



The Medical Education Partnership Initiative (MEPI) Compendium of Tools Used for Evaluating Community-Based Medical Education Programs

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Ian Couper, University of the Witwatersrand



MEPI Coordinating Center

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INTRODUCTION

The Medical Education Partnership Initiative (MEPI) aims to support medical education and research in Sub-Saharan African institutions in order to increase the quantity, quality, and retention of graduates with specific skills addressing the health needs of their populations. *CapacityPlus* is the USAID-funded global project, led by IntraHealth International, which is uniquely focused on the health workforce needed to save lives, improve health, and achieve Millennium Development Goals. *CapacityPlus* is collaborating with the MEPI Coordinating Center and the MEPI Community-Based Education (CBE) Technical Working Group to build capacity for CBE within the MEPI network of institutions.

In order to assist with the development of evaluation approaches for CBE programs in participating MEPI schools, a literature search was carried out by *CapacityPlus* and the Center for Rural Health, University of the Witwatersrand, Johannesburg, South Africa, to identify approaches that might be applicable, and, particularly, tools that might be relevant to the African context. The search included both the academic and peer-reviewed literature as well as so-called grey literature. Articles were included if they described an approach, tool, model, or framework for evaluating CBE. Articles were excluded if they did not address evaluation of programs in community-settings and/or were not available in English.

The terms used in the search included community-based, community-oriented and community-engaged education; Africa and the names of African countries; and variations of the term evaluation, such as 'evaluat,' evaluation tools and evaluation frameworks. The terms were searched through PubMed, Google Scholar, Best Evidence Medical Education, and several relevant websites, such as the Sub-Saharan African Medical Schools Study (SAMSS) website. A total of 37 relevant articles published between 1985 and 2013 were identified.

Arising from this literature search, possible tools were sourced from the articles. Where these were not available in the published work, authors were contacted for assistance, which was forthcoming in a number of instances. All tools were reviewed, and those that could possibly be useful to MEPI schools for CBE evaluation were included in the compendium that follows. Tools were categorized according to level of Kirkpatrick's learning evaluation model and stages of the program evaluation logic model.

Profesor Ian Couper, Director of the Centre for Rural Health, University of the Witwatersrand, compiled this compendium of tools. The tools are mainly quantitative or semi-quantitative. Many CBE evaluations used mostly or entirely qualitative approaches involving, for example, in-depth interviews and focus group discussions. Usually the questions were context-specific, and it was felt that it would not be useful to replicate these here; in almost all cases, such questions are described in the original publications.

A number of the tools were related to student assessment more than program evaluation but this distinction was not always easy to make. These have not been included, although there may be elements of this in one or two tools.

It is unlikely that a tool from this compendium can be used in its entirety, and without adaptation. The hope is that these tools will provide ideas to assist in developing evaluation tools. If elements of existing tools are used, the original authors should be acknowledged. It is hoped that some common tools can be developed and used in a number of programs and countries, and that cross-institutional and cross-country CBE evaluation collaborations will develop out of this process.

There is a shortage of good CBE evaluation tools, so the time and effort spent on this will not be wasted.

DEFINITIONS

Kirkpatrick's Learning Evaluation Model

| Level | Evaluation type (what is measured) | Evaluation description and characteristics | Examples of evaluation tools and methods |
|-------|------------------------------------|---|---|
| 1 | Reaction | What participants thought and felt about the educational program | Feedback forms, verbal reaction, post-training surveys or questionnaires |
| 2 | Learning | The resulting increase in knowledge and/or skills, and/or change in attitudes/perceptions among students | Pre- and post-test assessments before and after key aspects of the course (e.g. a community rotation). Can involve written exams, interviews or observations of behavior. |
| 3 | Behavior | Behavioral change. Transfer of knowledge, skills, and/or attitudes from classroom to the workplace (change in workplace behavior due to the program- <u>applied learning</u>) | Observation and interviews over time are required to assess change, relevance of change, and sustainability of change. Typically occurs 3–6 months post training while the trainee is performing the job. |
| 4 | Results | Results that occurred because of attendance and participation in an academic program. Wider changes in the organization or delivery of care, attributable to an educational program. Improvement in the health and well-being of patients/clients as a direct result of an educational program. | Measures are already in place via normal management systems and reporting. |

Program Evaluation Logic Model

| Stages | Description and characteristics | Examples |
|-----------------------|---|---|
| Program Goals | Big-picture ideas underlying a program. What change will the program make? | More health workers will provide quality community-level care during careers in underserved locations |
| Inputs | Key resources of a program | Staff; curriculum; partner institutions; funding; facilities |
| Activities | Things done by a program that reach participants or others | Workshop on [topic]; research project; clinical practical experience |
| Outputs | Tangible products/by-products of activities (but not whether students learned anything) | Certificates of completion; records of actions by participants (i.e., log books); number of students at clinical site |
| Intermediate Outcomes | Learning connected to activities | Students understand [topic]; students are able to [skill] |
| Outcomes | Effects connected to activities or intermediate outcomes such as changes in behavior, action or decision making | Graduates apply knowledge to [context]; graduates use new method to perform [action]; graduate chooses to practice in [geographical area] |
| Impact | Ultimate impacts, connected to medium- and short-term outcomes | Better care of patients; more graduates working in community |

CATEGORIZATION OF EVALUATION TOOLS

| Evaluation Tools | Kirkpatrick Levels | Logic Model Stages |
|---|--|---|
| Birden, H.H., et al. "Rural placements are effective for teaching medicine in Australia: Evaluation of a cohort of students studying in rural placements." | Level 1: Reaction Level 2: Learning | Activities |
| Dehaven, M.J., et al. « Reaching the underserved through community-based participatory research and service learning: Description and evaluation of a unique medical student training program." | Level 1: Reaction Level 2: Learning | Activities Intermediate Outcomes |
| Evaluation of COBES program at Makerere University, Uganda. | Level 1: Reaction | Activities |
| Huang, W.Y. et al. Curriculum and evaluation results of a third-year medical student longitudinal pathway on underserved care. | Level 1: Reaction Level 2: Learning | Activities Intermediate Outcomes |
| Leone-Perkins, M., et al. « Students' evaluations of teaching and learning experiences at community- and residency-based practices." | Level 1: Reaction Level 3: Behavior | Activities Intermediate Outcomes Outcomes |
| Leung, K.K., et al. « Factors affecting students' evaluation in a community service-learning program." | Level 1: Reaction Level 2: Learning | Activities Outcomes |
| Naidu, C.S. "An evaluation of university of Cape Town medical students' community placements in South Africa." | Level 1: Reaction Level 2: Learning | Activities Outcomes |
| Salmon, K. "Student nurses' learning on community-based education in Ethiopia." | Level 1: Reaction | Activities Intermediate Outcomes |

Birden, H.H. et al. Rural placements are effective for teaching medicine in Australia: evaluation of a cohort of students studying in rural placements.

| | |
|---|---|
| Full Citation | Birden H.H., I. Wilson. 2012. "Rural placements are effective for teaching medicine in Australia: Evaluation of a cohort of students studying in rural placements." <i>Rural Remote Health</i> 12: 2167. |
| Abstract | <p>INTRODUCTION: Medical education in Australia is increasingly delivered through longitudinal placements in general practice and other community settings. Early meaningful exposure to patients has been shown to improve the transition from medical student to junior doctor. This study examines the experience of the first year cohort of the University of Western Sydney (UWS) Medical School long-term rural placement students. Results have been placed in the context of other published results for rural training schemes, comparing and contrasting the present results to those of others.</p> <p>METHODS: Students undertaking a rural placement in their final year of the UWS medical program (n = 21) participated in a mixed methods evaluation. Students filled out a quantitative survey, modified from a validated instrument, and also participated in a focus group. Class ranking of students, and changes over the time of their placement, were also examined.</p> <p>RESULTS: Overall, students were very pleased with their rural experience, both clinically and socially. Students found the rural experience more comprehensive than they had expected. They considered that they had a stronger learning experience in most aspects than they expect they would have received in a metropolitan area. The smaller realm of the medical world in a rural area was considered an advantage in providing more hands-on experience and more interprofessional team approaches to healthcare provision. It was also considered a drawback by some that more advanced cases of all kinds were sent out of the area to metropolitan hospitals. Between their ranking in the end of Year 3 examination and the examination in the middle of Year 5, during which period students undertook their year-long placement, 14 of 22 students increased their class rank while two experienced no change and six decreased their class rank. Overall, the rural cohort advanced 4.2 places compared to their urban-placed peers.</p> <p>CONCLUSIONS: The present results confirm that rural placements have come into their own in Australia. Curriculum content regarding Aboriginal health issues should emphasize the complexity of culture and range of living conditions that makes up Aboriginal Australia and avoid a 'deficit-based perspective' that emphasizes extreme cases over routine presentations. Taken together, the results reported by Australian medical schools now offering long-term rural placements suggest that rural long-term placements are at least as effective, and may even be more effective, than metropolitan hospital placements as an effective means of providing clinical education to medical students in their senior years.</p> |
| What was evaluated? | Evaluation of the experience of the first cohort of the University of Western Sydney Medical School long-term rural placement students, undertaken in year 4 out of 5 |
| Who was evaluated? | Final year medical students |
| Where did this evaluation take place? | New South Wales, Australia: Center for Rural Health and Medical School, University of Western Sydney |
| Evaluation framework/design used | Mix method evaluation using quantitative survey and focus group |
| Indicator used to measure success of the CBE program | Indicators included overall experience of students across variables prior to arriving at placement, on arrival and clinical experience. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 2: Learning |
| Logic model stage(s) | Activities |
| Relevance of this evaluation to CBE in Africa | Aspects of the placements are summarized in the tool using rating scores. This information may be more relevant to the schools who wish to find out the students experiences of CBE. |
| Link to article | Birden HH, et al. |

Tools

Quantitative survey completed by students undertaking a rural placement, in their final year of the UWS medical program (n=21), as part of a mixed methods evaluation, using mainly two different Likert-type scales, but also some yes-no responses.

