Factors associated with practicing evidence-based medicine among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020

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Abstract

Background

Evidence-based medicine (EBM) is an essential component of modern medical practice and crucial for patient safety and high-quality healthcare services. The purpose of this study is to assess the factors associated with practicing EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia.

Methods

An institution based cross-sectional survey was conducted from March to April, 2020. Simple random sampling with proportional allocation was used. A total of 403 medical interns were included in the study. The data were collected using a structured self-administered questionnaire. Data were coded and entered in to Epi info 8.1 then exported to and analyzed by using SPSS 20.1. Multivariable logistic regression analysis method was used to identify the factors associated with the practice of EBM.

Results

From the total of 403 medical interns, 48.4% had good practices towards EBM. EBM knowledge, attitude towards EBM, ability to critically appraise evidence and having sufficient time to search for evidence were the factors significantly associated with EBM practice.

Conclusion

Medical interns have limited practice of integrating scientific evidence in to clinical practice. There is a need to setup EBM journal club, which helps to increase awareness and use of evidence, as well as assist medical interns and other clinical staffs to ensure the correct application of EBM in to clinical practice.

Background

Evidence-based medicine (EBM) is the process of systematically locating, searching, evaluating and using contemporaneous research findings as the basis for clinical decision making [1]. The practice of EBM means integrating individual clinical expertise with the best available external evidence from systematic search and client choice in clinical decision making. It involves five steps: First, formulating a clear question based on a patient problems; second, identifying relevant studies from the literature; third, critically appraising the validity and usefulness of the identified studies; forth, applying the evidence to clinical practice and finally, evaluate the results of applying the evidence to patient [2]. Therefore, EBM has been considered as a cornerstone to improving the quality of healthcare services and achieving quality in patient care [3].

The world is characterized by rapid demographic and epidemiological transitions and health challenges related to new infectious, environmental and behavioral risks [4]. To meet these challenges, clinicians are increasingly expected to use evidence from various EBM sources to improve healthcare outcomes. Otherwise, it could potentially lead to increased patient morbidity [5, 6]. However, most of Ethiopian physicians continue to provide healthcare services as they have done before without incorporating EBM in their clinical practices [7]. Studies conducted in different countries revealed that 30–40% of patients do not receive care according to present scientific evidence and 20–25% of care...
provided is not needed [8, 9]. The major barriers to the practice of EBM were inadequate knowledge and skill related to EBM, patient overload and lack of personal time [10]. Similarly, in low and middle income countries, lack of resources, poor access to information resources, lack of knowledge, lack of staff experienced in the use of EBM [11, 12], insufficient administrative support and limited access to information are the most common barriers to the implementation of EBM [13-15]. To identify the implementation of EBM, it is critical to assess knowledge, attitude, practice and perceived barriers because it affects implementation of EBM [12].

Limited studies were conducted to assess knowledge, attitude and practice regarding EBM among Ethiopian health professionals. However, most of them included a sample populations of physicians, nurses and other healthcare professionals [7, 16-18], failed to include medical interns. The current study included medical interns that have not been surveyed on this topic before. Medical interns are usually at the frontline of healthcare provision in teaching hospitals; therefore they play a key role in the integration of EBM in to daily practice.

This study aimed to assess the factors associated with practicing EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia. This information can help teaching hospitals in programming appropriate practical training on EBM and enables medical interns in improving their knowledge and skills regarding EBM to offer the best possible care for their patients.

In addition, information obtained from this study will helps policy makers to develop appropriate strategies for enhancing the implementation of EBM. It will also serve as baseline data for those who are interested further research on the issue.

