C8 CBE grounded Theory

by Tri Nurkristina

Submission date: 13-Jun-2020 11:43AM (UTC+0700)
Submission ID: 1342957082
File name: C8_CBE_grounded_theory.pdf (257.94K)
Word count: 5600
Character count: 33214

BMC Medical Education

BMC Med Educ. 2019; 19: 258.
Published online 2019 Jul 11. doi: 10.1186/s12909-019-1643-6

PMCID: PMC6624922
PMID: 31296217

Community-based educational design for undergraduate medical education: a grounded theory study

Mora Claramita,[*1] Elsa Pudji Setiawati,[2] Tri Nur Kristina,[3] Ova Emilia,[1] and Cees van der Vleuten[4]

[1]Department of Medical, Health Professions Education and Bioethics, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

[2]Department of Public Health, Faculty of Medicine, Universitas Padjajaran, Bandung, Indonesia

[3]Medical Education and Development Unit, Faculty of Medicine, Universitas Diponegoro, Semarang, Indonesia

[4]School of Health Professions Education, Maastricht University, Maastricht, The Netherlands

Mora Claramita, Email: mora.claramita@ugm.ac.id.

Contributor Information.

[*]Corresponding author.

Received 2017 Jun 8; Accepted 2019 May 30.

Abstract

Background

Community-based education (CBE) is strategically important to provide contextual learning for medical students. CBE is a priority for countries striving for better primary health care. However, the CBE literature provides little curriculum guidance to enhance undergraduate medical education with the primary health care context. We aim to develop a CBE framework for undergraduate medical education (from macro, meso, and micro curriculum levels) to engage students and teachers with better, more meaningful learning, within primary health care settings.

Methods

We used a grounded theory methodology by interviewing eight medical educationalists and ten CBE teachers, followed with the coding process by sensitizing the concepts of 'medical education' and 'primary care', to explore any new concepts. The primary data originated from a developing country where the paradigm of high-quality primary health care is mostly unfamiliar. Three senior researchers from international associations of general practices from different countries provided validation to the results.

Results

We identified a new framework for a community-based educational program. The micro-curriculum should offer opportunities for small group activities, ranging from simple to complex learning, emphasizing clinical skills, leadership, and teamwork to improve self-directed and collaborative

practice. Sufficient role models and constructive feedback within primary care contexts are robust facilitators. For the meso-curriculum, comprehensive coordination on teacher-training and CBE program is needed. To ensure the sustainability of the program, faculty leaders and managers should include the macro-curriculum with a national postgraduate general practice curriculum and provide strong commitment.

Conclusions

We designed a 'CBE-tree' model for the undergraduate medical curriculum. By using the CBE framework developed in this study, students and teachers may better comprehend the essential of primary health care.

Keywords: Community-based education, Student-centered learning, Experiential-learning, Primary health care, General practice/family medicine

Background

Contextualized learning in primary health care for medical education

Studies show that contextual learning or more meaningful learning for medical students can be enhanced by early exposure to community settings [1, 2]. Community-based education may promote socio-behavioral aspects of medical students in understanding factors affecting health problems in daily contexts [3, 4]. Factors other than diseases that influence the illness experiences include "the social determinants of health: the conditions in which people are born, grow, live, work, and age that affects health" [5]. To fully understand the influence of social determinants on individual patients, their family, and community, medical students should have sufficient socio-humanistic abilities. Fundamental principles for building socio-humanistic skills include effective communication and collaboration skills [6, 7].

There are essential skills for doctor-patient communication to train the health professionals, mainly listening skills and adequate observation skills, prior to developing proper and mutual informed and shared decision-making ability [6]. A recent study in the United Kingdom defined the topics taught in primary care medicine in undergraduate medical education as consulting and communication skills, leading and working in teams, and developing yourself; including novel topics such as learning disability, genetics, and multi-morbidity [8]. However, the community-based curriculum for undergraduate medical students in that study derived from the Royal College of General Practitioners (RCGP) postgraduate curriculum, where specialization in general practice has been existed and well-known for decades, in a western context. Some literature argues that engaging with general practices and family medicine specialists may lead to more profound reflections of learning for undergraduate medical students during intensive exposure to the community health problems [9]. However, not every country has a graduate general practice specialist program [9].

The World Health Organization/ WHO (2008) highly recommends all countries to strengthen their primary health care services to more accessible health care, through reformation of (1) universal coverage, (2) person-centered care, (3) public policy, and (4) leadership [10]. These four pillars underpin the high quality of primary care services and education.

