Nurse Practitioners’ Job Satisfaction and Associated Factors among Nurses working at the University of Gondar Specialized Hospital: A Cross-sectional Survey study

Abere Woretaw Azagew (wabere@ymail.com)
University of Gondar College of Medicine and Health Sciences

Chilot Mekonnen
University of Gondar

Research article

Keywords: Nurse practitioner, Job satisfaction, Northwest Ethiopia

Posted Date: April 17th, 2020

DOI: https://doi.org/10.21203/rs.3.rs-21796/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License
Abstract

Background Job satisfaction is an important measure of cognitive as well as a behavioral component of employees’ feelings of comfort in their particular work. It is also the outlook and spirit of certain professionals towards their work. Nurses’ job satisfaction is a significant predictor of staff retention. Therefore, this study aimed to assess Nurse Practitioners’ Job Satisfaction and Associated Factors among Nurses Working at the University of Gondar Specialized Hospital Northwest Ethiopia.

Methods A cross-sectional study design was employed from May 15–20/2019. A total of 416 nurses participated in the study. A simple random sampling technique was used to select each study participant. A pretested structured questionnaire was used to collect the data. A Minnesota satisfaction measurement tool was used to measure nurse practitioners’ job satisfaction. A binary logistic regression analysis was used. Variables having p-value < 0.05 in a multivariable analysis model were considered as statistically significant and independently associated with the outcome variable.

Result A total of 416 study participants were used in the study with a response rate of 97.6%. In this study, 204 (50.2%) of nurse practitioners were dissatisfied with their job. Motivational factors such as professional advancement (AOR = 2.737, 95% CI; 1.109, 6.751), work itself (AOR = 4.250, 95% CI; 1.645, 10.983), recognition at work (AOR = 11.869, 95% CI; 4.238, 33.241), growth at work (AOR = 6.272, 95% CI; 2.278, 17.264), and hygienic factors; organizational policy (AOR = 5.623, 95% CI; 2.131, 14.836), relationship with friends (AOR = 6.112, 95% CI; 2.393, 15.612), work-security (AOR = 6.562, 95% CI; 95% CI; 2.374, 18.136), relationship with supervisor (AOR = 5.127, 95% CI; 1.796, 14.641), payment (AOR = 5.889, 95% CI; 1.989, 17.438), and working conditions AOR = 3.806, 95% CI; 1.195, 12.123) were the factors associated with nurses’ job dissatisfaction.

Conclusions In this study, one of every two nurses experienced job dissatisfaction. Motivational factors such as professional advancement, work itself, recognition at work, growth at work, organizational policy, relationship with friends, work security, relationship with supervisor, payment, and working conditions were the factors associated with nurses’ job dissatisfaction.

Background

Job satisfaction is an important measure of cognitive as well as a behavioral component of employees’ feelings of comfort in their particular work. It is also the outlook and spirit of certain professionals towards their work(1, 2). The employee is an essential component in the process of achieving the mission and vision of the organization. They ought to meet the performance criteria set by the organization to ensure the quality of care for the larger community where they are employed (3). There are predetermined standards to meet by the organization for the employees to provide quality care. So that the employee needs a very safe working environment that allows them to give their best without problems that restrain them from performing up to the level of their full potential. This, in turn, could be the bridge for job satisfaction(4, 5).
In the modern community, organizations are facing many more challenges due to the over changing nature of the working environment. Among the challenges for health organization is to satisfy its employees to come up with the ever-changing and evolving environment, to achieve success and remain in competition to give quality care(6). On the other hand; to increase efficiency, effectiveness, productivity, and job devotion of the employees, the organization must satisfy the needs of its employees by providing good working conditions(7, 8).

Each year, there are substantial numbers of health professionals leave the health workforce, either temporarily or permanently. This could impose a shortage if they are not replaced and compromised the delivery and quality of health care service(9, 10). There are numerous physiological and psychological factors for job satisfaction. Monthly payment, kind of supervision, low expectation of benefit, operating procedures, the nature of workload, coworkers, habit of team spirit or teamwork and communication had been among the physiological factors for job satisfaction(11, 12). Job satisfaction is a motivational outcome in the health system research due to its relation to performance and turnover, so it is the concern for researchers and health service managers(13–15). The satisfaction of nurses on their job could also depend on nature, expectations of what their job provided them and others, and affective orientation that they have towards their job. It can be measured globally or in the multi-faceted way, with the former approach being used when the interest is on overall attitude towards the job employees have, and the latter when specific job dissatisfaction are evaluated(8). The important facets of job satisfaction identified are salary, benefits, career development, in-service training, work relationship, working environment, management, recognition, and supervision(7, 9, 14, 16).

