Intentions to leave and associated factors among laboratory professionals working at Amhara National Regional State public hospitals, Ethiopia: An institution-based cross-sectional study

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Research note

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Abstract

Objective Laboratory professionals play a vital role in the detection, diagnosis, and treatment of diseases. Knowledge of workplace variables that either motivates staff to keep working or quit their jobs is important for decision making. Thus, this study aimed to assess intentions to leave workplace and associated factors among laboratory professionals working at public hospitals of the Amhara National Regional State, Ethiopia. Results An institution-based cross-sectional study was conducted from February 16 to March 14, 2016, among 336 randomly selected laboratory professionals. The study revealed that 65.5% (95% CI: 60-70) of the professionals had intentions to leave their hospitals. Dissatisfaction with the provision of educational opportunities (AOR: 3.59, 95% CI: 1.61-7.99), poor pays and benefits (AOR: 3.89, 95% CI: 1.53-9.89), lack of recognition (AOR: 2.69, 95% CI: 1.35-5.38), poor working environments (AOR: 2.77, 95% CI: 1.45-3.30), high workload (AOR: 1.94, 95% CI: 1.04-3.63), low affective commitment (AOR: 2.05, 95% CI: 1.10-3.82), and being unmarried (AOR:2.46, 95% CI: 1.32-4.58) were factors significantly associated with intentions to leave. Magnitude of laboratory professionals' intention to leave was so high. Healthcare policymakers and hospital managers need to develop and institutionalize evidence-based retention strategies to reduce the intention of laboratory professionals to leave their workplace.

Background

Laboratory professionals (LP) play a vital role in the detection, diagnosis, and treatment of diseases. However, this-professionals were among highly neglected cadres in health systems across sub-Saharan Africa. They are often work in facilities which are poorly equipped and do not systematically respect safety and infection control standards [1, 2]. In return, laboratory staff can become dissatisfied by the lack of faith in their profession and as a result, high staff turnover which affects the performance of LPs' and ultimately the quality of the clinical care [3, 4].

Intention to leave is individuals' subjective prediction about leaving the current profession, working place or an organization in the near future, which was considered to be a proxy of actual leaving [5, 6]. Studies show that there are several factors that contribute to the intention to leave. Job satisfaction (such as pay and benefit, work autonomy, coworker relationship, supervision, working environment, and working condition) and organizational commitment are the most important factors which play an important role in determining employees' intention to leave their job or their organization [7].

Health professionals' intention to leave significantly affects the functioning of the health care sector worldwide, especially in developing countries, and it impedes progress towards different health-related goals [8, 9]. It affects organizations to achieve its objectives since it reduces innovation, affects the quality of services and motivation of employees and it is very costly for an organization [9, 10].

Globally, employee intention to leave and instability at health facilities is high, particularly in developing countries [11, 12]. In South Ethiopia 59.4% health professionals intended to leave their working places

[13]. Similarly, in the Amhara region, 60.2% of nurses reported they desire to leave their current working place [14].

The relationship between intention to leave and another variable have been uncertain in most of the studies. Considerable research focused on the nursing field shortage and turnover intention of their workplace [15]. However, staffing shortages and turnover intentions are affecting other health care professions as well and the reasons behind laboratory professional intention to leave were unknown. Therefore, this study has the potential to address workplace variables that influence laboratory professionals' intention to leave their workplace.

Methods

Study design and setting

An institutional-based cross-sectional study was conducted in Amhara national regional state (ANRS) public hospitals from February 16 to March 14/2016. ANRS is located in Northwestern Ethiopia. The regional state has 40 functional hospitals (5 referral, 3 general, and 32 primary hospitals) and 834 health centers with a total of l,699 laboratory professionals [16]. The study population were all laboratory professionals in ANRS public hospitals who were working for at least six months before the study period.

