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ORIGINAL RESEARCH

Assessment of Quality of Education in the Case of Bahir Dar Health Science College, Northwest Ethiopia:- A Mixed Method Approach

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Introduction: The concept of quality in higher education is highly complex, difficult to define, and multi-dimensional and education is a cornerstone of a nation's development and quality is at the heart of education. Thus, the study aimed to assess the quality of education at Bahir Dar Health Science College, BahirDar, Ethiopia, 2021.

Methods: A mixed method approach was employed from May 1- June 30, 2021. Systematic random sampling and purposive sampling methods were used to collect quantitative and qualitative data respectively. Self-administered questionnaires and in-depth key informant interviews were conducted. The data were analyzed via stata 14 and presented by descriptive frequencies and tables. Thematic analysis was employed for qualitative data.

Results: Most instructors 26 (59.1%) are not satisfied with library services and 33 (75%) of them did not conduct a research project or participate in any community services. The findings also stated that the college has made its level best to improve the quality of education via the implementation of continuous assessment, active learning approach, remedial and affirmative action and training. Regarding students, half of them 166 (50.6%) are not comfortable with the college environment. Students were also greatly grouchy the services delivered in the college such as cafeteria, dormitory, student clinic and guidance and counseling.

Conclusion: The study found out that there is a relatively low level of satisfaction among both groups and the quality of education is below the acceptable level. Therefore, the college should create an opportunity to engage in national and regional networks to share best practices in quality education and it requires the office to develop the capacity of their services.

Keywords: education, Bahir Dar, Ethiopia, health science college, mixed methods, quality

Introduction

Education is a rudimentary human need and a key factor for the development of a nation.[1] The evidence-base supports that higher education institutions play a fundamental role in producing skilled and competent professionals that accelerates the countries' economic advancement. Therefore, to achieve this goal quality education and training is mandatory.[2,3]

The concept of quality in higher education is highly complex, difficult to define, and multi-dimensional. Quality can be described as a system that constitutes the input, process, and output of the educational system.[2,4,5] Quality also refers to the educational model, the institutional mission, and its goals, as well as to the specific standards of the system.[6] These three elements of quality factors (inputs, processes, and outputs) can affect student learning both directly and indirectly.[7]

Among these three sets of elements of quality, process indicators are the most practical, useful, and appropriate measures of quality teaching and learning within higher education institutions. This is because they investigate the core

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of the student learning experience and practices related to learning and teaching, performance management and professional development of staff, quality of curriculum and the assessment of student learning, and quality of facilities, services, and technology. It can also provide information and context to facilitate the interpretation of outcome indicators.[8,9]

The higher education sector in Ethiopia has undergone enormous growth in recent years. According to the Ministry of Education (MOE), the number of higher education institutions and the intake capacity of both undergraduate and graduate programs in public higher education are increasing rapidly. However, the rapid increase in the gross enrolment rate has challenged the overall quality of education.[10] Having recognized these problems, the MOE is currently engaged in a highly motivated effort to reform the country's higher education quality improvement program. Therefore, agencies such as the Higher Education Relevance and Quality Agency (HERQA), and the Educational Quality Improvement Program have been established to assuring the quality of the education system in Ethiopian higher learning institutions.[11]

There had been numerous strategies implemented by different nations to ensure the quality of higher education which include the external examiner system in commonwealth countries and government ministerial control in much of Europe.[11] Similarly, Ethiopia is presently reforming and expanding its higher education system to maintain quality of education.[12] Thus, the agencies started working towards improving the quality of education at higher learning institutions, though; it is difficult to say that all aspects of education quality can clearly be addressed with absence or lack of scholarly and scientific researches.

Thus, it is timely and keenly demanding to undertake scholarly researches in these regards to assess quality of education and to seek for further improvements. Furthermore, the previous studies were done usually at the university level which is difficult to extrapolate to the college since these settings are quite different in many aspects. Hence, it is with such driving intensions that the researchers wanted to investigate the quality of education in Bahir Dar Health Science College (BHSC).

Therefore, this study tried to assess the quality of education in BHSC using mixed method approach. The findings of these studies can contribute towards enhancing and ensuring education quality and it will serve as a springboard for further investigation on the issue under discussion.

