

# Midwifery as a Future Career: Determinants of Motivation Among Prep Students in Harar, Eastern Ethiopia

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**Background:** Midwifery is a profession that deals with care and advice during pregnancy, labor, childbirth and postpartum period including support for the newborn. Like other professions, the sustainability of midwives depends on recruiting new professionals who are inspired to train as their future career. In this regard, the inspiration of preparatory students to embracing the profession and secure the future midwife workforce is critical. In Ethiopia, there is no literature on the assessment of students' intention toward the midwifery profession. Hence, this study is crucial to fill data scarcity.

**Objective:** To assess the intention and related factors to choose midwifery as a future profession among preparatory students at Harar.

**Methodology:** An institutional cross-sectional study was conducted on preparatory students from March 20 to April 12/2019. Self-administered questionnaires were randomly given to 423 students. Multivariate logistic regression analysis was done for variables with p-value <0.2 in binary logistic regression. The odds ratio was used to measure the degree of association.

**Results:** Only 18.1% intended to choose midwifery as a future profession. The odds of considering to choose midwifery is 5 times higher in those who have a health professional mother [AOR= 5.518 p-value 0.009]. Students who have good perceptions are 7 times more likely to choose the profession [AOR= 7.072 p-value 0.00]. Students who perceived low regard toward the profession [AOR= 0.231 p-value 0.001] and blood contact as a barrier to be a midwife [AOR= 0.174 p-value 0.001] are less likely to choose it.

**Conclusion:** Preparatory students in Harar have minimal intention to choose midwifery. This is due to a lack of information about the profession, poor perception, low regard to the profession, and fear of blood contact. This finding contributes to the midwifery association and ministry of health to enhance positive perception toward the profession.

**Keywords:** intention, midwifery, profession, preparatory

## Background

Midwifery is a health profession that is responsible and accountable to the partnership with women to give the necessary support, care, and advice during pregnancy, labor, and the postpartum period, and to provide care for the newborn and infant.<sup>1</sup> The history of midwifery education has been counted for more than 65 years from the first post-basic training program at Gondar hospital in 1954 up to the current 31 public universities that provide a direct entry program.<sup>2,3</sup>

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According to some international studies, the intention of high school students toward choosing the nursing profession as a future career was found to be less likely. For instance, from a survey conducted among high school students in Saudi Arabia, Bahrain, and Tanzania only 5.2%, 13.7% and 10% of them would consider nursing as a future career, respectively.<sup>4-6</sup>

Studies from different parts of the globe also identified factors preventing them from becoming a nurse such as perception toward the profession, perceived barriers to being a nurse such as long working hours and high workload were found to have a significant association. Parental occupation and parental educational level also influenced respondents' perceptions of nursing as a future career.<sup>4,5,7</sup>

Since midwives are the primary source of care for mothers and newborns at the most vulnerable time in their lives, a Shortage of midwives and high turnover are the major impediments to address the care. According to recent evidence, Ethiopia has an estimated number of 4725 midwives for a population of 85 million making a ratio of 1: 17,989 which is inconsistent with WHO recommendation of midwife population ratio (1:5000). Meeting the need for maternal and newborn health care in Ethiopia would require recruiting a lot more midwives.<sup>8</sup>

In Ethiopia students who achieved the lower qualifying score of entrance exam were assigned to the midwifery study program even though they may have not expressed any knowledge or interest in the program. This has contributed to a loss of respect for the profession, reduction of students' motivation, and professional quality.<sup>11</sup>

This study is a significant input to show higher officials, Ethiopian midwives association, policymakers and related NGOs to revise the direction of their efforts toward recruiting interested and motivated professionals by adapting an approach that would increase the inspiration of younger ones thus ensuring the sustainability of the profession.

## Methods

### Study Setting and Design

An institution-based cross-sectional study was conducted in all of the five preparatory schools of Harar city (Aboker preparatory school, Aw-Abdal preparatory school, Betlehem preparatory school, SOS preparatory school and Hi-Tech preparatory school) from March 20/2019 to April 12/2019.