Sample size and sampling procedures

The sample size was determined using 52.5% proportion of health professionals' turnover intention [17], by considering population correction formula, 1.5 design effect, and 10% for non-response rate, the final sample size was 366. Study participants were selected using a stratified cluster sampling technique. Laboratory professionals were stratified based on their level of working organization (primary hospitals, general hospitals, and referral hospitals). Then, the calculated sample size was proportionally allocated for each stratum. Three referral hospitals, 2 general hospitals, and 16 primary hospitals were selected from each stratum by using lottery methods. Finally, all laboratory profession from each selected hospital were included in the study.

Measurements

Data were collected using a structured self-administered questionnaire which was first prepared in English, and then translated into the local language (Amharic), and then back-translated to English to maintain its consistency. The dependent variable, intention to leave the workplace was measured by three items following Mobley et al. definition [18]. The respondents were asked to indicate the extent of their agreement using a five-point Likert scale (1: strongly disagree to 5: strongly agree). Respondents who scored more than 60% of the sum of all the intention to leave scale items were considered showing the intention to leave [19].

Job satisfaction was measured with a five-point Likert scale of 72 items that included 12 subscales. (pay and benefit (5 items), supervisor support (12 items), policy and strategy (5 items), coworker relationship

(5 items), training opportunity (6 items), the nature of work (10 items), responsibility (3 items), autonomy (3 items), workload (7 items), performance appraisal (3 items), recognition and reward (4 items) and work environment (7 items) were used. Laboratory professionals who scored >60% of the sum of the satisfaction scales were considered as satisfied [19]. The reliability of the tool for each subscale was checked using Cronbach's alpha reliability test with a score of greater than 0.78.

Organizational commitment (affective, normative, and continuance commitment) was assessed using the scales developed by Meyer and Allen [20]. A five-point Likert scale (1: strongly disagree to 5: strongly agree) of three items for each component were used. A score with more than 60% of the sum of the commitment scales represented a high organizational commitment.

Data processing and analysis

The completed data were entered to Epi-info version 7 and exported to SPSS version 20 software for analysis. Both bi-variable and multi-variable logistic regression analysis was computed to identify factors that affect the intention to leave. In the final model variables with a P value < 0.05 and adjusted odd ratio (AOR) with 95% CI were used to declare the associated factors after model fitness was checked using Hosmer–Lemeshow goodness-of-fit test (p = 0.25).

Results

Socio-demographic characteristics of the respondents

A total of 336 laboratory professionals have answered the questionnaire with 91.8% response rate. The median age of the study participants was 27 (IQR: 26-30) years. Majority of the respondents were males 216 (64.3%) and more than half of the respondents were unmarried 182 (54.2%). Fifty-six percent of the respondents were bachelor degree holders in laboratory technology and 53.9% of the respondents had 1-5 years of work experience. Forty-nine percent of the respondents were working in primary hospitals, and the median monthly salary was 3145 (IQR: 2514-4725) Ethiopian Birr (Table 1).

Intention to leave, organizational commitment and job satisfaction

The overall intention to leave the hospital among laboratory professionals in the study was 65.5% (95% CI: 60-70). The median intention to leave the laboratory profession was 75% (IQR: 55-85). Whereas, 179 (53.3%) of LPs have the intention to leave their jobs.

Two hundred eighty-five (84.8%) of LPs were had a high level of satisfaction with the co-worker relationship. On the other hand, payment and benefit 275 (81.8%), educational opportunity 247 (73.5%), recognition and reward 253 (75.3%), and working environment 222 (66.1%) were reported as unsatisfied. Regarding laboratory organizational commitment majority (73.8%) of the respondents have a low level of continuance commitment (Table 2).

