

# The Magnitude of Turnover Intention and Associated Factors Among Nurses Working at Governmental Hospitals in Southern Ethiopia: A Mixed-Method Study

Getachew Nigussie Bolado<sup>1</sup>, Tadele Lankrew Ayalew<sup>1</sup>, Bizuayehu Atinafu Ataro<sup>1</sup>, Adem Hussein<sup>2</sup>

<sup>1</sup>Department of Nursing, School of Nursing, College of Health Science and Medicine, Wolaita Sodo University, Sodo, Ethiopia; <sup>2</sup>Department of Adult Health Nursing, School of Nursing and Midwifery, College of Medicine and Health Science, Wollo University, Dessie, Ethiopia

Correspondence: Getachew Nigussie Bolado, Email getachewnigussie4@gmail.com

**Background:** Globally, nurse turnover is a problematic agenda that strongly influences health-care organizations. Nurses account for the largest share of the health-care workforce in most health-care systems, and the need for nursing has increased dramatically, but its turnover is considered a global problem. Especially in Ethiopia, nurse turnover is a serious problem and has a negative impact on the provision of quality health services.

**Objective:** To assess the magnitude of turnover intention and associated factors among nurses working at Government Hospitals of Wolaita Zone, Southern Ethiopia, May to June 2022.

**Methods:** An institutional-based cross-sectional study augmented with an explanatory sequential mixed-method approach was conducted among 398 nurses. A simple random sampling technique was used to select participants for quantitative study, and a purposive sampling technique was used for qualitative study. A pretested structured self-administered questionnaire adapted from previous studies and focused group discussions was used for quantitative and qualitative studies, respectively. EpiDataV4.6 was used for data entry, and the Statistical Package for the Social Science version 25 was used for quantitative data analysis. Bivariable and multivariable logistic regression was done. For qualitative data, OpenCode 4.03 software was used for thematic content analysis.

**Results:** A total of 384 nurses participated in this study with a response rate of 96.48%. Of them, 39.8% had turnover intention. Unsatisfied payments and benefits [AOR: 2.113 (95% CI: 1.19–3.77)], unsatisfied performance appraisal [AOR: 3.185 (95% CI: 1.91–5.32)] and low continuance commitment [AOR: 1.899 (95% CI: 1.13–3.18)] had positive relationship with nurses' turnover intention.

**Conclusion and Recommendations:** In this study, nearly 40% of nurses had turnover intention. Unsatisfied payments and benefits, unsatisfied performance appraisal and low continuance commitment were significantly associated with nurses' turnover intention. Therefore, fair performance appraisal, appropriate and timely payments and benefits and increasing nurses' commitment towards their hospitals are very important actions that should be taken.

**Keywords:** factors, government hospitals, nurses, turnover, Wolaita

## Introduction

Turnover intention is defined as the estimated probability for an employee to leave their current job or organization and look forward to find another job in the near future. Turnover intention is different from turnover.<sup>1–3</sup> Nurse turnover is characterized by the resignation of a nurse from a hospital or other health-care institution. The resignation may be caused by dissatisfaction with salaries and payments, prospects for career growth, job insecurity or instability, an inconvenient work atmosphere, and other reasons.<sup>3</sup>

Even though turnover intention is often used as a proxy variable for turnover, they are somewhat different. Turnover is the process through which nurses leave an organization and that organization replaces them, whereas turnover intention

is a measurement of the probability of whether a nurse in an organization plans to leave his or her job in near future or whether that organization plans to remove nurses from their job. Turnover intention is a strong predictor of turnover. A prospective longitudinal cohort study conducted at Seoul National University, South Korea, revealed that among female nurses who had turnover intention, 34% of them had left their jobs within 12 months.<sup>4</sup>

Globally, more than 260,000 nurses are expected to leave the organization in a year and are not replaced as soon as they quit, and the average turnover rate among skilled nursing is 43.9%. Each percentage shift costs an average of approximately \$379,000, which means an average hospital loss of approximately \$5 to \$8 million per year.<sup>5,6</sup> The World Health Organization (WHO) report stated that the expansion of the nursing workforce is not equitable, and demand is high with an insufficient number of nurses and which, in turn, leaves some populations behind. The creation of at least 6 million newly graduating nurses by 2030 is needed, primarily in low- and middle-income countries.<sup>7</sup> The American Nurses Association (ANA) and the US Bureau of Labor Statistics reported that the current nurse turnover rate is 8.8% to 37.0% and there will be a need for 3.44 million and 11 million additional nurses in 2022 and 2030, respectively, to tackle the shortage.<sup>7</sup> Studies conducted in different countries worldwide have shown a variety of nurses' turnover intentions that range from 12.71% to 72.8%.<sup>8–11</sup> A cross-sectional study done in Qatar found that nurses' intentions to leave the organization were significantly higher during COVID-19 than they were prior to COVID-19. The most frequent cause of this was a psychological reaction to stress (fear) brought on by COVID-19.<sup>12</sup>

In Africa, the effect of turnover among nurses in health-care organizations is very high, which compromises the quality of health-care services on the continent. A comparative cross-sectional study in Tanzania, Malawi, and South Africa and a descriptive study in Egypt revealed that the magnitudes of turnover intention were 18.8%, 26.5% and 41.4% and 71.44%, respectively.<sup>13,14</sup>

In Ethiopia, studies conducted on nurses' turnover intentions across different regions had showed discrepancies in their magnitude. The migration of professional nurses by internal or external brain drain is a great challenge for the Ministry of Health Ethiopia and other organizations. Nurses leave their working health institutions for different reasons. These reasons may be internal (personal economic problems) or external (organizational or managerial factors). Nurses migrate from rural areas to urban areas for economic reasons, which is the most common reason. As a result, nurses either move from less economically developed cities or regions to more economically developed cities to create more opportunities for income generation or completely quit their government jobs to start their own private businesses to cope with the dramatically increasing cost of living and support their families.<sup>15</sup> Turnover intention remains the most important problem affecting the quality of health-care services to patients and its magnitude in Ethiopia is very high ranging from 43.9% to 77.5%. Previous studies have contradictory ideas on some of the explanatory variables.<sup>3,6,15–18</sup>

Many contributing factors influence nurses' turnover intentions in different ways. Among them, job satisfaction factors such as autonomy, professional opportunities, working environment, scheduling, enjoyment, supervisor support, co-worker's relationships, payments and benefits, recognition and rewards, job security, performance appraisal system, workload, work shifts, training opportunities, and so on were the major causes. Nurses' organizational commitment and its three domains (affective commitment: the attitude of a nurse regarding the alignment of personal and organizational goals, normative commitment: the nurses' decision to stay with an organization because they feel obligated, and continuance commitment: the nurses' desire to stay with organization in light of costs associated with leaving) were also other causes of nurse turnover.<sup>3,8,9,15,18</sup> According to a study done in Pakistani hospitals, aspects of paternalistic leadership have a direct impact on organizational commitment, which encourages nurses to share their knowledge more. This helps increase nurses' trust and loyalty.<sup>19</sup> Various sociodemographic and personal factors were also contributors to turnover intention as evidenced in the literature.<sup>3,8,9</sup>

