Original article

Situational Analysis of Post Basic Bachelorate Health Training Programs at Jimma University

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Abstract

Background :In a higher institution like Jimma university frequent revision of its programs is inevitable to meet its goal and keep up its standard nationally as well as globally.

Objective: This study is then intended to evaluate the teaching and learning situations of the four post basic BSc health programs in line with their curriculums, students performance and problems, and acceptance by the stakeholder.

Methods: A cross-sectional study was conducted through structured questionnaires collected form 155 senior students, 44 instructors and 8 stakeholder, analyzed using basic statistical package.

Result: The result showed that, almost all (98%) of students and instructors suggested the programs to continue but with a significant revision of the curriculums. Both instructors and stakeholder found the students performance positive (at least satisfactory) 93% which went with the success rate 86% over the years 1995/96 to 1997/98. Students found earning situation difficult significantly (p<0.01) dominated by the health officers and nursing situations. Stakeholder are willing to accept graduates, more from health officers (46.3%).

Conclusion: Thus, from the study we see that programs are in good academic standard but essential for revision with appropriate materials and quality of staff. Though students are performing well and likely to be accepted by stakeholder, difficult situations must be alleviated. [*Ethiop. J. Health Dev.* 2002;16(2):217-224]

Introduction

Training programs are mainly governed by its curriculum set up, the core part of the whole system. As curriculum researchers stated (1,2), though curriculum reform is expensive regardless of the educational model chosen, to produce it for new centuries many things needed to change, including recruiting and marketing, curriculum essential for training program, the efficiency of helping students progress towards the educational objectives, the capacity, the outcome, the impact, the facilities, the methods, all must be evaluated, but must be continuous process and an integral part of the curriculum development(3).

It is critical that institutions maintain congruence and curriculum integrity from development of mission, vision or philosophy to end of the program outcomes assessment.

To maintain integrity institutions are supposed to design all activities to reflect a selected philosophical frame work (4). Jimma university (JU) is an institution comprising several training programs whose progress must follow the same path with its innovative approach under the philosophy of Community Based Education (CBE) with the strategies; Community Based Training Program (CBTP), Team Training Program (TTP) and Student Research Program (SRP) to produce specially trained professionals (health professionals at early days) rendering service at the grass root level (5).

The four post basic health science degree programs are some of the programs in this university which are supposed to run through the innovative philosophy mentioned above (6). These programs are nursing, environmental health, medical laboratory technology, and health officer. The assessment of these programs was done for the first time

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through out the time of their gradual establishment as the university has not comprehensively evaluated its curricula and impact so far except the impact on medical graduates recently done (5).

The unique character of these post basic degree programs aimed for health development mainly through primary health care approach makes the situational analysis interesting. These programs are unique because they are structured for career ladder of health professionals to work hard and stay long in governmental health organization, full salary graduated by MOH through out the training. Thus it is essential to investigate the situation and progress of these programs so that the result may reinforce the change to be made and take us to a better tomorrow.

The purpose of this study was therefore, to evaluate the teaching and learning situation of these four training programs in general; specifically analyzing: the standard of the programs in line with the need for curriculum revision, performance of the trainees from the instructors and stakeholder for continuation, problems encountered during the teaching learning process and disseminated basic information about the situations to initiate further investigation in the area.

Methods

A cross-sectional study on the needs and relevance of post basic degree programs at JU (former JIHS) from the perspectives of students, instructors of the university and stake holders, regional health bureaus and health training centers in Ethiopia was conducted to prepare situational analysis report to assist the curriculum review workshop of the programs that is to come ahead.

Structured and pre-tested questionnaires of three types corresponding to the situations of the categories of the study population were used. A total of 216 second and third year post basic students, 73 instructors affiliated to the post basic programs in major and supportive areas and 15 stakeholder (regional heath bureaus and teaching centers) were

expected of which 155 (72%) students, 44 (60.3%) instructors 8 stakeholder returned the feedback through the self-administered questionnaire.

Variables such as; background of the respondent like program, status, position etc; learning situations and its standard, futurity of the programs and its advantage, students performance in the class as well as after graduation, distributions and positions of graduates, the future plan of consumption, suggestions of the improvement of the programs were incorporated. Besides, secondary information were used for academic performance evaluation.

Data from the regional health bureaus and training centers were collected from April 15 to May 18, 1999 about a month, while the students and instructors information was collected December 1999 to January 2000 (both in gregorian calendar).

Data were encoded using spss-pc statistical package, summarized and analyzed using basic statistical methods, descriptive statistics and chi-square test.

