Turnover Intention and Associated Factors Among Health Professionals in University of Gondar Referral Hospital, Northwest Ethiopia

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Abstract

**Background:** Health workers turnover is an increasing problem that threatens the functioning of the health care sector worldwide, especially in developing countries. There are very few studies on turnover intention in low-income countries, especially in Ethiopia. This study aimed to assess turnover intention of health workers and its determinants in University of Gondar Referral Hospital, Ethiopia.

**Methods:** Institutional based cross sectional study was conducted from March to April, 2014 at University of Gondar Referral Hospital on 394 health professionals using stratified random sampling techniques. The data were cleaned, coded, entered into EPI INFO version 3.5.3, and transferred and analyzed using SPSS version 20. Bi-variable and multivariable logistic regression analyses were carried out to identify factors associated with turnover intention.

**Results:** Overall, 52.5% of the health professionals reported to have turnover intentions. Respondents who have degree and above academic rank [AOR=2.717(95%CI:1.192,6.190)]; nursing profession [AOR=7.668(95%CI:2.913,20.188)]; laboratory profession [AOR=9.153,(95% CI: 2.925,28.636)], work experience of 2.1 to 5 years [AOR=1.937,(95% CI: 1.142,3.288)] and income level of 2100 to 2259 [AOR =0.431(95% CI: 0.213,0.871)] were significantly associated with turnover intention of the health professionals.

**Conclusions:** In this study, turn over intention of health professionals was found to be high. Educational level, profession, work experience, income are significantly associated with intent to turnover. Hence, it is worth strengthening human resources for health management at hospital level through implementing retention strategies.

**Keywords:** Turnover intention; Health professionals; University of Gondar referral hospital

**Abbreviations:** AOR: Adjusted Odds Ratio; ETB: Ethiopian Birr; MD: Medical doctor; SD: Standard Deviation; WHO: World Health Organization

Introduction

Turnover is viewed as a voluntary separation of an individual from an organization. It results from a combination of organizational events, working conditions, and psychological factors interacting with each other to affect employee attitudes in and toward the organization [1].

Health workers turnover is an increasing problem that threatens the functioning of the health care sector worldwide, especially in developing countries [2,3].

Improved retention of health workers contributes to the provision of quality health care because it builds up competencies, optimizes team relations, and strengthens the relationship of health workers with local communities [4]. Several factors influence the decision of health workers to stay in or leave their posts. Among these are low pay, poor career structure, lack of opportunities for graduate training and poor living and working conditions [5,6]. The health worker density in most sub-Saharan countries is well below the WHO recommendation of 2.5 health workers per 1000 population [2].

The negative consequence of high turnover includes; costs associated with recruitment and orientation of new health professionals; loss of experienced health professionals; periods of short staffing accompanied by overtime for remaining register health professionals, or use of temporary agency staff who are less familiar with the setting than employees; and potential for increase in adverse patient outcomes and reduced organizational performance [2,7-10].

The human resources for health crisis in Ethiopia is characterized by an absolute shortage of trained health workers; an imbalance in the numbers of different health worker cadres; uneven distribution of health workers between urban and rural areas; under-production of trained personnel, especially at high and mid-levels; low retention, including a “brain drain” of health workers to more developed countries that offer better compensation; and a poorly motivated health workforce [11].

According to Gondar University Hospital report, 31 different health professional left the hospital from September 2012 to November 2013 [12]. As a result, study on turnover intention and its determinants is tremendously important to insist policy makers to design appropriate retention strategies.

**Methods**

This study was conducted from March to April 2014. University of Gondar hospital is located in North Gondar administrative zone, Amhara National Regional state, which is located 738 km far from Addis Ababa (the capital city of Ethiopia). It is a teaching hospital.

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**Citation:** Abera E, Yitayal M, Gebreslassie M (2014) Turnover Intention and Associated Factors Among Health Professionals in University of Gondar Referral Hospital, Northwest Ethiopia. Int J Econ Manag Sci 3: 196. doi: 10.4172/2162-6359.1000196

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which serves more than five million people of the North Gondar zone and peoples of the neighboring zones [12]. There were a total of 587 different health workers in the hospital. The study used institutional-based cross-sectional study design. The study population included all health professionals who had a work experience of more than six months in the hospital. Health professionals who were on maternal and annual leave and those who were seriously ill during data collection period were excluded from the study.

