

Assessing the Impact of Community Based Training Program of Jimma University on Improving Livestock Health in Jimma Zone

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Abstract: Jimma University is the national pioneer of community based higher education. This system of training has made the university unique in the country. This study was performed from January 2013 up to June 2014 to evaluate the impact of Community Based Training Program of Jimma University with regard to improving animal health status. The sample of 188 community members in Community Based Training Program privileged and non-privileged villages, 4 community leaders and 8 animal health and production professionals in the Community Based Training Program privileged villages were interviewed. The study included Dedo district and Serbo district from Community Based Training Program privileged districts and Sokoru district from non-privileged districts. A pretested questionnaire was used for data collection. 64.7% and 90.6% of the community members in Community Based Training Program privileged villages have knowledge about Jimma University community activities and animal health activities whereas 75.4% and 83.5% of the respondents in non-privileged villages were not aware about Jimma University community activities and animal health activities, respectively. 88% of interviewed members of the community from Community Based Training Program privileged districts reported that they got awareness on the zoonotic diseases whereas 86.5% members of the community in non-privileged villages have no awareness on zoonotic diseases. 58.8% of community members in Community Based Training Program privileged villages and 41.2% of community members in non-privileged villages take sick animals to veterinary clinic and 32.7% community members in Community Based Training Program privileged villages and 67.3% of community members in non-privileged villages visit both veterinary clinic and traditional healers with statistically significant difference between them ($P < 0.05$). 81.9% of members of the community in Community Based Training Program privileged villages responded that they were benefited from the Community Based Training Program activities. The majority members of the community, community leaders and animal health and production professionals agreed that Community Based Training Program of Jimma University would benefit the society. Therefore, Community Based Training Program of Jimma University should be continued in the future.

Key words: Animal Health • Community Based Training Program • Community Members • Jimma University

INTRODUCTION

Community Based Education (CBE) is a means of achieving educational relevance to community needs. It consists of learning activities that uses the community extensively as a learning environment. The recognition of the importance of community based training as Community development problem-solving mechanism was documented since 1940s [1, 2].

CBE evolved from the field of community development that grew in the industrialization model of

the mid-1900 [3]. The concept of formal education particularly tertiary education contributing towards social and economic development is being challenged in Africa, most particularly in Ethiopia [4- 6].

It has been argued that, higher education in Africa didn't go further than producing trained public servants needed to meet the requirement of bureaucratic hierarchy [7]. In this regard, Burgess [8] argued that, the focus on teaching in higher education is lecture method that has jeopardized the students' capability required in community development.

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Jimma University (JU), formerly Jimma institute of health sciences, is an innovative education center [9]. Its educational strategy is community-based education (CBE). This strategy is applied through Community Based Training Program (CBTP) embraces students' learning activities in communities (urban/rural kebeles). CBE as an educational philosophy aims at developing professionals with problem identification and solving skills and positive attitudes to serve the society. This approach of education is also known as 'study service' [10-12].

Students are assigned in groups for one month followed by regular follow-up every year during their entire education period [13]. Hence, the educational philosophy of being community-oriented, which stresses the integration of training, research and service to benefit the society was adopted [14].

Even though this philosophy was initially adopted by Jimma institute of health sciences, it was later extrapolated to be used for all disciplines [15]. As part of the university, the School of Veterinary Medicine has also been implementing the program over the last nine years. Myriads of activities directed to addressing the problems of the local community pertaining to animal health have been undertaken throughout this period. These benefits might include production benefits and /or socio-cultural benefits [16]. The current study was performed to evaluate the impact of Community Based Training Program of the University with regard to improving animal health status in the service areas and identifying the gaps of the service delivery so as to revamp the system.

MATERIALS AND METHODS

Study Area: Jimma Zone, found in South Western Ethiopia, lies between 36° 10' E longitudes and 7° 40' N latitude at an elevation ranging from 880 m to 3360 meters above sea level [17]. Very currently Jimma Zone is divided in to 18 districts (hosting a total population of over 2.4 million [18] an agro-ecological setting of highlands (15%), midlands (67%) and lowlands (18%) [19]. Farmers in the area practices mixed crop-livestock agriculture. The zone is one of the major coffee growing areas of southwest Ethiopia; cultivated and wild coffee is a main cash crop of the area. Jimma zone is well endowed with natural resources contributing significantly to the national economy of the country. Major crops grown, other than coffee, are maize, teff (*Eragrostis teff*), sorghum, barley, pulses (beans and peas), root crops (enset-false banana and potato) and fruits. Teff and honey production are another sources of cash after coffee. Enset (*Ensete*

ventricosum) is a strategic crop substantially contributing to the food security of the zone and is especially important in Setema and Sigimo districts (highlands) [18]. According to JZMSR [17], the climate is humid tropical with bimodal heavy annual rain fall, ranging from 1200 to 2800 mm. In normal years, the rainy season extends from February to early October. The thirteen years mean annual minimum and maximum temperature of the area was 11.3° C and 26.2° C, respectively. The soil type of the study area is characterized with black to red soils. The total livestock population of Jimma zone is estimated to constitute, 2.02 million cattle, 288,411 goats, 942,908 sheep, 152434 equines, 1,139,735 poultry and 418,831 beehives [18].