Methods

Study Design, Period, and Settings

A mixed method approach both qualitative and quantitative study design[13,14] was conducted from May 1 to June 30, 2021, in BHSC, Bahir Dar, Ethiopia. BHSC is one of the oldest medical schools in Ethiopia. The college was established in 1979 under Amhara regional state health bureau and is located in Bahir Dar, the capital city of the Amhara National Regional State. During the study time, the city had 4 private health science colleges and two governmental health science colleges (one being Bahir Dar University Medicine and Health Science College).

During the time of establishment in 1979, the BHSC was designed to train skilled health assistants. Subsequently, the college started to train middle-level health professionals. The college projects an enrollment of over 1000 students in the academic year beginning in October 2020 in fields of study such as: Clinical Nursing, Laboratory, Pharmacy, Radiography, Midwifery, Health Informatics Technology, Anesthesia, Emergency, and Health Extension Workers. As of 2021, the college enrolled 1271 students. The college is staffed with more than 120 academic and administrative staff. Moreover, the college used the curriculum crafted by the Asian countries and the philosophy of the education was adopted from many other European countries with the ultimate goal of producing quality and competent professionals.

Source and Study Population

All students enrolled in each department and all instructors in the college were the source population. The study population was all sampled students at all academic levels who fulfilled the eligibility criteria and all instructors who were currently working in the college were the study population.

Inclusion and Exclusion Criteria

The study included students from all academic level and who had clinical attachment experience and all instructors currently working and available in the data collection period where as students who did not involve in apparent ship practice and instructors who were absent during the study period were excluded from the study.

Sample Size Determination and Sampling Procedure

The sample size was determined using single population proportion calculation formula. The sample-size calculation used: 50% prevalence, a 95% confidence level, a 5% margin of error, and a 10% non-response rate. From about 1271 students enrolled in the college, this yielded n=328. For the in-depth interview, twelve key informants were purposively sampled based on their experience and position in their college as per saturation level. Systematic random sampling was applied to obtain the required sample-size of student participants. Then the interval (k) was calculated by k=N/n. The first sample was selected by lottery method and then every K person was included in the data collection.

Operational Definitions

Indicators

Tools/measures that are used to assess a quality characteristic or the achievement of quality objectives and that are also used for comparisons.

Quality

Though it is conceptualized differently by various educators, in this study quality is defined as "fitness for purpose". It is the extent to which the set goals have been achieved.

Quality of Education

Is envisaged in terms of quality of input, process, and output aspects. The operationalization of quality assurance systems and practices in universities is approached in terms of their adequacy and efficacy. Each of these elements is described as follows.

The Scoring Result of Instructors' and Student Survey Questionnaire

The quality of education on both students and instructors were assessed using standardize tool of scoring methods and to describe the result the instructors' survey questionnaires were grouped into three pillars (curriculum standard, service delivery, and capacity development system). While student survey questionnaires were grouped into two pillars (service delivery and capacity development).

The scoring methodology for teachers response from the total of 44 questions coded, analyzed and compute a mean score based on three pillars, curriculum: 6, service delivery: 30 and staff development: 8.

The scoring methodology for students response from the total of 36 questions coded, analyzed and compute a mean score based on two pillars, service:30 and staff development:6.

Data Collection Tools and Procedures

We used a mixed approach, both qualitative and quantitative methods by triangulation.[14,15] To explore the research question, the study used two structured and pretested self-administered questionnaires, one for instructors and one for students which has five domains in total. Semi-structured interview schedules guided (dean, vice dean, department heads, and student representative) which focus on the major constraints, perception towards service provision, teaching learning environment, validity of assessment, curriculum and possible solutions for major constraints of quality of education. Before the interview, the interviewee received information about the purpose of the study. The interview which lasted approximately 30 to 40 minutes was conducted at the college by one trained master of public health professional, recorded on tape, and were used a unique identifier.

The self-administered questionnaire was initially prepared in English and then translated to Amharic and finally back-translated into the English language by experts to maintain consistency and standardization of the instruments. The data were collected by two trained BSc nurses, two BSc pharmacists, and one BSc graduate in public health.