Results

From the total post basic student respondents (155), 18.7% were females, 54.2% (84) second year and 45.8% (71) third year students. Most 78% (121) of these students had come for training with experience of at least 3 to 10 years service (18% over 10 yeas service and the rest their service year not indicated).

Majority of the students (60%) rated their learning situation at BSc level very difficult (22.6%) and difficult (37.4%). Their response compared school wise showed more than 50% of environmental health and laboratory technology felt normal while the other two felt the contrary as shown in Table-1. This was significantly dominated (p<0.01) by the rates of health officers (72.7%) and nurses (76.2%) for difficult situations.

Table 1: **Evaluation of the learning situation by students (post basic students at JU)**

School

Parameters	Nurse		Env't		Lab		H. Offc		Total	
	#	%	#	%	#	%	#	%	#	%
Very difficult	13	31	1	3.4	5	17	16	29	35	23
Some times difficult	19	45	8	28	7	24	24	44	58	37
Normal	10	24	20	69	16	55	14	26	60	39
Easy from expected	-	-	-	-	1	3.4	1	2	2	1.3
Total	42	27	29	19	29	19	55	35	155	100

On the comparison of degree level to that of the diploma, the majority rated the former high 58.7% and very high 27.1% among the rating scales low, equivalent, high and very high, given to choose only one item. Regarding the standard of the courses categorized in line with the home base in which the courses belong, 65.4% of them rated basic science courses though (38.25%) and very tough (27.2%), the rest rated normal and easy to follow (Table-2).

Concerning the outputs of the programs in line with its advantage to the community and the country at large, students rated; 71% very important, 27.1% useful and 1.9% of them useless. Similarly on the inquiry as to whether or not these programs must continue in the future, the highest rate 85.8% went to the item that the programs to continue but must be revised and improved. Majority of these students (94.8%) showed their positive attitudes as to how they like or dislike their respective programs, rating I like it 44.8% and I like it very much 50%.

Table 2: **Evaluation of the courses by students (post basic students at JU)**

Courses	V. tough		Tough		Moderate		Easy to follow		Total * n=155	
	#	%	#	%	#	%	#	%	#	%
Basic Sc.	37	27.2	52	38.2	44	32.4	3	2.2	136	88
PC	12	9	48	36.6	64	48.9	7	5.3	131	85
Comh.	10	7	33	23	74	51.7	26	18.2	143	92
Major areas										
- theory	16	10.6	47	31	76	50.3	12	7.9	151	97
- practice	17	12.4	32	23.4	73	53.3	15	10.9	137	88
CBE										
- CBTP	9	7.9	27	23.7	56	49	22	19.3	114	93
- TTP	3	2.9	25	24.3	47	45.6	28	27.2	103	66

Note:- Sc. = Science

PC = pre-clinical Comh = community health
CBE = Community Based Education
CBTP = Community Based Training Program
TTP = Team Training Program
V. Tough = very tough
* the total shows the number of students evaluated the courses in the defined category out of the total 155 respondents. Thus the percentage shows the rate of response in each category based on 155.

Instructors form basic sciences, community health, clinical and pre-clinical programs participated to give their feed backs along with those in the major fields, where by 11% were females.

Thus from the 44 respondents 72.7% (32) were working in the teaching sector only, while 2.3% were heads or coordinators, and the rest 25% both. Most of them were senior staff (lecturer and above) such that, 4.5% associate professors, 25% assistant professors and 34% lectures. The rest were assistant lectures (31.8%) and graduate assistants (4.7%). Pertaining their qualification, 11.4% medical specialists, 38.6% first degree were noted.

Almost all of the respondents 90.9% had teaching experience in the post basic degree programs. As seen in Table 3 these instructors evaluated the academic performance of the students based on their teaching experience

Table 3: **Post basic students performance evaluated by their instructors Jimma University (n=44)**

Schools	Poor		Satisfact		Good		V. good		Total *	
	#	%	#	%	#	%	#	%	#	%
Nurse	-		6	25	9	38	9	37.5	24	55
Env't	-		3	23	3	23	7	53.8	13	30

Lab	1	11	1	11	3	33.3	4	44.4	9	20
H. Offic	4	29	8	38	6	28.6	3	14.3	21	48

Total weighted mean of positive performance = 93%
Positive performance is defined as >= satisfactory
The total shows the number of instructors who were affiliated to the respective schools, evaluated their students performance based on their class activities. Thus the percentage shows the rate of response in each school based on 44.

rating good and very good in most cases, 75% (18) for nurses, 77% (10) for environmental health, 78% (7) for laboratory technology and 43% (9) for health officers with a total weighted mean 93%. This was plausible compared to the academic performance of first year first semester grade point (86%) and the cumulative (90.9%) who scored 2.00 and above (mean score=2.76; st. dev. = 0.49) which would be raised if warnings considered. At least 90% of the instructors favored the programs to continue where by 60% and above with revision.