When the nurse practitioners dissatisfied they might preserve their activities and in that the quality and cost of patient care have been compromised (17). Evidences; showed that job satisfaction is a significant predictor of staff retention(18, 19). Therefore, the study aimed to assess Nurse Practitioners’ Job Satisfaction and Associated Factors among Nurses Working at the University of Gondar Specialized Hospital, Northwest Ethiopia.

**Methods**

**Study design and setting**

A cross-sectional study design was employed from May 15–20/2019. The study was conducted among nurses working in Northwest Amhara region referral hospital; namely the University of Gondar Specialized Hospital(UoGSH). There were around 590 nurses working in this referral hospital.

**Source and Study population**

All nurses working in Northwest Amhara region referral hospitals were considered as the source population whereas those nurses presented in the data collection period were taken as the study population.

**Sample size and Sampling procedure**
The sample size was determined using population proportion formula through the Epi Info stat calc program with the assumption of 95% confidence level, 5% margin of error, and 43.6% of nurse practitioner job satisfaction (20). Taking these into consideration, the estimated sample size was 378. Considering, 10% non-response rate, the final sample size was 416. The study participants were selected using simple random sampling technique.

**Data collection tools and procedures**

A pretested structured questionnaire was used to collect the data. It has two parts. The first part contains socio-demographic variables and the second is nurse practitioner related questions. A Minnesota Satisfaction measurement tool was used to measure nurse practitioners’ job satisfaction. It has 20 items. The question has five-point Likert scale responses which are 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied and 5 = very satisfied (20). The satisfaction level was measured using the responses of each study participant. Taking the summed responses participants who scored below the mean were considered as dissatisfied whereas participants who score above or equal to the mean taken as satisfied related to their jobs. Furthermore, hygienic and motivational factors measurement tools also used. These tools have eleven sections. These are achievement, advancement, work itself, recognition, growth, organization policy, relationship, work security, relationship with supervisor, payment, and working condition. Each of this sub-sections has questions. The responses are given with five-points Likert scale 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree). The Crombach alpha or reliability test was used. The mean of each subscale was calculated. The agreement level was measured using the responses of each study participant. Taking the summed responses participants who scored below the mean were considered as disagreed whereas participants who score above or equal to the mean taken as agreed related to their jobs. A total of three Midwives for data collection and three health officers as supervisors were used. The self-administered method of data collection method was used.

**Data Processing And Analysis**

Data were cleaned, coded, and entered to Epi Info version 7, and exported into SPSS Version 22. Descriptive statistics such as mean, median, frequency, and percentage were used. Tables and bar-graphs were used to display the findings. A binary logistic regression analysis was used. All variables were fitted into the multivariable analysis. Crude odds ratio (COR) with 95% CI for binary logistic regression analysis and adjusted odds ratio (AOR) with 95% CI was calculated. Variables having p-value < 0.05 in a multivariable analysis model were considered as statistically significant and independently associated with the outcome variable. Hosmer’s and Lemeshow goodness of fit test was computed.

**Results**

**Socio-demographic characteristics**

A total of 416 study participants were used in the study with the response rate of 97.6%. The mean (SD) age of the study participants was 36.68 ± 9.4 years. One hundred seventy-six (43.3%) of study
participants were with the age range of 30–39 years. The above half (51.7%) of study participants were female. Above two-thirds (70.4%) the study participants were married. The majority (77.3%) of study participants were degree holders and 81.8% of study participants had paid monthly income of ≥ 4000 Ethiopian Birr (Table 1).
Table 1
Socio-demographic characteristics of nurses working at the University of Gondar Specialized. Northwest Ethiopia, 2019, (n = 406).