The sample size was calculated using single population proportion formula with the following assumptions; proportion of turnover intention 50%, 5% margin of error at 95% confidence level, the sample size was 422 after considering 10% non response rate. The study participants were selected through stratified random sampling techniques because the techniques ensure that sub groups were represented proportionally within the department. There after each professional was selected using simple random sampling technique from each department. The total sample size was proportionally allocated to all departments based on the number of professionals in each stratum. Turnover intention refers to an individuals perceived probability of leaving an employing organization.

The questionnaires were prepared by reviewing relevant literatures. Pre-test was done on 10% of the subjects at Felege-hiwot Referral Hospital. Data were collected by pre-tested, pre-coded and self-administered questionnaires. Odds ratio with 95% confidence interval was estimated using multivariable logistic regression to identify the predictors of staff turnover intention. Ethical clearance was obtained from Institutional Review Board of College of Medicine and Health Sciences, University of Gondar. Moreover, informed consent was obtained from all study subjects.

Results

Out of the proposed 422 samples, 394 health professionals completed the questionnaire making a response rate of 93.3%. Majority of health professionals were male 250 (63.5%) and single 214 (54.3%). The mean age of the participants was 27.86 ± 4.34 years. The majority 340 (86.3%) of respondents had educational status of degree and above and most of them 187 (47.5%) were from nursing. Similarly, 82 (46.2%) of the respondents had work experience of less than or equal to 2 years. The mean monthly income of respondents were 2895.84 (± 1530.6 SD) ETB (Table 1).

Other health professional: pharmacy, Anesthesia, Midwifery, Health officer, Radiology, Optometrist, Dentist, Physiotherapist, Psychiatrists, Environmental health.

Turnover intention among the health professionals: The overall turnover intention among the study subjects was 52.5% (95% CI: 47.47, 57.9). The mean turnover intention of health professionals was 3.12 (± 0.871) (Table 3). The result of multivariable analysis reveals that educational level, profession, work experience, and income level were statistically significant predictors for turnover intention in University of Gondar Referral Hospital. Health professionals who had degree and above were 2.72 times more likely to have turnover intention than those who had diploma [AOR=2.72(95% CI: 1.192, 6.19)]. On the other hand, Nurses were 7.67 times more likely to have turnover intention than Medical Doctors [AOR= 7.67(95%CI: 2.913, 20.188)] and Laboratory professionals were 9.15 times more likely to have turnover intention than Medical Doctors [AOR 9.15(95% CI: 2.925, 28.63)] and other health professionals were 5.32 times more likely to turnover intention than its counterparts [AOR=5.32(95% CI: 2.147, 13.162)].

Health professionals who have work experience of 2.1 - 5 years were 1.94 times more likely to have turnover intention than health professionals with work experience of less than two years [AOR=1.94(95% CI: 1.142,3.288)]. Similarly, health professionals whom income level of 2100.00-2259.00 ETB were 56.9% times less likely to have turnover intention than health professionals who have income level of less than 2100.00 ETB [AOR =0.43(95% CI: 0.213, 0.871)] (Table 3).

Factors associated with turnover intention

The dependent variable were turnover Intention while the following factors were included in the model as independent variables: Socio-demographic characteristics (age, sex, marital status, educational status, profession, work experience, income level and work unit); Job factors (nature of work, work place condition, work load, autonomy and working schedule); Organizational factors (organizational commitment, salary level, work environment and coworker relationships).

Pre-test was done on 10% of the subjects at Felege-hiwot Referral Hospital. Data were collected by pre-tested, pre-coded and self-administered questionnaires. Odds ratio with 95% confidence interval was estimated using multivariable logistic regression to identify the predictors of staff turnover intention. Ethical clearance was obtained from Institutional Review Board of College of Medicine and Health Sciences, University of Gondar. Moreover, informed consent was obtained from all study subjects.

### Table 1: Socio-demographic characteristics of health professionals in University of Gondar Referral Hospital, North West Ethiopia, 2014.