**Methods**

**Study area and period**

This study was conducted in Amhara regional state teaching hospitals in Northwest Ethiopia, specifically in University of Gondar and Tibebe Ghion teaching hospitals, from March-April, 2020. The Amhara region is located in Northwestern and North central parts of Ethiopia. It has 10 administrative zones, one special zone, 181 woredas and 78 urban centers. According to the Amhara regional health office report in 2019, the region has two teaching hospitals, namely the University of Gondar and Tibebe-Ghion teaching hospitals. These teaching hospitals are the training centers for undergraduate and postgraduate medical students, dentists, nurses, midwives, pharmacists and others who shoulder the responsibilities to solve the health problems of the community and the country at large.

**Study design and participants**

An institution-based cross-sectional study design was employed. Medical interns studying in the University of Gondar and Tibebe Ghion teaching hospitals were participants of the study. But medical interns who were on a sick leave and week off during data collection period were excluded.

**Sample size determination and sampling technique**

The sample size was determined using single population proportion formula \( n = \left( \frac{Z_{\alpha/2}}{d} \right)^2 \frac{p (1-p)}{d^2} \); where \( n \)= the required sample size, level of confidence taken to be 95%, \( Z_{\alpha/2} \) (1.96), a 5% margin of error (\( d=0.05 \)), 50% proportion of EBM practice and \( n \) = the required sample size. The calculated sample size was 384 with 10% non-response rate, final sample size was 423.
A stratified random sampling technique was used to select participants from the University of Gondar and Tibebe Ghion teaching hospitals. By taking the list of medical interns from the human resource of each hospital, we determine the proportionate sample to be taken, to proportionate number of study subjects for each hospital, the formula \( n = (n_f) \times \frac{(n_f)}{N} \) was used where \( n \) = number of medical interns in each hospital, \( n_f \) = total sample size and \( N \) = the total number of medical interns in the two hospitals. Then, considering their proportion of the population, simple random sampling method was applied.

**Measurements and data collection techniques**

Data was collected using self-administered questionnaire which had five sections; socio-demographic, EBM knowledge, attitude toward EBM, EBM practice and perceived barriers for practicing EBM. The questionnaire was adapted from previous published studies because these prior works have already been validated and can be used for an international comparison [6, 19]. Data was collected by a total of six health informatics students (BSc). The attitude of respondents was measured by 11 questions with five point Likert's scale. All individual answers to attitudinal questions was computed to obtain total scores; then, mean score was calculated to categorize as having favorable attitude (if participants scored \( \geq \) mean score) or unfavorable attitude (if Participants scored < mean score). In addition, respondents level of knowledge was measured by calculating the mean score of the 14 items and categorized as knowledgeable (if participants scored \( \geq \) mean score of the correctly answered questions) or not knowledgeable (if participants scored < mean score of the correctly answered questions). The respondent’s level of practice was measured by 10 questions with five point Likert's scale. All individual answers to practice questions was computed to obtain total mean scores and categorized as good practice (if participants scored \( \geq \) mean score) or poor practice (if participants scored < mean score).

**Data quality assurance and management**

The data collectors and supervisors were trained prior to the actual data collection about the purpose of the study, sampling procedure, methods of data collection and ethical issues. Continuous follow-up and supervision were done by the supervisors and principal investigator throughout the data collection period. The data were checked daily for completeness and consistency.

The questionnaire was pretested on 5% of the similar population at Tikur Anbessa specialized hospital for consistency of response and validity of the questionnaire. Some adjustments were made while adapting to the Ethiopian context. Using the data obtained from the pre-test, the questionnaire was checked for reliability (internal consistency) using the Cronbach alpha test. The reliability for knowledge questions had a Cronbach’s alpha value of 0.839; attitude had a Cronbach’s alpha value of 0.764 and practice (Cronbach’s alpha 0.750). These values indicate that the questionnaire has very good reliability.