Factors associated with intention to leave

In the multivariable logistic regression analysis, eight variables were statistically significant. Accordingly, laboratory professionals who were unsatisfied with payment and benefit were 3.42 times more likely to leave the organization than those who were satisfied (AOR: 3.42, 95% CI: 1.39-8.42). Those who were unsatisfied with professional opportunity were 3.59 times more likely to leave their current working organizations than satisfied LPs (AOR: 3.59, 95% CI: 1.61-7.99). Similarly, unsatisfied respondents with recognition (AOR: 2.69, 95% CI: 1.35-5.38) and the working environment (AOR: 2.77, 95% CI: 1.45-5.30) were more likely to leave their organization than their counterparts. Moreover, those who had a high workload were 1.95 times more intended to leave their organization than their counterparts (AOR: 1.95, 95% CI: 1.06-3.57). Unmarried laboratory professionals were 2.46 times more likely to leave their organization than those who were married (AOR: 2.46, 95% CI: 1.32-4.58) (Table 3).

Discussion

The study finding showed that 65.5% of respondents were had an intention to leave the hospital. This finding is higher than studies conducted at University of Gondar referral hospital among health professionals 52.5% [17], in nurses working at governmental healthcare institutions of East Gojjam zone 59.4% [21] and nurses in Tukur Anbessa specialized hospital (54.9%) [22]. Additionally, the finding is much higher than the studies conducted among health workers in Tanzania (18.8%), Malawi (26.5%), and South Africa 41.4% [15]. This discrepancy could be due to the differences in health institution infrastructures, study settings, and study participants that includes only nurses.

However, it is lower than studies done among health professionals in Sidama zone public health facilities (84.3%) and Yirgalem and Hawassa referral hospitals (83.7%) [15, 23]. This discrepancy could have resulted from difference in the infrastructure of health institutions, study area, and study participants that might affect the intention to leave.

Our finding shows that unsatisfied LPs' with payment and benefit were 3.89 more intended to leave their hospital as compared to their counterparts. This finding is consistent with other similar studies conducted in Ethiopia [19, 21, 22]. This could be explained by the disproportionality of task and benefit they received will push to search for a new job. Whereas satisfied professionals want to remain within the organization because of their need to maintain benefits.

Our finding shows that LPs who were unsatisfied with educational opportunity were 3.59 times more likely to leave their organization when compared with their satisfied counterparts. This finding shares the same evidence as poor training opportunity increases intention to leave in other studies too [19, 21, 24]. This can be explained by less professional opportunity may increase job dissatisfaction because of the absence of a chance to grow and develop their own abilities.

Intention to leave was higher among the respondents who were unsatisfied with recognition and reward compared to their counterparts. This might be satisfied professionals believe that losing an organizational reward will be costly and would not find such compensation elsewhere. This finding is supported by studies done on Jordanian nurses which revealed a direct and a buffering effect of

recognition of nurses' performance on the intention to stay at work [25] and Herzberg two factor theory of motivation [26].

The finding also shows LPs who were unsatisfied with the working environment were three times more likely to leave their hospital compared to their counterparts. This finding is in agreement with a study was done in Sidama zone and Jimma zone public health facilities [27, 28] and also supported by Herzberg two factor theory of motivation which identifies recognition, work condition, the nature of the work, and responsibility that influences employee's intention to stay or leave by affecting their satisfaction [26]. The other possible explanation would be substandard working conditions or lacks important facilities in the workplace such as proper lighting, furniture, restrooms, and other health and safety provisions will facilitate the inconvenience of employees to stay for a long time.

Our study identifies laboratory professionals with a high workload were more likely to leave their organization which is congruent with other studies [28, 29]. This could be being overloaded will increase their pressure and will produce high fatigue which leads them to seek employment elsewhere.

Moreover, the study finding shows that LPs with low affective commitment were two times intended to leave their organization compared to those with high affective commitment. This finding is supported by other studies in which committed employees are likely to remain with their organizations [30, 31][31]. This is because if employees feel a sense of belonging or involved and linked emotionally, they want to stay within the organization.

Conclusions And Recommendation

Laboratory professionals' intention to leave public hospitals in ANRS were found to be high, which will be detrimental for both the organization and to the employee. Dissatisfaction with a training opportunity, compensation and benefit, recognition at work, working environment, low affective commitment, and high workload were the factors that influence intention to leave. Policymakers and hospital administrators need to develop and institutionalize evidence-based retention strategies to reduce laboratory professionals' intention to leave.