| Variables            | Frequency (n) | Percent (%) |
|----------------------|---------------|-------------|
| **Age group in years**         |               |             |
| 20–29                | 106           | 26.1        |
| 30–39                | 176           | 43.3        |
| 40–49                | 75            | 18.5        |
| ≥ 50                 | 49            | 12.1        |
| **Sex**              |               |             |
| Male                 | 196           | 48.3        |
| Female               | 210           | 51.7        |
| **Marital status**   |               |             |
| Single               | 106           | 26.1        |
| Married              | 286           | 70.4        |
| Divorce              | 13            | 3.2         |
| Windowed             | 1             | 0.6         |
| **Education status** |               |             |
| Diploma              | 43            | 10.6        |
| Degree               | 314           | 77.3        |
| Master               | 49            | 12.1        |
| **Religious**        |               |             |
| Orthodox             | 274           | 67.5        |
| Muslim               | 99            | 24.4        |
| Protestant           | 25            | 6.2         |
| Other                | 8             | 2.0         |
Table 1
(continued) - Socio-demographic characteristics of nurses working at the University of Gondar Specialized.
Northwest Ethiopia, 2019, (n = 406).

| Variables          | Frequency (n) | Percent (%) |
|--------------------|---------------|-------------|
| **Working Unit**   |               |             |
| Outpatient department | 56            | 13.8        |
| Ophthalmic         | 16            | 3.9         |
| Fistula            | 13            | 3.2         |
| Emergency          | 23            | 5.7         |
| Inpatient          | 55            | 13.5        |
| Surgical           | 53            | 13.1        |
| Orthopedic         | 46            | 11.3        |
| Operation room     | 34            | 8.4         |
| Recovery           | 30            | 7.4         |
| Medical            | 34            | 8.4         |
| Trauma             | 19            | 4.7         |
| Pediatric ward     | 27            | 6.7         |
| **Work experience**|               |             |
| < 2 years          | 33            | 8.1         |
| 2–6 years          | 184           | 45.3        |
| 7–10 years         | 150           | 36.9        |
| ≥ 10 years         | 39            | 9.6         |

Proportion of Nurse Practitioners Job Satisfaction

In this study, 204[50.2% (95% CI; 45.3, 54.9%)] of nurse practitioners were dissatisfied towards their job (Fig. 1).

Motivational and Hygienic Factors among Nurse Practitioner
Of the study participants; 54.2% disagree with professional advancement, 56.2% disagree with workplace recognition, 57.9% disagree to growth at work, 57.1% disagree to organizational policy, and 51.7% disagree with relation with supervisors (Fig. 2).

**Bivariable and Multivariable Findings: Factors Associated with Nurses’ Job Satisfaction**

A binary logistic regression model was used to test the presence of a significant association. All independent variables were fitted to bivariable and multivariable logistic regression analysis. Variables with a p-value < 0.05 with a 95% confidence level were taken as statistically significant. Adjusting possible confounders in multivariable analysis; Motivational factors such as professional advancement (AOR = 2.737, 95% CI; 1.109, 6.751), work itself (AOR = 4.250, 95% CI; 1.645, 10.983), recognition at work (AOR = 11.869, 95% CI; 4.238, 33.241), growth at work (AOR = 6.272, 95% CI; 2.278, 17.264), and hygienic factors; organizational policy (AOR = 5.623, 95% CI; 2.131, 14.836), relationship with friends (AOR = 6.112, 95% CI; 2.393, 15.612), work-security (AOR = 6.562, 95% CI; 2.374, 18.136), relationship with supervisor (AOR = 5.127, 95% CI; 1.796, 14.641), payment (AOR = 5.889, 95% CI; 1.989, 17.438), and working conditions (AOR = 3.806, 95% CI; 1.195, 12.123) were the factors associated with nurse practitioners job dissatisfaction (Table 2).
Table 2
Factors associated with nurse practitioner job satisfaction working at University of Gondar Specialized Hospital, Northwest Ethiopia 2019, (n = 406)