Data Quality and Control Measure

Questionnaire was prepared in English language and translated to Amharic language and again translated to English by professional translators to ensure that the translated version did not alter the meaning. (The pretest was done in 5% of the sample size at a similar setting near in the study setting (Debre Tabor Health Science College) one week before scheduled data collection day. Based on the pretest, the necessary modification was performed. The data collectors were trained for two days on principle and how they collected the data, and strict supervision of the data collector was performed. Questionnaires were checked for completeness at the end of each day of data collection by the principal investigator. Moreover, a triangulation method was employed and data trustworthiness was maintained to ensure data quality.

Data Management and Analysis

The quantitative data entry was done in Epi info version 4.6 and analyzed by Stata version 14. Quantitative analysis involved describing the data using frequencies, percentages, and scoring methods. The qualitative data were translated, transcribed, and coded manually. The analysis method used inductive research techniques through thematic categorization. Similar topics were grouped together, and those with common features were clustered together and finally Themes were arranged based on their commonality.

Ethical Considerations

Ethical approval was obtained from the ethical review committee of Bahir Dar Health Science College (reference number of **BHSC/465/2021**). Written informed consent was obtained from each study participant for both qualitative and quantitative data after thoroughly explaining the aim of the study. The respondents were made fully aware of the purpose of the study and their right to withdraw at any time. The respondents were not coerced and were assured of the confidentiality and anonymity of the research data and sources using unique identifiers. This study was in compliance with the Declaration of Helsinki.

Results

Socio-Demographic Characteristics of the Respondents

The instructor's self-administered questionnaire was distributed to all instructors in the college. Of 54 instructors receiving the self-administered questionnaire, 46 responded (85.19%). The results showed that the mean age of instructors was 30.4 years and most were male (36, 78.3%), and most had an undergraduate degree as their highest educational qualification (28, 60.9%). Of the 328 questionnaires distributed to the student side, 100% were fully or partially completed and legible. Among the total, the majority were 165 (50.3%) male. Most of them were health extension workers 67 (20.4%), pharmacy 52 (15.9%), medical laboratory 51(15.5%), Emergency 41(12.5) students. The majority of respondents 280(85.4%) join their departments through their interests (Table 1).

Teaching Learning Environments and Services Responses of Instructors and Students

The result showed that more than half of instructors 59.1% are not satisfied with library services, due to a lack of adequate reference books and being uncomfortable with reading. This finding is supported by an interview conducted with higher officials of the college; they state that "the college library lacks the new curriculum reference books because they are not easily available in the market and not yet provided by the concerned bodies". In contrast, most students 79% were satisfied with library services (Table 2).

About one-half of the students 50.6% were not comfortable with the learning environment of the college, and 32.6% stated that the college lacked a clean and attractive environment, and 88.4% revealed that the college had infrastructure problems. The majority of students 88.4% revealed other infrastructure problems such as a high number of students per class and inadequate classrooms, insufficient pocket money and unclean and inadequate toilet room, and teaching-learning material scarcity such as liquid crystal display (LCD), whiteboard, and markers (Table 3). From the key informant interview, the respondents stated that the teaching-learning material scarcity such as LCD, whiteboard, and markers being provided by the college is inadequate and uncomfortable to ensure education quality.

Table 1 Socio Demographic Characteristics of the Instructors in Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=46)

No	Variable	Characteristics	Frequency	Percent
1	Educational qualification	Diploma	6	13.0
		BSc	28	60.9
		MSc and above	12	26.1
		Total	46	100
2	Work experience	1–4 year	30	65.2
		5–10 year	9	19.6
		≥11 year	7	15.2
		Total	46	100
3	Department	Anesthesia	1	2.2
		Health Information Technology	3	6.5
		Laboratory	7	15.2
		Midwifery	7	15.2
		Nursing	22	47.8
		Pharmacy	3	6.5
		Radiography	3	6.5
		Total	46	100

Staff Development and Promotion System

Concerning financial rewards for extraordinary performers, 67.5% of them revealed that there is no reward for extra performers. At interview, the college dean said that "there is a reward for extraordinary performers. However, we need to establish standard criteria to recruit for those extra performers". In addition, more than half of the instructors 54.3% were not comfortable with the college promotion system. In the key informant interviews, the department heads also said that without having a promotion and enough salary it is impossible to ensure education quality, and in our college this financial reward is not sufficient.

