem. it will make the patient feel valued in terms of decision making (Kim et al., 2017).

Hospital administration that's makes patients satisfied is not only communication, but other external aspects will also have an effect, such as a comfortable environment, extensive facilities, while in hospital are also aspects of service quality that must be considered (Bonenberger et al., 2014).

#### **AUTHOR CONTRIBUTION**

All the authors contributed selects the topic, searching for article, data analysis, and also script writing.

#### **FUNDING AND SPONSORSHIP**

This study is self-funded.

#### **CONFLICT OF INTEREST**

There is no conflict of interest in this study.

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#### **REFERENCES**

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- Ahmed BM (2018). Nurses work motivation and the factors affecting it: A Scoping Review. Doi: 10.15344/2394-4978/2018/277
- Bonenberger M, Aikins M, Akweongo P, Wyss K (2014). The effects of health worker motivation and job satisfaction on turnover intention in Ghana: A cross-sectional study. *Human Resources for Health*, 12(1), 1–12. Doi: 10.1186/1478-4491-12-43/TABLES/5
- Brooks BA, Storffell J, Omoike O,



- Ohlson S, Stemler I, Shaver J, Brown A (2007). Assessing the quality of nursing work life. *Nursing Administration Quarterly*, 31(2), 152–157. Doi: 10.1097/01.NAQ.0000264864.94958.8E
- Casida JM, Combs P, Schroeder SE, Johnson C (2018). Burnout and Quality of Work Life Among Nurse Practitioners in Ventricular Assist Device Programs in the United States. Doi: 10.1177/1526924818817018, 29(1), 67–72.
- Desta H, Berhe T, Hintsu S (2018). Assessment of patients' satisfaction and associated factors among outpatients received mental health services at public hospitals of Mekelle Town, northern Ethiopia. *Int J Ment Health Syst*, 12, 38. Doi: 10.1186/s13033-018-0217-z
- Ghasemi F, Rahmani R, Behmaneshpour F, Fazli B (2021). Quality of work life among surgeons and its association with musculoskeletal complaints. Doi: 10.1080/23311908.2021.1880256
- Jannah SR (2017). Tahap-Tahap dalam Proses Keperawatan Sebagai Sistem di Rumah Sakit (Stages in the Nursing Process as a System in the Hospital). Doi: 10.31219/OSF.IO/WNMGP
- Kakemam E, Raeissi P, Raoofi S, Soltani A, Sokhanvar M, Visentin D, Cleary M (2019). Occupational stress and associated risk factors among nurses: a cross-sectional study. *Contemporary Nurse*, 55 (2–3), 237–249. Doi: 10.1080/10376178.2019.1647791
- Kim CE, Shin JS, Lee J, Lee YJ, Kim M, Choi A, Park KB, et al. (2017). Quality of medical service, patient satisfaction and loyalty with a focus on interpersonal-based medical service encounters and treatment effectiveness: a cross-sectional multicenter study of complementary and alternative medicine (CAM) hospitals. *BMC Complementary and Alternative Medicine*, 17(1). Doi: 10.1186/S12906-017-1691-6
- Meo MY (2022). Pengembangan Sistem Informasi Manajemen Keperawatan Dengan Integrated Clinical Pathway Untuk Meningkatkan Kualitas Pelayanan. *JMK* Retrieved November 16, 2022.
- Mosadeghrad AM (2013). Quality of Working Life: An Antecedent to Employee Turnover Intention. *J. Health Policy Manag*, 1(1), 43. Doi: 10.15171/IJHPM.2013.07
- Raeissi P, Rajabi MR, Ahmadizadeh E, Rajabkhah K, Kakemam E (2019). Quality of work life and factors associated with it among nurses in public hospitals, Iran. *J Egypt Public Health*, 94(1), 1–8. Doi: 10.1186/S42506-019-0029-2/TABLES/3
- Salarvand S, Azizimalekabadi M, Akbari Jebeli A, Nazer M (2017). Challenges experienced by nurses in the implementation of a healthcare reform plan in Iran. *Electron. Physician*, 9(4), 4131–4137. Doi: 10.19082/4131
- Teklemariam Z, Mekonnen A, Kedir H, Kabew G (2013). Clients and clinician satisfaction with laboratory services at selected government hospitals in eastern Ethiopia. *BMC Research Notes*, 6(1),

1–7. Doi: 10.1186/1756-0500-6-15/TABLES/4  
Wendimagegn NF, Bezuidenhout MC (2019). Integrating promotive, preventive, and curative health care services at hospitals and health centers in Addis Ababa, Ethiopia. *J. Multidiscip. Healthc.* 12, 243. Doi: 10.2147/JMDH.-

S193370  
Wu Q, Amporfro DA, Boah M, Yingqi S, Cheteu Wabo TM, Zhao M, Ngo Nkondjock VR (2021). Patients satisfaction with healthcare delivery in Ghana. *BMC Health Services Research*, 21(1), 1–13. Doi: 10.1186/S12913-021-06717-5/FIGURES/1