**Data processing and analysis**

The collected data were checked manually for comprehensiveness and uniformity of responses. Data were coded and entered in to Epi info 8.1 then exported to and analyzed by using SPSS 20.1. The descriptive statistical analysis was applied to compute the mean, standard deviation, frequency and percentages of the study variables. Bivariate analyses; Spearman’s rank correlation coefficient test was used to examine the bivariate correlations between the dependent and the independent variables. Selection of variables to be included in the final model was done by
examining multi-collinearity among independent variables, with the purpose of excluding variables with strong correlation (rho-values >0.85). Finally, multivariable logistic regression analysis was done to control potential confounders and to identify the factors associated with practicing EBM. The variables which had significant association were identified on the basis of adjusted Odds Ratio (AOR), with 95% confidence interval (CI) and p-value ≤ 0.05.

**Results**

**Socio demographic characteristics**

Among the 403 participants included in this study, 291 (72.2%) of them were males. Majority 296 (73.4%) of the participants were from University of Gondar teaching hospital and the remaining 107 (26.6%) from Tibebe Ghion teaching hospital. The mean age of the participants were 24.7 ± 0.97 SD years and 324 (80.4%) had never received any training related to EBM. Out of respondents, 276 (68.5%) have their own computer and 355 (88.1%) have an internet access.

**Knowledge about EBM**

In this study, 230 (57.1%) of medical interns had good knowledge towards EBM with the knowledge mean score of 6.6 ± 3.62 SD. Nearly half, 226 (56.1%) of participants answered correctly EBM is the integration of best research evidence with clinical expertise and patients values. In addition, 108 (26.8%) of participants answered correctly as literature search on Medline using MeSH (medical subject headings) terms would yield fewer articles than a basic search using general terms. Table 2

**Attitude towards EBM**

Most of the participants, namely 274 (68.0%) had favorable attitude towards EBM with an attitude mean score of 9.7 ± 1.65 SD. Majority, 380 (94.3%) of participants believed that the practice of EBM is helpful tool for clinical decision making and 368 (91.3%) of them believed that the practice of EBM improves patient care.

**Practice of EBM**

This study revealed that 195 (48.4%) had good practice towards EBM with a practice mean score of 28.4 ± 7.69 SD. Majority, 338 (83.9%) of the respondents integrate the preference of patients in their clinical practice and 322 (79.9%) of them formulated clinical questions. Despite this, 187 (46.4%) of the participants assess the validity of the research evidence. Table 4

**Barriers to the practice of EBM**

The most frequently reported barriers among medical interns were lack of access to electronic data bases 241(59.8%), lack of time to apply research evidences 288 (71.5%), lack of documents that guide the practice of EBM 262 (65.0%), and lack of institutional support for practicing EBM 320 (79.4%). Table 5

**Factors associated with the practice of EBM**
In the bivariate analysis, access to research article in workplace, access to electronic data base in work place, patient preference to EBM, patient believe in scientic evidence, having sufficient time to search for research evidence, having sufficient time to read research paper, reward for practicing EBM, supervisor support for practicing EBM, ability to access evidence, ability to critically appraise evidence, ability to apply evidence, EBM knowledge, attitude towards EBM shows significant association with EBM practice at 0.01 level of significance.

In the multivariable analysis, ability to critically appraise research evidence, EBM knowledge, attitude towards EBM and having enough time to search for research evidence were factors significantly associated with the practice of EBM. The odds of practicing EBM was 2.3 times (AOR=2.350), 95% CI= (1.570, 3.517) higher for medical interns who have the ability to critically appraise research evidence when compared with those who did not have the ability. Medical interns who have good EBM knowledge were 1.9 times (AOR=1.860), 95% CI= (1.220, 2.835) more likely to practice EBM compared with those who have poor EBM knowledge. Medical interns who have favourable attitude towards EBM were 2.1 times (AOR=2.052), 95% CI = (1.318, 3.193) more likely to practice EBM than those having unfavourable attitude. Similarly, medical interns who have enough time to search for research evidence were 1.7 times (AOR=1.673), 95 % CI= (1.065, 2.627) more likely to practice EBM compared to those who did not have sufficient time to search for research evidences. Table 6

**Discussion**

This study was aimed to assess the factors associated with practicing EBM among medical interns in Amhara regional state teaching hospitals. The result of this study indicated that medical interns have limited knowledge of key concepts of EBM, but a relatively positive attitude towards the concepts and limited practice of integrating scientific evidence in to clinical practice. Majority of medical inters had never received any training related to EBM. The output from the multivariable analysis identifies EBM knowledge, attitude towards EBM, ability to critically appraise evidence and having sufficient time to search for research evidence was the factors positively associated with the practice of EBM.