Process Factors for Quality of Education

Of 328 students, 313 (95.4%) reported that instructors provided course syllabi before the start of the course, and 288 (87.8%) reported that that the information sheet, exam schedule, and class starting and ending time of the course is in line with the course syllabus. However, only about one-half of students 50.9% confirmed that instructors use more than one teaching method per class. Regarding student evaluation, 88.1% students reported that instructors assess students on each learning outcome and 72.9% of instructors show the result after the examination.

Most students 90.6% reported that instructors assess their students in the skill lab. However, only 76% of them assess students individually. Besides, 71.0% students agreed that instructors support cooperative training at the health facilities. In terms of tutorial support, a substantial number of students 66.4% revealed that instructors are not providing tutorials for females and non-competent ones. More than one-half of students 59.2% also responded that the college has no counseling service. Instructors were also asked about the currently implemented curriculum. More than two-third of the instructors 67.4% agreed that the current curriculum structure was affecting the quality of education adversely (Table 4).

The finding from the in-depth interview with department heads also revealed that

Table 2 Instructors and Students' Response on Library Services Provided by Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021

No	Variables	Categories	Instructor Frequency	Percent	Student Frequency	Percent
1	Are you satisfied with library service?	Yes	18	40.9	259	79.0
		No	26	59.1	69	21.0
		Total	44	100	328	100
2	Library has adequate reference materials	Yes	25	54.3	27	8.2
		No	21	45.7	301	91.8
		Total	46	100	328	100
3	Library is comfortable for reading	Yes	32	69.6	302	92.1
		No	14	30.4	26	7.9
		Total	46	100	328	100
4	Library provides sufficient service time	Yes	38	82.6	258	78.9
		No	8	17.4	69	21.1
		Total	46	100	327	100
5	College has internet access	Yes	13	29.5	120	37.0
		No	31	70.5	204	63.0
		Total	44	100	324	100

Even though, teachers take part in a key role in sustaining the standard and quality of curriculum in institutions of higher education, the curriculum implemented is not modified contextually according to Ethiopian setup and most of the instructors do not have any professional training for updating and revising the curriculum. Because of that, the current curriculum implemented is a direct copy of another developed country curriculum without being customized with us.

When asked about their assessment methods, most instructors (40, 93%) reported good methods prepared based on required objective and standards (Table 5).

Instructor's Survey Scoring Result

Concerning the quality of the curriculum concerning the teaching-learning process, the instructors result showed that from a total score of 6, the mean score was 2.13, and also among the total of 46 respondents 67.4% of them are below or equal to the mean. While the rest 32.6% of them are above the mean (Table 6).

The majority of respondents score was below or equal to the mean value. Therefore, most of the instructors believe that the currently implemented curriculum had many problems and this affects the quality of education. Instructors are also asked about the type of service provided (teaching-learning activity) such as skill lab, classroom, and clinical practice and other activities they deliver for the students in the college. The result showed that; from the total score of 30 only a mean of 15.15 has been obtained. The percentage of respondents that show below and above the mean score was 54.3% and 45.7% respectively. This implies that only around half of instructors implement quality teaching-learning activities.

Regarding the existence of a staff development system in the college, the result showed that from a total score of 8, the mean score was 3.41 and the mode value was 3, this is below to mean score. Likewise, most 58.7% of respondents were below or equal to the mean value. From this result, we can conclude that the majority of instructors are not comfortable with the staff development system. The above descriptive result also supports this scored result ie the

Table 3 Students Response Related to the College Facilities and Services Provided by Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=328)