| Variables               | Nurses’ Job satisfaction | COR, 95% CI          | AOR, 95% CI          |
|-------------------------|--------------------------|----------------------|----------------------|
|                         | Dissatisfied  | Satisfied  | Dissatisfied  | Satisfied  | Dissatisfied  | Satisfied  | Dissatisfied  | Satisfied  |
| **Level of Education**  |             |             |             |             |             |             |             |             |
| Diploma                 | 24          | 19         | 1           | 1           | 0.816(0.431, 1.545) | 3.065(0.588, 15.963) |
| Degree                  | 169         | 145        | 1           | 1           | 1.067(0.469, 2.428) | 3.328(0.436, 25.419) |
| MSc                     | 21          | 28         | 1           | 1           | 1.067(0.469, 2.428) | 3.328(0.436, 25.419) |
| **Work experience (in years)** |             |             |             |             |             |             |             |             |
| < 2                     | 24          | 9          | 1           | 1           | 2.973(1.311, 6.743) | 4.014(0.613, 26.284) |
| 2–6                     | 87          | 97         | 2.739(1.194, 6.282) | 2.804(0.421, 18.685) |
| 7–11                    | 74          | 76         | 2.739(1.194, 6.282) | 2.804(0.421, 18.685) |
| ≥ 12                    | 24          | 28         | 2.807(1.042, 7.558) | 1.814(0.196, 16.747) |
| **Monthly income**      |             |             |             |             |             |             |             |             |
| 2500–3000               | 18          | 9          | 0.913(0.353, 2.358) | 1.661(0.127, 21.670) |
| 3000–3500               | 13          | 5          | 0.351(0.122, 1.007) | 3.509(0.210, 58.594) |
| 3500–4000               | 25          | 16         | 0.584(0.301, 1.135) | 0.371(0.056, 2.453) |
| ≥ 4000                  | 157         | 172        | 1           | 1           | 1           |             |             |             |
| **Achievement**         |             |             |             |             |             |             |             |             |
| Agree                   | 56          | 150        | 1           | 1           | 1           |             |             |             |
| Disagree                | 148         | 52         | 7.624(4.907, 11.843) | 2.527(0.971, 6.576) |
| **Advancement**         |             |             |             |             |             |             |             |             |
| Agree                   | 43          | 143        | 1           | 1           | 1           |             |             |             |
| Disagree                | 161         | 59         | 9.075(5.769, 14.274) | 2.737(1.109, 6.751)* |
| **Work itself**         |             |             |             |             |             |             |             |             |
| Agree                   | 47          | 156        | 1           | 1           | 1           |             |             |             |

NB: ** p value < 0.001, * p-value < 0.05
| Variables                  | Nurses’ Job satisfaction | COR, 95% CI                        | AOR, 95% CI                        |
|----------------------------|--------------------------|------------------------------------|------------------------------------|
|                            | Dissatisfied | Satisfied |                            |                                    |
| Disagree                   | 157          | 46        | 11.328(7.130, 17.998)      | 4.250(1.645, 10.983)*              |
| **Recognition at work**    |              |           |                                    |                                    |
| Agree                      | 29           | 149       | 1                                  | 1                                  |
| Disagree                   | 175          | 53        | 16.965(10.262, 28.045)           | 11.869(4.238, 33.241)**            |
| **Growth at work**         |              |           |                                    |                                    |
| Agree                      | 32           | 139       | 1                                  | 1                                  |
| Disagree                   | 172          | 63        | 11.859(7.334, 19.177)           | 6.272(2.278, 17.264)**             |
| **NB:** **p value < 0.001, * p-value < 0.05** |
Table 2
(Continued) Factors associated with nurse practitioner job satisfaction working at the University of Gondar Specialized. Northwest Ethiopia, 2019, (n = 406).

| Variables                    | Nurses’ Job satisfaction | COR, 95% CI | AOR, 95% CI |
|------------------------------|--------------------------|-------------|-------------|
|                              | Dissatisfied             | Satisfied   |             |
| Organizational policy        |                          |             |             |
| Agree                        | 34                       | 140         | 1           | 1           |
| Disagree                     | 170                      | 62          | 11.290(7.026, 18.143) | 5.623(2.131, 14.836)** |
| Relationship with friends    |                          |             |             |
| Agree                        | 31                       | 157         | 1           | 1           |
| Disagree                     | 173                      | 45          | 19.470(11.740, 32.292) | 6.112(2.393, 15.612)** |
| Work security                |                          |             |             |
| Agree                        | 21                       | 165         | 1           | 1           |
| Disagree                     | 153                      | 37          | 13.378(8.303, 21.556) | 6.562(2.374,18.136)** |
| Relationship with supervisor |                          |             |             |
| Agree                        | 45                       | 151         | 1           | 1           |
| Disagree                     | 159                      | 51          | 10.461(6.614, 16.548) | 5.127(1.796, 14.641)* |
| Payment                      |                          |             |             |
| Agree                        | 64                       | 144         | 1           | 1           |
| Disagree                     | 140                      | 58          | 5.431(3.552,8.305) | 5.889(1.989, 17.438)* |
| Working conditions           |                          |             |             |
| Agree                        | 75                       | 164         | 1           | 1           |
| Disagree                     | 129                      | 38          | 7.423(4.717, 11.681) | 3.806(1.195, 12.123)* |