In this study, 57.1% participants had good knowledge about EBM. More than half (55.1%) of respondents answered correctly as critical appraisal skills are needed to ensure the quality of the research papers and 52.6% of them answered correctly as the practice of evidence based medicine requires the appropriate identification and formulation of clinical questions. Which is consistent with a study conducted in Switzerland on EBM among medical students [20]. In contrast, a study conducted on knowledge, attitude and behavior towards EBP of occupational therapy students in Ireland showed that almost all (97%) of participants aware that critical appraisal skills are needed to ensure the quality of all the research papers. Majority (94%) of them aware that the practice of EBM requires the appropriate identification and formulation of clinical question [21]. This difference may be due to different teaching methods, content or delivery of EBM within the curricula and lack of formal EBM training in Teaching hospitals included in the current study. An experimental evidence of EBM educational intervention from Mexico, suggested that formal medical students training in EBM improve medical student’s knowledge and skill about EBM [22].

The current study also showed 68.0% of medical interns had favorable attitude towards EBM. This finding was consistent with evidence from the other studies [23, 24]. This might be a first step in motivating and was a good sign for promoting the teaching of EBM in medical students’ curriculum. Similarly, a study conducted on awareness, attitude and knowledge of evidence based medicine among Jordanian physicians indicated that 63.5% of participants were positive towards EBM [25]. In contrast, a study that was conducted among medical students reported a weak positive attitude toward EBM [26]. In the current study, 91.3% of medical interns agreed that practicing EBM improve patient care. Similarly, the study conducted on Knowledge, attitudes and practice of physicians in University Hospitals
in Japan indicated that 90% of participants believed that EBM would improve patient outcomes [27]. Another study conducted on Knowledge and Attitudes of Physicians Towards EBM in Iran also indicated that 92.6% of physicians believed that practicing EBM improves patients’ management [28], but was higher than a study conducted on attitudes, knowledge, and perceived barriers on the practice of evidence based medicine among Japanese residents, in which 65% of participants said that EBM improve patient care [29]. Furthermore, this study demonstrated that 94.3% of participants believed that the practice of EBM is helpful tool for clinical decision making. This was higher than a study done on knowledge and attitude of evidence based practice in which 80% of participants believed that EBM is helpful in clinical decision-making [30].

Medical interns had a good practice (48.4%) towards EBM. Similar result were found on awareness, attitude and knowledge of EBM among physicians in Jordan, in which 50% of participants were practicing EBM [25]. Another study done in Saudi Arabia also showed that 43.1% of the physicians are practicing EBM in their clinical practice [31]. Only 1.1% of residence doctors practice EBM in their clinical practice in Sudan [8], which is lower than the current study. In contrast, 70% of physicians in Canada were applying EBM in their clinical practice [32]. Evidence from China also revealed that 76.0% of physicians applied EBM in routine daily practice [33]. The difference could be due to the level and experience of the respondents included in the studies. Professionals with higher level of qualification are better equipped with knowledge and skills to retrieve, appraise and utilize the available evidence.