Psychological empowerment and organizational learning culture were also found to have an impact on turnover intention, giving managers a strategy to retain their top personnel in the organization. Nurses may be less likely to plan to leave the organization if they increase their organizational commitment and organizational citizenship behavior. Organizational commitment (affective commitment, normative commitment, and continuance commitment) is the employee's psychological attachment to the company where they are currently employed, and it is correlated with both their behavioral capital and individual coincidence, whereas organizational citizenship behavior is individual actions

that are discretionary, which are not directly or openly acknowledged by the formal incentives but taken together support the efficient and effective operations of the organization.<sup>20–22</sup>

The consequences of nurse turnover affect not only the health sector but also the nursing profession itself. It has short- and long-term effects. It also imposes direct costs on health-care organizations such as advertising, recruitment, and training of new employees, and so on, and indirect costs such as low performance and productivity of new nurses, depression and decreased morale of nurses left behind, loss of skills and local knowledge, and increased length of patient stay, and so on. It also causes inadequate staffing of nurses, increased work overload on nurses and longer shifts and is consequently related to lower nurses' job satisfaction.<sup>15,23</sup>

This study adds to previous studies by incorporating the magnitude and factors affecting nurses working in government hospitals to leave their hospital and look for another job. It also alerts hospital management and other stakeholders to become more knowledgeable about nurses' turnover intention and its predictors. Since turnover intention had direct effect on nurses' productivity, it is very important to reduce it by applying different evidence-based strategies to maximize nurses' job satisfaction and organizational commitment which, in turn, increase nurses' intention to stay in the hospital. Therefore, hospital management and other stakeholders can decrease the nurses' turnover intention in the hospitals by applying a fair performance appraisal system, paying appropriate and timely payments and benefits, and taking other actions.

The majority of studies conducted in Ethiopia focused merely on overall health-care professionals as study participants, which made it difficult to point out the turnover intention of nurses. To the best of our knowledge, very few studies have been conducted in Ethiopia on nurses with the same title, and no study has been conducted in our study area in Wolaita Zone on nurses. Furthermore, most of these previous studies on nurses were conducted only by using a quantitative study design, and this is not enough to identify factors associated with nurses' turnover intention. For this reason, this study used a quantitative study augmented with an explanatory sequential mixed-method approach. On the other hand, there are other factors that have not yet been studied in Ethiopia and may be associated with nurses' turnover intention such as personal factors (low back pain, moving with spouse or family, continuing education by one's expense, and accepting offers from other organizations) and the level of the hospital they are working in, and these factors were included in this study. Therefore, this study assessed the magnitude of turnover intention and associated factors among nurses working in Government Hospitals of Wolaita Zone.

## Methods and Materials

### Study Area, Period, and Design

This institutional-based cross-sectional study augmented with an explanatory sequential mixed-method approach was conducted in the Wolaita Zone found in Southern Ethiopia. Sodo is the capital city of Wolaita Zone, which is 327 km away from Addis Ababa and 151 km away from regional capital Hawassa at the latitude of 6°54' north and longitude of 37°45' east. In Wolaita Zone, there are nine government hospitals, namely, Wolaita Sodo University Comprehensive Specialized Hospital (WSUCSH), Bombe Primary Hospital, Bale Primary Hospital, Gesuba Primary Hospital, Boditi Primary Hospital, Halale Primary Hospital, and Bitena Primary Hospital. Two hospitals, namely Humbo Primary Hospital and Bedessa Primary Hospitals, were inaugurated recently. There are 721 nurses working in these government hospitals. The study was conducted from May to June 2022.

### Population

#### Source Population

All nurses working in Government Hospitals of Wolaita Zone.

#### Study Population

For quantitative study, all staff nurses working in Government Hospitals of Wolaita Zone found during the data collection period and fulfilled the inclusion criteria, and for qualitative study all head nurses willing to participate in focused group discussions (FGDs) were included.

## Inclusion Criteria

For quantitative study, nurses working in Government Hospitals of Wolaita Zone for  $\geq 6$  months of work experience, and for qualitative study, head nurses working in Government Hospitals of Wolaita Zone for  $\geq 6$  months of work experience.

## Exclusion Criteria

For quantitative study, nurses who were practicing for free service in government hospitals were excluded from this study, and for qualitative study, head nurses who had  $< 6$  months of work experience were excluded.

## Sample Size Determination

For quantitative study, single population proportion formula was used to determine sample size with the most recent magnitude of nurses' turnover intention of 44%,<sup>6</sup> 5% margin of error, 95% confidence level, and 5% non-response rate. The final sample size was 398.

Sample size was also calculated using key factors associated with nurses' turnover intention from previous studies using the double population proportion formula. Based on the following assumptions, the sample size was computed using Epi info version 7.2.4.0 software (Table 1).

Based on the second objective, no sample size was greater than the sample size calculated based on a single population formula. Therefore, the final sample size for this specific study was 398, taken from a single population proportion formula. Then the sample was proportionally allocated to seven hospitals based on the number of nurses working in these government hospitals. Finally, a simple random sampling technique using a lottery method was used to select the participants.

For qualitative study, the sample size for qualitative study participant was determined by a purposive sampling technique in which a total of 14 representative head nurses were selected from government hospital and participated in FGDs until the content reached saturation.

## Study Variables

Dependent variable: nurses' turnover intention.

Independent variables: Sociodemographic characteristics, job satisfaction factors, organizational commitment factors, and personal factors.

## Data Collection Tools and Procedures

For quantitative study, data were collected using pretested structured self-administered questionnaires prepared in English language translated into Amharic language and then back into English language to check its consistency. The questionnaires were divided into five sub-sections. The first part of the questionnaire contains items for sociodemographic characteristics of study participants.<sup>3,14,18</sup> The second part of the questionnaire contains three items to measure turnover intention, which were adopted from different previous studies. Item one of the measurement is: "I think a lot about leaving the organizations in the near future", Item two of the measurement is: "I am actively searching for an alternative to this organization." And item three of the measurement: "As soon as possible, I will leave this organization if I get better options." And the items were

**Table 1** Sample Size Calculation Using Epi Info Version 7.2.4.0 Software Based on Associated Factors with Turnover Intention Among Nurses Working in Government Hospitals of Wolaita Zone, 2022