| Evaluation of Rural Clinical Attachment | | | | | | |
|---|------------------|-------------|----------------|-------------|-----------------------------|------------|
| <i>Please complete each section by filling in the appropriate block for your assessment of this attachment.</i> | | | | | | |
| | Excellent | Good | Average | Poor | Unsatis- factory | N/A |
| PRIOR TO ATTACHMENT | | | | | | |
| Attachment briefing | 5 | 4 | 3 | 2 | 1 | 0 |
| Organizing accommodation | 5 | 4 | 3 | 2 | 1 | 0 |
| Travel arrangements | 5 | 4 | 3 | 2 | 1 | 0 |
| How well were your questions answered | 5 | 4 | 3 | 2 | 1 | 0 |
| ON ARRIVAL/ORIENTATION | | | | | | |
| Reception | 5 | 4 | 3 | 2 | 1 | 0 |
| Accommodation | 5 | 4 | 3 | 2 | 1 | 0 |
| Local transport | 5 | 4 | 3 | 2 | 1 | 0 |
| Welcome by staff | 5 | 4 | 3 | 2 | 1 | 0 |
| Welcome by community | 5 | 4 | 3 | 2 | 1 | 0 |
| Formal orientation | 5 | 4 | 3 | 2 | 1 | 0 |
| CLINICAL EXPERIENCE | | | | | | |
| Range of patient conditions | 5 | 4 | 3 | 2 | 1 | 0 |
| Parallel Consulting | 5 | 4 | 3 | 2 | 1 | 0 |
| Developing clinical skills | 5 | 4 | 3 | 2 | 1 | 0 |
| Breadth of experience | 5 | 4 | 3 | 2 | 1 | 0 |
| History & examination skills improvement | 5 | 4 | 3 | 2 | 1 | 0 |
| Managing patients | 5 | 4 | 3 | 2 | 1 | 0 |
| Undertaking procedures | 5 | 4 | 3 | 2 | 1 | 0 |
| Communication skills | 5 | 4 | 3 | 2 | 1 | 0 |
| Quality of teaching | 5 | 4 | 3 | 2 | 1 | 0 |
| Quality of support | 5 | 4 | 3 | 2 | 1 | 0 |
| OVERALL HOW WOULD YOU RATE YOUR EXPERIENCE IN EACH OF THE CLINICAL AREAS? | | | | | | |
| Medicine | 5 | 4 | 3 | 2 | 1 | 0 |
| Surgery | 5 | 4 | 3 | 2 | 1 | 0 |
| General practice | 5 | 4 | 3 | 2 | 1 | 0 |
| Pediatrics | 5 | 4 | 3 | 2 | 1 | 0 |
| Mental health | 5 | 4 | 3 | 2 | 1 | 0 |
| Indigenous health | 5 | 4 | 3 | 2 | 1 | 0 |
| Oncology & palliative care | 5 | 4 | 3 | 2 | 1 | 0 |
| Community group medicine project | 5 | 4 | 3 | 2 | 1 | 0 |
| SOCIAL EXPERIENCE | | | | | | |
| Discovering the local region | 5 | 4 | 3 | 2 | 1 | 0 |
| Meeting new people | 5 | 4 | 3 | 2 | 1 | 0 |
| Fitting into a rural community | 5 | 4 | 3 | 2 | 1 | 0 |
| Social activities | 5 | 4 | 3 | 2 | 1 | 0 |
| Involvement in community activities | 5 | 4 | 3 | 2 | 1 | 0 |
| OVERALL RATING | | | | | | |
| | Excellent | Good | Average | Poor | Unsatis- factory | |
| Overall, what is your rating of the attachment | 5 | 4 | 3 | 2 | 1 | |

| RECOMMENDATION OF ATTACHMENT | | | | | |
|--|-----------|----------|------------|----------|-----------------|
| | Certainly | Probably | Don't Know | Unlikely | Highly Unlikely |
| Would you recommend a rural attachment to another student in the School? | 5 | 4 | 3 | 2 | 1 |
| THE FUTURE | | | | | |
| | Yes | | No | | |
| Would you consider working in the region of your attachment? | Y | | N | | |
| Would you now consider working in any rural setting? | Y | | N | | |
| Have you applied to do your internship in a rural region? | Y | | N | | |
| LIKELIHOOD OF RURAL WORK | | | | | |
| | Certainly | Probably | Don't Know | Unlikely | Highly Unlikely |
| Please rate the current likelihood that you will work in any rural location in the future. | 5 | 4 | 3 | 2 | 1 |
| INFLUENCES IN LOCATION TO PRACTICE | | | | | |
| Have any of the following factors influenced your decision of choice of location to practice or otherwise in a rural area. | | | | | |
| | Yes | | No | | |
| Teaching received/available | Y | | N | | |
| Clinical experiences | Y | | N | | |
| Accommodation | Y | | N | | |
| Hospital environment | Y | | N | | |
| The community | Y | | N | | |
| Lifestyle | Y | | N | | |
| Work/ life balance | Y | | N | | |
| Teacher/tutor attitudes | Y | | N | | |
| OTHER COMMENTS | | | | | |
| | | | | | |

Dehaven, M.J., et al. « Reaching the underserved through community-based participatory research and service learning: Description and evaluation of a unique medical student training program.»

| | |
|---|--|
| Full Citation | Dehaven M.J., N.E. Gimpel, F.J. Dallo, T.M. Billmeier. 2011. Reaching the underserved through community-based participatory research and service learning: Description and evaluation of a unique medical student training program. <i>J Public Health Manag Pract.</i> Jul-Aug; 17 (4): 363-8. |
| Abstract | <p>OBJECTIVES: To provide an overview of the Community Health Fellowship Program (CHFP), describe the types of projects completed by the community health fellows from 2005 to 2009 and to assess the program's effectiveness from the perspective of fellows and community partners.</p> <p>METHODS: We developed the CHFP for training medical students in community-based participatory research (CBPR), and understanding the components of successful community partnerships for addressing health disparities in underserved communities. The program has didactic and applied community research components.</p> <p>RESULTS: From 2005 to 2009, fellows completed 25 research projects with 19 different community partners. Fellows reported favorable attitudes about the program, their mentors, and their community projects; their research knowledge increased significantly in most areas, especially their ability to develop a succinct research question, familiarity with CBPR, and delivering a formal research presentation (Wilcoxon signed-rank test, $P < .05$). Community partners reported favorable attitudes toward the fellows and the program; using a 5-point Likert scale (1 = not favorable, 5 = very favorable), they reported highly favorable attitudes about fellows' level of responsibility (4.85), level of cooperation (4.85), familiarity with the needs of the medically underserved (4.69), and knowledge of how to apply local solutions to health problems (4.54).</p> <p>CONCLUSIONS: The CHFP has high favorability and support among fellows and community partners; the program can serve as a prototype for training future physicians in understanding and addressing the needs of the underserved, through community partnerships, and community-based participatory research.</p> |
| What was evaluated? | Evaluation of Community Based Participatory Research (CBPR) Projects |
| Who was evaluated? | Medical Students (fellows) enrolled in a 9 week Fellowship Program annually (Post-Doctoral) |
| Where did this evaluation take place? | USA: University of North Texas Health Sciences Center |
| Evaluation framework/design used | Pre/Post-test surveys |
| Indicator used to measure success of the CBE program | Fellows reported on attitude about the program, mentors and their community projects, research knowledge. Community partners reported on attitude about program and fellows, fellows' level of cooperation and responsibility, familiarity with needs of medically underserved and knowledge of applying local solutions to health problems. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 2: Learning |
| Logic model stage(s) | Activities and Intermediate Outcomes |
| Relevance of this evaluation to CBE in Africa | Medical schools in Africa can learn lessons for promoting medical students to participate in Community based research programs and utilize the pre and post survey exercise and indicators to evaluate. |
| Link to article | Delhaven MJ, et al. |

A post-test assessing students' satisfaction with their community project, mentor, and the overall program

(1 = not favorable; 5 = very favorable)

Evaluation of Program, Project, and Mentor by Students

1. Program Gained research knowledge
2. Project Personally rewarding
3. Program Increased awareness of community needs
4. Project Relevant to medical career
5. Mentor Mentor professionalism
6. Project Acquainted to medically serving the underserved
7. Mentor Mentor guidance
8. Program Well organized
9. Mentor Mentor availability
10. Project Had a direct effect on the health of the community
11. Project Demonstrated local solutions to health problems
12. Mentor Mentor time commitment
13. Program Affected specialty choice
14. Project Provided clinical exposure 3

A pre/post-test assessing the program's effectiveness improving research knowledge (1 = not knowledgeable; 5 = very knowledgeable)

Evaluation of Curriculum by Students Pre- and Post-test

1. Curriculum I am familiar with the procedures of the institutional review board (IRB).
2. Curriculum I feel comfortable creating databases and coding analysis.
3. Curriculum I am competent in developing succinct research questions.
4. Curriculum I am familiar with most of the statistical terms commonly used in medical research.
5. Curriculum I am thoroughly familiar with the steps of the research process.
6. Curriculum I feel qualified to design a thorough research project.
7. Curriculum I am knowledgeable about the need for IRB oversight of research protocols.
8. Curriculum I am able to develop appropriate data collection instruments.
9. Curriculum I am familiar with the components of community-based participatory research.
10. Curriculum I feel qualified to develop and deliver a formal research presentation.
11. Curriculum I can explain the difference between qualitative and quantitative research.
12. Curriculum I am confident in my ability to perform a comprehensive literature search.
13. Curriculum Learning research methods will be useful in my medical career.
14. Curriculum I am knowledgeable about the purpose for HIPAA training and compliance.