Study Population: In this study the population consisted of members of the community, community leaders and animal health and production professionals of Ofole village (Dedo district), Bulbul and Chari siba villages (Serbo district) from CBTP privileged districts and Kalta, Yero Haro, Bidru and Daka villages (Sokoru district) from CBTP non-privileged district. For those variables where summary values were computed, a five point scale was used to measure the variables: 1=Very poor, 2=Poor, 3=Fair, 4=Good and 5=Very good.

Study Design: Cross-sectional study carried out on performance of CBTP at school of veterinary medicine from perspectives of members of the community, community leaders and animal health and production professionals in CBTP privileged and non-privileged villages to assess the variables of animal health indicators and to identify the gaps in the selected communities of the target districts through structured pretested questionnaire.

Sampling Technique: Multistage sampling method according to Thrustfield [20] used to select the study units. Two districts randomly selected from CBTP privileged districts and one district from CBTP non-privileged districts.

Data Collection: Techniques such as house to house survey, focused group discussion, filling structured questionnaire format, review of records employed to collect primary and secondary data. The primary data collected by administering structured questionnaire. The secondary data collected by reviewing the reports and records of animal health clinics and centers. For those variables where summary values were computed, a five point scale was used to measure the variables: 1=poor, 2=satisfactory, 3= goodr, 4= Very good and 5=Excellent.

Data Analysis: The data was edited and entered into computer and analysis was done using 16 for windows. Both descriptive and analytical methods were used to analyze. During analysis Chi-square test and analysis of variance (Anova) were used. In all the analysis, confidence level will be held at 95% and $P < 0.05$ was set for significance.

RESULTS

The sample of 188 community members in CBTP privileged and non-privileged villages, 4 community leaders and 8 animal health and production professionals in the CBTP privileged villages were interviewed. The study included Ofole and Kolobo villages (Dedo district), Bulbul and Chari Siba villages (Serbo district) from CBTP privileged districts and Kalta, Yero Haro, Bidru and Daka villages (Sokoru district) from CBTP non-privileged district.

Response of Members of the Community about the Various Activities of Jimma University: 64.7% and 90.6% of the respondents in CBTP privileged villages were aware about Jimma University community activities in general and animal health activities in particular whereas 75.4% and 83.5% of the respondents in CBTP non privileged villages were not aware about Jimma University community activities and animal health activities, respectively. Members of the community in CBTP privileged villages responded that students of veterinary medicine of Jimma University provided them with various activities with regard to animal health, such as giving vaccination to their animals, construction of crushes, giving awareness on importance of proper management and husbandry practices of livestock, control and prevention methods against livestock diseases and keeping themselves from zoonotic diseases. 81.9% of members of the community in CBTP privileged villages responded that they were benefited from the CBTP activities (Table 1).

The Results of the Awareness of the Community on Zoonotic Diseases: 88% of interviewed members of the community from CBTP privileged districts reported that they got awareness on the zoonotic diseases transmission, clinical signs, prevention and control measures to be undertaken whereas 86.5% members of the community in CBTP non privileged villages not aware of zoonotic diseases (Table 2).

Awareness of the Community on Taking Sick Animals to Veterinary Clinic: 58.8% of farmers in CBTP privileged villages and 41.2% of farmers in CBTP non privileged villages take sick animals to veterinary clinic and about 32.7% farmers in CBTP privileged villages and 67.3% of farmers in CBTP non privileged villages visit both veterinary clinic and traditional healers with statistically significant difference between them ($P < 0.05$). The attitude of community members in CBTP privileged villages with regard to taking sick animals to veterinary clinic improved due to intervention (Table 3).

Common Practices Developed after Interventions: Majority of members of the community have described that, they developed some common practices after interventions such as importance of proper management and husbandry practices of livestock, control and prevention methods against livestock diseases, vaccination of livestock and keeping themselves from zoonotic diseases (Table 4).