The importance of the community-based educational program and its problems

Using a proper CBE program design, medical students may be transformed into more sensitive and responsive future health professionals, who hopefully will have an interest, or at least acknowledge the valuable work at primary care settings. There are many medical schools around the world which implemented variations of CBE programs. Previous studies have confirmed the importance of CBE programs [11–15]. A study specifically demonstrated that community-based programs had been determined to be the most proper place for medical students to learn about health problems compared to hospital-based settings [16]. Generally, by early exposure to the CBE programs, medical students should be better in recognizing health problems in community settings [17].

However, the impact of the CBE program may be less than expected, mainly if there are a lack of teachers who could facilitate the students to reflect on primary health care contexts [18]. Literature suggests that a clinical educator is a clinician who is advance in clinical practice, enthusiastically 'putting theories into medical education practice', and involve in research-based services [19]. CBE teachers should have the same role. Nevertheless, in some countries, the doctors who work at primary care settings may be forced into being the general practice without proper preparation in their undergraduate medical education, have no graduate education specialist training in general practice, and limited exposure to systematic continuing medical education training in delivering better primary care services [9, 20]. Thus, in this kind of circumstances, many teachers involved in a 'CBE program' may not be able to inspire medical students to fully comprehend the importance of primary health care [9]. Related to the continuous incorrect general image of the primary health care services as "poor health care services, by poor health care workforce, to the poorest people" [9]; in this kind of situation, medical students may not learn better primary care services through a CBE program as intended.

Curriculum and teaching strategies for a CBE program: lack of guidance

There is a generic framework of macro, meso, and micro curriculum levels for medical teachers in facilitating students' learning [21]. At the micro-level, teachers should facilitate the learning process, i.e., by coaching, mentoring, evaluate, assess. At the meso-level teachers coordinate the teaching-learning program in different learning strategies and educational program. At the macro-level, leadership plays a vital role in the innovation in medical education, i.e., by the construction of competencies or professional abilities of the graduates to meet the local, regional, and global community needs. Knowledge, skills, and attitude are continuously framed within the three levels of the curriculum.

WHO specifically describes variations of activities of primary health care exposure for medical students and lessons learned from many countries, to approach the health needs of the people [22]. The other literature indicates the general objectives of a CBE program for developing countries [23]. Regarding the learning strategies, one study explains an instructional design explicitly, with lesson plans involving communication skills, which is an ability that is fundamental for community-based learning [24]. A recent study pointed out the use of 'experiential learning cycles' for instructional design of a CBE program, in rural clinical settings [25].

Each of those studies mentioned above, however, separately explaining about generic principles of teaching strategies in medical education but had not described the CBE program [21]; or, if the study had discussed about a CBE program, it had not touched a detailed instructional design [22–24]. One study described an instructional design principle but has a limited guide for teachers' and students' roles and tasks in each of the macro, meso, and micro curriculum levels of medical education [25]. Therefore, global guidance for medical teachers to do a proper CBE program in different levels of a curriculum remains unclear.

Considering the necessary framework of facilitating learning for a community-based educational program, we need a more detailed recommendation on systematic CBE learning characteristics for different levels of undergraduate medical curriculum (macro, meso, and micro levels). This study aims to develop a more systematic CBE instructional design for undergraduate medical education, to provide meaningful learning experiences for the students and faculty members, towards the benefit of the community.

Methods

Design

This study is a qualitative exploratory study with a grounded theory methodology approach [26–28]. We interview the subjects in this study and inductively coded the data by sensitizing the concepts of 'student-centered learning' [1–4], 'curriculum levels' [21], 'experiential learning' [29], as well as principles of 'primary health care' and 'general practice' or 'family medicine' [9, 20], until saturation.

Subjects

We purposively selected the participants based on their intensive studies of community-based medical education programs (Table 1). Eight medical educationalists (Doctorate or Master Degrees), from five most reputable medical schools in Indonesia, participated in the interviews. They were from a developing country where primary health care concepts were mainly oriented to the curative-care rather than investing in the prevention and continuity of care [30]. Although a universal coverage insurance system was recently established in this country [20, 30], the graduate general practice specialist education does not yet exist [20].

Table 1

Backgrounds of community-based educational researches/publications of medical educationalists as participants in this study

Open in a separate window

For a triangulation, we used different data sources by interviewing ten medical teachers from the same country, who actively coached students within CBE settings in the last 5 years. Seven of them are active medical doctors who work in primary care settings and general practitioners (without a formal graduate education in general practice). Two of them were health professionals other than physicians and one hospital specialist. To increase the validity of the findings, we asked international researchers who were also active general practitioners and senior leaders of CBE programs in their countries, from Egypt, India, and Belgium. The international experts were coming from different countries and continents, which may have better primary health care systems and the graduate general practice education already established for many years.