EVALUATION OF THE COBES PROGRAM AT MAKERERE UNIVERSITY, UGANDA

Reported in a number of articles, including:

Chang, L.W., D. Kaye, W.W. Muhwezi, et al. 2011. "Perceptions and valuation of a community-based education and service (COBES) program in Uganda." *Medical Teacher* 33 (1): e9-15.

| | |
|------------------------|--|
| Abstract | <p>BACKGROUND: Community-based education and service (COBES) has been promoted to improve the education of health professionals, particularly in low-resource settings. However, few evaluations have been performed to guide program development.</p> <p>AIM: This study assessed student and educator perceptions and valuation of a Ugandan COBES program.</p> <p>METHODS: We administered an internet-based survey to students, faculty, and site tutors associated with the Makerere University College of Health Sciences COBES program.</p> <p>RESULTS: 255 surveys were completed. Response rates varied (students, 188/684, 27.5%; faculty-site supervisors, 15/23, 65.2%; faculty general, 38/312, 12.2%; site tutors, 14/27, 51.9%). Students valued the COBES program (93.5% some/high value). Tutors enjoyed their work (92.9% agreeing/strongly agreeing). Faculty (n = 53) felt COBES was valuable (90.2% agreeing/strongly agreeing). High student valuation was associated with high quality accommodation (aOR 4.7, 95% CI = 1.6-13.4), free accommodation (aOR 2.9, 95% CI = 1.2-6.8), and tutors who demonstrated enthusiasm for teaching (aOR 3.4, 95% CI = 1.1-10.0). Areas identified for improvement included financial support, student preparation, and tutor training, feedback, and supervision.</p> <p>CONCLUSION: In this study, COBES was perceived positively by students and educators and learning environment and quality of teaching both contributed to valuation of COBES. Well-implemented COBES programs may offer an opportunity to enhance health sciences education.</p> |
| Link to article | Chang LW, et al. |

Chang, L.W., A. Mwanika, D. Kaye, et al. 2012. "Information and communication technology and community-based health sciences training in Uganda: Perceptions and experiences of educators and students. *Informatics for Health and Social Care* 37(1): 1-11.

| | |
|------------------------|---|
| Abstract | <p>Information and communication technology (ICT) has been advocated as a powerful tool for improving health education in low-resource settings. However, few evaluations have been performed of ICT perceptions and user experiences in low-resource settings. During late 2009, an internet-based survey on ICT was administered to students, tutors, and faculty members associated with a Community-Based Education and Service (COBES) program in Uganda. 255 surveys were completed. Response rates varied (students, 188/684, 27.5%; tutors, 14/27, 51.9%; faculty, 53/335, 15.8%). Most respondents owned mobile phones (98%). Students were less likely ($p < 0.001$) to own laptops (25%) compared to tutors (71%) and faculty (85%). Internet access at rural sites was uncommon; mobile phone coverage was almost universally present. Laptop ownership and internet and mobile phone access was not associated with high valuation of students' COBES experiences. Free text responses found that respondents valued ICT access for research, learning, and communication purposes. In summary, ICT penetration in this population is primarily manifest by extensive mobile phone ownership. Internet access in rural educational sites is still lacking, but students and educators appear eager to utilize this resource if availability improves. ICT may offer a unique opportunity to improve the quality of teaching and learning for COBES participants.</p> |
| Link to article | Chang LW, et al. |

Kaye, D., A. Mwanika, G. Burnham, et al. 2011. "The organization and implementation of community-based education programs for health worker training institutions in Uganda." *BMC International Health and Human Rights* 11 (Suppl 1): S4.

| | |
|-------------------------------|--|
| <p>Abstract</p> | <p>BACKGROUND: Community-based education (CBE) is part of the training curriculum for most health workers in Uganda. Most programs have a stated purpose of strengthening clinical skills, medical knowledge, communication skills, community orientation of graduates, and encouragement of graduates to work in rural areas. This study was undertaken to assess the scope and nature of community-based education for various health worker cadres in Uganda.</p> <p>METHODS: Curricula and other materials on CBE programs in Uganda were reviewed to assess nature, purpose, intended outcomes and evaluation methods used by CBE programs. In-depth and key informant interviews were conducted with people involved in managing CBE in twenty-two selected training institutions, as well as stakeholders from the community, Ministry of Health, Ministry of Education, civil society organizations and local government. Visits were made to selected sites where CBE training was conducted to assess infrastructure and learning resources being provided.</p> <p>RESULTS: The CBE curriculum is implemented in the majority of health training institutions in Uganda. CBE is a core course in most health disciplines at various levels - certificate, diploma and degree and for a range of health professionals. The CBE curriculum is systematically planned and implemented with major similarities among institutions. Organization, delivery, managerial strategies, and evaluation methods are also largely similar. Strengths recognized included providing hands-on experience, knowledge and skills generation and the linking learners to the communities. Almost all CBE implementing institutions cited human resource, financial, and material constraints.</p> <p>CONCLUSION: The CBE curriculum is a widely used instructional model in Uganda for providing trainee health workers with the knowledge and skills relevant to meet community needs. Strategies to improve curricula and implementation concerns need further development. It is still uncertain whether this approach is increasing the number graduates seeking careers in rural health service, one of the stated program goals, an outcome which requires further study.</p> |
| <p>Link to article</p> | <p>Kaye D, et al.</p> |

Mbalinda, S.N., C.M. Plover, G. Burnham, et al. 2011. "Assessing community perspectives of the community based education and service model at Makerere University, Uganda: A qualitative evaluation." *BMC International Health and Human Rights* 11 (Suppl 1): S6.

| | |
|------------------------|---|
| <p>Abstract</p> | <p>BACKGROUND: Community partnerships are defined as groups working together with shared goals, responsibilities, and power to improve the community. There is growing evidence that these partnerships contribute to the success and sustainability of community-based education and service programs (COBES), facilitating change in community actions and attitudes. Makerere University College of Health Sciences (MakCHS) is forging itself as a transformational institution in Uganda and the region. The College is motivated to improve the health of Ugandans through innovative responsive teaching, provision of service, and community partnerships. Evaluating the COBES program from the community perspective can assist the College in refining an innovative and useful model that has potential to improve the health of Ugandans.</p> <p>METHODS: A stratified random sample of 11 COBES sites was selected to examine the community's perception of the program. Key Informant Interviews of 11 site tutors and 33 community members were completed. The data was manually analyzed and themes developed.</p> <p>RESULTS: Communities stated the students consistently engaged with them with culturally appropriate behavior. They rated the student's communication as very good even though translators were frequently needed. Half the community stated they received some feedback from the students, but some communities interpreted any contact after the initial visit as feedback. Communities confirmed and appreciated that the students provided a number of interventions and saw positive changes in health and health seeking behaviors. The community reflected that some programs were more</p> |
|------------------------|---|

| | |
|------------------------|---|
| | <p>sustainable than others; the projects that needed money to implement were least sustainable. The major challenges from the community included community fatigue, and poor motivation of community leaders to continue to take students without compensation.</p> <p>CONCLUSION: Communities hosting Makerere students valued the students' interventions and the COBES model. They reported witnessing health benefits of fewer cases of disease, increased health seeking behavior and sustainable healthcare programs. The evidence suggests that efforts to standardize objectives, implement structural adjustments, and invest in development of the program would yield even more productive community interactions and a healthcare workforce with public health skills needed to work in rural communities.</p> |
| Link to article | Mbalinda SN, et al. |

For the articles listed above:

| | |
|--|---|
| What was evaluated? | Evaluation of the Community-based education and service (COBES) programs, which have been integrated into the health sciences clinical degree programs of Makerere University (medicine, dentistry, nursing, radiography, and pharmacy, whereby students in these programs participate in COBES rotations every year, rotating among over 50 community-based sites. |
| Who was evaluated? | Current COBES students, tutors, and associated faculty |
| Where did this evaluation take place? | Uganda: College of Health Sciences, Makerere University |
| Kirkpatrick model categorization | Level 1: Reaction |
| Logic model stage(s) | Activities |

Tools

As part of a planned comprehensive evaluation of COBES, this research sought to evaluate the COBES program through confidential internet and paper-based surveys of the students, tutors, and faculty participating in the COBES program. It was intended to provide useful information to identify strengths and weakness of the program, highlight areas for improvement, and provide important needs assessment data.

The quantitative internet-based survey tools (for students, tutors and faculty respectively) and some of the more qualitative tools (questionnaire for medical and nursing graduates, and interview schedules for key informant interviews with site supervisors and community informants) are given below.

Student Survey

| # | Question/Field Description | Response(s) |
|---------------------------------------|--|---|
| Consent | | |
| Demographic Information | | |
| 2a | First Name | Text |
| 2b | Surname | Text |
| 2c | Gender | Male, Female |
| 2d | Age | Number |
| 2e | Which degree program are you enrolled in? | Nursing, Medicine, Dentistry, Radiography, Pharmacy |
| 2f | What year of your program are you in? | 1, 2, 3, 4, 5 |
| 2g | If you are in the Medicine degree program, please indicate which specialty you currently intend to pursue after you earn you degree. | Surgery, OB/Gyn, Internal Medicine, Psychiatry, Pediatrics, None, N/A |
| General COBES Site Information | | |
| 3a | Where was your COBES site? | Abc, def, ...(list of all COBES sites, last on the list is "Other") |
| 3b | Please type in the name of your COBES site. | Text |
| 3c | What type of health facility was your COBES site? | Health Center III, Health Center IV, District Hospital, Mission Hospital, Other |
| 3d | Please type in a description of the type of place of your COBES site. | Text |
| 3e | What was the name of your site tutor? | Abc, def, ...(list of all possible mentors, last on the list is "Other") |
| 3f | Please type in the name of your site tutor. | Text |
| 3g | How many students were there on your team? (exclude yourself)? | Number |
| 3h | How many pharmacy students were on your team? | 0,1,2,d,4,5,6,7,8,9 |
| 3i | How many medicine students were on your team? | 0,1,2,3,4,5,6,7,8,9 |
| 3j | How many radiography students were on your team? | 0,1,2,3,4,5,6,7,8,9 |
| 3k | How many nursing students were on your team? | 0,1,2,3,4,5,6,7,8,9 |
| 3l | How many dentistry students were on your team? | 0,1,2,3,4,5,6,7,8,9 |
| Logistics | | |
| 4a | Have you received your stipend yet? | Yes, No |
| 4b | Did you receive your stipend before the start of your COBES? | Yes, No |
| 4c | Was the stipend enough for your financial needs? | Yes, No |
| 4d | Please rate the quality of your accommodations. | 1(Poor),2,3,4,5(Excellent) |
| 4e | Were you provided free accommodations at your COBES site? | Yes, No |