More or less similar general comments were given by students as well as instructors in the open ended questions, 121 responses varying from item to item. Most of them (98%) suggested to revise the curriculum and the program at large. This included revising course syllabi and selecting important and applicable ones, relating theory and practice emphasis given for practice, adjusting credit hour load and making courses like basic sciences applicable, avoid redundancy of giving CBE courses that are similar to the diploma level, revise subjective evaluation of CBE courses and weak supervision systems, remove unqualified residential supervisors, adjust the duration of the training extending to three years.

Some of them (21%) suggested to improve the quality of staff with lack of experience and methodology by avoiding first degree holders instructing BSc level and train them at least at second degree level. Some staff were said to have no interest in field work supervision, specially some medical staff members were said not ready/not interested to teach health officer students. Staff motivation was suggested as essential course of action at this level by further training, increment and other incentives. Again, some of the respondents (17%) suggested to improve the teaching facilities and sites. Inadequate teaching sites for practical teaching like hospitals for clinical practices, health center for TTP etc were said the bottle necks. Congested training hospitals by crowds of medicine and health officer students during clinical training entails the inappropriate patient-student ratio for bed side teaching. Problems like lack of specific job descriptions during employment at government level and the homeless feeling of the health officer group were forwarded.

Comments were given that the programs have been useful to the community and the country at large producing qualified human power specially for new training centers, GO's, NGO's zones, regions, etc and produced quality of health professionals and qualified researchers, opened opportunity for career ladder, a motivation for health professionals. Here both the students and the teachers were worried about the attitude of some of the graduates who were not willing to go to the community at the grass root level right at the beginning of their graduation.

Inquires were made from stakeholder where by few responded from the regional health bureaus (Oromia, Amhara, Tigray and Gambella) and the training centers (Addis Ababa central school of nursing, Gondar college of medical sciences Dilla university college and Defence health training institute).
The respondents representing the above organizations were higher officials positioned as managers, heads of regional departments or schools, experts, trainers and in most cases they were professionally nurses and public health experts.

In the above sectors, post basic degree graduates of JU reported employed so far at the time of this study were 157, the highest Oromia 65% (102) and the next Amhara 9% (14). Of these graduates, 39% (62) were noted to be nurses, 37% (58) health officers and 17.2% (27) sanitarians.

From the question inquiring the position of the graduates placed above, only 45 of them were properly quantified, such as 19 (42%) were teachers, 15 (33%) heads or managers and 11

(24%) ordinary employee. The Oromia regional health bureau with a big sum of them (102) responded qualitatively, most of them positioned as managers and some heads of institutions, some teachers.

All organizations rated performance of graduates in their positions positively (at least adequate) given the rating scales: not at all, poor, adequate, well, very well. Graduates compared to diplomates, almost all performance parameters were rated as better than and much better than diploma graduates (Table 4). This corresponded with the success rate (intake- graducate 86% graduated over the years 1995/96 to 1997/98 G.C. with the mean 2.91 and st. dev. 0.38, whose yearly average attrition less than 7% compared to the attrition rate 20.6% of the total students of JIHS.

Table 4: **Post basic graduates performance compared to diploma, graduates rated by the stakeholder**

Performance parameters	Rating scales					Positive rate	
	1	2	3	4	5	#	%
Planning, implementing, evaluating tasks carry out	-	-	3	3	-	6	100
Managing hospital, ward, school, team etc	-	-	5	2	1	7	88
Delegating & supervising the work of others	-	1	1	4	-	5	83
Communication skills	-	0	2	4	-	6	100
Function as a team member	-	-	2	4	-	6	100
In respective professional field	-	1	1	4	-	5	83
Critical thinking	-	-	1	5	-	6	100
Effective class room teaching	-	-	4	3	-	7	100

Rating scales
1: not as good as diploma graduates
2: about as good as diploma students
3: better than diploma graduates
4: much better than diploma graduates
5: no sufficient information to judge

As to their plans, these organizations were ready to employ more graduates in the future in training centers, health bureaus and service areas. Except two of them, all organizations listed the number of possible candidates to be sponsored the next 5 years; Oromia the highest number of sponsor 60. 5% (216), and then orderly Amhara 21.3% (76) and Gambella 11.2% (40). From the four programs health officer candidates were given the big share 46.3% (165) in the plan and then nurses 24.4% (87) (Table -5).