No	Variables	Categories	Frequency	Percent
1	Do you believe that the college is comfortable For teaching and learning?	Yes	166	50.6
		No	162	49.4
		Total	328	100.0
2	The college lacks a clean and attractive environment	Yes	107	32.6
		No	221	67.4
		Total	328	100
3	The college is unsecured or unsafe	Yes	47	14.3
		No	281	85.7
		Total	328	100
4	The college has uncomfortable classrooms and demonstrations	Yes	90	27.4
		No	238	72.6
		Total	328	100
5	Other infrastructure problems	Yes	290	88.4
		No	38	11.6
		Total	328	100
6	Is the college having counseling service?	Yes	133	40.8
		No	193	59.2
		Total	326	100
7	Have you ever got any pre service training to support your education?	Yes	92	28.4
		No	232	71.6
		Total	324	100
8	Does the college give you your pocket money as per the schedule?	Yes	131	40.2
		No	195	59.8
		Total	326	100
9	Does the college have different clubs?	Yes	145	44.2
		No	183	55.8
		Total	328	100
10	Do you have any college evaluation system that helps you to assess the competency of your instructors	Yes	18	5.5
		No	310	94.5
		Total	328	100

majority of instructors are not satisfied with the promotion system. These discourage staff motivation, which has its own contributes to the quality of education delivered by instructors. The overall mean score of instructors on the three pillars was 20.7. However, the expected total score for the above pillars was 44 (Table 7).

Table 4 Instructors Response with Regard to Currently Used Course Curriculum by Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=46)

No	Variables	Categories	Frequency	Percent
1	Do you think that currently implemented curriculum affects negatively the quality of your teaching learning process?	Yes	31	67.4
		No	15	32.6
		Total	46	100
2	The curriculum is not in line with the labor market.	Yes	14	30.4
		No	32	69.6
		Total	46	100
3	The curriculum is unable to enhance students skills and self-capabilities	Yes	19	41.3
		No	27	58.7
		Total	46	100
4	Unstructured competency content.	Yes	20	43.5
		No	26	56.5
		Total	46	100

Table 5 Response of the Instructors Regarding Skill Lab Activities and Assessment Methods at Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=46)

No	Variables	Categories	Frequency	Percent
1	Do you have easy access to laboratories/demonstrations?	Yes	19	43.2
		No	25	56.8
		Total	44	100
2	Do you spend all in school training hours as per the curriculum in the laboratory/demonstration rooms?	Yes	22	52.4
		No	20	47.6
		Total	42	100
3	Do you assess students individually in skill laboratory?	Yes	31	75.6
		No	10	24.4
		Total	41	100
4	Do you have any system for in school skill lab assessment for students? (practical assessment)	Yes	38	86.4
		No	6	13.6
		Total	44	100
5	Do you prepare assessment methods based on the stated objectives on the curriculum and standards?	Yes	40	93.0
		No	3	7.0
		Total	43	100

Student's Survey Scoring Result

The mean score for the quality of service delivered by the college and the instructor to provide quality service is obtained 15.54. This implies that from the total score of 30 the mean score was 15.54. The mode value 16 also indicates the

Table 6 Descriptive Statistics About Mean Score of Instructors Response in Three Pillars at Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=46)

Statistic	Curriculum	Service	Staff Development	Total
Mean	2.13	15.15	3.41	20.70
Median	2.00	15.00	3.00	20.50
Mode	2	13	3	18
Minimum	0	1	1	3
Maximum	5	24	7	33

Table 7 Percentages of Instructors Who Scored Below and Above the Mean at Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=46)

Respondent Response	Frequency	Percent
Below or equal to mean	23	50
Above mean	23	50
Total	46	100

Table 8 Descriptive Mean Statics of Students' Response in Two Pillars at Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021

Statistic	Service Delivery	Staff Development	Total
Mean	15.54	1.51	17.05
Median	16.00	1.00	17.00
Mode	16	1	17
Minimum	4	0	5
Maximum	24	6	27

Table 9 Percentages of Students Who Scored Below and Above the Mean at Bahir Dar Health Science College, Bahir Dar, Ethiopia, 2021 (N=328)

Respondent Response	Frequency	Percent
Below or equal to mean	179	54.6
Above mean	149	45.4
Total	328	100.0

majority of students also scored around the mean value. On the other hand from the total of 328 respondents, 155(47.3%) are below or equal to the mean, and 173(52.7%) of them were above the mean. For staff development, the majority of student score is low. In addition, the number of students who scored below the mean value was 185(56.4) this shows that students are not satisfied with staff development activities done by the college (Table 8).