| | | |
|--|---|--|
| 4f | Did you receive any support from other organization(s) at your site? | Yes, No |
| COBES Patient/Community Characteristics | | |
| 5a | On average, how many patients did you interact with each day? | <i>Number</i> |
| 5b | Please complete the statement: "The number of patients I saw at the COBES site is:" | 1= too few; 3=just right; 5=too many |
| 5c | Agree or disagree: "During the COBES rotation, I saw a wide range of medical conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5d | Agree or disagree: "During the COBES rotation, I saw patients with a wide range of ages" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5e | Agree or disagree: "During the COBES rotation, I saw a good balance between men and women" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5f | Agree or disagree: "During the COBES field visits, I identified a number of community health needs." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5g | Agree or disagree: "During the COBES rotation, I observed a good district health administrative system." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5h | Agree or disagree: "During the COBES rotation, I saw a wide range of social conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5i | Agree or disagree: "During the COBES rotation, I saw a wide range of maternal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5j | Agree or disagree: "During the COBES rotation, I saw a wide range of child and neonatal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5k | Agree or disagree: "During the COBES rotation, I saw a wide range of infectious diseases." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5l | Agree or disagree: "During the COBES rotation, I saw a wide range of environmental health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5m | Agree or disagree: "During the COBES rotation, my team worked in-depth on a community health problem." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5n | Were you able to speak the native language of <i>most</i> of the patients you worked with? | Yes, No |
| Information Technology Assessment | | |
| 6a | Do you own a laptop? | Yes, No |
| 6b | Do you own a mobile phone? | Yes, No |
| 6c | Was there internet access directly at your COBES site? | Yes, No |
| 6d | Was there internet access within 30 minutes travel of where you were staying during your COBES rotation? | Yes, No |
| 6e | Were you able to access a mobile phone network directly at your COBES site? | Yes, No |
| 6f | Which network(s) were you able to access directly at your COBES site (check all that apply)? | MTN, Zain, Uganda Telecom, Orange |
| 6g | While at your COBES site, did you use the internet to help you with self-directed learning? | Yes, No |
| 6h | While at your COBES site, did you use your mobile phone to help you with self-directed learning? | Yes, No |
| 6i | Agree or disagree: "There is an adequate internet access at my COBES site" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Tutor Assessment | | |
| 7a | Agree or disagree: "My tutor is readily available when I need to discuss a case" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7b | Agree or disagree: "Having a tutor available to discuss cases is important to my education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7c | Agree or disagree: "My tutor gives constructive feedback" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7d | Agree or disagree: "Having a tutor who gives constructive feedback is important to my education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7e | Agree or disagree: "My tutor demonstrates enthusiasm for teaching" | 1=disagree strongly; 3=neutral; 5=agree |

| | | |
|-----------------------------|--|--|
| | | strongly |
| 7f | Agree or disagree: "Having a tutor who demonstrates enthusiasm for teaching is important for my education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7g | Agree or disagree: "My tutor is effective in making me aware of clinic and social resources for my patients" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7h | Agree or disagree: "Having a tutor who is aware of clinic and social resources for my patients is important for my outpatient education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7i | Agree or disagree: "My tutor provides a good role model of professional behavior" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7j | Agree or disagree: "Having a tutor who is a good role model of professional behavior is important for my outpatient education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7k | Agree or disagree: "My clinic tutor respects my judgment." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7l | Agree or disagree: Having a tutor who respects my judgment is important for my education" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Attitudes Assessment | | |
| 8a | I am interested in working in a rural setting after I graduate. | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 8b | Please rate the overall value of the COBES experience to your overall training. | 1=no value; 3=neutral; 5=high value |
| 8c | Would you recommend this COBES site to future students? | Yes, No |
| 8d | Do you think your COBES tutor should continue as a tutor for the COBES program? | Yes, No |
| 8e | Please rate the likelihood that you will pursue work in a rural setting after your finish your degree: | 0%, 10%, 25%, 50%, 75%, 90%, 100% |
| 8f | Agree or Disagree: I was prepared for the COBES experience. | 1=disagree strongly; 3=neutral; 5=agree strongly |

Tutor Survey

| # | Question/Field Description | Response(s) |
|---------------------------------------|--|---|
| Consent | | |
| 0a | Consent Part 1 | Yes, No |
| Demographic Information | | |
| 1a | First Name | <i>Text</i> |
| 1b | Surname | <i>Text</i> |
| 1c | Gender | Male, Female |
| 1d | Age | <i>Number</i> |
| 1e | Are you a graduate of a Makerere degree program? | Yes, No |
| 1f | What is your highest degree? | <i>Text</i> |
| 1g | What is your highest degree in? | Medicine, Nursing, Radiography, Dentistry, Pharmacy, Public Health |
| | What is your official title? | <i>Text</i> |
| General COBES Site Information | | |
| 2a | Where was your COBES site? | Abc, def, ...(list of all COBES sites, last on the list is "Other") |
| 2b | Please type in the name of your COBES site. | <i>Text</i> |
| 2c | Including this year, how many years have you been a tutor? | <i>Number</i> |
| 2d | How many students were you in charge of? | <i>Number</i> |
| Logistics | | |
| 3a | Have you received your stipend yet? | Yes, No |

| | | |
|--|---|---|
| 3b | Did you receive your stipend before the start of the COBES rotation? | Yes, No |
| Information Technology Assessment | | |
| 4a | Do you own a laptop? | Yes, No |
| 4b | Do you own a mobile phone? | Yes, No |
| 4c | Was there internet access directly at your COBES site? | Yes, No |
| 4d | Was there internet access within 30 minutes travel of where you were staying during your COBES rotation? | Yes, No |
| 4e | Were you able to access a mobile phone network directly at your COBES site? | Yes, No |
| 4f | Which network(s) were you able to access directly at your COBES site (check all that apply). | MTN, Zain, Uganda Telecom, |
| 4g | While at your COBES site, did you use the internet to help you with your teaching? | Yes, No |
| 4h | While at your COBES site, did you use your mobile phone to help you with your teaching? | Yes, No |
| 4i | Agree or disagree: "There is an adequate internet access at my COBES site" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Training and Support | | |
| 5a | Agree or disagree: "I felt well trained to be a good tutor" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5b | Agree or disagree: "I would like to have more trainings in being a good tutor" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5c | Agree or disagree: "If I had access to the internet, I would participate in online trainings over the internet" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5d | Agree or disagree: "I can easily contact Makerere faculty for help with problems related to COBES." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5e | I received feedback from Makerere on my performance as a tutor. | Yes, No |
| 5f | I received feedback from Makerere on the quality of my COBES site. | Yes, No |
| 5g | Agree or disagree: "Feedback from Makerere was useful in improving the COBES experience." | 1=disagree strongly; 3=neutral; 5=agree strongly, 6=N/A |
| Teaching | | |
| 6a | Agree or disagree: "The size of the student COBES team was too big" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6b | Agree or disagree: "I had enough time to teach the students." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6c | Agree or disagree: "During the COBES rotation, the students saw a wide range of medical conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6d | Agree or disagree: "During the COBES rotation, the students saw patients with a wide range of ages" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6e | Agree or disagree: "During the COBES rotation, the students saw a good balance between men and women" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6f | Agree or disagree: "During the COBES field visits, the students identified a number of community health needs." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6g | Agree or disagree: "During the COBES rotation, the students observed a good district health administrative system." | 1=disagree strongly; 3=neutral; 5=agree strongly |

| | | |
|------------------|--|--|
| 6h | Agree or disagree: "During the COBES rotation, the students saw a wide range of social conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6i | Agree or disagree: "During the COBES rotation, the students saw a wide range of maternal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6j | Agree or disagree: "During the COBES rotation, the students saw a wide range of child and neonatal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6k | Agree or disagree: "During the COBES rotation, the students saw a wide range of infectious diseases." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6l | Agree or disagree: "During the COBES rotation, the students saw a wide range of environmental health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6m | Agree or disagree: "During the COBES rotation, the student team worked in-depth on a community health problem." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6n | Agree or disagree: "I have kept in good contact with my students since they left the COBES site." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Attitudes | | |
| 7a | Agree or disagree: "I enjoyed being a tutor." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7b | Agree or disagree: "I felt supported in my job as a tutor by Makerere staff." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 7c | Agree or disagree: "I believe COBES will encourage students to work in rural communities after they graduate." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Free Text | | |
| 8a | What are the best things about your COBES experience? | <i>Text</i> |
| 8b | What are the worst things about your COBES experience? | <i>Text</i> |
| 8c | Why are you currently working in a community setting? | <i>Text</i> |
| 8d | What could have been done to help you better prepare for the COBES experience? | <i>Text</i> |
| 8e | Why did you choose to become a tutor? | <i>Text</i> |
| 8f | Is there anything else you would like for us to know? | <i>Text</i> |

Faculty Survey

| # | Question/Field Description | Response(s) |
|--|--|---|
| Consent | | |
| 0a | Consent Part 1 | Yes, No |
| Demographic Information | | |
| 1a | First Name | <i>Text</i> |
| 1b | Surname | <i>Text</i> |
| 1c | Gender | Male, Female |
| General COBES Site Information | | |
| 2a | Are you or have you ever been a COBES site supervisor? | Yes, No |
| 2b | What COBES sites have you visited? | Abc, def, ...(list of all COBES sites, last on the list is "Other") |
| 2c | Please type in the name of your COBES site. | <i>Text</i> |
| Information Technology Assessment | | |
| 3a | I have participated in online courses before. | Yes, No |