In this study the most commonly identified barriers to the practice of EBM were lack of time to apply evidence in clinical practice (71.5%), lack of access to electronic database (59.8%), lack of institutional support (79.4%), lack of critical appraisal skill (56.8%), lack of skill to apply EBM (35.7%), lack of reward for practicing EBM (76.2%) and lack of patient preference to practice EBM (67.0%). Similarly, a study conducted in Gaza reported that the main factors affecting the practice of EBM were lack of knowledge needed to practice EBM (35%), negative attitude among senior colleagues (25%), lack of relevant resources (23%), work overload (20%) and lack of institutional support (18%) [34]. Lack of time to apply research evidence was the main barrier reported in the current study. Several studies also found that lack of personal time was the main perceived barriers [35, 36]. A study conducted to assess knowledge, attitudes and practices of EBM among physicians in Egypt reported that the first barrier to practicing EBM for most physicians was patient overload (82.67%), followed by lack of critical appraisal skills (82%), lack of time (80.67%), lack of skills (72.67%), insufficient resources (67.33%), shortage of financial gain (64.67%), and limited access to information (63.09%) [37]. A study conducted to assess Knowledge, attitudes and practices of primary health care physicians towards EBM in Qatar revealed that the major perceived barriers to practicing EBM were lack of free time (75.3%), limited resources and facilities (62.6%), no library in the location and lack of training workshops and courses (61%) [35]. Another study conducted to assess EBM knowledge, attitude and practice among doctors in Sri Lanka also indicated the following barriers: insufficient resources (77.7%), patient overload (66.6%), lack of skills to apply EBM (65.8%), lack of personal time (64.8%) and lack of endorsement by health authorities (59%) [23]

**Conclusions**

The result of this study indicated that medical interns have limited knowledge of key concepts of EBM, but a relatively positive attitude towards the concepts and limited practice of integrating scientific evidence in to clinical practice.

EBM knowledge, attitude towards EBM, ability to critically appraise evidence and having sufficient time to search for evidence were the factors significantly associated with EBM practice. Insufficient time to apply research evidence, lack of access to electronic database and lack of institutional support were the most important barriers for practicing EBM.

Teaching hospitals in Ethiopia needs to setup EBM journal club, which helps to increase awareness and use of evidence, as well as assist medical interns and other clinical staffs to ensure the correct application of EBM in to
clinical practice. Further studies are required to assess the level of knowledge, attitude and practice of medical interns regarding EBM in Ethiopian medical universities.

**Abbreviations**

EBM: Evidence based medicine; EBP: Evidence based practice; DARE: Database of reviews of abstracts of effectiveness; AOR: Adjusted odds ratio; CI: Confidence Interval; COR: Crude odds ratio

**Declarations**

**Authors contributions**

DE handled the data collection process, designed the model and analyzed the data. TM, AT and NM verified the analytical method. DE drafted the manuscript with input from all authors. All authors had a substantial contribution to the study design, analysis, and interpretation of the findings. All authors revised the paper critically for important intellectual contents. All authors read and approved the final manuscript.

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**Ethics approval and consent to participate**

Ethical clearance and approval was obtained from the ethical review committee of the University of Gondar, Institute of Public Health and conducted following the guidelines of the Declaration of Helsinki. Confidentiality of information was maintained anonymously. Moreover, informed consent was obtained from all participants by explaining the purpose of the study as well as maintaining the subject’s confidentiality.

**Consent for publication**

Not applicable.

**Availability of data and materials**

Data will be available upon request from the corresponding author.

**Competing interests**

All authors declared that they have no conflict of interest to disclose.