Factors	Power	Ratio	CI (95%)	Outcomes in %		AOR	Sample Size	Reference
				Unexposed	Exposed			
Autonomy	80%	1:1	95	15.5	3.5	0.2	220	[3]
Training	80%	1:1	95	47.3	69.6	2.55	170	[14]
Recognition	80%	1:1	95	59.7	87.7	4.83	90	[16]
Educational status	80%	1:1	95	11.8	38.6	4.7	96	[3]

scored on a five-point Likert scale, with 1 denoting “strongly disagree” and 5 denoting “strongly agree”, and it has an internal consistency of Cronbach’s alpha of 0.82.<sup>3,18</sup> The third part of the questionnaire contains items for job satisfaction factors obtained from Job Satisfaction Survey (JSS) developed by Paul E. Spector and has a five-point Likert scale with 1 denoting ‘strongly unsatisfied’ and 5 denoting ‘strongly satisfied’. This tool was used in different studies conducted in Ethiopia and has a Cronbach’s alpha of 0.88 for internal consistency.<sup>3,6,16,18</sup> The fourth part of the questionnaire contains items for organizational commitment factors, which were divided into three domains of organizational commitment, namely, affective commitment, normative commitment, and continuance commitment adapted from Meyer and Allen’s Revised Scale of Three-Component Model of Commitment scored by 5-point Likert scale, with 1 denoting ‘strongly disagree’ and 5 denoting ‘strongly agree’, which demonstrated reliability with Cronbach’s alpha of 0.89.<sup>3,5,15,18,24</sup> This instrument was also used in different studies conducted in Ethiopia. The final part of the questionnaire contains items for personal factors obtained from literature reviews with yes-or-no questions.<sup>25</sup> These items include Item One: “Do you have a plan to leave this hospital because your wife, husband, or family has moved to another area?” Item two: “Do you have an intention to leave this hospital to continue your further education by yourself?”, Item three: “Do you have a plan to leave this hospital if other governmental or private organizations request you to join their organization?” and Item four: “Have you had low back pain during the past 12 months? If “yes”, is your low back pain associated with your work?” The data were collected by four trained BSc nurses and two nurse supervisors recruited from Sodo Health Center and Sodo Christian General Hospital.

For qualitative study, FGDs were conducted using a checklist containing open-ended non-directive topic guide questions adapted from previous studies prepared in English language and then translated into Amharic language and back to English language to ensure the reliability of information. During FGDs, four questions with sub-questions were asked. For example, the first question asked during FGDs was, “Do you have a plan to leave your current hospital? If yes, why? If not, why?” These questions were obtained from studies conducted in the Jimma and North Gondar Zone, Ethiopia.<sup>2,18</sup> Since it is an FGD, the participants discussed (questioned and answered) each other based on these questions to explore more information on factors influencing nurses’ turnover intention. The data were obtained through FGDs from head nurses. Both FGDs comprised 14 participants (eight male and six female) head nurses. On average, each FGD lasted above 45 min. The topic guide addressed all issues related to factors associated with nurses’ turnover intention and other issues relevant to the objectives of the study. The principal investigator conducted the discussions, while one assistant co-facilitator assigned during the FGDs to manage discussion time and facilitate recording. All conversations during FGDs were recorded using an electronic voice recorder and also notes were taken throughout the discussion. Then, the recorded data were transcribed into Amharic language and then translated into the English language.

## Operational Definition and Measurements

### Nurses’ Turnover Intention

This is the nurse’s estimated probability of permanently leaving the employing organization and looking forward to find another job in the near future. According to this study, study participants who scored greater than or equal to 60% of the sum of all turnover intention-scale items were considered to have turnover intentions.<sup>6,18</sup>

### Nurse’ Job Satisfaction

Nurse’ job satisfaction means the extent of positive or negative feelings nurses hold about their jobs. Study participants who scored greater than or equal to 60% of the sum of the satisfaction scale items were considered as satisfied.<sup>16,18</sup>

## Organizational Commitment

Nurses Organizational Commitment has three components, namely (affective, normative, and continuance commitment), measured by using three items with 5-point Likert scale for each commitment domain. Participants who scored  $\geq 60\%$  of the sum of sub-scale items for each commitment domains were considered to have high affective, normative, and continuance commitment, respectively.<sup>3,18</sup>



The 60% cutoff point is used to make the results consistent with previously conducted studies in Ethiopia, and this 60% cutoff point was already used in a study conducted in Ethiopia.<sup>18</sup>

## Data Processing and Analysis

For quantitative study: the collected data were cleaned, coded, and entered into EpiDataV4.6, then exported into Statistical Package for the Social Sciences (SPSS) Version 26 for analysis. Descriptive statistics such as tables, graphs, frequencies, and percentages were used to describe the sample characteristics and responses to the questionnaire items. Bivariable and multivariable logistic regression method was used and all independent variables with a p-value less than 0.25 from the bivariable logistic regression model were entered into the multivariable logistic regression model to control the possible effect of confounders. A significant association was obtained at an adjusted odds ratio with a 95% confidence interval (CI) and p-value less than 0.05 for interpretation.

For qualitative study: Prior to analysis, the voice records were transcribed word by word in Amharic language, which the discussion was conducted, as soon as possible after the FGDs and notes were also organized; then, the data were translated into English language. After that, the translated data were exported into OpenCode 4.03 software for analysis, and content thematic analysis was conducted for this study. Finally, an original verbatim quotation from participants was used to support or augment the data from quantitative analysis.

## Data Quality Assurance

For quantitative study, four data collectors and two supervisors were recruited and training was given for a day. The questionnaires were reviewed by experts for their face validity except questionnaires that were completely valid in Ethiopia. A pre-test was conducted in Shone Primary Hospital which is out of the target hospitals on 5% of the sample size a week before the actual data collection period, and necessary amendments were done such as unclear questions, typing errors and ambiguous words accordingly. Cronbach's alpha was computed to assess the internal consistency of the tool during the pretest for this study, and it was acceptable for the population. Data were manually checked and cleaned before importing to a computer for entry and analysis. For qualitative study, the FGD topic guiding checklist was prepared in English language and then translated into Amharic language and back to English language to ensure reliability of information. Pretest was used to test the checklist, trustworthiness, reliability and the interview location, audio recording sound, and time frame with only one nurse a week before the main FGDs took place. Criteria for trustworthiness like credibility, dependability, confirmability, and transferability were ensured throughout the study. Content thematic analysis was done by the authors, and finally, two experts or researchers from Wolaita Sodo University reviewed and validated themes developed from FGDs after comparing audio records with transcribed notes before being translated for accuracy and completeness.

## Results

### Sociodemographic Characteristics of the Study Participants

Out of 398 study participants, 384 participated in this study, yielding a response rate of 96.48%. The data revealed that more than half of the participants, 225 (58.6%) were males, and the mean age of the respondents was 31 years (standard deviation: 7.2 years). Among the participants, more than two-thirds, 260 (67.7%) and more than half, 207 (53.9%) were married and having educational status of bachelor degree in nursing, respectively. Regarding family arrangement, 294 (76.6%) of the respondents were living with their families and 183 (47.7%) of participants have work experience of 5 years and above. Among the respondents, 204 (53.1%) had children less than 18 years and 270 (70.3%) of them had dependent family. The mean monthly salary of respondents was 5708.00 ± 1549.00 SD Ethiopian Birr. One hundred thirty-eight (35.9%) of the participants said their close workmate had left their current workplace (Table 2).