| | | |
|-----------------|---|--|
| 3b | I have taught an online course before. | Yes, No |
| 3c | Agree or disagree: "The courses I teach require students to use the internet." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 3d | Agree or disagree: "If I and my students had better internet access, I would use the internet more in my teaching." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 3e | Agree or disagree: "If I could call students in the field for free, I would call them more often to see how they are doing" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Training | | |
| 4a | Agree or disagree: "The tutors receive enough training to do a good job." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 4b | Agree or disagree: "The tutors should have yearly re-trainings." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 4c | Agree or disagree: "Tutors can easily contact Makerere faculty for help with problems related to COBES." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 4d | I have provided feedback to tutors on their performance. | Yes, No |
| Teaching | | |
| 5a | Agree or disagree: "Students are prepared for their COBES course." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5b | Agree or disagree: "Students should receive more teaching at Makerere before going on their COBES course." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5c | Agree or disagree: "The size of the student COBES team is too big" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5d | Agree or disagree: "During the COBES rotation, the students see a wide range of medical conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5e | Agree or disagree: "During the COBES rotation, the students see patients with a wide range of ages" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5f | Agree or disagree: "During the COBES rotation, the students see a good balance between men and women" | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5g | Agree or disagree: "During the COBES field visits, the students identify a number of community health needs." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5h | Agree or disagree: "During the COBES rotation, the students observed a good district health administrative system." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5i | Agree or disagree: "During the COBES rotation, the students see a wide range of social conditions." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5j | Agree or disagree: "During the COBES rotation, the students see a wide range of maternal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5k | Agree or disagree: "During the COBES rotation, the students see a wide range of child and neonatal health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5l | Agree or disagree: "During the COBES rotation, the students see a wide range of infectious diseases." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 5m | Agree or disagree: "During the COBES rotation, the students see a wide range of environmental health problems." | 1=disagree strongly; 3=neutral; 5=agree strongly |

| | | |
|------------------|--|--|
| 5n | Agree or disagree: "During the COBES rotation, the student team work in-depth on a community health problem." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Attitudes | | |
| 6a | Agree or disagree: "The COBES course has been valuable for students." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| 6b | Agree or disagree: "I believe COBES will encourage students to work in rural communities after they graduate." | 1=disagree strongly; 3=neutral; 5=agree strongly |
| Free Text | | |
| 7a | What are the best things about the COBES experience? | <i>Text</i> |
| 7b | What are the worst things about the COBES experience? | <i>Text</i> |
| 7c | How can COBES be improved? | <i>Text</i> |
| 7d | Is there anything else you would like for us to know? | <i>Text</i> |

Questionair for Medical and Nursing Graduates:

Personal data:

Age:

Sex:

District of origin:

District of where you are now employed:

Number of years since completion of undergraduate training:

Nature of employment (Please indicate the main roles that you do in your workplace

- a) Research
- b) Clinical
- c) Teaching
- d) Administration

Questions

1. Give two factors that **motivated** you to choose a medical career:
2. Have you **ever worked** in a rural health facility? Yes/No
3. Please indicate two (2) factors that enhanced your **confidence** in rural practice
4. Please indicate two (2) **factors** that **discouraged you or would discourage** you from practicing in a rural area
5. In your opinion, which two (2) **skills** do health professionals need to acquire if they are to succeed professionally in rural practice?
6. Did you have a **training experience at a rural health facility** during your undergraduate training? Yes/No
7. If the answer above is yes, what two (2) aspects of your rural training experience increased your **confidence** in working in a rural area?
8. In your opinion, which two (2) aspects related to their **undergraduate training** enhances health professional ability (**competence**) in working in a rural area?
9. What are your perceptions of the community-based training that you experienced?
10. Do you have any suggestions for improvement or strengthening community-based training?
11. In your opinion, what is the relevance of community-based training on eventual performance in identifying and managing health problems?

12. In your opinion, what is the relevance of community-based training to eventual performance in other aspects of your profession?
13. What do you think is the relevance of community-based training to competence and willingness to work in rural areas?
14. What challenges do you see in the community-based training?
15. How could these challenges be overcome?

Key Informant Interviews

Site Tutor/Supervisor

1. In the past year the Makerere University COBES students worked in this community or one of the surrounding communities. Can you identify for me the communities in which they worked?
2. Can you tell me how the students selected their community, how they decided on their activities, what these activities included, and how successful their activities were?
Probe for process and outcomes
3. What was your role in these activities?
4. What was your perception of the community's interaction with the students, the community's response, and the sustainability of the student's intervention?
5. Could you give me some names of suitable and knowledgeable community leaders or responsible community members that I could interview?
Probe for DHO and NGO personnel that might be helpful in the community to gain more information.

Community Informant Interview

1. The MU COBES students worked in your community this past year. Can you tell me what activities they completed and how these activities were chosen? Were these activities suitable for your community?
Probe: We are looking for a pretty detailed description of what the students did. Ask about community assessment, community organizing, community meeting, health education, provision of services, home visits, etc.
Did they consult with the community about the community needed?
2. Were these activities useful to the community?
Probe: Can you give me some examples of how they were helpful (provided needed information, decreased number of people who get sick, demonstrated ways to stay healthy, improved clinic services, etc.). Has it changed anything in the community?
3. Are the activities that the students started sustainable in the community?
4. What were the student expectations of the community in participating in the activities? Was the community actually involved in the activities?
5. How well did the students communicate with the community?
Probe: Things that worked, barriers, use of local language, overuse of technical terms
Were they very serious, committed, trying to find out information in a respectful way? Were they infrequently in the community, disrespectful, inappropriate in the way they worked in the community?
6. Were there unplanned consequences of the activities, either positive or negative?
7. Did the students provide feedback to the community?

Huang, W. Y. and A. Malinow. "Curriculum and evaluation results of a third-year medical student longitudinal pathway on underserved care."

| | |
|---|--|
| Full Citation | Huang, W.Y., A. Malinow. 2010. "Curriculum and evaluation results of a third-year medical student longitudinal pathway on underserved care." <i>Teaching and Learning in Medicine</i> Apr; 22 (2): 123-30. |
| Abstract | <p>BACKGROUND: There is a need to train compassionate and competent physicians to care for the growing underserved population in this country.</p> <p>DESCRIPTION: The authors developed the third-year Longitudinal Ambulatory Care Experience (LACE) Underserved Care pathway at Baylor College of Medicine in 2003 to help interested students prepare to be clinicians who care for the underserved. The pathway curriculum included seminar/journal clubs on relevant underserved care topics, clinical time with an underserved care preceptor, visits to community organizations, an assignment to help an uninsured patient obtain health care funding, and a group project. The authors report on the student evaluations of the first 4 years of the pathway, 2003 to 2007. The Institutional Review Board of Baylor College of Medicine granted this educational study exempt status.</p> <p>EVALUATION: Students highly rated each pathway component in enhancing their knowledge, skills and attitudes. For 2005 to 2007, students rated most knowledge, skills, and attitudes items more highly at the conclusion of the pathway compared to the beginning ($p < .05$).</p> <p>CONCLUSIONS: The pathway has been successful in enhancing knowledge, skills, and attitudes in underserved care for its participants. Further study is needed to evaluate long-term outcomes of participants in this pathway, including practice setting, knowledge, skills, attitudes, quality of care, and ability to help patients navigate through the health care system and overcome barriers.</p> |
| What was evaluated? | Evaluation of a third-year Longitudinal Ambulatory Care Experience (LACE) Underserved Care pathway, intended to help interested students prepare to be clinicians who care for the underserved. |
| Who was evaluated? | 3 rd Year Medical students pre- and post-pathway |
| Where did this evaluation take place? | Houston, Texas, USA (Baylor College of Medicine) |
| Evaluation framework/design used | Pre and post self-assessments by students |
| Indicator used to measure success of the CBE program | Gain in students' knowledge, skills and attitudes towards delivery of community based health care, barriers to health care, faculty's establishment of a learning environment. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 2: Learning |
| Logic model stage(s) | Activities and Intermediate Outcomes |
| Relevance of this evaluation to CBE in Africa | Evaluation rating questionnaires and 3rd year underserved pathway curriculum can be explored to take messages for better designing of CBE programs in Africa. |
| Link to article | Huang WY, et al. |

Tools

Students completed a pre-pathway and post-pathway self-assessment of their knowledge, skills, and attitudes regarding delivery of health care, barriers to health care, resources, and health care policy as it impacts underserved care. The items on this form were restatements of the learning objectives of the pathway. Before and after comparisons were carried out.

| Knowledge: How well do you know the following? | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7-point Likert-type scale, ranging from 1 (<i>not very well</i>) to 7 (<i>very well</i>). | | | | | | | |
| The delivery of health care in the community and the role of community agencies | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| How to identify a community and conduct a needs assessment of that community | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Know about and appreciate the patient's cultural traditions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| How to communicate with patients in a culturally sensitive manner | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| How to handle language barriers and effectively use interpreters | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Barriers to health care for the urban underserved | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Resources available to help patients deal with barriers to health care | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The effect of violence on the urban underserved | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Health issues of specific ethnic subgroups in the urban underserved population | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Health issues of adolescent underserved patients | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Health issues of elderly underserved patients | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Common diseases affecting the urban underserved population and approaches to their management | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Health care policy as it affects the underserved and possible ways to make changes in health care policy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Skills: How skilled are you at the following? | | | | | | | |
| 7-point Likert-type scale, ranging from 1 (<i>not very skilled</i>) to 7 (<i>very skilled</i>). | | | | | | | |
| Skills and attitudes needed to interact with other health care workers who care for the underserved | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Conducting an appropriate assessment of the biomedical issues of a patient from an underserved population | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Conducting an appropriate assessment of the psychosocial, financial, environmental, cultural and family issues of a patient from an underserved population | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Proposing management plans for patients that address the biomedical issues of a patient | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Proposing management plans for patients that address the psychosocial, financial, environmental, cultural and family issues that are pertinent to the health of a patient | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Practicing in a culturally sensitive way when interacting with patients of different ethnicities and cultures | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Attitudes: What are your attitudes toward the following? | | | | | | | |
| 7-point Likert-type scale, ranging from 1 (<i>not very empathic</i>) to 7 (<i>very empathic</i>) | | | | | | | |
| Can demonstrate empathy towards the multiple difficulties faced by patients from underserved populations | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7-point Likert-type scale, ranging from 1 (<i>not very interested</i>) to 7 (<i>very interested</i>) | | | | | | | |
| Promote healthy lifestyles, preventive behaviors and screening tests that are appropriate for patients in underserved settings | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Students completed an end of pathway evaluation to indicate the extent to which their expectations had been met.