NB: ** p value < 0.001, * p-value < 0.05
Discussion

In this study, 50.2% (45.3%-54.9%) of nurse practitioners were dissatisfied with their job. Of the study participants; 54.2% disagree with professional advancement, 56.2% disagree with workplace recognition, 57.9% disagree with growth at work, 57.1% disagree with organizational policy, and 51.7% disagree with relation with supervisors. The finding of this study is consistent with the study conducted in East Gojjam Ethiopia 45.8%(21), Gondar Ethiopia 46%(22). On the other hand, the finding of this study is lower than the study in Bahir Dar Ethiopia 56.4%(20), Harar Ethiopia 55.8%(23), and Mansoura Egypt 61.8%(24). The difference is due to the variation sample size, data collection period, tool and measurement. On the contrary, the finding of this study is higher than a study conducted in Ethiopia public health facilities 39.2% (25) Khyber Pakhtunkhwa, Pakistan 17%(26). The discrepancy is due to the former study is multi-centered in nature, whereas the latter study in Pakistan uses a small sample size and differ in the measurement tool.

Motivational factors such as professional advancement, work itself, recognition at work, and growth at work were found the determinant factors of job satisfaction. Nurses who disagree with professional advancement were nearly 2.74 times more likely to dissatisfy to their job compared to those nurses agreed with professional advancement. This is supported by a study conducted in Bahir Dar City administrative advancement is positive reinforcement for nurses’ job satisfaction(20, 25). Career advancement is an important element for employee satisfaction and retention at work. It is one of a staff motivator and reduces anticipated turnover(27). Nurses who disagreed with the nurses’ work itself were 4.25 times more likely dissatisfied compared to those nurses agreed with nurses work itself. The nursing profession needs a long term contact with the patient. It has a heavy workload as a result, most nurse professionals experience burnout. The nature of the work itself improves the level of satisfaction(25).

Nursing draw on the skills of emotional intelligence to meet the needs of direct patient care and co-operative with the multidisciplinary team. Nurses engage in emotional work to foster caring relationship with patients(28). Nurses who had no recognition at work were nearly 11.87 times more likely dissatisfied compared to those nurses who had recognition at the workplace. This is consistent with the study of Ethiopia. Recognition for once work is motivation (20, 25). Meaningful recognition contributes to healthy work environments and is one of the keys to establishing and maintaining healthy work environments for nurses(29). Nonmonetary recognition practice particularly improves nurses job satisfaction(30). Nurses who had no professional growth at work were 6.27 times more likely to be dissatisfied compared to those who had professional growth at work. This is the fact that a limited opportunity for continuous professional development as well as implementing nurse's carrier rank affects the nurse job satisfaction. Lack of promotion is the major source of dissatisfaction. Lack of prospect for promotion is the means for nurse practitioners’ dissatisfaction(31, 32).

Furthermore, hygienic factors such as organizational policy, relationship with friends, work-security, relationship with supervisor, payment, and working conditions are found to be the factors associated with nurses' job satisfaction. Nurses who disagree with the organizational policy were 5.6 times more likely to be dissatisfied compared to those nurses who have agreed organizational policy. The organizational
managerial policy has a direct impact on nurses’ job satisfaction. Lack of knowledge in the organizational policy is the highly practiced discrimination which intern affected nurse job satisfaction(33). Nurses who had a poor relationship with their colleagues were nearly 6times more likely to be dissatisfied compared to those nurses who had a good relationship with friends. Nursing needs collaborative care to the health care team. If there is no good relationship between nurse professional became dissatisfied to their work. Interpersonal conflict between nurses and their colleagues is the main source of dissatisfaction(32). Nurses who had work-insecurity were 6.56times more likely to be dissatisfied compared to those nurses who had work security. This is supported by a study conducted in Pakistan that job security is the main reason for job security(26). Nurses who had no good relationship with a supervisor were 5times more likely to be dissatisfied compared to those who have a good relationship with a supervisor. This is supported by the study in Egypt, deprivation supervisor support affects nurse job satisfaction(24). Nurses who have disagreed with the payment were nearly 6times more likely to be dissatisfied compared to those who agreed to payment. Payment has a significant influence on job satisfaction (22, 31, 34). A study in Pakistan, salary is the main reason of satisfaction. Nurses who have an adequate salary 64% more likely to satisfy their job(26). Nurses who disagreed in working conditions were nearly 4 times more likely to be dissatisfied compared to those who agreed in working condition. A good working environment is a predictor of job satisfaction(23). High workload leads to a stressful environment (33). Some of the factors like working unit and behavioral factors like stress anxiety were not investigated.