### Study Population and Sampling Procedure

The study population includes all grade 12 students in Harar city. A single population proportion formula [ $n = (z \alpha/2)^2 p (1-p)/d^2$ ] was used to calculate the sample size with the assumption of 50% proportion of students' intention to choose midwifery profession, 95% confidence level, 5% margin of error and 10% of non-response rate.

Overall, we recruited a total of 423 respondents. Two hundred and eighty students from Aboker preparatory school, 25 students from Aw-Abdal preparatory school, 43 students from Betlehem preparatory school, 41 students from SOS preparatory school and 34 students from Hi-Tech preparatory school were allocated proportionally based on the number of students in each school.

Grade 12 enrollment was taken as inclusion criteria while enrollment in grade 11 was a criterion of exclusion since only grade 12 students are supposed to choose their future field of study (profession) after taking the entrance exam to higher education institutions.

### Data Collection Tool and Procedures

A structured questionnaire was used after reviewing important literature on the problem under the study.<sup>5,9</sup> It was translated into two local languages (Amharic and Oromiffa) then back to the English language.

The questionnaire was designed to obtain information on the main variables which is categorized under 4 section. A total number of 30 items were included in the data collection tool (9 socio-demographic, 3 awareness about midwifery profession, 13 perceptions toward midwifery profession statements, and 5 career choice-related questions). Perception-related questions were organized through statements with a Likert measurement scale while the rest of the questions includes "YES" or "NO" alternative and additional relevant alternative responses.

The data collectors were Five midwives who can speak local languages (Amharic and Oromiffa). A pre-test was conducted by taking 10% of the sample size (42 students) in Bisrate Gebriel preparatory school which is found outside of Harar which was under a similar setup. Appropriate modifications were made after analyzing the pretest result before the actual data collection. Data quality was assured by giving training and appropriate supervision for data collectors. The overall supervision was carried out by the principal investigator. The collected data were also cross-checked on a daily basis for its consistency and completeness.

## Data Processing and Analysis

The internal consistency of perception-related Likert scale questions was measured by Cronbach's alpha and it was reported 0.683 which is below the recommended value of Cronbach's alpha which is 0.70. Meanwhile, the scale if item deleted was used to improve the reliability of the tool and an alpha value of 0.707 was reported when the first item is deleted. The collected data were entered into Epi Data version 4.2 and exported to SPSS version 20 for data processing and analysis. Descriptive statistics like percentage, mean, and standard deviation were done. Both bivariate and multivariable logistic regression analyses were computed to identify associated factors. The odds ratio along with 95% CI was computed to ascertain the association between independent and outcome variables. Variables that have a p-value of  $<0.2$  at bivariate analysis were included in multivariable logistic regression to control possible confounding factors. Statistical tests at a p-value of  $<0.05$  were considered as statistical significance.

The model fit was checked by the Hosmer and Lemeshow Test which is the most reliable test of model fit available in SPSS. Hence, the chi-square value for the Hosmer–Lemeshow Test is 10.478 with a significance level of 0.233. This value is greater than 0.05, therefore indicating the goodness of model fit.

## Results

### Socio-Demographic Characteristics of Respondents

Among 423 eligible sampled respondents, 417 students were responded to the questions yield a response rate of 98.5%. The six non-responders were due to incomplete responses. As shown in Table 1, the age ranged from 17 to 22 with a mean age of 18.30 years (SD + 0.88). (Table 1)

### Awareness and Perception Toward Midwifery Profession

Four hundred and nine (98.1%) have awareness about the midwifery profession. Among these, 78.2% have the awareness that midwifery study program has been provided at public universities.

On the perception dimension, 48.7% of respondents have a poor perception of the midwifery profession. As shown in Table 2, the lowest recorded score was for the statement “the pay in midwifery is reasonable” followed by “midwives’ job is beyond delivering babies”. While the

highest score was for “midwives need knowledge and skill to provide a care” followed by midwifery is an important profession in the community (See Table 2).