| Used Likert 7-point Meets Expectations Scale: 1–2 (<i>below expectations</i>), 3–5 (<i>meets expectations</i>), and 6–7 (<i>exceeds expectations</i>) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Community site visits | | | | | | | |
| The community site visits helped me understand how these entities contributed to the needs of underserved patients | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Health care funding assignment | | | | | | | |
| The experience helped me gain knowledge about our health care system | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The experience helped me gain the necessary skills to help a patient navigate the logistics of obtaining a Harris County Hospital District "gold card," Medicaid or the Children's Health Insurance Program | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The experience helped me gain empathy for patients trying to obtain funding for health care through a Harris County Hospital District "gold card," Medicaid or the Children's Health Insurance Program | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Preceptor | | | | | | | |
| Role model as a clinician who cares for underserved patients | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Gives appropriate responsibility | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Provided a reasonable amount of teaching despite the busy environment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Discussed underserved care issues of patients | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Overall effectiveness as a preceptor | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The breadth of my exposure to different health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The breadth of my exposure to different underserved care issues | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Group project | | | | | | | |
| The group project increased my knowledge about originating an idea for a community project | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The group project helped me gain skills to contact members of the community and conduct a needs assessment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The group project helped me gain skills to develop a proposal | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The group project helped me gain skills to assess the project and make necessary modifications | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The group project helped me gain skills to implement a project | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The group project has motivated me to conduct other projects in the future | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Leone-Perkins, M., et al. « Students' evaluations of teaching and learning experiences at community- and residency-based practices.»

| | |
|---|--|
| Full Citation | Leone-Perkins M., R.L. Schnuth, M.S. Lipsky. "Students' evaluations of teaching and learning experiences at community- and residency-based practices." <i>Fam Med.</i> 1999 Sep; 31 (8): 572-7. |
| Abstract | <p>BACKGROUND: Research has identified students' preferences for clinical sites and the clinical teaching behaviors of preceptors valued by students. This study investigated medical students' perceptions of preceptor teaching behaviors and student performance information at community- and residency-based sites.</p> <p>METHODS: The sample was 594 third-year medical students who completed a 4-week rotation in family medicine at community- and residency-based sites. Students completed two evaluation instruments that addressed clinical experiences and perceptions of effective teaching by clinical preceptors.</p> <p>RESULTS: For the majority of items, no statistically significant differences were found between students' rating of preceptors at private practices and residency sites. Generally, the students rated both types of preceptors as favorable. Student clinical performance was rated higher at community sites.</p> <p>CONCLUSIONS: Overall, preceptor teaching behaviors at community practices and residency programs were rated favorably by students. Differences were noted between site types in their clinical evaluation of students.</p> |
| What was evaluated? | Evaluation of a 4-week rotation in family medicine at community- and residency-based sites. |
| Who was evaluated? | 3 rd Year Medical students completing the rotation |
| Where did this evaluation take place? | Philadelphia, Pennsylvania, USA: Department of Family Medicine at the MCP-Hahnemann University School of Medicine Chicago, Illinois, USA: Northwestern University |
| Evaluation framework/design used | Quantitative study |
| Indicator used to measure success of the CBE program | Performance of students in final clerkship exam and clinical tasks, level of student satisfaction with preceptors' teaching and their interaction with the preceptors, preceptors' availability. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 3: Behavior |
| Logic model stage(s) | Activities, Intermediate Outcomes, Outcomes |
| Relevance of this evaluation to CBE in Africa | CBE Programs in Africa can take lessons from evaluation tool used in the study (questionnaires). |
| Link to article | Leone-Perkins M, et al. |

Tools

Students completed two evaluation instruments that addressed clinical experiences and perceptions of effective teaching by clinical preceptors.

| <i>Students' evaluations were based on a 1=not at all to 5=always rating scale</i> | | | | | |
|--|---|---|---|---|---|
| Student Evaluation of Preceptor | | | | | |
| During the clerkship, my preceptor: | | | | | |
| Addressed concerns of patients | 1 | 2 | 3 | 4 | 5 |
| Encouraged response to needs/concerns of patients | 1 | 2 | 3 | 4 | 5 |
| Encouraged use of current standards of practice | 1 | 2 | 3 | 4 | 5 |
| Was enthusiastic about having me as a student | 1 | 2 | 3 | 4 | 5 |
| Was available to me | 1 | 2 | 3 | 4 | 5 |
| Encouraged me to integrate psychosocial aspects of medicine | 1 | 2 | 3 | 4 | 5 |
| Encouraged me to accept increasing responsibility working with patients | 1 | 2 | 3 | 4 | 5 |
| Allowed the opportunity to practice skills | 1 | 2 | 3 | 4 | 5 |
| Stimulated problem-solving capabilities | 1 | 2 | 3 | 4 | 5 |
| Explained approach to problem management | 1 | 2 | 3 | 4 | 5 |
| Elicited my perception of what I should learn | 1 | 2 | 3 | 4 | 5 |
| Provided constructive feedback | 1 | 2 | 3 | 4 | 5 |
| Provided me an opportunity to offer my opinion on patient problems and treatment | 1 | 2 | 3 | 4 | 5 |
| Was an effective role model as family physician | 1 | 2 | 3 | 4 | 5 |
| Demonstrated physical findings to me | 1 | 2 | 3 | 4 | 5 |
| Addressed disease prevention and health promotion | 1 | 2 | 3 | 4 | 5 |
| Considered occupational and environmental issues with patients | 1 | 2 | 3 | 4 | 5 |
| Student Evaluation of Clerkship | | | | | |
| By the completion of this clerkship, I am able to: | | | | | |
| Learn principles of ambulatory family practice | 1 | 2 | 3 | 4 | 5 |
| Understand comprehensive, continuous patient care | 1 | 2 | 3 | 4 | 5 |
| Describe role of family and community in primary care | 1 | 2 | 3 | 4 | 5 |
| Use biopsychosocial approach to delivery of care | 1 | 2 | 3 | 4 | 5 |
| Define family practice within parameters of family physician's relationship with other specialists | 1 | 2 | 3 | 4 | 5 |
| Describe role of physician-patient relationship in delivery of patient care | 1 | 2 | 3 | 4 | 5 |
| Develop knowledge and skills required of a family physician | 1 | 2 | 3 | 4 | 5 |
| Perform focused history and physical exams | 1 | 2 | 3 | 4 | 5 |
| Demonstrate common ambulatory procedural skills | 1 | 2 | 3 | 4 | 5 |
| Use health promotion and prevention strategies | 1 | 2 | 3 | 4 | 5 |
| Provide patient education for patients with problems common to family practice | 1 | 2 | 3 | 4 | 5 |
| Arrange for appropriate referral to specialists | 1 | 2 | 3 | 4 | 5 |
| Demonstrate skill in managing patients with undifferentiated medical problems | 1 | 2 | 3 | 4 | 5 |
| Record and present patient encounters in succinct POMR format | 1 | 2 | 3 | 4 | 5 |
| Evaluate plan of care for follow-up visits of patients with chronic problems | 1 | 2 | 3 | 4 | 5 |
| Demonstrate knowledge to diagnose and treat common problems encountered in family practice | 1 | 2 | 3 | 4 | 5 |
| Integrate developmental needs of families | 1 | 2 | 3 | 4 | 5 |
| Demonstrate awareness of importance of nutrition in promoting health | 1 | 2 | 3 | 4 | 5 |
| Demonstrate sensitivity to ethical and moral considerations that influence ambulatory care | 1 | 2 | 3 | 4 | 5 |
| Relate impact of economic issues that affect care of patients | 1 | 2 | 3 | 4 | 5 |
| Incorporate occupational/environmental exposures in patient/family assessment and care | 1 | 2 | 3 | 4 | 5 |
| Evaluate written assignments | 1 | 2 | 3 | 4 | 5 |
| Small-group sessions were helpful in my learning about family medicine | 1 | 2 | 3 | 4 | 5 |
| Orientation session was helpful in meeting goals of clerkship | 1 | 2 | 3 | 4 | 5 |

Leung, K.K., et al. « Factors affecting students' evaluation in a community service-learning program. »

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| Full Citation | Leung K.K., W.J. Liu, W.D. Wang, C.Y. Chen. 2007. "Factors affecting students' evaluation in a community service-learning program." <i>Adv Health Sci Educ Theory Pract.</i> Nov; 12(4): 475-90. |
| Abstract | A community service-learning curriculum was established to give students opportunities to understand the interrelationship between family and community health, the differences between community and hospital medicine, and to be able to identify and solve community health problems. Students were divided into small groups to participate in community health works such as home visits etc. under supervision. This study was designed to evaluate the community service-learning program and to understand how students' attitude and learning activities affected students' satisfaction. The results revealed that most medical students had a positive attitude towards social service and citizenship but were conservative towards taking the role to serve people in the community. Students had achieved what they were required to learn especially the training in communication skills and ability to identify social issues. Students' attitude towards social service did not affect their opinions on the quality of the program and subjective rating on their achievement. The quality of the program was related to the quality of learning rated by the students. |
| What was evaluated? | Evaluation of Community Service Learning Program after a 2-week training for medical students. |
| Who was evaluated? | 5 th Year Medical students who had completed service learning program |
| Where did this evaluation take place? | Taiwan, National Taiwan University College of Medicine |
| Evaluation framework/design used | Questionnaire surveys to collect quantitative data |
| Indicator used to measure success of the CBE program | Students' attitude towards social service and citizenship, commitment to take up community service, quality of community service learning courses and skills acquired from the program. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 2: Learning |
| Logic model stage(s) | Activities and Outcomes |
| Relevance of this evaluation to CBE in Africa | CBE programs in Africa can utilize the three scale FIPSE instrument for evaluation. |
| Link to article | Leung KK, et al. |

Tools

Questionnaire surveys to collect quantitative data: five-point, Likert-type rating scale with the highest point for "strongly agree" and the lowest point for "strongly disagree". Items with an opposite meaning from the majority of the items in the same dimension were scored in an opposite direction with the highest point for "strongly disagree". Correlated scores on the Social Attitude Scale (SAS), with those on the Program Characteristic Scale (PCS), and the Ability Scale (AS)

Social Attitude Scale (SAS)

Pre-test: Designed to evaluate a student's attitude in serving the student's own community

- A. Citizenship
 - 1. Sense of personal efficacy in affecting community issues
 - 2. Most people can have an impact on community problems
 - 3. I can solve the problems of my community
 - 4. I play an important part in improving my community
 - 5. I do not have time to help others (R)
- B. Belief that the community itself can be effective in solving its problems
 - 6. I think social problems should be solved by efforts from the community
 - 7. Community is capable of solving its own problems
 - 8. Community should provide social services to its people
- C. Feeling connected to the community
 - 9. We should do good things for our community
 - 10. Social problems are not my concern (R)
 - 11. I should reach out to serve people
- D. Locus of community problems
 - 12. People who need social services have needs based on personal factors
 - 13. Generally speaking, one's fortune is determined by one's self
- E. Social justice and political structure
 - 14. Striving for greater social justice is something I can do to improve society
 - 15. Solving social problems is not government's responsibility (R)
 - 16. The most important part of community service is providing service on an individual basis
 - 17. The most important part of community service is in correcting public policy
- F. Tolerance
 - 18. I feel uncomfortable working with different people
- G. Personal gain
 - 19. I obtain valuable skills and experiences from community service
 - 20. I develop leadership skills through community service
- H. Personal value
 - 21. I can influence public policy
 - 22. I often volunteer to help people
 - 23. I can present community leadership
 - 24. I am building a career to help people

Note: (R) = reverse coding

Program Characteristic Scale (PCS)

Post-test: Measures the quality of community placement and the academic linkage to community experiences and learning.