Conclusions

In this study, one of every two nurses experienced job dissatisfaction. Motivational factors such as professional advancement, work itself, recognition at work, growth at work, and hygienic factors such as; organizational policy, relationship with friends, work security, relationship with supervisor, payment, and working conditions were the factors associated with nurses’ job dissatisfaction.

Declarations

Ethics approval and consent to participate

The study was approved by the School of Nursing Research and Ethical review committee on the behalf of the University of Gondar Research and ethical review board. Written informed consent was obtained from each study participant. No personal identifiers such as name, ID number, and phone number were used. The information obtained from each study participants was kept secured, locked, and stored as electronic dataset.

Consent for publication

Not applicable

Availability of data and materials
The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests
The author declares that they have no competing of interests.

Funding
The authors received no specific funding for this work.

Authors' contributions
AWA wrote the proposal, analyzed the data, and drafted the manuscript. CKM approved the proposal with revisions, data analysis, and revised subsequent drafts of the manuscript. Both the authors read and approved the final manuscript.

Acknowledgements
The authors would like to thank the study participants and data collectors for their collaboration during the data collection. We would also like to thank the University of Gondar for providing ethical clearance.

References

1. Aziri B. JOB SATISFACTION: A LITERATURE REVIEW. Management Research & Practice. 2011;3(4).
2. Onuoha P, Stephen A, Bernard P, Corban A, Mahabir M, Israel-Richardson D. Factors that contribute to work motivation and job satisfaction among hospital nurses in Trinidad and Tobago. Int J Health Sci Res. 2017;7(1):208–17.
3. Strömgren M, Eriksson A, Bergman D, Dellve L. Social capital among healthcare professionals: A prospective study of its importance for job satisfaction, work engagement and engagement in clinical improvements. International journal of nursing studies. 2016;53:116–25.
4. Huang Y-H, Lee J, McFadden AC, Murphy LA, Robertson MM, Cheung JH, et al. Beyond safety outcomes: An investigation of the impact of safety climate on job satisfaction, employee engagement and turnover using social exchange theory as the theoretical framework. Applied ergonomics. 2016;55:248–57.
5. Song Z, Chon K, Ding G, Gu C. Impact of organizational socialization tactics on newcomer job satisfaction and engagement: Core self-evaluations as moderators. International Journal of Hospitality Management. 2015;46:180–9.
6. De Simone S, Planta A, Cicotto G. The role of job satisfaction, work engagement, self-efficacy and agentic capacities on nurses' turnover intention and patient satisfaction. Appl Nurs Res. 2018;39:130–40.
7. Agyepong IA, Anafi P, Asiamah E, Ansah EK, Ashon DA, Narh-Dometey C. Health worker (internal customer) satisfaction and motivation in the public sector in Ghana. Int J Health Plan Manag. 2004;19(4):319–36.
8. Agyapong VI, Osei A, Farren CK, McAuliffe E. Factors influencing the career choice and retention of community mental health workers in Ghana. Human resources for health. 2015;13(1):56.
9. Marinucci F, Majigo M, Wattleworth M, Paterniti AD, Hossain MB, Redfield R. Factors affecting job satisfaction and retention of medical laboratory professionals in seven countries of Sub-Saharan Africa. Human resources for health. 2013;11(1):38.

10. Li Y, Jones CB. A literature review of nursing turnover costs. J Nurs Adm Manag. 2013;21(3):405–18.

11. Lephalala R, Ehlers VJ, Oosthuizen MJ. Factors influencing nurses' job satisfaction in selected private hospitals in England. Curationis. 2008;31(3):60–9.

12. Gulavani A, Shinde M. Occupational stress and job satisfaction among nurses. International Journal of Science Research (IJSR). 2014;3(4):733–40.

13. Coomber B, Barriball KL. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. International journal of nursing studies. 2007;44(2):297–314.

14. Patterson M, Rick J, Wood Sa, Carroll C, Balain S, Booth A. Systematic review of the links between human resource management practices and performance. Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet]: Centre for Reviews and Dissemination (UK); 2010.