### The Intention of Preparatory Students to Choose Midwifery as a Future Profession

From 409 grade 12 students who have the awareness about midwifery profession, only 18.1% (74) have the intention to go to midwifery study program while the rest 81.9% do not have this intention. Respondents differ in the reasons they gave to justify their intentions for considering midwifery as a future career. Accordingly, 8.8% said passion for caring (because it is a caring profession), 5.1% said easy employability (to get job easily), 2.9% said personal interest and the rest 1.2% said family recommendation.

On the other hand, accounting for lack of intention to consider this profession as a future career, the reasons include lack of interest in the field (49.4%), fear of blood contact (17.4%), stressful job (11.2%), high workload (3.7%), and insufficient information (0.2%).

### Perceived Barriers to Be a Midwife

As shown in Figure 1, there are seven perceived barriers to consider midwifery as a choice career. The majority of participants agree that these barriers to considering midwifery as a career are related to the fact that people have low regard for the profession. Others consider the midwife's nightshift work as a barrier for nightshift work neither interests nor motivates people to study midwifery (Figure 1).

### Influential Person to Choose Their Future Career

As Figure 2 shows, the Majority of preparatory students put themselves as influential people to decide their future careers while the minority claimed their friend as an influential person to choose their future career (see Figure 2).

### Factors Associated with the Intention of Preparatory Students Toward the Choice of Midwifery as a Future Profession

As Table 3 shows, in bivariate analysis mothers' occupation, fathers educational level, mothers' educational level, having a healthcare professional friend/family member, source of information, perception toward the profession and from perceived barriers to becoming midwife, long working hour, people's low regard to the profession and

**Table 1** Socio-Demographic Characteristics for Intention to Choose Midwifery as a Future Profession and Related Factors Among Preparatory Students in Harar, Eastern Ethiopia, 2019

Variables	Demographic Data	Frequency	Percentage
	Categories	No.	%
Age	18 and below	258	61.9
	19 and above	159	38.1
Sex	Male	202	48.4
	Female	215	51.6
Father's occupation	Health professional	54	12.9
	Non-health professional	351	84.2
	Unemployed	12	2.9
Mother's occupation	Health professional	37	8.9
	Non-health professional	298	71.5
	Unemployed	82	19.7
Father's educational level	Primary and below	45	10.8
	Secondary	135	32.4
	College/beyond	237	56.8
Mother's educational level	Primary and below	91	21.8
	Secondary	157	37.6
	College/beyond	169	40.5
HCP relative or friend	Yes	255	61.2
	No	162	38.8
Admitted/visiting at hospital	Yes	365	87.5
	No	52	12.5

fear of blood contact were found to be significantly associated factors with students' intention to consider midwifery profession as a future career.

In multivariable analysis mothers' occupation, perception toward midwifery profession, and perceived barriers to being a midwife such as people's lack of respect for the profession and blood contact were found to be significant factors that determine a students' intention of considering the midwifery profession as a future career.

Students who have health professional mothers are 5.51 times more likely to choose the profession than those who have unemployed mothers [AOR= 5.51

(1.526, 19.954) p-value 0.009]. Students who have good perception toward the profession are 7.07 more likely to choose the profession than those who have poor perception [AOR= 7.07 (2.862, 17.480), p-value 0.00]

The other significantly associated factor is the perceived barrier to becoming a midwife. Accordingly, people who have low regard for the profession are 0.23 less likely to choose the profession than those who do not have low regard. [AOR= 0.23 (0.099, 0.536) p-value 0.001]. Again those who considered fear of blood contact as a barrier for becoming a midwife are 0.174 less likely to choose the profession than those who did not see this as a barrier [AOR= 0.17 (0.060, 0.500) p-value 0.001]. (see Table 3)