The overall mean score of students on both service and staff development was 17.05/36. And also 179 (54.6%) respondents scored below or equal to the overall mean score (Table 9).

In-Depth Interview Findings

Theme 1:- Major Constraints Impeding the Quality of Education and Services

The college higher officials mentioned the major factors that were hampering the quality of educations were.

- The long and bureaucratic procedure of the purchasing system that caused unnecessary delay.
- Logistics constraint is being a major bottleneck for successful implementation of better service to improve the quality of education.
- Limited funding for research is also negatively affecting the participation of teaching staff.
- High teaching load, large class size and inadequate insight of teachers regarding assessment are major factors affecting the implementation of good quality of education and services.

Theme 2:- Possible Solutions to Relieve Major Constraints

Key informant participants were stated different solutions to alleviate the major challenges.

(I) The college shall provide sufficient grant for research and community service work.
(II) Intensive short-term training for instructors about education and assessment methods.
(III) Employ more staff and provide more classroom.

Furthermore, both the students representative and focal academic officers like college vice dean and department heads stated some innovative and feasible alternatives for improving the quality of education. This was confirmed by a student representative, who said that

> the college can amend the curriculum contextually rather than used as drafted by the other countries without any change by internal and external workshop after taken from the ministry of education.

Another participants a college dean who stated that "the college staffs could search a grant locally and broadly to do a better research and community service in order to solve a community problems". Moreover, another participant also mentioned that

> the college tried to advance the quality of education by searching different governmental and non-governmental agencies funding for enhancing infrastructure and providing quality services.

Theme 3:- Perceptions of Students on the Services Provided, Instructional, and Assessment Methods

Students' representatives mentioned the service provided by the cafeteria, students' clinic; dormitory and recreational services are not enough and well organize as that has an important role on enhancing or hindering the quality of education. This was confirmed by a participant, who said,

> The students' food committee have got the right to participate in decision making regarding food-related issues, but in BHSC students cafeteria revising the menu and every decision is made exclusive of students' food committee.

Furthermore, lack of water, room for washing and dressing for cafeteria worker are some of the factors that impede the service delivery and negatively affect the quality of education.

Another participant also confirmed that:

> even there is a significant improvement in dormitory services but still there are also areas that need enhancements like shortage of water supply, sanitation problems, few numbers of proctors that lead to lack of frequent follow up, reluctances from some students to clean their dormitories and environments.

Another student council also stated and confirmed that

> the clinic is poorly functioning and the workers themselves are not serving them well and shortages of water, insufficient numbers of professionals as compared to the numbers of students were hinder the quality of education and services in BHSC.

Another participants of student representative also said that

> the assessment method used by the college is not customized contextually and it is better to modify it considering different issues rather than use as drafted by the other organization.

Moreover, another participate also stated that

> the learning outcome is clear and understandable by all college students, but the instructional method implemented in the college so far was a one way which means it is not a student centered.

Discussion

This study was intended to assess the quality of education in terms different aspects such as the teaching and learning environments, service delivery, staff development, and promotion system in BahirDar Health Science College using mixed method approach by triangulate the findings. Regarding teaching-learning environments and services, the current study showed that more than half of the instructors 59.1% are not satisfied with library services. This finding is supported by an interview conducted with higher officials of the college, they stated that "the college library lacks the new curriculum reference books because they are not easily available in the market" Whereas most students 79% are satisfied with library services despite most instructors complain about the adequacy of the service. A similar study at Dire Dawa university also found that 70.01% of the students were satisfied with the library services.[5] Library facilities and services are very important for higher education institutions in ensuring the quality of education.[2]

Staff development and promotion system is the second feature assessed in this study and revealed that both the teachers and higher officials agreed that the currently available promotion system is limited and does not properly acknowledge the exceptional performance from the staff. The last feature addressed to assess quality of education in the college is process factor such as the working curriculum, assistance at the demonstration/laboratory rooms, and clinical practice setting. In general both teachers and students are contented with process factors that involve their interaction in the demonstration rooms and clinical practice, however the teachers have complained about the current working curriculum.