Limitations of the study

Use of self-reporting measures may have some potential of reporting bias, because of the respondents' interpretation of the questions. Furthermore, this study was not triangulated with qualitative method. The other limitation was a lack of follow-up, in which the researcher could compare participants' intentions to leave or stay with their actual turnover actions.

Declarations

Ethics approval and consent to participate

Ethical clearance was obtained from the ethical review committee of the Institute of public health, college of medicine and health science, the University of Gondar (Ref. No. IPH/2826/2016). Before communicating the study participants' Official letters was obtained from Amhara National Regional State Health Bureau and each selected hospital. For each study participants, full information was given regarding the purpose and importance of the study. As well, they were informed that they are free to refuse in participating or answering any of the questions without any restriction and finally written consent was obtained from each participant. Name of participants' and any personal identifiers were not included in the study and the confidentiality of the data was kept at all level of the study.

Consent for publication

Not applicable.

Availability of data and materials

Data will be available upon reasonable request from the corresponding author.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Endalkachew D, Gashaw A, and Geta A conceived of the study, developed the tool, coordinated the data collection activity, and carried out the statistical analysis. Endalkachew D and Tsegaye G participated in the statistical analysis, revision of the paper and drafted the manuscript. All authors read and approved the final manuscript.

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Tables

Table 1: Socio-demographic characteristics of laboratory professionals working in Amhara National Regional State public hospitals, 2016 (n=336).

Variables	Category	Frequency (n)	Percentage (%)
Age in years	20-29	226	67.3
	30-39	99	29.5
	≥40	11	3.3
Sex	Male	216	64.3
	Female	120	35.7
Educational level	Diploma	128	38
	Degree	188	56
	Above degree	20	6
Type of hospital	Referral	129	38.4
	General	42	12.5
	Primary	16	49.1
Work experience in years	<1	31	9.2
	1-5	122	36.3
	6-10	142	42.3
	>10	41	12.2
Marital status	Unmarried	182	54.2
	Married	154	45.8
Current position	Head	19	5.6
	Quality officer	18	5.4
	Safety officer	13	3.9
	Laboratory member	286	85.1
Monthly salary (ETB)	<3145	129	38.5
	3145-3911	109	32.4
	3912-4725	32	9.5
	>4725	66	19.6

ETB: Ethiopian Birr

Table 2: Level of job satisfaction by different dimensions among laboratory professionals working in Amhara National Regional State public hospitals, Ethiopia, 2016 (n=336).

Variables	Category	Frequency (n)	Percentage (%)
Benefits and pay	Satisfied	61	18.2
	Dissatisfied	275	81.8
Supervisor support	Satisfied	157	46.7
	Dissatisfied	179	53.3
Policy and strategy	Satisfied	85	25.3
	Dissatisfied	251	74.7
Coworker relationship	Satisfied	285	84.8
	Dissatisfied	51	15.2
Educational opportunity	Satisfied	89	26.5
	Dissatisfied	247	73.5
Nature of the work	Satisfied	129	38.4
	Dissatisfied	207	61.6
Responsibility	Satisfied	176	52.4
	Dissatisfied	160	47.6
Autonomy	Satisfied	170	50.6
	Dissatisfied	166	49.4
Workload	Low	164	48.8
	High	172	51.2
Performance appraisal	Satisfied	96	28.6
	Dissatisfied	240	71.4
Recognition	Satisfied	83	24.7
	Dissatisfied	253	75.3
Working environment	Satisfied	114	33.9
	Dissatisfied	222	66.1
Affective commitment	High	171	50.9
	Low	165	49.1
Normative commitment	High	101	30.1
	Low	235	69.9
Continuance commitment	High	88	26.2