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**Tables**

Table 1: *Socio demographic characteristics of medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020. (n=403)*
| Variables                          | University of Gondar hospitaln (%) | Tibebe Ghion hospitaln (%) |
|-----------------------------------|------------------------------------|---------------------------|
| Sex                               | 221 (74.7)                         | 70 (65.4)                 |
| Male                              | 75 (25.3)                          | 37 (34.6)                 |
| Female                            |                                    |                           |
| Age                               | 32 (10.8)                          | 6 (5.6)                   |
| 23                                | 99 (33.4)                          | 24 (22.4)                 |
| 24                                | 112 (37.8)                         | 43 (43.0)                 |
| 25                                | 43 (14.5)                          | 26 (24.3)                 |
| 26                                | 10 (3.4)                           | 5 (4.7)                   |
| Previous EBM training             | 65 (22.0)                          | 14 (13.1)                 |
| Yes                               | 231 (78.0)                         | 93 (86.9)                 |
| No                                |                                    |                           |
| Have an own computer              | 210 (70.9)                         | 66 (61.7)                 |
| Yes                               | 86 (29.1)                          | 41 (38.3)                 |
| No                                |                                    |                           |
| Have an internet access           | 259 (87.5)                         | 96 (89.7)                 |
| Yes                               | 37 (12.5)                          | 11 (10.3)                 |
| No                                |                                    |                           |

*Table 2: Knowledge of EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020. (n=403)*
| Knowledge assessment items                                                                 | Correctn (%) | Incorrectn (%) |
|------------------------------------------------------------------------------------------|--------------|----------------|
| EBM is the integration of best research evidence with clinical expertise and patients values and preferences | 226(56.1)    | 177(43.9)      |
| Literature search on Medline using MeSH terms would yield fewer articles than a basic search using general terms | 108(26.8)    | 295(73.2)      |
| Literature search using Boolean operator ‘OR’ would reduce the number of citations that the search would produce | 108(26.8)    | 295(73.2)      |
| Research using clinical trials is generally more reliable than research using the observational method | 210(52.1)    | 193(47.9)      |
| Clinical trials and observational methods are equally valid in establishing treatment effectiveness | 183(45.4)    | 220(54.6)      |
| Evidence and patients are equally important to make clinical decisions | 184(45.7)    | 219(54.3)      |
| Evidence alone is not enough to make a good clinical decision | 222(55.1)    | 181(44.9)      |
| Within EBM, expert opinion is not considered as a form of evidence | 147(36.5)    | 256(63.5)      |
| The practice of EBM requires the appropriate identification and formulation of clinical questions | 212(52.6)    | 191(47.4)      |
| An etiological question is best answered through the use of cohort study | 189(46.9)    | 214(53.1)      |
| In therapy questions, randomized control trial (RCT) provide the best information to make a good clinical decision | 196(48.6)    | 207(51.4)      |
| Understanding of patient’s preferences are essential for identifying the best available treatment for that particular patient | 217(53.8)    | 186(46.2)      |
| EBM requires the use of critical appraisal skills to ensure the quality of all the research papers retrieved | 222(55.1)    | 181(44.9)      |
| Critically appraised evidence should be appropriately applied to the patient using clinical judgment and experience | 231(57.3)    | 172(42.7)      |

**Table 3: Attitude towards EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020. (n=403)**
### Table 4: The practice of EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020. \((n=403)\)

| Practice assessment items                                                                 | Yes n (%) | No n (%) |
|-------------------------------------------------------------------------------------------|-----------|----------|
| I formulated a clearly answerable clinical question                                        | 322(79.9) | 81(20.1) |
| I performed a literature search in electronic databases                                   | 264(65.5) | 139(34.5) |
| I assess the quality of the methodology used in the research studies I find               | 172(42.7) | 231(57.3) |
| I assess the applicability (usefulness in own clinical practice) of the research evidence | 191(47.4) | 212(52.6) |
| I assess the validity (closeness to the truth) of the research evidence                   | 187(46.4) | 216(53.6) |
| I recognize the possible bias and limitations of the studies selected                     | 155(38.5) | 248(61.5) |
| I integrate the most up-to-date results from scientific research with my clinical experiences | 216(53.6) | 187(46.4) |
| I inform my patients so they can consider the different intervention alternatives I can apply | 323(80.1) | 80(19.9) |
| I integrate the preferences of the patient in my interventions                           | 338(83.9) | 65(16.1) |
| I assess the results of my interventions                                                  | 249(61.8) | 154(38.2) |