| Variables          | Number | Percent |
|--------------------|--------|---------|
| **Sex**            |        |         |
| Male               | 250    | 63.5    |
| Female             | 144    | 36.5    |
| **Age(years)**     |        |         |
| <25                | 136    | 34.5    |
| 26-30              | 204    | 51.8    |
| 31-35              | 37     | 9.4     |
| >35                | 17     | 4.3     |
| **Working Department** |    |         |
| Internal medicine  | 45     | 11.4    |
| Pediatrics         | 44     | 11.2    |
| Ophthalmology      | 24     | 6.1     |
| Laboratory         | 37     | 9.4     |
| Others             | 76     | 19.3    |
| <2100              | 99     | 25.1    |
| 2100-2259          | 98     | 24.9    |
| 2260-2998          | 100    | 25.4    |
| >2998              | 97     | 24.6    |
| **Monthly income level (ETB)** | | |
| Married            | 180    | 45.7    |
| Single             | 214    | 54.3    |
| **Educational status** |    |         |
| Diploma            | 54     | 13.7    |
| Degree and above   | 340    | 86.3    |
| **work experience** |        |         |
| <2                 | 182    | 46.2    |
| 2.1-5              | 148    | 37.6    |
| >5.1               | 64     | 16.2    |
| **Profession**     |        |         |
| Nurse              | 187    | 47.5    |
| MD                 | 60     | 15.2    |
| Laboratory         | 37     | 9.4     |
| Other health professionals | 110 | 27.9 |

The mean monthly income of respondents were 2895.84 (± 1530.6 SD) ETB (Table 1).

Other health professional: pharmacy, Anesthesia, Midwifery, Health officer, Radiology, Optometrist, Dentist, Physiotherapist, Psychiatrists, Environmental health.

Turnover intention among the health professionals: The overall turnover intention among the study subjects was 52.5% (95% CI: 47.47, 57.9). The mean turnover intention of health professionals was 3.12 (± 3.6 SD), which is computed from intention measuring items. Majority of the respondents 218 (55.3%) were satisfied with work place condition, whereas 212 (61.4%), 203 (51.5%), 222 (56.3) and 230 (58.4%) of the study participants were dissatisfied with the work load, nature of work, autonomy and working schedule respectively. On the other hand, 271 (68.8%) of the study participants had co-worker relationship (Table 2).
Table 2: Level of job satisfaction and organizational commitment by different dimensions among health professionals in University of Gondar Referral Hospital, Ethiopia, 2014 (n=394).

| Variable                  | Number | %     |
|---------------------------|--------|-------|
| **Job factors**           |        |       |
| work place condition      |        |       |
| Unsatisfied               | 176    | 44.7  |
| Satisfied                 | 218    | 55.3  |
| work load                 |        |       |
| Unsatisfied               | 242    | 61.4  |
| Satisfied                 | 152    | 38.6  |
| Nature of work            |        |       |
| Unsatisfied               | 203    | 51.5  |
| Satisfied                 | 191    | 48.5  |
| Autonomy                  |        |       |
| Unsatisfied               | 222    | 56.3  |
| Satisfied                 | 172    | 43.7  |
| working hours             |        |       |
| Unsatisfied               | 230    | 58.4  |
| Satisfied                 | 164    | 41.6  |
| **Organizational factors**|        |       |
| Organization commitment   |        |       |
| Low                       | 201    | 51    |
| high                      | 193    | 49    |
| work environment          |        |       |
| Unsatisfied               | 198    | 50.3  |
| Satisfied                 | 196    | 49.7  |
| salary level              |        |       |
| Unsatisfied               | 252    | 64    |
| Satisfied                 | 142    | 36    |
| coworker relationship      |        |       |
| Low                       | 123    | 31.2  |
| High                      | 271    | 68.8  |

Discussion

Our study revealed that 52.5% of the study participants had turned over intention from their organization. This finding is higher than the findings in South Africa (41.4%) [8], the difference may be the fact that due to income, cultural and socioeconomic difference. On the other hand, this finding is lower than study done in Ghana 69% [13], Sidama public health facilities (84.3%) [2] and Jimma University Specialized Hospital (79.3%) [14], this difference might be due to the difference in work experience, study time gap and difference in professional mix. For instance, the study in Sidama zone was included only Nurse Workers.

Majority of the hospital workers were not satisfied with the working hours, their autonomy in decision making, nature of work, their work load and salaries. However, more than half of the respondents had good relationship with their coworkers.

This study also found that health professional’s educational status significantly associated with turnover intention. As the level of education increased, intention for turnover increased. This is in line with the study done in Saudi Arabia and Spain [1,15]. Possible explanation for this finding might be due to the fact that when the level of education increases they will have more opportunities to get better jobs outside the organization than those having lower education level.

Health professionals with more work experience had higher intention leave the hospital than its counterparts. This finding is consistent with previous researches done in Sub-Saharan Africa [16]. The possible explanation for this finding might be due to the fact that if professionals get experienced, they will have more work opportunities; because work experience is one of the main criteria to hire workers in almost all organizations in Ethiopia. However, this finding is not in not supported with study done in Saudi Arabia [15].