## Discussion

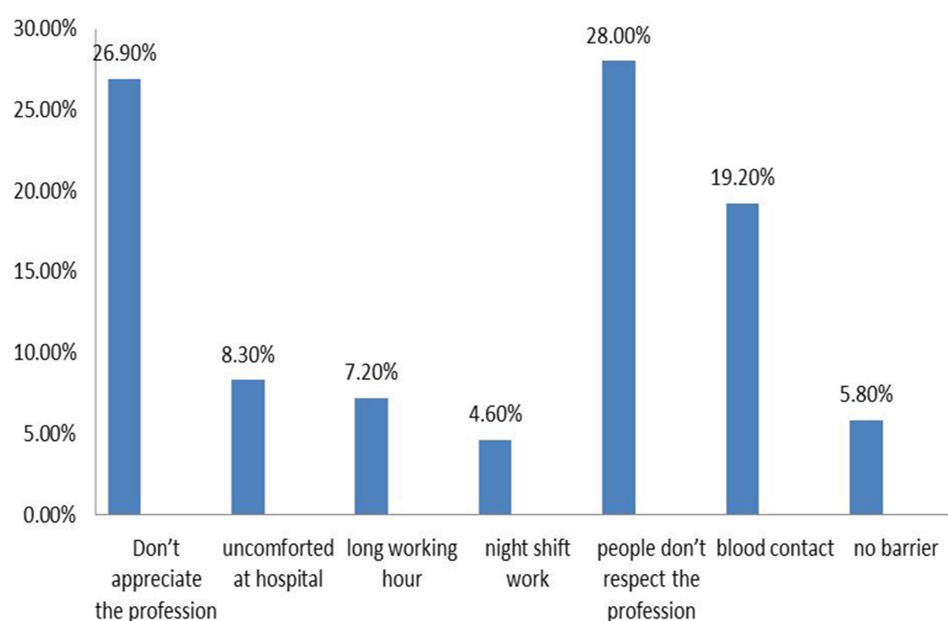
Among the students assessed for their intentions to study midwifery as a future profession, only 18.1% of students responded to consider studying midwifery for a future career. This is a slightly higher figure compared to the study conducted on high school students in Riyadh, the capital of Saudi Arabia in which only 5.2% of students indicated similar motivations toward the profession.

This difference could be attributed to one of the socio-demographic characteristics in which the influence of a close health professional (friend or family member) around students could determine their motivation. The Saudi study shows the majority of the respondents do not have a health professional friend or family member while in this study majority of the respondents have a health professional relative or friend. The Saudi study shows the majority of the respondents tend to be less exposed to or influenced by a health professional friend/family member to produce inclination towards midwifery. On the other hand, in the present study, the higher tendency toward accepting the profession is because the majority of respondents have preexisting information about the profession through exposure to a health professional relative or friend. For the majority of students, preexisting information or orientation about the profession tend to produce a motive for being attracted to the profession.<sup>4</sup>

Similarly, the results in the present study are compared to a related study conducted in Nigeria. The study in Nigeria shows the magnitude of secondary school students who considered studying nursing as a future profession constitutes 46.25% which is much higher than the finding of the current study. This high figure is due to the positive attitudes Nigerian students' developed toward the nursing

**Table 2** Perception Toward Midwifery Profession for Intention to Choose Midwifery as a Future Profession and Related Factors in Harar, Eastern Ethiopia, 2019