- A. Reflection/discussion
 - 1. Discussion about the service provided
 - 2. Discussion of learning experiences with faculty
 - 3. Sharing feelings with others
 - 4. Analyzing community problems
 - 5. Relating classroom knowledge to community service
 - 6. Reporting service activities
- B. Reflection/writing
 - 7. Daily journal writing
 - 8. Faculty response to journal entries
 - 9. Writing about projects assigned
- C. Placement quality
 - 10. Imposing important responsibility
 - 11. Participating in challenging tasks
 - 12. Requiring important decision making
 - 13. Having interesting assignments
 - 14. Personal participation
 - 15. Opportunities to talk with people receiving services
 - 16. Being in accordance with professional interests
 - 17. Performing a variety of tasks
 - 18. Gaining appreciation for the service performed
 - 19. Making actual contributions
 - 20. Implementation of ideas without restriction
 - 21. Obtaining challenging experiences
- D. Community voice
 - 22. Recipient involved in service activities planning
 - 23. Projects consider needs of the community
- E. Application
 - 24. Applying classroom knowledge to service projects
 - 25. Applying service achievements to classroom knowledge
- F. Diversity
 - 26. Working with different people

Ability Scale (AS)

Post-test: Measures the learner's subjective evaluation of skills acquired from the community service-learning program.

- A. Leadership skills
 - 1. Feeling responsible for others
 - 2. Knowing where to find information
 - 3. Knowing whom to contact to get things done
 - 4. Ability to lead a group
- B. Communication skills
 - 5. Active participation in community affairs

6. Good communication with others
7. Often discussion on various issues with others
8. Good listening skills
9. Able to speak in public
- C. Team work
 10. Respecting different opinions from others
 11. Able to compromise
 12. Capable of making moral or ethical judgments
 13. Being tolerant of different people
 14. Being empathetic to all points of view
 15. Able to work with others
 16. Thinking about others
- D. Ability to see consequences
 17. Able to foresee consequences of actions
 18. Able to think about future
- E. Critical thinking skills
 19. Thinking critically
- F. Ability to identify social issues
 20. Able to identify social issues and concerns
- G. Action skills
 21. Able to take action
 22. Effective in accomplishing goals

Naidu, C.S., et al. « An evaluation of university of Cape Town medical students' community placements in South Africa.»

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|---|---|
| Full Citation | Naidu C.S.,V. Zweigenthal, J. Irlam, L. London, J. Keikelame. "An evaluation of university of Cape Town medical students' community placements in South Africa." <i>African Journal of Primary Health Care and Family Medicine</i> 4(1). |
| Abstract | <p>BACKGROUND: Fourth-year medical students at the University of Cape Town (UCT) work closely with stakeholders in community teaching sites to conduct community-based research projects and follow-up health promotion interventions during their Public Health training.</p> <p>OBJECTIVES: This study evaluated the placements as a learning experience from the perspectives of past students and community stakeholders.</p> <p>METHODS: A total of 32 projects were randomly selected out of 232 projects undertaken during 2006, 2008 and 2009. Two students and a stakeholder involved with each project were sampled. A standardized survey was emailed to students and in-depth interviews were held with stakeholders.</p> <p>RESULTS: Fifty two per cent of 64 students and 57% of 25 stakeholders responded. Most students felt that the placements enhanced their academic experience and confidence in research skills, and were an effective form of learning. Perceived challenges included time constraints and, for a minority, inadequately prepared settings and stakeholders. Stakeholders felt that the placements empowered the communities and prepared students for the realities of working as a medical professional. They viewed students as a valuable resource and believed that student projects addressed important community myths and health problems. Recommendations from students and stakeholders included more time for the Public Health block, follow up interventions for greater continuity, and better alignment of projects with stakeholder programs.</p> <p>CONCLUSIONS: The evaluation reveals both the importance and challenges of community placements and identifies areas of improvement. Despite the limited duration of the placements, they offered valuable community-based learning experiences for the students and worthwhile benefits for the communities.</p> |
| What was evaluated? | Evaluation of an eight week rotation in Public Health and Health Promotion across five community-based teaching sites in fourth year of 6-year medicine program. |
| Who was evaluated? | 4 th Year Medical students completing the rotation |
| Where did this evaluation take place? | Cape Town, South Africa: Faculty of Health Sciences, University of Cape Town |
| Evaluation framework/design used | At UCT, fourth-year medical students conduct community-based research projects and follow-up health promotion interventions during their Public Health training. A total of 32 projects were randomly selected out of 232 projects undertaken during 2006, 2008 and 2009. Two students and a stakeholder involved with each project were sampled. |
| Indicator used to measure success of the CBE program | For student - confidence in development of research and health promotion skills, assessment of the value of the community-based placements, Perceived benefits and challenges. For stakeholders - value of student placements, benefits and challenges of student placements. |
| Kirkpatrick model categorization | Level 1: Reaction and Level 2: Learning |
| Logic model stage(s) | Activities and Outcomes |
| Relevance of this evaluation to CBE in Africa | This evaluation was conducted in Africa under similar context to the MEPI institutions. |
| Link to article | Naidu CS, et al. |

Tools

A post-placement questionnaire assessed student opinion on how valuable their experience of their placement was in meeting the learning outcomes of the 4th year courses in Public Health and Health Promotion at the University of Cape Town.

Below the questions on the health promotion projects and community based placements are given. (Other questions were specific to research projects)

| Section B: HEALTH PROMOTION PROJECT | | | | | |
|--|------------------|---------------------|---------------------|-------------------|------------------------|
| <i>The following questions are designed to assess how much learning you felt you gained from the Health Promotion project. Please answer as honestly as possible.</i> | | | | | |
| | NOT Confident | BARELY Confident | FAIRLY Confident | VERY Confident | EXTREMELY Confident |
| 15. How confident you feel in coming up with solutions to identified problems by using a health promotion approach. | 1 | 2 | 3 | 4 | 5 |
| | NOT Useful | BARELY Useful | FAIRLY Useful | VERY Useful | EXTREMELY Useful |
| 16. How useful the project was in giving you an understanding of the Ethics of health promotion. | 1 | 2 | 3 | 4 | 5 |
| 17. How useful was the project in giving you an understanding of health rights in a primary care setting? | 1 | 2 | 3 | 4 | 5 |
| Section C: GENERAL QUESTIONS on COMMUNITY BASED PLACEMENTS | | | | | |
| <i>The following questions are designed to assess how much learning you felt you gained from the health promotion project. Please answer as honestly as possible.</i> | | | | | |
| | NOT Useful | BARELY Useful | FAIRLY Useful | VERY Useful | EXTREMELY Useful |
| 22. How useful was your placement and project in enhancing your critical-thinking skills? | 1 | 2 | 3 | 4 | 5 |
| 23. How useful was your placement in helping you to better understand race, ethnicity, culture and socio-economic classes different from your own? | 1 | 2 | 3 | 4 | 5 |
| 24. How useful was your placement in helping you work better with people of different backgrounds than your own? | 1 | 2 | 3 | 4 | 5 |
| 25. How useful was your placement experience in connecting course content to community-based activities? | 1 | 2 | 3 | 4 | 5 |
| <i>The following questions are designed to determine what your personal opinions are about the projects and community placements. Please answer as honestly as possible.</i> | | | | | |
| 26. Tell me about your community placement. | | | | | |
| 27. Do you think the placement reinforced the theoretical training you received on research methods and health promotion? | | | | | |
| Yes | No | | Don't know | | |
| 28. Do you feel your placement enhanced your academic experience? | | | | | |

| Yes | No | Don't know |
|--|------------|-------------------|
| Please explain: | | |
| 29. Please explain if the logistics at the placements were helpful or not. | | |
| 29.1 Were you met by your hosts on arrival? | Yes | No |
| 29.2 Did they assist with language barriers? | Yes | No |
| 29.3 Were they adequately prepared for you? | Yes | No |
| 29.4 What were their general attitudes like? | | |
| 30. Was the degree of guidance you received from your supervisor adequate to help you complete the research project? | | |
| Yes | No | Don't know |
| Please explain: | | |
| 31. What roles did your supervisor play? | | |
| 32. Were you satisfied with the role of your supervisor? | | |
| Yes | No | Don't know |
| 32.1 What else would you have expected? | | |
| 33. Do you believe your fieldwork, research and recommendations were well-utilized by the stakeholders? | | |
| Yes | No | Don't know |
| Please explain: | | |
| 34. Did you feel that your and your groups' efforts were valued by the stakeholders? | | |
| Yes | No | Don't know |
| Please explain: | | |
| 35. What role did stakeholders play throughout your research and health promotion efforts? | | |
| 36. Did you receive enough support from stakeholders? Explain why/why not: | | |
| 37. Did you feel that you managed stakeholders expectations well? | | |
| 37.1 Were they clear with regard to this? | Yes | No |
| 37.2 What were the challenges faced in meeting these needs? | | |
| 38. Did you feel that the feedback from stakeholders was satisfactory and relevant to your learning experience? Please explain: | | |
| 39. What is your opinion on the significance of establishing partnerships with other community organizations? (i.e. in addition to stakeholders) | | |
| 40. Were you able to establish partnerships successfully? | | |
| 40.1 What were the main challenges to this? | | |
| 41. What was the community's response to your intervention? | | |
| 42. Did you think the degree of community participation with your group was satisfactory? Please explain: | | |
| 43. Do you think the community has benefitted from your placements? How? Please explain: | | |
| 44. In what ways have you benefitted from the community placements? | | |
| 45. What were the main difficulties in implementing your research project and intervention? | | |
| 46. What do you feel needs to be done to ensure the sustainability of your intervention? | | |
| 46.1 What are the threats to it? | | |
| 47. What are your thoughts on the structure of the program and the time allocated to the project and health promotion intervention? | | |
| 48. Are there any components/inputs/lectures/visits in the block that you feel could be changed? | | |
| Yes | No | |
| Describe and Motivate: | | |
| 49. What recommendations would you like to make to improve the block for future students? | | |
| 50. What is your overall perspective on the value of student's community placements? | | |

Salmon, K., and G. Keneni. "Student nurses' learning on community-based education in Ethiopia."