Different studies suggest that quality teaching largely depends upon professional competency, academic qualification, experience, and technical expertise.[10] Studies also suggest students learn more from experienced teachers than they do from less experienced teachers.[16] The current result showed that most of instructors have less than five years of teaching experience and they are degree holders. This is supported by a study conducted at Mekelle University, which revealed that the majority of instructors do not have master's degrees and have less experience in teaching. These affect the quality of education.[17]

Sustainable internet service can influence the way students are taught and how they learn.[18] Therefore, accessible internet service is crucial to the quality of education. However, more than two-third of students (70.5%) and nearly two-third of instructors (63%) in this study are not satisfied with the internet service provided by the college. This is supported by a key informants interview stated that "the college internet service was poor which needs upgrading and re-installation".

To build up the above point articles argue that limitation in infrastructures like the internet, library, and classrooms in higher education institutions results in declining education of quality.[8] The current finding also stated that there was a problem on infrastructure in the college, which is supported by a study conducted in assessing quality and quality assurance in Ethiopia's higher education also states that the absence of infrastructure and basic facilities have a repercussion on the quality of the teaching-learning process in higher education institutions.[2] This study also revealed that more than half of students reported that the college has no counseling service. This is incongruent with a study conducted in Ethiopia.[2,5]

Even higher education institution instructors are expected to undertake problem-solving research and engaged in community service. HERQA recommends the academic staff in higher institutions spend 25% of their time on research activities[19] despite this the current study showed that three-fourth of the instructors did not conduct a research project or participate in any community service. This is supported by a studies conducted in Ethiopia.[2,10] However, a key informants interview with the academic vice dean stated that

the college participates in community service in a different way such as by assigning instructors in the cooperative training and in supporting the health facilities with materials as well as in human resource.

Quality maintenance tools like session plans, course syllabi, and information sheets and applying different types of teaching methods have a role in improving the quality of education.[2,17] Majority of instructors (95.4%) provide the course syllabus and 87.8% of the student also reported that the information sheet, exam schedule, and class starting and ending time of the course is in line with the course syllabus. However, only half of the students 167(50.9%) confirm that instructors use more than one teaching method per class. More than two-third of the instructors 67.4% agreed that the current curriculum structure was affecting the quality of education adversely because it is directly copied from another country without modified contextually. This is supported by a study conducted in Ethiopia[12] and a key informant interview.

Student evaluation is the most important tool for ascertaining the achievement of the desired educational objective. According to the current study, 88.1% of students revealed that instructors assess students per each learning outcome and 72.9% of instructors show the result after the exam. These indicate the majority of instructors implement the current outcome-based assessment system (continuous assessment) which is much more complete and reliable assessment of student performance. The finding was contradicts with a study conducted at Mekelle university where instructors use the formative type of assessment, and the marking and grading system is not transparent.[2,12,17]

To improve students' skills, skill lab is crucial. In this study, most of instructors (90.6%) assess their students' skill lab performance. Furthermore, 71% of students agreed to instructors support in cooperative training at the health facilities. In terms of tutorial support, a significant number of (66.4%) students revealed that instructors are not providing tutorials for females and non-competent ones. This finding supported by a study conducted in Ethiopia.[2,5,12]

Strength and Limitation of the Study

This study has some important limitations that should be kept in mind when interpreting the results. The study is conducted only in a single Health Science College, which does not represent the other higher education institutions. Besides, the study participants may show social desirable bias during the interview.

Despite the potential limitations, this study has its own strength as it was a mixed approach using a qualitative method was included to answer and clarify some issues on the study and since it is a qualitative study and the curriculum was adopted by nationally and used by across all the college, we can transferable to the other college with a similar settings.

Conclusion and Recommendation

The overall mean score from the student and instructor's perspective was below half of the total score and we can conclude that the college does not provide quality education. Therefore, the college should create an opportunity to engage in national and regional networks to share best practices in quality education and it requires the office to develop the capacity of their services.

Abbreviations

BHSC, Bahir Dar Health Science College; HERQA, Higher Education Relevance and Quality Agency; LCD, liquid crystal display; MOE, Ministry of Education.