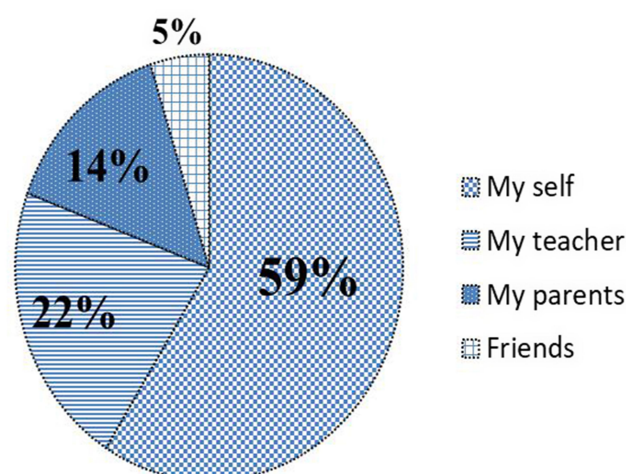
S. No.	Statements	Agreed + Strongly Agreed	Neutral	Disagreed + Strongly Disagreed	Mean
1	Midwifery is a caring profession	351 (85.8)	24 (5.9)	34 (8.3)	4.11
2	Midwifery is a respected profession	154 (37.7)	36 (8.8)	219 (53.6)	2.92
3	Midwifery is a very important profession in the community	397 (97.1)	9 (2.2)	3 (0.7)	4.44
4	Midwifery is not gender dependent profession/not only for females	245 (59.9)	23 (5.6)	141 (34.4)	3.42
5	I think midwifery is a very interesting job	97 (23.7)	103 (25.20)	209 (51.1)	2.75
6	The pay in Midwifery is reasonable	55 (13.4)	134 (32.8)	220 (53.7)	2.54
7	Midwives able to use their own initiative in their work	140 (34.2)	74 (18.1)	195 (47.7)	2.89
8	Midwives works under lot of stress	166 (50.4)	72 (17.6)	131 (32.0)	3.22
9	I can find a job in Midwifery wherever I go/it is easily employable	130 (31.8)	98 (24.0)	181 (44.3)	2.64
10	Midwives job is beyond delivering babies/not only delivering babies	108 (26.4)	31 (7.6)	271 (66.0)	2.88
11	Midwives need skill and knowledge to provide care	393 (96.1)	5 (1.2)	11 (2.7)	4.51
12	Midwives are exposed to patients with dangerous diseases/ infections at work place.	105 (25.7)	102 (24.9)	202 (49.4)	2.74
13	Midwives job has a very contact with blood.	376 (91.9)	24 (5.9)	9 (2.2)	4.11
		Mean = 3.32		SD = 0.44	

**Figure 1** Participant's perceived barriers to be a midwife.

profession. For instance, in the current study, only 37.7% of students agreed that midwifery is a respected profession and 13.4% accepted the pay in midwifery as reasonable. Whereas in the Nigerian study, the majority of respondents (91.25%) accept the statement “nursing is a respected profession” and 78.7% agree that nursing pays a good

salary. The positive perception of the profession has an influence and may attribute to the increasing number of students in Nigeria who consider nursing as a future career compared to the current study.<sup>9</sup>

In this study, mothers' occupation has also been significantly associated with preparatory students' intention



**Figure 2** Participant's influential persons to choose their future career.

to study midwifery as a future career. Students who have health professional mothers more likely to tend to consider midwifery as a profession than those who have non-health professional mothers. This finding concurs with the result of a study conducted on high school students in Bahrain which also revealed parental occupation as having a significant positive influence on students' perception toward a nursing profession as a future career. That is, students with a healthcare professional mother tend to develop a better perception toward the nursing profession which in turn will increase the likelihood to consider the profession as a future career.<sup>5</sup>

According to the finding of the present study, the other indicator that shows a significant association with students' choice to do midwifery is their perception of the

**Table 3** Bivariate and Multivariate Analysis Result for the Intention to Choose Midwifery as a Future Profession and Related Factors Among Preparatory Students in Harar, Eastern Ethiopia, 2019

Variables	Category	Have Intention	No Intention	COR [95% CI]	AOR [95% CI]
Mothers' occupation	Health **	20	17	2.916 (1.300, 6.539)	<b>5.518 (1.526, 19.954)</b>
	Non health *	31	261	0.294 (0.160, 0.542)	0.510 (0.231, 1.126)
	Unemployed	23	57	I	I
Father educational level	Primary & below *	14	29	3.130 (1.491, 6.571)	2.435 (0.797, 7.437)
	Secondary *	29	105	1.791 (1.024, 3.131)	1.522 (0.716, 3.235)
	College/beyond	31	201	I	I
Mother educational level	Primary & below *	31	57	2.800 (1.535, 5.107)	3.304 (1.082, 10.092)
	Secondary	16	139	0.593 (0.306, 1.148)	1.029 (0.379, 2.792)
	College/beyond	27	139	I	I
Having HCP friend/family member	Yes *	58	196	2.571 (1.419, 4.659)	1.046 (0.464, 2.361)
	No	16	139	I	I
Source of information	Media	22	151	1.093(0.461, 2.589)	0.715 (0.236, 2.167)
	School teacher	5	35	1.071 (0.325, 3.531)	1.238 (0.293, 5.227)
	Midwife *	39	89	3.287 (1.436, 7.523)	0.970 (0.306, 3.077)
Been in hospital	8	60	1	I	I
Perception for midwifery profession	Poor	8	191	I	I
	Good **	66	144	10.943 (5.092,23.515)	<b>7.072 (2.862, 17.480)</b>
Long working hour	No	62	316	I	I
	Yes *	12	19	3.219 (1.487, 6.968)	1.154 (0.436, 3.056)
People do not respect the profession	No	64	224	I	I
	Yes **	10	111	0.315 (0.156, 0.638)	<b>0.231 (0.099, 0.536)</b>
Contact with blood	No	69	257	I	I
	Yes **	5	78	0.239 (0.093, 0.613)	<b>0.174 (0.060, 0.500)</b>