Low	248	73.8

Table 3: Multivariable logistic regression analysis of factors associated with intention to leave among laboratory professionals working in Amhara National Regional State public hospitals, 2016 (n=336).

ariables	Category	Intention to leave		COR (95%CI)	AOR (95%CI)
		Yes	No		
		n (%)	n (%)		
ay and Benefits	Satisfied	12(19.7)	49(80.3)	1	1
	Unsatisfied	208(75.6)	67(24.4)	12.67 (6.36-25.24) ***	3.89 (1.53-9.89) **
ıpervisor support	Satisfied	94(59.9)	63(40.1)	1	1
	Unsatisfied	126(70.4)	53(29.6)	1.59 (1.01-2.50) *	1.52 (0.80-2.88)
olicy and strategy	Satisfied	49(57.6)	36(42.4)	1	1
	Unsatisfied	171(68.1)	80(31.9)	1.59 (1.01-2.50) *	0.62 (0.27-1.39)
ducational	Satisfied	22(24.7)	67(75.3)	1	1
portunity	Unsatisfied	198(80.2)	49(19.8)	12.30 (6.93-21.85) ***	3.59 (1.61-7.99) **
ature of the work	Satisfied	77(59.7)	52(40.3)	1	1
	Unsatisfied	143(69.1)	64(30.9)	1.50(0.95-2.38) *	0.72 (0.34,1.49)
orkload	Low	90(54.9)	74(45.1)	1	1
	High	130(75.6)	42(24.4)	2.54 (1.60-4.04) ***	1.94 (1.04-3.63) *
erformance	Satisfied	54(56.2)	42(43.8)	1	1
praisal	Unsatisfied	166(69.2)	74(30.8)	1.74 (1.07-2.84) *	0.78 (0.35-1.72)
ecognition	Satisfied	36(43.4)	47(56.6)	1	1
	Unsatisfied	184(72.7)	69(27.3)	3.48 (2.08-5.82) ***	2.69 (1.35-5.38) **
ork environment	Satisfied	42(36.8)	72(63.2)	1	1

ariables	Category	Intention to leave		COR (95%CI)	AOR (95%CI)
		Yes	No		
		n (%)	n (%)		
	Unsatisfied	178(80.2)	44(19.8)	6.93 (4.19-11.47) ***	2.77 (1.45-5.30) **
fective	High	89(52.0)	82(48.0)	1	1
mmitment	Low	131(79.4)	34(20.6)	3.55 (2.19-5.74) ***	2.05 (1.10-3.82) *
arital status	Married	77(50.0)	77(50.0)	1	
	Unmarried	143(78.6)	39(21.4)	3.66 (2.28-5.89) ***	2.46 (1.32-4.58) **
ducational level	Diploma	77(60.2)	51(39.8)	1	
	Degree	126(67.0)	62(33.0)	1.34 (0.84-2.14)	9.09 (0.45-183.49)
	Above degree	17(85.0)	3(15.0)	3.75 (1.04-13.46)	11.86 (0.36-383.59)
evel of hospital	Primary	109(66.1)	56(33.9)	1	
	General	22(52.4)	20(47.6)	0.56 (0.28-1.12) *	0.36 (0.14-0.89) *
	Referral	89(69.0)	40(31.0)	1.14 (0.69-1.87)	0.89 (0.44-1.81)
onthly salary	<3145	78(60.5)	51(39.5)	1	1
TB)	3145-3911	72(66.1)	37(33.9)	1.27 (0.74-2.16)	0.79 (0.37-1.64)
	3912-4725	18(56.2)	14(43.8)	0.84 (0.38-1.83)	0.37 (0.13-1.03)
	>4725	52(78.8)	14(21.2)	2.42 (1.22-4.80)	2.55 (0.97-6.66)

*AOR: Adjusted Odds Ratio, CI: Confidence Interval, COR: Crude Odds Ratio, ETB: Ethiopian Birr * P<0.05, **P<0.01, *** P<0.001, 1: reference category*