### Magnitude of Turnover Intention Among Nurses

The magnitude of turnover intention among nurses working in government hospitals in Wolaita Zone was 39.8% (95%, CI: 34.9–44.7). The mean sum of the continuous turnover intention items is 10.95 ± 1.69 SD for the full sample of

**Table 2** Socio-Demographic Characteristics of Nurses Working in Government Hospitals of Wolaita Zone, Southern Ethiopia, May to June 2022 (n=384)

Variable Name		Frequency (n)	Percentage (%)
Sex	Male	225	58.6
	Female	159	41.4
Age in years	20–29 years	166	43.2
	30–39 years	131	34.1
	≥40 years	87	22.7
Marital status	Single	124	32.3
	Married	260	67.7
Educational status	Diploma	125	32.6
	First degree	207	53.9
	Second degree and above	52	13.5
Family arrangement	Live with family	294	76.6
	Live without family	90	23.4
Professional category	General/comprehensive nurse	157	40.9
	Emergency Nurse	87	22.7
	Surgical and operation theatre nurse	46	12.0
	Pediatric nurse	48	12.5
	Adult health nurse	28	7.3
	Others	18	4.7
Level of hospital	Referral hospital	155	40.4
	Primary hospital	229	59.6
Working unit/Ward	Medical ward	84	21.9
	Surgical ward	72	18.8
	Emergency ward	65	16.9
	Pediatric ward	53	13.8
	Outpatient department	41	10.7
	Orthopedics ward	31	8.0
	Others	38	9.9
Experience	Less than 2 years	38	9.9
	2–4 years	163	42.4
	5 years and above	183	47.7
Monthly salary	≤4085 ETB	65	16.9
	4086–5294 ETB	75	19.6
	≥5295 ETB	244	63.5
Having dependent family	Yes	270	70.3
	No	114	29.7
Having children <18 years	Yes	204	53.1
	No	180	46.9
Having a close workmate leave the workplace	Yes	138	35.9
	No	246	64.1

**Abbreviation:** ETB, Ethiopian Birr.

nurses. For item 1 (whether they intended to leave their current organization in the near future), the majority disagreed 135 (35.2%) or strongly disagreed 80 (20.8%); for item 2 (whether they were actively looking for alternatives to their current hospital or organization), the majority disagreed 117 (30.5%) or strongly disagreed 50 (13.0%); and for item 3 (if

**Table 3** Responses for Turnover Intention Items Among Nurses Working in Government Hospitals in Wolaita Zone, Southern Ethiopia, May 2022

Values	Item One	Item 2	Item Three
	Thinking About Leaving Current Organizations n (%)	Actively Searching for an Alternative to This Organization n (%)	Leaving Current Organization as Soon as Possible if Better Options Exist n (%)
Strongly disagree	80 (20.8)	50 (13.0)	57 (14.8)
Disagree	135 (35.2)	117 (30.5)	92 (24)
Neutral	94 (24.5)	116 (30.2)	125 (32.6)
Agree	46 (12.0)	77 (20.1)	68 (17.7)
Strongly agree	29 (7.6)	24 (6.3)	42 (10.9)

they would leave their current organization as soon as possible if options existed), the majority disagreed 92 (24.0%) or strongly disagreed 57 (14.8%) (Table 3).

## Job Satisfaction Factors

A majority of nurses were satisfied with co-worker's relationships 343 (89.3%), workload 315 (82.0%), supervisor support 272 (70.8%), working shifts 263 (68.5%), professional opportunities 260 (67.7%), recognition and rewards 258 (67.2%), scheduling 240 (62.5%), job security 231 (60.2%), enjoyment 225 (58.6%), performance appraisal 223 (58.1), training opportunities 220 (57.3%) and working environment 214 (55.7%), whereas 252 (65.6%) and 233 (60.7%) of them were unsatisfied with autonomy and payments and benefits in their hospitals, respectively (Table 4).

## Organizational Commitment Factors

Out of the participants, 228 (59.4%) had high organizational commitment. Out of them, more than three-fourth, 292 (76.0%), about two-third, 253 (65.9%) and more than half of participants, 195 (50.8%) had high affective, high normative and high continuance commitment in their organization, respectively (Table 5).

## Personal Factors

From the respondents, 114 (29.7%) of them wanted to leave the hospital because their families or spouse had moved to another place or living away from them and 231 (60.2%) of them wanted to continue their education at their own expense. Among the participants, 75 (19.5%) wanted to leave their current organization if they accepted better offers from other organizations. About low back pain, 166 (43.2) respondents had low back pain during the past 12 months and of them, 144 (86.7%) reported that their low back pain was due to their working condition (Table 6).

## Factors Associated with Nurses' Turnover Intention

From bivariable logistic regression, 14 variables became candidates for multivariable logistic regression. In multivariable logistic regression analysis, unsatisfied payments and benefits, unsatisfied performance appraisal and low continuance commitment showed statistically significant association with nurses' turnover intention. Those nurses who were unsatisfied with payments and benefits were two times more likely to intend to leave their hospitals than those who were satisfied with payments and benefits. Nurses who were unsatisfied with their performance appraisal system were three times more likely to intend to leave their hospitals than those who were satisfied with the performance appraisal system. Nurses who had low continuance commitment were nearly two times more likely to intend to leave the hospital than those nurses who had high continuance commitment (Table 7).



**Table 4** Job Satisfaction Factors Among Nurses Working in Government Hospitals of Wolaita Zone, Southern Ethiopia, May 2022

Variables		Frequency (n)	Percentages (%)	Mean (SD)
Autonomy	Satisfied	132	34.4	15.27 (2.59)
	Unsatisfied	252	65.6	9.45 (1.71)
Professional opportunities	Satisfied	260	67.7	14.63 (2.18)
	Unsatisfied	124	32.3	9.02 (2.02)
Scheduling	Satisfied	240	62.5	18.48 (2.74)
	Unsatisfied	144	37.5	11.14 (2.45)
Supervisor support	Satisfied	272	70.8	7.27 (1.24)
	Unsatisfied	112	29.2	3.96 (1.05)
Enjoyment	Satisfied	225	58.6	25.66 (3.77)
	Unsatisfied	159	41.4	16.01 (3.39)
Payment and benefits	Satisfied	151	39.3	15.48 (2.48)
	Unsatisfied	233	60.7	8.67 (2.24)
Coworkers relationships	Satisfied	343	89.3	11.37 (1.83)
	Unsatisfied	41	10.7	5.67 (2.51)
Performance appraisal	Satisfied	223	58.1	11.14 (1.75)
	Unsatisfied	161	41.9	6.13 (1.42)
Workload	Satisfied	315	82.0	14.47 (2.04)
	Unsatisfied	69	18.0	8.46 (2.02)
Working environment	Satisfied	214	55.7	11.41 (1.91)
	Unsatisfied	170	44.3	6.18 (1.49)
Recognition and rewards	Satisfied	258	67.2	11.49 (1.92)
	Unsatisfied	126	32.8	6.65 (1.35)
Training opportunities	Satisfied	220	57.3	7.25 (1.19)
	Unsatisfied	164	42.7	4.07 (0.93)
Job security	Satisfied	231	60.2	7.32 (1.19)
	Unsatisfied	153	39.8	4.07 (0.91)
Working shifts	Satisfied	263	68.5	7.52 (1.35)
	Unsatisfied	121	31.5	3.82 (1.13)