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|---|---|
| Full Citation | Salmon K., G. Keneni. 2004. "Student nurses' learning on community-based education in Ethiopia." <i>Educ Health (Abingdon)</i>. Jul;17(2): 172-82. |
| Abstract | <p>CONTEXT: At Jimma University educational goals are to apply the concept of community-oriented education through community-based education (CBE) of health students. This study examined the experiences of student nurses on CBE.</p> <p>OBJECTIVE: The aims of the study were to identify factors that students considered had helped or hindered their learning on CBE and to ascertain if the stated learning objectives were met.</p> <p>METHODS: A quantitative, descriptive, survey design was adopted, using a single, anonymous questionnaire. Some qualitative data were gained using open questions. A convenience sample of 95 students participated in the research. Participants represented 90% of all students who had completed their CBE placements.</p> <p>FINDINGS: Participation, mentors' willingness to answer questions and the relevance of the placement were factors that facilitated learning. Factors reported by students that hindered learning were difficulties of self-expression in a group, mentors emphasizing mistakes and weakness and the short time-frame due to ongoing lectures during placement. Students said learning objectives most met were socio-demographic assessment, identifying health problems and action planning. Objectives reported to be least met were identifying environmental health problems, planning preventive health interventions and implementing health interventions.</p> <p>RECOMMENDATIONS: These include the need to develop students' group skills, prepare mentors to facilitate learning, organize CBE in spiral phases, avoid concurrent lectures and improve study facilities.</p> |
| What was evaluated? | Evaluation of CBE learning in degree and diploma nursing programs, where students are given the opportunity to apply their theoretical knowledge to assess, plan and solve community health problems. |
| Who was evaluated? | Final year nursing students |
| Where did this evaluation take place? | Mekelle, Ethiopia: Jimma Institute of Health Sciences, Jimma University |
| Evaluation framework/design used | A quantitative, descriptive, survey design was adopted, using a single, anonymous questionnaire. Some qualitative data were gained using open-ended questions. |
| Indicator used to measure success of the CBE program | 1.) Student-related factors; 2.) Mentor-related factors; 3.) Community-learning environment; 4.) The level to which the CBE objectives were met. |
| Kirkpatrick model categorization | Level 1: Reaction |
| Logic model stage(s) | Activities and Intermediate Outcomes |
| Relevance of this evaluation to CBE in Africa | This evaluation was conducted in Africa under similar context to the MEPI institutions. |
| Link to article | Salmon K, et al. |

Tools

Jimma Institute of Health Sciences: School of Nursing Questionnaire on Student Nurses' Views of their CBTB Experiences

The general purpose of the study was to examine student nurses' views of factors affecting their learning on CBTP and the extent to which the program objectives were met.

The tool uses Likert-scale responses to a list of statements about the CBTP, in terms of the environment, learning experience and objectives.

| I. The following statements are related to the community learning environment. | | | | | | |
|--|---|----|---|---|---|----|
| <i>Respond to each statement by CIRCLING the appropriate letter, which applies to you.</i> | | | | | | |
| <i>Note that SA = Strongly agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly disagree</i> | | | | | | |
| 1 | Orientation/Introduction by CBTP office to the program was helpful | SA | A | U | D | SD |
| 2 | The community offers wide learning experiences | SA | A | U | D | SD |
| 3 | Phasing of the theory course and the placement did not help me to integrate theory and practice effectively | SA | A | U | D | SD |
| 4 | Duration of CBTP was too short | SA | A | U | D | SD |
| 5 | My first year CBTP made me more motivated for the second year CBTP | SA | A | U | D | SD |
| 6 | I felt the community was happy to provide the data | SA | A | U | D | SD |
| 7 | CBTP did not expose me to community health problems | SA | A | U | D | SD |
| 8 | Formal classroom lectures on other courses should continue during CBTP | SA | A | U | D | SD |
| 9 | Reference materials for CBTP (books journals etc.) were adequate | SA | A | U | D | SD |
| 10 | Reading facilities (Room, table, chair etc.) were adequate | SA | A | U | D | SD |
| 11 | Community leaders were not cooperative | SA | A | U | D | SD |
| 12 | There were too few supervisors/experts attending from the Institute | SA | A | U | D | SD |
| 13 | Food services were satisfactory | SA | A | U | D | SD |
| 14 | CBTP has helped me to learn in the environment that I am going to work in after graduation | SA | A | U | D | SD |
| II. The following statements are factors related to students themselves during CBTP learning experience | | | | | | |
| <i>Indicate by CIRCLING the letter, which applies to you.</i> | | | | | | |
| <i>Note that SA = Strongly agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly disagree</i> | | | | | | |
| 1 | I had interest in CBTP | SA | A | U | D | SD |
| 2 | I felt that I participated fully in the group processes | SA | A | U | D | SD |
| 3 | Individual students dominate the group | SA | A | U | D | SD |
| 4 | I have difficulties in expressing myself in a group | SA | A | U | D | SD |
| 5 | The coordination of the group was effective | SA | A | U | D | SD |
| 6 | There was agreement between students and supervisors in finding solutions to identified problems | SA | A | U | D | SD |
| 7 | There was a delay in getting tasks completed | SA | A | U | D | SD |
| 8 | The program positively changed my attitude towards community based health nursing | SA | A | U | D | SD |
| 9 | What aspects of CBTP most helped your learning? | | | | | |
| 10 | What aspects of CBTP hindered (stopped) your learning? | | | | | |
| III. The following items are those which are associated with the supervisors during your CBTP. | | | | | | |
| <i>Please CIRCLE the letter of the statements, which applies to you.</i> | | | | | | |
| <i>Note that SA = Strongly agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly disagree</i> | | | | | | |
| | During CBTP the supervisors: | | | | | |
| 1 | Gave me encouragement and praise | SA | A | U | D | SD |
| 2 | Were adequately prepared for facilitating the group process | SA | A | U | D | SD |
| 3 | Did not facilitate student centered learning | SA | A | U | D | SD |
| 4 | Emphasize mistakes and weaknesses | SA | A | U | D | SD |
| 5 | Demonstrated willingness to answer questions and give explanations | SA | A | U | D | SD |
| 6 | Contacted the group regularly | SA | A | U | D | SD |

| | | | | | | |
|---|---|----|---|---|---|----|
| 7 | Showed preferences towards specific students who influenced the group | SA | A | U | D | SD |
| 8 | The presence of supervisors in the group was frustrating | SA | A | U | D | SD |
| 9 | The credit hours given to the program were too little | SA | A | U | D | SD |
| 10 | The grading system of students during CBTP was adequate | SA | A | U | D | SD |
| IV. The following statements are CBTP terminal objectives | | | | | | |
| <i>CIRCLE the letter which applies to you.</i> | | | | | | |
| <i>Note that SA = Strongly agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly disagree</i> | | | | | | |
| 1 | During CBTP I was able to identify the demographic aspects of the community | SA | A | U | D | SD |
| 2 | During CBTP I was able to identify the socio-economic status of the community | SA | A | U | D | SD |
| 3 | CBTP did not help me to identify the socio-political aspects of the community | SA | A | U | D | SD |
| 4 | During CBTP I was able to make community diagnosis (Assessment) | SA | A | U | D | SD |
| 5 | I was able to draw up an action plan | SA | A | U | D | SD |
| 6 | CBTP did not help me to suggest preventative health interventions | SA | A | U | D | SD |
| 7 | CBTP did not help me to organize health intervention programs using primary health care concepts, components and strategies | SA | A | U | D | SD |
| 8 | I was able to plan and conduct problem-oriented, community-based research | SA | A | U | D | SD |
| V. General questions | | | | | | |
| <i>Finally, for the following items, respond FILLING IN THE BLANK SPACE OR by CIRCLING an appropriate letter that applies to you.</i> | | | | | | |
| | 1. Age: _____ 2. Sex _____ 3. Ethnicity _____ 4. Religion _____ | | | | | |
| 5 | Category of nursing A. B.Sc. Nursing B. Clinical Nursing C. Public Health Nursing | | | | | |
| 6 | What is your birth area? A. Urban B. Suburban C. Rural | | | | | |
| 7 | What is your or family's monthly income in Birr (you can approximate) _____ | | | | | |
| 8 | Marital status: A. Married B. Single C. Divorced D. Widowed/widower | | | | | |
| 9 | Were you employed in the community before joining your present school of nursing? A. Yes B. No | | | | | |
| 10 | If your answer to Q 9 above is yes what was your employment? | | | | | |
| 11 | In your view what are the strengths of CBTP? | | | | | |
| 12 | What weaknesses do you think there are in the CBTP? | | | | | |
| 13 | If there are other comments you would like to make about CBTP please state them here. | | | | | |



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CapacityPlus
IntraHealth International

1776 I Street, NW, Suite 650
Washington, DC 20006
T (202) 407-9473
F (202) 223-2295

6340 Quadrangle Drive, Suite 200
Chapel Hill, NC 27517
T (919) 313-9100
F (919) 313-9108

www.capacityplus.org
info@capacityplus.org