**Notes:** \*Show statistically significant association in bivariate logistic regression. \*\*And bold numbers: Show statistically significant association in multivariate logistic regression.

profession. The more positive perception they have about the profession, the more likely they are attracted to it. This finding is in line with the studies conducted among high school students' intention toward the nursing profession in Bahrain and Saudi Arabia. Both studies show that good perception toward the profession increases the likelihood to choose it.<sup>4,5</sup>

This study also shows factors that significantly determine the students' motivation to consider midwifery as a future career. It identifies low regard for the profession and dislike or fear of contact with blood as barriers to becoming a midwife.

That is, when students are convinced to have low regard and appreciation for midwifery and become phobic for contact with blood, the profession tends to suffer from less number of interested students who choose midwifery as a future career. This perceived barrier in the current study however is inconsistent with the study conducted in India. In the latter study, long working hours and the high workload of a midwife are perceived to have a significant negative influence on students' intention and motivation toward nursing as a future career. According to the study in India, nurses work from 9 to 14 hours a day, and this is a bit longer than the trend in the context of Ethiopia. So the long working hours of nurses tend to demotivate or discourage students from taking nursing as their future career.<sup>7,10</sup>

## Conclusion and Recommendation

This study has shown that preparatory students in Harar have minimal intention to choose midwifery as a future profession. This is because of demotivation or lack of interest owing mainly to four determinant factors such as lack of prior information or orientation about the profession, poor perception, low regard to the profession, and dislike or fear of blood contact.

The presence of a health professional in the household (a mother, for instance) tends to increase the likelihood of a student to choose midwifery as a future profession. This will help the student develop prior information, orientation and motivation to the profession. On the contrary, fixing poor perception and low regard toward the profession, on one hand, and a perceived fear or dislike of blood contact, on the other hand, result in a detrimental effect toward the student's intention to choosing midwifery as a future career.

Hence, the Ministry of education should do promotion and orientation work by providing detailed information

about midwifery. One way of achieving this is by assigning career choice counselors at preparatory school levels. Promotional works through mass media play a crucial role in enhancing positive views of the profession. Marketing midwifery as a profession has an important role among preparatory students. This is significant in addressing and changing the common misconceptions like "midwives' job is only delivering babies" and enhancing the positive image in the community.

Besides, an in-depth qualitative study should be undertaken to explore the attitude of preparatory students toward the midwifery profession.

## Abbreviation

AOR, adjusted odds ratio; COR, crudes odds ratio; HCP, healthcare professional; NGO, non-governmental organization; SD, standard deviation; WHO, World Health Organization.

## Data Sharing Statement

All the data of this study are available from the corresponding author upon request.

## Ethical Consideration

Ethical clearance was obtained from the institutional ethical review board of Mekelle University, College of Health Sciences. An official letter of permission was written to the Harari regional bureau of education. Participants were informed about the purpose, benefit, risk, confidentiality of the information, and the voluntary nature of participation in the study. Data were collected after informed written consent was obtained from each participant that their data will be included in publications. Participants under the age of 18 years were approved by the ethics committee to provide informed consent by their respective school directors on behalf of students.

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## 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.

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## Disclosure

The authors declare that they have no conflicts of interest.

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