Results of Questionnaire Survey of Community Leaders and Animal Health and Production Professionals: 4 community leaders and 8 animal health and production professionals in the CBTP privileged villages were interviewed. Majority of community leaders and animal health and production professionals confirmed that the community have developed a good awareness on common practices after interventions which includes health associated problem, management and husbandry practice, disease prevention and control, importance of vaccination, taking sick animals to veterinary clinic and seeking support from animal health workers and zoonotic diseases and keeping themselves from Zoonotic diseases (Table 5).

Delivery and Evaluation of Cbtp of Jimma University: The majority members of the community, community leaders and animal health and production professionals agreed that CBTP of Jimma University would benefit the society. They suggested that CBTP of Jimma University to be continued in the future and they never experience discomfort due to repeated attachments they want the frequency of CBTP intervention to increase to two times. This could be due to the positive perceptions of community leaders and animal health and production professionals about the benefits of CBTP. The major benefit to the community were capacity building activities, such as awareness on prevalent livestock health associated problems, importance of proper management

and husbandry practices, control and prevention methods against livestock diseases, importance of taking sick animal to veterinary clinic and zoonotic diseases, crush construction and vaccination of livestock. The community contributed in kind and in labor in construction of the crush and their commitment is evaluated as excellent by majority of community leaders and animal health and production professionals (Table 6).

DISCUSSION

Jimma University (JU) has run CBE for three decades. 64.7% of community members in CBTP privileged villages have knowledge about Jimma University community activities. 90.6% of community members in CBTP privileged villages were aware about animal health activities. These findings are in line with Tegegne *et al.* [9] who reported that most community members in the study area were aware of the presence of CBTP activities by students of JIHS.

81.9% of members of the community in CBTP privileged villages responded that they were benefited from the CBTP activities that are in agreement with Tegegne *et al.* [9] who reported 88.8% from rural areas believed CBTP to be beneficial. Members of the community in CBTP privileged villages responded that students of veterinary medicine of Jimma University provided them with various activities with regard to animal health, such as giving vaccination to their animals, construction of crushes, giving awareness on importance of proper management and husbandry practices of livestock, control and prevention methods against livestock disease and keeping themselves from zoonotic diseases. The benefits obtained in implementing CBE are multifaceted. The program has created the opportunity to identifying community problems, lay down research projects on the felt need of the community and advance intervention to ameliorate societal problem [15].

58.8% of farmers in CBTP privileged villages and 41.2% of farmers in CBTP non-privileged villages take sick animals to veterinary clinic and about 32.7% farmers in CBTP privileged villages and 67.3% of farmers in CBTP non-privileged villages visit both veterinary clinic and traditional healers with statistically significant difference between them ($P < 0.05$). The attitude of community members in CBTP privileged villages with regard to taking sick animals to veterinary clinic improved due to intervention. The transfer of technology to improve the livelihood of the community is possible through implementing CBE. Working with the community has improved the credibility of JU and the local community

has developed the sense of belongingness to the university. The bonding between university and the community where CBE is implemented has significantly improved [15].

The majority community members, community leaders and animal health and production professionals agreed that CBTP of Jimma University would benefit the community and they suggested that CBTP of Jimma University to be continued [9]. The major benefit to the community were capacity building activities, such as awareness on prevalent livestock health associated problems, importance of proper management and husbandry practices, control and prevention methods against zoonotic diseases, importance of taking sick animal to veterinary clinic, crush construction and vaccination of livestock. The CBE philosophy is in line with government development programs. The proclamation no 335 [22] of FDRE, the millennium development goals (MDG) of [23], Plan for Accelerated and Sustained Development to End Poverty (PASDEP) of [24] and Ministry of health strategy HSDP IV, [25] supports reaching and empowering the community to ameliorate societal problems and improve house hold income, energy and health and livelihoods. Therefore, CBE creates the opportunity for JU to discharge its national mandate and contribute in meeting MDGs and government development programs [15].

CONCLUSION

Majority of members of the community have described that they had developed some common practices after interventions such as importance of proper management and husbandry practices of livestock, control and prevention methods against zoonotic diseases, taking sick animals to veterinary clinic and vaccination of livestock which was confirmed by majority of community leaders and animal health and production professionals. The attitude of community members in Community Based Training Program privileged villages with regard to taking sick animals to veterinary clinic improved due to intervention. The majority members of the community, community leaders and animal health and production professionals agreed that Community Based Training Program (CBTP) of Jimma University would benefit the society. They recommended that Community Based Training Program of Jimma University should be continued in the future. Members of the community in CBTP non privileged districts also showed interests in Community Based Education (CBE) requesting attachment of students to their villages.

ACKNOWLEDGEMENTS

Our appreciation goes to members of the community, community leaders and animal health and production professionals who participated in this study. Our acknowledgement also goes to Jimma University College of Agriculture and Veterinary Medicine (JUCAVM), Postgraduate and Research office for financing this project.

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