**Abbreviation:** SD, standard deviations.

**Table 5** Organizational Commitment Factors Among Nurses Working in Government Hospitals of Wolaita Zone, Southern Ethiopia, May 2022

Variables		Frequency (n)	Percentages	Mean (SD)
Affective commitment	High	292	76.0	10.64 (1.78)
	Low	92	24.0	6.23 (1.56)
Normative commitment	High	253	65.9	10.99 (2.02)
	Low	131	34.1	6.02 (1.73)
Continuance commitment	High	195	50.8	10.95 (2.08)
	Low	189	49.2	5.80 (1.67)

**Abbreviation:** SD, standard deviation.

**Table 6** Personal Factors Among Nurses Working in Government Hospitals of Wolaita Zone, Southern Ethiopia, May 2022

Variables		Frequency (n)	Percentages (%)
Moving with spouse or family	Yes	114	29.7
	No	270	70.3
Continue education by one's expense	Yes	231	60.2
	No	153	39.8
Accepting offers from other organizations	Yes	75	19.5
	No	309	80.5
Low back pain	Yes	166	43.2
	No	218	56.8

**Table 7** Bivariable and Multivariable Logistic Regression Analysis on Factors Associated with Nurses' Turnover Intention in Government Hospitals of Wolaita Zone, Southern Ethiopia, 2022 (n=384)

Variables	Turnover Intention		COR (95% CI)	AOR (95% CI)	p-value
	Yes n (%)	No n (%)			
Sex					
Male	82 (36.4)	143 (63.6)	0.711 (0.47–1.08)	0.809 (0.49–1.34)	0.408
Female	71 (44.7)	88 (55.3)	1	1	
Educational status					
Diploma	62 (49.6)	63 (50.4)	2.428 (1.21–4.86)	1.426 (0.49–4.09)	0.510
First degree	76 (36.7)	131 (63.3)	1.431 (0.74–2.78)	1.248 (0.54–2.86)	0.600
Second degree and above	15 (28.8)	37 (71.2)	1	1	
Family arrangement					
Live with family	110 (37.4)	184 (62.6)	1	1	
Live without family	43 (47.8)	47 (52.2)	1.530 (0.95–2.46)	1.200 (0.68–2.12)	0.531
Work experience					
<2 years	18 (47.4)	20 (52.6)	1.714 (0.85–3.47)	0.989 (0.38–2.58)	0.982
2–4 years	72 (44.2)	91 (55.8)	1.507 (0.98–2.33)	1.001 (0.57–1.75)	0.996
≥5 years	63 (34.4)	120 (65.6)	1	1	
Monthly salary					
≤4085 ETB	36 (55.4)	29 (44.6)	2.201 (1.26–3.83)	1.449 (0.53–3.94)	0.468
4086–5294 ETB	29 (36.7)	46 (63.3)	1.118 (0.66–1.91)	0.824 (0.41–1.66)	0.588
≥5295 ETB	88 (36.1)	156 (63.9)	1	1	
Autonomy					
Satisfied	29 (21.9)	103 (78.1)	1	1	
Unsatisfied	124 (49.2)	128 (50.8)	3.441 (2.13–5.56)	1.751 (0.96–3.19)	0.068
Professional opportunity					
Satisfied	97 (37.3)	163 (62.7)	1	1	
Unsatisfied	56 (45.2)	68 (54.8)	1.384 (0.89–2.14)	0.918 (0.53–1.58)	0.757
Payments and benefits					
Satisfied	30 (19.9)	121 (80.1)	1	1	
Unsatisfied	123 (52.8)	110 (47.2)	4.510 (2.80–7.26)	2.113 (1.19–3.77)	0.011*

(Continued)

**Table 7** (Continued).

Variables	Turnover Intention		COR (95% CI)	AOR (95% CI)	p-value
	Yes n (%)	No n (%)			
Performance appraisal					
Satisfied	56 (25.1)	167 (74.9)	I	I	
Unsatisfied	97 (60.2)	64 (39.8)	4.520 (2.92–6.99)	3.185 (1.91–5.32)	<0.001*
Working environment					
Satisfied	74 (37.6)	140 (62.4)	I	I	
Unsatisfied	79 (46.5)	91 (53.5)	1.642 (1.09–2.48)	0.573 (0.13–2.44)	0.452
Recognition and rewards					
Satisfied	95 (36.8)	163 (63.2)	I	I	
Unsatisfied	59 (46.8)	68 (53.2)	1.463 (0.95–2.26)	0.931 (0.56–1.55)	0.783
Training opportunities					
Satisfied	75 (34.1)	145 (65.9)	I	I	
Unsatisfied	78 (47.6)	86 (52.4)	1.753 (1.16–2.65)	2.385 (0.55–10.34)	0.245
Continuance commitment					
High	49 (25.1)	146 (74.9)	I	I	
Low	104 (55.0)	85 (45.0)	3.646 (2.37–5.62)	1.899 (1.13–3.18)	0.015*
Continue education by one's expense					
Yes	109 (47.2)	122 (52.8)	2.213 (1.43–3.42)	1.477 (0.88–2.47)	0.138
No	44 (28.8)	109 (71.2)	I	I	

**Note:** \*p-value <0.05 and significantly associated variables.

## Focused Group Discussion (FGD) Results

Both FGDs were conducted on 14 head nurse participants, having an educational status of 12 bachelor's degree, 1 master's degree, and 1 diploma nurses. The age of participants ranges from 26 to 34 years. The data were organized into three themes based on the data obtained from the FGDs using OpenCode 4.03 software.

### Theme One: Economic Related Factors

Out of 14 participants, 12 of them explained that their overtime hours or duty payment is not paid on time, and this problem made it difficult to lead their life comfortably. The other most commonly raised issue by most of the participants was the low level of salary, which is insufficient to meet their officially defined needs, and they are also unable to support their families.

A 27 years old male BSc nurse who had 4 years' experience said

...We work overtime hours or duty hours for long periods. But it is not paid for six months or more. We have asked the hospital or the institution managers repeatedly for the reason why they are not paying our overtime hour payments, but they do not respond to our questions appropriately. The work is not satisfying because we do not have guaranteed that the stored overtime hour or duty payments will be paid. We are frustrated that they may deny it at all. This has a great pressure on our life.

Another 29 years old female BSc nurse with 7 years' work experience said

...I want to leave the hospital because I want to get a better salary and something better. The main reason I wanted to leave this hospital is that our current salary and cost of living are not balanced. In addition, the workload we have and the salary we receive are not balanced. We have so much to do, but the salary is too small.

A 32 years old male BSc nurse with 8 years' experience raised

...I think the issue of payments and benefits is the main reason for nurses' turnover in the hospital where I am working now. This issue is a serious issue for a health professional. If the benefits of any health professional or nurse are not preserved, nothing can stop him/her from leaving the hospital. Why? Everyone loves his/her work if his/her benefits are preserved by the hospital.