Data Sharing Statement

The study materials and data are available from the corresponding author upon reasonable request.

Ethical Considerations

Ethical approval was obtained from the ethical review committee of Bahir Dar Health Science College, with reference number of **BHSC/465/2021**. The respondents were made fully aware of the purpose of the study and their right to withdraw. The respondents were not coerced and were ensured of the confidentiality and anonymity of the research data and sources. Those who voluntarily agreed to participate signed the informed consent. The respondents were informed

about the purpose of the study and their consent to participate was obtained. All information obtained from the participants was kept confidential and the data were used for research purposes only. All methods were carried out in accordance with relevant guidelines and regulations based on the Helsinki legislation.

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Author Contributions

All authors made a significant contribution to the conception, study design, execution, acquisition of data, analysis and interpretation and 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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References

1. Lauwerier T, Akkari A. Teachers and the quality of basic education in sub-Saharan Africa. Education Research and Foresight: Working Papers Series; 2015: 11.
2. Kahsay MN. Quality and quality assurance in Ethiopian higher education: critical issues and practical implications; 2012.
3. Parri J, editor. Quality in higher education. In: *Vadyba Management*. Citeseer; 2002.
4. Robinson PJ, editor. Defining ethos in global values education. In: *Islam in the Age of Global Challenges: Alternative Perspectives of the Gülen Movement*. Washington, DC: Rumi Forum; 2008. Citeseer.
5. Daniel D, Liben G, Adugna A. Assessment of students' satisfaction: a case study of Dire Dawa University, Ethiopia. *J Educ Pract*. 2017;8(4):111–120.
6. Hayward FM. Quality assurance and accreditation of higher education in Africa. Conference on Higher Education Reform in Francophone Africa: Understanding the Keys of Success; 2006.
7. Alexander FK. The changing face of accountability: monitoring and assessing institutional performance in higher education. *J Higher Educ*. 2000;71(4):411–431.
8. Chalmers D. Teaching and learning quality indicators in Australian universities. Programme on institutional management in higher education (IMHE) Outcomes of higher education: quality, relevance, and impact 8th Sept; 2008.
9. Coates H. The value of student engagement for higher education quality assurance. *Qual Higher Educ*. 2005;11(1):25–36. doi:10.1080/13538320500074915
10. Weldemariam MD. Higher education quality audit in Ethiopia: analyzing the methods and procedures; 2008.
11. Regassa T, Tolemariam T, Ferede B, Hunde AB, Lemma A. Quality of education: the case of Jimma University. *Education*. 2013;3(5):267–278.
12. Gilano G, Hailegebreal S, Hwang G-J. Assessment of educational quality and associated factors: the case of Arba Minch College of Health Sciences in 2017, South Ethiopia. *Educ Res Int*. 2021;2021:1–9. doi:10.1155/2021/8854366
13. Shorten A, Smith J. Mixed methods research: expanding the evidence base. *Royal Coll Nurs*. 2017;20(3):74–75.
14. Schoonenboom J, Johnson RB. How to construct a mixed methods research design. *Kolner Z Soz Sozpsychol*. 2017;69(Suppl 2):107. doi:10.1007/s11577-017-0454-1
15. McLeod S. Qualitative vs quantitative research: methods & data analysis; 2019.
16. Madani RA. Analysis of educational quality, a goal of education for all policy. *Higher Educ Stud*. 2019;9(1):100–109. doi:10.5539/hes.v9n1p100
17. Guesh M. *Assessing Education Quality in Ethiopian Higher Education Institutions: A Survey at Mekelle University*. Adi-Haki Campus: GRIN Verlag; 2015.
18. Brinkmann S. Teachers' beliefs and educational reform in India: from 'learner-centred'to 'learning-centred'education. *Comp Educ*. 2019;55(1):9–29. doi:10.1080/03050068.2018.1541661
19. Van Deuren R, Kahsu T, Mohammed S, Woldie W. Ethiopian new public universities: achievements, challenges and illustrative case studies. *Qual Assur Educ*. 2016;24(2):158–172. doi:10.1108/QAE-12-2014-0054

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