In this study, other health professionals like Nurse, Laboratory technician, and Anaesthesia were more likely to have turnover intention than Medical Doctors. Possible explanation for this finding might be due to the fact that the Ethiopian government has formulated different strategies to increase physicians’ retention like house provision and/or allowance, more duty payment than other professionals, other benefits and they have good opportunities to work part time outside the hospital.

Another significant predictor of turnover intention in the hospital revealed by this study was level income; Health professionals who have relatively higher income were less likely to have turnover intention than those who have lower income. This finding is very much consistent with study done in Saudi Arabia [15]. This indicates that relatively higher income is important for the retention of the health professionals in Ethiopian Hospitals.

Limitation

This study was designed as a cross-sectional study of turnover intention of health workers and its determinants, and thus provides only a snapshot of health workers perspectives at one point in time. The data might also be affected by social desirability bias. In addition, our decision to not follow up health workers who had been absent from their workplaces during data collection might have introduced selection bias, because those could have been less satisfied staff and more intent to leave the hospital.

Conclusion

Overall, turnover intention of Health Professionals in University of Gondar Referral Hospital was found to be high. Educational status, profession, work experience and level income were significantly associated with health professional turnover intention.

Recommendation

The Ministry of Health needs to strengthen human resources for health management at hospital level through implementing different retention strategies. In addition, the hospital administration should improve health care workers retention and satisfaction through creating good working environment, designing better payment options and giving attention to mid level health workers. Furthermore, researchers need to conduct qualitative study to explore the detail determinants of turnover intention.

Authors’ Contributions

EA conceived the original idea, involved in proposal writing, designed the study and participated in all implementation stages of the project. MG analyzed the data and finalized the write up of the manuscript. MG and MY were responsible for critically revising the proposal and the manuscript, and participated in its design and interpretation. All authors were responsible for data collection, initial analysis and drafting of manuscript. All authors reviewed and approved the final manuscript.

Acknowledgment

We deeply express our gratefulness to Amhara Regional Health Bureau for its financial support and our special thanks and sincere appreciation also goes to data collectors,
supervisors and study participants.

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### Table 3: Bi variable and Multi variable logistic regression of factors associated with intent to turnover among health professional working in Gondar university referral hospitals, Northwest Ethiopia, 2014

| Variables | Turnover intention | COR(95%CI) | AOR(95%CI) |
|-----------|--------------------|-----------|-----------|
|           | yes    | No    |           |           |
| Sex       |        |       |           |           |
| Male      | 121    | 129   | 1         |           |
| Female    | 86     | 58    | 1.581(1.044,2.394) |           |
| Income Level |       |       |           |           |
| <2100     | 63     | 36    | 1         |           |
| 2100-2259 | 50     | 48    | 0.59(0.337,1.052) | 0.43(0.213,0.871) |
| 2260-2998 | 55     | 45    | 0.69(0.396,1.233) | 0.42(0.203,0.875) |
| >2998     | 39     | 58    | 0.38(0.216,0.684) | 0.67(0.263,1.693) |
| Educational status | |       |           |           |
| Diploma   | 29     | 25    | 1         |           |
| Degree and above | 178   | 162   | 0.95(533,1.684) | 2.72(1.192,1.690) |
| Profession |        |       |           |           |
| MD        | 14     | 46    | 1         |           |
| Nurse     | 111    | 76    | 4.79(2.466,9.337) | 7.67(2.913,20.188) |
| Laboratory | 24     | 13    | 6.07(2.461,14.948) | 9.15(2.925,28.63) |
| other health professional | 58    | 52    | 3.66(1.810,7.422) | 5.32(2.147,13.162) |
| Work experience in years | |       |           |           |
| ≤2        | 87     | 95    | 1         |           |
| 2.1-5     | 81     | 67    | 1.32(0.854,2.04) | 1.94(1.142-3.288) |
| >5        | 39     | 25    | 1.70(0.953,3.043) | 1.89(0.983-3.641) |
| Job factor |        |       |           |           |
| Satisfied | 95     | 100   | 1         |           |
| unsatisfied | 112  | 87    | 1.36(0.911,2.015) |           |
| Organizational factor | |       |           |           |
| high      |        |       |           |           |
| low       | 92     | 95    | 1         |           |
| 115       | 1.21(0.814,1.800) |           |