Another 27 years old male BSc with 5 years' work experience said

...First, the salary is too small. We are living only by our wages; no additional source of income, and currently, everything is not as it was before. In the primary hospital, you can't get additional part-time work out outside of the hospital.

A 34 years old female bachelor's degree nurse with 13 years' experience said

...I'm unsatisfied with the benefits and payment I am getting from my hospital. I cannot say there is no payment because there are certain payments I am receiving, but it is not enough to lead my life comfortably. It is not matched with the workload we have every day. Even we are vulnerable to different serious diseases including COVID-19 pandemic, but there is no occupational exposure or risk payments for nurses unlike other professions.

## Theme Two: Organizational Related Factors

Eight out of 14 participants reported that the hospital management lacks fairness in its performance evaluation system, rewards and motivations, and training opportunities. There is a lack of updated information and training, as well as an unclear selection of training participants. Management also does not work to improve the working environment to make it more convenient for nurses. There is a scarcity of supplies, especially personal protective equipment, in their hospital. Many of the participants also reported that there are limited professional opportunities, especially educational opportunities to upgrade their qualifications and to update their skills and knowledge. The majority of them also pointed out that there is not enough freedom of decision or autonomy to apply their knowledge to patient care, as well as a high workload, insufficient staffing, and a lack of adequate time to rest in their hospitals.

A 27 years old female BSc general nurse who has 3 years of experience said

...There are not enough training opportunities in our hospital. Sometimes there may be rare training opportunities, but it is given to the same nurse or nurse who has been trained before due to the acquaintance between a nurse and a person on a position. This means that there is no fairness.

A 28 years old male BSc nurse with 5 years' work experience reported:

...The most common problem that is seen frequently in our hospital is related to the performance evaluation system. There are good, industrious and hardworking nurses in our hospital. But, evaluation is not based on the effectiveness and efficiency of the nurse himself/herself. It is based on being a friend with evaluators. This is an obvious problem affecting the nurses' morale to work hard for the next and decreasing the quality of patient care.

Another 32 years old male BSc nurse with 8 years of work experience said:

...There is no recognition or motivation from the management. If the management bodies do not give what the nurse needs or care for the nurses at least, giving oral motivations like.

Thank you or 'be strong' the nurses leave the hospital.'

A 28 years old female BS nurse with 5 years' experience said

...It's hard to say there is an educational opportunity to develop a profession. We have limited chance compared to the number of nurses available in the hospital. The chance of getting opportunities is almost zero percent.

A 33 years old female diploma nurse who has 11 years' experience said

...There is no or little freedom of decision on work, but I don't think there is enough freedom that enables us to try something new. Because we care for so many patients, we spend a lot of time with them and do what is ordered to do so by physicians.

A 28 years old female, BSC, 5 years' experience explained

...I never enjoyed my work because the flow of patients in our hospital is too high and the nurse-to-patient ratio is not balanced. For example, I may be assigned to care for 10–13 patients in one shift. When I have a lot of patients, I have a lot of work to do and to take care of them, so I can't be happy with my work, and I cannot give my patients enough time.

### Theme Three: Family Related Factors

Eight out of 14 participants explained that living away from family, having children less than 18 years, and living with a dependent family are other common reasons for nurses to quit their job. Especially, those whose families are far away from them reported that yearning and thinking of his/her families had affected their performance and productivity.

A 28 years old master's degree nurse who has 5 years of work experience in one of district hospital said:

...I have no complaint about the management system of my hospital. But thanks to God, I am married, and my wife lives far away from me in the city. Therefore, my intention is to go to the city and join her because it is difficult for me to live separately from my family or wife.

Another 26 years old male BSc nurse with 4 years' work experience said

...My place of work is a little bit farther away from my family, and there were my friends or colleagues who came far away from their families to work in this hospital. But, they all left from this hospital.

### Discussion

This study aimed to determine the magnitude of turnover intention among nurses working in Government Hospitals of Wolaita Zone. It also tried to identify factors that were associated with nurses' turnover intention. According to this study, the magnitude of turnover intention among nurses was 39.8% (95%, CI: 34.9–44.7). This finding was in line with studies conducted among nurses working in Tigray Regional State (43.9%)<sup>6</sup> and South Africa (41.4%).<sup>14</sup>

However, this finding was higher than findings of the studies in Indonesia (12–34%),<sup>20</sup> South Korea (22.2%),<sup>26</sup> Tanzania (18.8%),<sup>14</sup> and Malawi (26.5%).<sup>14</sup> This discrepancy might be due to differences in level of health-care facilities among the study areas. For instance, the study conducted in Iran had comprised six educational hospitals, while this study was conducted in one teaching and six primary hospitals. The other plausible reason for this discrepancy might be better quality of healthcare infrastructures, attractive incentives and salaries, as well as presence of regular and ongoing follow-up and interventions to address the problem in the above countries.<sup>15</sup> COVID-19 pandemic might be also the possible reason for this discrepancy since this study was conducted after COVID-19 outbreak worldwide. According to the literature in Qatar, nurse's turnover intention was significantly increased during COVID-19 pandemic when compared to turnover intention before the pandemic.<sup>12</sup>

However, this finding was lower than the studies conducted in Bahrain (72.8%),<sup>10</sup> Riyadh (94%),<sup>27</sup> Mumbai (66.4%),<sup>28</sup> and Egypt (71.44%).<sup>13</sup> This difference might be due to differences in study time gaps, and study participants. For instance, the study participants for this study were nurses from all working units of the hospitals, while the study participants for the study conducted in Bahrain were nurses only from coronary care units. Similarly, this finding was also lower than findings of the studies in Addis Ababa (77.5%),<sup>3</sup> Bahir Dar (64.9%),<sup>15</sup> Jimma Zone (63.7%),<sup>2</sup> North Shoa Zone (61.3%),<sup>29</sup> Axum Comprehensive Specialized Hospital (64.9%),<sup>16</sup> University of Gondar Referral Hospital (52.5%),<sup>17</sup> and Primary Hospitals of North Gondar Zone (67.8%).<sup>18</sup> This discrepancy might be due to differences in study time gaps. In addition, it might be due to improved working environment, health infrastructures and technological advancements than previous studies, and variations in the categories of health professionals participated in the studies. Participants of this study were only nurses from hospitals, whereas the participants of previous studies were mixed health-care workers.

Those nurses who were unsatisfied with payments and benefits were two times more likely to intend to leave their hospitals than those who were satisfied with it. This finding is congruent with the study conducted in China tertiary hospitals, Turkey, Japan, and North Shoa Zone.<sup>29–32</sup> This might be due to the fact that those nurses who were unsatisfied

with payments and benefits tend to look for other financial sources such as private businesses to improve their life and withstand the cost of living. According to the literature, nurses who have high monthly household expense might have higher intention to leave the hospital and move to urban areas to improve their life.<sup>18</sup>

This finding was supported by the qualitative component of the study, in which almost all of the participants complained that their hospital's payments and benefits were not appropriate or timely and that their salary level was low. As a result, it is difficult for them to live comfortably because they cannot meet their officially defined needs and cannot provide for their families.