Most of these organizations showed their willingness to sponsor BSc trainees even if the duration be extended to three solid years.

Here, Oromia and Gondar college of Medical sciences did not like the idea of extending training to three years due to financial problems. From general comments, Oromia suggested that the best respondents for such assessments specially on graduate performance in the field work would have been the graduates themselves and their immediate supervisors, based on interview method.

Discussion
To make changes in the system of the training program for a better progress, timely curriculum revision is a vital one. As most of the pedagogues are for frequent program evaluation, institutions higher education may

Table 5: **Possible number of candidates planned by stakeholder to be sponsored in the next 5 years**

Sponsoring organization	Nurse		Env't		Lab		H. offc		Total	
	#	%	#	%	#	%	#	%	#	%
Oromia HB	37	43	15	23.4	11	22	153	93	216	61

Amhara HB	25	29	26	41	25	49	*		76	21.3
Gambella HB	12	14	8	13	10	20	10	6	40	11.2
Tigray HB*	-	-	-	-	-	-	-	-	-	-
Dilla UC	5	6	5	8	5	10	-	-	15	4.2
CNSAA	5	6	-	-	-	-	2	1.2	7	2
Defence HTC	3	3.4	-	-	-	-	-	-	3	0.8
Gondar HC*	-	-	-	-	-	-	-	-	-	-
Total # / %	87	24	54	15	51	14	165	46	357	100

Note :- HB = Health Bureau
UC = University College
HC = Health College
HTC = Health Training Center
• = These organizations did not respond to this particular question for unknown reasons
Env't=environment
Lab=Laboratory
H.offc=Health Office

loss sight of importance of teaching that its settings must be restored to its place of primacy and the quality must be evaluated (7). So, this study tried to analyze the views of the basic components (students, teachers, and stakeholder), specially involving the students themselves whom usually forgotten, changing the direction towards student centered approach.

As post basic degree students were matured ones with service experience of three to ten years most of them and are of second and third year students, they could give valid judgements about the programs they were in. From their opinions about the learning situations, this study revealed that students faced difficult environment in general, health officer and nurse students in particular. The existing curriculum documents justified the student complaints that the programs specially nursing and health officer had congested work loads and semester course distributions going beyond 20 credit hours per semester in most cases with no sufficient break, summer sessions regularly included (8,9,10,11,). This was even supported by both instructors and most of the stakeholder suggesting the duration to extend to three years of six semesters with normal semester credit hours load. The complaints on quality of teachers, facilities, health sites for practical training, congested by medical and health officer students in addition to the other health programs be it diploma or degree created very difficult situations with inappropriate patient student ratio. Even if the question of the ownership of the hospital management is to be alleviated there will still be scarcity of space for clinical practice to accommodate all health pograms for bed side teaching which will force us to support the idea of extending sites to other health centers around the vicinity of the university in support of the convergence of public health and clinical practice for effective means of overcoming health problems as stated in some literatures (12).

Evaluation of outcome of curriculum change is a complex process one cannot assume by adding or dropping course contents and organizing according to a certain philosophical process, rather studies must be conducted when courses are changed, tailored and applicable like it had been tried by the mathematics department some years a go (13, 14). To foster the type of educational program for health personnels they are to be made responsive to the needs of the population they serve in order to achieve health for all. Such training is most effective if carried out in close relation to the actual community (CBE) must strive to improve its programs towards this philosophical objectives by revisiting courses like CBTP, TTP, and SRP starting from its standards, avoiding the weaknesses of evaluation system, supervision and unqualified residential supervisors evaluating degree students. Improving quality of academic staff suggested in the result is a major area where the university must focus; up grading the juniors to at least second degree level and organizing short pedagogical training.

The positive evaluation of students performance both during training and after

graduation respectively by their instructors stakeholder, supported by the success rate for graduation and a very low attrition rate revealed that the programs are more or less at the same pace and acceptable standard. Thus, the green light shown by the stakeholder ready to employ large amount of graduates in the next five years tantamount to the justification of the existence of the programs and encourages the University. The problems identified call for revising programs, with regard to the curriculum, duration and staff profile.

This study has limitations in that it did not include information from the graduates at work and their immediate supervisors due to facilitation problem, so it would be wise to conduct further study based on this preliminary study.

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