15. Lu H, Barriball KL, Zhang X, While AE. Job satisfaction among hospital nurses revisited: a systematic review. International journal of nursing studies. 2012;49(8):1017–38.

16. Rouleau D, Fournier P, Philibert A, Mbengue B, Dumont A. The effects of midwives' job satisfaction on burnout, intention to quit and turnover: a longitudinal study in Senegal. Human resources for health. 2012;10(1):9.

17. Rosales RA, Labrague LJ, Rosales GL. Nurses' Job satisfaction and Burnout: Is there a connection? International Journal of Advanced Nursing Studies. 2013;2(1):1.

18. De Milt DG, Fitzpatrick JJ, McNulty SR. Nurse practitioners' job satisfaction and intent to leave current positions, the nursing profession, and the nurse practitioner role as a direct care provider. Journal of the American Academy of nurse Practitioners. 2011;23(1):42–50.

19. El-Jardali F, Alameddine M, Jamal D, Dimassi H, Dumit NY, McEwen MK, et al. A national study on nurses’ retention in healthcare facilities in underserved areas in Lebanon. Human resources for health. 2013;11(1):49.

20. Ayalew E, Workineh Y. Job satisfaction and associated factors among nurses in Bahir Dar city administrative. North West Ethiopia 2017 BMC research notes. 2019;12(1):319.

21. Haile D, Gualu T, Zeleke H, Dessalegn B. Job Satisfaction and Associated Factors among Nurses in East Gojjam Zone Public Hospitals Northwest Ethiopia, 2016. Journal of Nursing Care. 2017;6(3):1–6.

22. Gedif G, Sisay Y, Alebel A, Belay YA. Level of job satisfaction and associated factors among health care professionals working at University of Gondar Referral Hospital, Northwest Ethiopia: a cross-sectional study. BMC Res Notes. 2018;11(1):824.

23. Geleto A, Baraki N, Atomsa GE, Dessie Y. Job satisfaction and associated factors among health care providers at public health institutions in Harari region, eastern Ethiopia: a cross-sectional study. BMC
24. EE E. Job Satisfaction among nurses working in Mansoura University Hospital: Effect of socio-demographic and work characteristics. Egyptian Journal of Occupational Medicine. 2018;42(2):227–40.

25. Ayalew F, Kibwana S, Shawula S, Misganaw E, Abosse Z, Van Roosmalen J, et al. Understanding job satisfaction and motivation among nurses in public health facilities of Ethiopia: a cross-sectional study. BMC nursing. 2019;18(1):46.

26. Jan AAHuRF. Job Satisfaction among Nurses Working in Medical Teaching Institution of Khyber Pakhtunkhwa. J Nurs Occup Health. 2020;1(1):9–12.

27. Louie K. Career advancement: What it is and how to achieve it. Retrieved May. 2013;17:2015.

28. McQueen AC. Emotional intelligence in nursing work. Journal of advanced nursing. 2004;47(1):101–8.

29. Lefton C. Strengthening the workforce through meaningful recognition. Nurs Econ. 2012;30(6):331.

30. Cronin SN, Becherer D. Recognition of staff nurse job performance and achievements: staff and manager perceptions. JONA: The Journal of Nursing Administration. 1999;29(1):26–31.

31. Yaktin US, Azoury NB-R, Doumit MA. Personal characteristics and job satisfaction among nurses in Lebanon. JONA: The Journal of Nursing Administration. 2003;33(7/8):384–90.

32. Kielaite V. Stress factors vs. job satisfaction among nursing staff in the Pomeranian Province (Poland) and the Vilnius Region (Lithuania). Ann Agric Environ Med. 2018;25(4):616–24.

33. Mousazadeh S, Yektatalab S, Momennasab M, Parvizy S. Job Satisfaction Challenges Of Nurses In The Intensive Care Unit: A Qualitative Study. Risk Management Healthcare Policy. 2019;12:233.

34. Faramarzpour MBF, Bagheri P. Job Satisfaction of Nurses from Clinical Practice in Jiroft University Hospitals. Iran Journal of Nursing (IJN) Vol28, No97, Dec 2015: 77–86. 2015;28(97):77–86.

Figures
Figure 1

The proportion of nurse practitioners’ job satisfaction among nurses at the University of Gondar Specialized Hospital Northwest Ethiopia, 2019, (n=406).

Figure 2
Hygienic and motivational Sub-scales among nurses working at the University of Gondar Specialized Hospital, Northwest Ethiopia 2019, (n=406)