Nurses who were unsatisfied with their performance appraisal system were three times more likely to intend to leave their hospitals than those who were satisfied. This finding is similar to the study conducted in Ibnu Sina Hospital of Uzbekistan and Primary Hospitals of North Gondar.<sup>18,33</sup> The possible explanation might be the lack of fairness in performance evaluation system in the hospitals because the results of performance appraisal are conducted based on an acquaintance or being a close friend with person on a position or hospital manager, and currently, the result of performance evaluation used as one of the criteria for getting educational and training opportunities as well as career development. According to the literature, appropriate performance appraisal had high influence on job satisfaction among nurses, which in turn, increases nurses' stay in their hospital.<sup>34</sup>

More than half of the participants in the qualitative part of the study stated that the hospital administration lacks impartiality in its performance evaluation system. The management favors the result that they are familiar with, which leads to unfair and uneven opportunities for education and training because those possibilities are granted depending on a nurse's performance.

Nurses who had low continuance commitment were almost two times more likely to intend to leave their hospital than those who had high continuance commitment. This result is in line with a study conducted in Makassar, Indonesia, and health-care workers in public-private mixed health facilities in Addis Ababa.<sup>35,36</sup> Nurses with high continuance commitment tend to stay more in the hospital. The reason might be due to the fear of costs associated with leaving such as seniority, pension plans, and work experience that might have resulted after leaving the hospital, and the absence of options to consider leaving the hospital.

This finding was further supported by the study's qualitative component, where the majority of participants indicated that there were not enough job opportunities for them to think about leaving their current hospital. Additionally, there are a lot of job seekers looking for work in their community, making it challenging to find better organizations or hospitals than their current hospitals.

## Strength of the Study

There are three strengths for this study. This study uses an institutional-based cross-sectional study augmented with an explanatory sequential mixed-method approach. All government hospitals of Wolaita Zone were included that makes it more representative and generalizable. Variables such as low back pain, moving with spouse or family, continuing education at one's expense, accepting offers from other organizations, and the level of the hospital nurses are working in were overlooked in the previous studies and were included in this study to address the effects of these variables on nurses' turnover intention.

## Limitation of the Study

The cross-sectional nature of the study design does not show cause and effect relationship between dependent and independent variables.

## Conclusions

This study assessed the magnitude of turnover intention and associated factors among nurses. Nearly 40% (39.8%) of the nurses in Government Hospitals of Wolaita Zone had turnover intention. Nurses who were unsatisfied with their payments and benefits, performance appraisal and with low continuance commitment had statistically significant association with nurses' turnover intention. Health-care organizations can enhance the quality of services by comprehending and addressing these contributing factors to nurses' intention to leave the organization.



## Recommendations

The findings of this study had shown the magnitude of turnover intention among nurses is an important implication for all hospitals to address the problem and needs a broad approach. Therefore, all stakeholders should apply different evidence-based strategies to maximize nurses' job satisfaction and organizational commitment which, in turn, increase nurses' intention to stay in the hospital. Future researches also need to be connected to conduct longitudinal researches to confirm a definitive cause and effect relationship between nurses' turnover intention and the independent variables.

## Abbreviation

ANA, American Nurses Association; AOR, Adjusted Odds Ratio; CI, Confidence Interval; ETB, Ethiopian Birr; FGD, Focused Group Discussion; JSS, Job Satisfaction Survey; US, United States; SPSS, Statistical Package for Social Science; WHO, World Health Organization; WSUCSH, Wolaita Sodo University Comprehensive Specialize Hospital.

## Data Sharing Statement

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Ethics Approval and Consent to Participate

Ethical clearance was obtained from the research and ethics committee of the College of Health Sciences and Medicine, Wolaita Sodo University, through an ethical letter with protocol number MCHS237/13 written on January 05/2022. Then, a letter of cooperation was written to each hospital's chief executive director, and informed consent was obtained from all study participants before data collection. Respondents were also informed that they had the right to decline the questionnaire, and all the information provided was handled in a confidential manner to protect the respondents' privacy. Above all, this study was entirely conducted as per the Declaration of Helsinki ethical principles for medical research on human subjects.

## Consent for Publication

We ensure that the publisher has the authors' permission to publish this research finding because all participants were signed on consent form by agreeing to participate on this study.

## Acknowledgment

We thank Wollo University for providing us with the opportunity to conduct this study and its ethical approval. We also thank the Hospital managers, head nurses, and staffs of governmental hospitals of Wolaita Zone, who participated in the study.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Funding

No funding available.

## Disclosure

On behalf of all authors, the corresponding author declares that there is no competing interest.