### Table 5: Perceived barriers to practice EBM among medical interns in Amhara regional state teaching hospitals, 2020. \((n=403)\)

| Attitude assessment items                                                                 | Agree (%) | Disagree (%) |
|-------------------------------------------------------------------------------------------|-----------|--------------|
| Using results from research is important for the development of my professional practice | 382(94.8) | 21(5.2)      |
| The practice of EBM is a helpful tool for decision-making in my clinical practice         | 380(94.3) | 23(5.7)      |
| The practice of EBM helps me to care for people in the same way and with the same efficiency | 313(77.7) | 90(22.3)     |
| The practice of EBM improves the quality of my work                                        | 350(86.8) | 53(13.2)     |
| The practice of EBM can reduce healthcare cost                                           | 302(74.9) | 101(25.1)    |
| The application of EBM is necessary in my work                                            | 365(90.6) | 38(9.4)      |
| The practice of EBM improves patient care                                                | 368(91.3) | 35(8.7)      |
| I consider EBM improves the quality and results of my clinical interventions              | 358(88.8) | 45(11.2)     |
| I consider research findings are useful in my daily practice                              | 358(88.8) | 45(11.2)     |
| I need to increase the use of evidence in my daily work                                    | 383(95.0) | 20(5.0)      |
| Barriers                                                                 | Yes n (%) | No n (%) |
|-------------------------------------------------------------------------|-----------|----------|
| I have access to electronic database in my workplace                    | 162 (40.2) | 241 (59.8) |
| In my workplace there are documents that guide the practice of EBM       | 141 (35.0) | 262 (65.0) |
| My patient prefers me to practice EBM                                   | 133 (33.0) | 270 (67.0) |
| I have sufficient time to search for research evidences                  | 152 (37.7) | 251 (62.3) |
| I have sufficient time to read research papers                           | 124 (30.8) | 279 (69.2) |
| I have sufficient time to apply research evidences in my clinical practice | 115 (28.5) | 288 (71.5) |
| There are enough supports present in my work environment for the practice of EBM | 83 (20.6) | 320 (79.4) |
| In my workplace the practice of EBM is encouraged/rewarded              | 96 (23.8) | 307 (76.2) |
| I am confident in my ability to critically appraise the evidence        | 174 (43.2) | 229 (56.8) |
| I am confident in my ability to apply evidence to individual cases       | 259 (64.3) | 144 (35.7) |

Table 6: Bivariate and multivariable analysis of factors associated with practicing EBM among medical interns in Amhara regional state teaching hospitals, Northwest Ethiopia, 2020.

| Variables                  | Practice level | COR(95% Cl) | AOR(95% CI) | P-value |
|----------------------------|----------------|-------------|--------------|---------|
| Ability to critically appraise evidence                               |                |             |              |         |
| No                         | 139 (66.8)     | 90 (46.2)   | 2.4 (1.6, 3.5) | 0.000** |
| Yes                        | 69 (33.2)      | 105 (53.8)  | 2.3 (1.5, 3.5) |         |
| EBM knowledge              |                |             |              |         |
| Poor                       | 107 (51.4)     | 66 (33.8)   | 2.4 (1.5, 3.5) | 0.004** |
| Good                       | 101 (48.6)     | 129 (66.2)  | 1.9 (1.2, 2.8) |         |
| Attitude towards EBM       |                |             |              |         |
| Unfavourable               | 84 (40.4)      | 45 (23.1)   | 2.3 (1.5, 3.5) | 0.001** |
| Favourable                 | 124 (59.6)     | 150 (76.9)  | 2.1 (1.3, 3.2) |         |
| Sufficient time to search evidence                                  |                |             |              |         |
| No                         | 145 (69.7)     | 106 (54.4)  | 2.3 (1.5, 3.5) | 0.026*  |
| Yes                        | 63 (30.3)      | 89 (45.6)   | 1.7 (1.1, 2.6) |         |

** Significant at 0.01 level. * Significant at 0.05 level