## References

- Li P, Lu H. Research on initiative turnover rate of the post-90s workforce—taking labor-intensive enterprises as an example. *J Hum Resour Sustain Stud.* 2014;2014:1.
- Kalifa T, Ololo S, Tafese F. Intention to leave and associated factors among health professionals in Jimma zone public health centers, Southwest Ethiopia. *Open J Prev Med.* 2016;6(1):31–41. doi:10.4236/ojpm.2016.61003
- Wubetie A, Taye B, Girma B. Magnitude of turnover intention and associated factors among nurses working in emergency departments of governmental hospitals in Addis Ababa, Ethiopia: a cross-sectional institutional based study. *BMC Nurs.* 2020;19(1):1. doi:10.1186/s12912-020-00490-2
- Ki J, Choi-Kwon S. Health problems, turnover intention, and actual turnover among shift work female nurses: analyzing data from a prospective longitudinal study. *PLoS One.* 2022;17(7):e0270958. doi:10.1371/journal.pone.0270958
- Luk Bruyneel WS. Seven strategies to improve job satisfaction and reduce voluntary employee turnover of nurses. *Healthcare Manag Admin Blog.* 2020;2020:1.
- Negarandeh R, Kahsay WG, Pashaeypoor S, Navab E. Magnitude of Nurses' Intention to Leave Their Jobs and Its Associated Factors of Nurses Working in Tigray Regional State, North Ethiopia: cross sectional study. *Res Sq.* 2020. doi:10.21203/rs.3.rs-22578/v1
- WHS. Monitoring health for the SDGs, sustainable development goals ISBN 978-92-4-156548-6; 2017.
- Al Momani M. Turnover intention and Factors influencing public hospital nurses' intentions to leave their current employment in Jordan. *Int J Comm Med Public Health.* 2017;4(6):1847–1853. doi:10.18203/2394-6040.ijcmph20172143
- Chen H, Li G, Li M, Lyu L, Zhang T. A cross-sectional study on nurse turnover intention and influencing factors in Jiangsu Province, China. *Int J Nurs Sci.* 2018;5(4):396–402. doi:10.1016/j.ijnss.2018.09.012
- Ebrahim A, Ebrahim A. Factors influencing job satisfaction and turnover intention among coronary care unit nurses in Bahrain. *Int J Clin Pract.* 2017;4:251. doi:10.15344/2394-4978/2017/251
- Homsuwan W. Factors associated with intention to leave of nurses in Rajavithi hospital, Bangkok, Thailand. *J Health Res.* 2017;31(Suppl. 1):s91–s7.
- Nashwan AJ, Abujaber AA, Villar RC, Nazarene A, Al-Jabry MM, Fradelos EC. Comparing the impact of COVID-19 on nurses' turnover intentions before and during the pandemic in Qatar. *J Pers Med.* 2021;11(6):456. doi:10.3390/jpm11060456
- Mubarak Ahmeda EAA R, Elguindy H. Staff nurses' intention to leave nursing profession and their organizational commitment in selected hospitals at Beni-Sueif city. *Egypt Nurs J.* 2017;2017:6–7.
- Duane Blaauw PD, Maseko F, Chirwa M, et al. Comparing the job satisfaction and intention to leave of different categories of health workers in Tanzania, Malawi, and South Africa. *Glob Health Action.* 2013;6:19287. doi:10.3402/gha.v6i0.19287
- Ayalew E, Workneh Y. Nurses' intention to leave their job and associated factors in Bahir Dar, Amhara Region, Ethiopia, 2017. *BMC Nurs.* 2020;19:1–7. doi:10.1186/s12912-020-00439-5
- Gebregziabher D, Berhanie E, Berihu H, Belstie A, Teklay G. The relationship between job satisfaction and turnover intention among nurses in Axum comprehensive and specialized hospital Tigray, Ethiopia. *BMC Nurs.* 2020;19(1):1–8. doi:10.1186/s12912-020-00468-0
- Abera E, Yitayal M, Gebreslassie M. Turnover intention and associated factors among health professionals in University of Gondar Referral Hospital, Northwest Ethiopia. *Int J Econ Manag Sci.* 2014;3(4):1–4. doi:10.4172/2162-6359.1000196
- Worku N, Feleke A, Debie A, Nigusie A. Magnitude of intention to leave and associated factors among health workers working at primary hospitals of North Gondar Zone, Northwest Ethiopia: mixed methods. *Biomed Res Int.* 2019;2019:1–9. doi:10.1155/2019/7092964
- Chaudhary A, Islam T, Ali HF, Jamil S. Can paternalistic leaders enhance knowledge sharing? The roles of organizational commitment and Islamic work ethics. *Glob Knowl Mem Commun.* 2023;72(1/2):98–118. doi:10.1108/GKMC-06-2021-0109
- Islam T, Ali G, Ahmed I. Protecting healthcare through organizational support to reduce turnover intention. *Int J Hum Rights Healthc.* 2018;11:4–12. doi:10.1108/IJHRH-03-2017-0012
- Islam T, Khan MM, Bukhari FH. The role of organizational learning culture and psychological empowerment in reducing turnover intention and enhancing citizenship behavior. *Learn Organ.* 2016;23(2/3):156–169. doi:10.1108/TLO-10-2015-0057
- Islam T, Ahmad R, Ahmed I, Ahmer Z. Police work-family nexus, work engagement and turnover intention: moderating role of person-job-fit. *Policing.* 2019;42:739–750. doi:10.1108/PIJPSM-09-2018-0138
- Mosadeghrad AM. Occupational stress and turnover intention: implications for nursing management. *Int J Health Policy Manag.* 2013;1(2):169. doi:10.15171/ijhpm.2013.30
- Pagilagan H. Factors that affect turnover intention of registered nurses in the acute hospital: a meta-analysis from 2006–2016; 2017.
- Dewanto A, Wardhani V. Nurse turnover and perceived causes and consequences: a preliminary study at private hospitals in Indonesia. *BMC Nurs.* 2018;17(2):1–7. doi:10.1186/s12912-018-0317-8
- Jison Ki JR, Baek J, Huh I, Choi-Kwon S. Association between health problems and turnover intention in shiftwork nurses: health problem clustering. *Int J Environ Res Public Health.* 2020;2020:1.
- Kaddourah B, Abu-Shaheen AK, Al-Tannir M. Quality of nursing work life and turnover intention among nurses of tertiary care hospitals in Riyadh: a cross-sectional survey. *BMC Nurs.* 2018;17(1):1–7. doi:10.1186/s12912-018-0312-0
- Quazi N FD MD, Soumya R, Shefali T, Sheryl C, Valsa T. Job Stress and Turnover Intention among Nurses in Selected Hospital: correlational Study. *Int J Health Sci Res.* 2021;11(1):1.
- Ferede A, Kibret GD, Million Y, Simenah MM, Belay YA, Hailemariam D. Magnitude of turnover intention and associated factors among health professionals working in public health institutions of north shoa zone, Amhara region, Ethiopia. *Biomed Res Int.* 2018;2018:1–9. doi:10.1155/2018/3165379
- Xu S, Tao L, Huang H, Little J, Huang L. Pediatric nurses' turnover intention and its association with calling in China's tertiary hospitals. *J Pediatr Nurs.* 2020;52:e51–e6. doi:10.1016/j.pedn.2020.01.005
- Kudo Y, Satoh T, Sinji H, et al. Factors associated with turnover intention among nurses in small and medium-sized medical institutions. *Environ Health Prev Med.* 2016;2016:1.
- Masum AKM, Azad MAK, Hoque KE, Beh L-S, Wanke P, Arslan Ö. Job satisfaction and intention to quit: an empirical analysis of nurses in Turkey. *PeerJ.* 2016;4:e1896. doi:10.7717/peerj.1896

33. Ah AY, Razak A. Factors associated with turnover intention of nurses in IBNU SINA YW-UMI hospital Makassar. ICHSM '18: Proceedings of the International Conference on Healthcare Service Management. 2018:241–244.
34. Mekuria Mengistu M. Factors associated to job satisfaction among healthcare workers at public hospitals of west shoa zone, Oromia regional state, Ethiopia: a cross sectional study. *Sci J Public Health*. 2015;3(2):161. doi:10.11648/j.sjph.20150302.12
35. Guntur RMY, Haerani S, Hasan M. The influence of affective, continuance and normative commitments on the turnover intentions of nurses at Makassar's private hospitals in Indonesia. *Afr J Bus Manag*. 2014;6(38):10303–10311.
36. Dasgupta P. Examining the relationship between turnover intention of nurses with job satisfaction, affective, occupational, and group commitments: study in private hospitals. *Jindal J Bus Res*. 2014;3(1–2):29–38. doi:10.1177/2278682115627228

### Nursing: Research and Reviews

Dovepress

### Publish your work in this journal

Nursing: Research and Reviews is an international, peer-reviewed, open access journal publishing original research, reports, reviews and commentaries on all aspects of nursing and patient care. These include patient education and counseling, ethics, management and organizational issues, diagnostics and prescribing, health outcomes, economics and resource management, improving patient safety in all settings. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/nursing-research-and-reviews-journal>