Instruments

Two questions guided the interview in this study: (1) What are the essential CBE learning characteristics that you think can be helpful to enhance the comprehension of primary health care of medical students? (2) What are your further recommendations to make the CBE learning characteristics more systematic to each level of undergraduate medical students? To the international experts we asked: (1) Do you agree/not agree with the framework as the results of the interviews. (2) What do you recommend further?

Analysis

Recordings from the interviews were: 1) transcribed, 2) categorized, 3) coded, 4) constantly-compared, 5) continued to find the emergent themes, and 6) finally thematically interpreted based on the process of grounded theory methodology [26–28]. Three coders with different academic backgrounds (MC-medical education, FM-family medicine, DH-anthropology) categorized the transcripts individually and regularly met for discussion. In the first two meetings, the coders listed 16–22 issues concerning CBE learning characteristics and then grouped the words such as socio-behavioral, anthropology, illness, culture, communication, into “community orientation.” Other words such as feedback, role model, leadership, and instructors grouped into “role of teachers.” The coding process was continues iteratively for 6 weeks, aiming towards an agreement between coders on the selection of categories.

Categories were carefully discussed and ultimately changed into specific terms, e.g., “guidance,” “primary health care context,” and “learning opportunities,” in the final framework. During the third and fourth week, the coders continued to see connections between categories. The coders used the ‘coding paradigm’, which involved constantly-comparing the findings by the dialectical process [26–28]. The three coders with a variety of scientific-subject backgrounds argued thoughtfully.

Negative data was cautiously analyzed and discussed. Ultimately, coders discovered that their different views based on their diverse educational backgrounds might be complementary and serve to strengthen the findings of this study. In the fifth meeting, the three coders agreed that the data and coding process was saturated. The coders, together with the authors in this study, then interpreted the findings by constructing the meaning of the results into emergent themes. Through this process of 'grounded' interpretation, we identified a framework for more systematic training of community-based education for medical students through macro, meso, and micro curriculum aspects.

Results

The result of this study is a framework of more systematic training of community-based education for medical students illustrated as a 'CBE-tree' (Fig. 1). The participants in this study and their educational and research backgrounds explained in Table 1. As leaders, the participants have been involved scientifically and practically in a CBE program in their institutions. The CBE learning characteristics described in the 'CBE-tree' model as the 'roots' of the tree and include elements of the micro-curriculum: a) Opportunities for the students to enhance self-directed learning and teamwork collaboration, b) Guided by allowing adequate participation with good role models and constructive feedback to stimulate reflection from the teachers, and c) A more contextual learning that emphasizes both 'general medical content' (the preventions across natural history of illnesses) and primary care medicine/family medicine principles (person-centered care, continuity of care, holistic care, and comprehensive care). These micro-components will be transported-up inside the 'Supported Learning Activities' (SLA) and 'Intensive Supervision' (IS) described in this study as the 'fruits' and 'leaves' of the 'CBE-tree,' in the meso-curriculum coordination. We illustrated the order of knowledge-skills-attitude acquisitions of the students from simple to complex learning: the more supervision ('leaves') and fewer activities ('fruits) for the lower; and reversely for the higher levels of students, to approach the self-directed learning principles. Clear direction of the macro-curriculum on graduate 'general practice' and 'committed management' at both national and faculty levels; which described as the 'bark' and 'trunk' of the 'CBE-tree,' will sustain these intended principles of CBE learning. The macro levels will provide maximum protection to ensure the continued existence of the CBE program. Table 2 explains the detail of Fig. 1. Guidelines for teachers to coordinate the CBE meso-curriculum, are presented in Tables 3 and 4.

Fig. 1

The framework of community-based education for medical students illustrated as a 'CBE-Tree' towards better comprehension of primary health care

Table 2

The CBE learning design for undergraduate medical curriculum based on the 'CBE-tree' in this study

12

Table 3

The recommended meso-curriculum namely “Supported Learning Activities” within a systematic CBE framework in the ‘CBE-tree’ in this study

Open in a separate window

Table 4

The recommended meso-curriculum namely “Intensive Supervision” of a CBE framework in this study: the feedback sessions - based on the ‘experiential learning cycle’ by Kolb (2010)

Open in a separate window

*) Students: Preferably small group of less than 5 students caring for one family; **) Teachers: preferably general practitioners from graduate training of family medicine specialists/ general practice

During the member-checking process, participants in this study emphasized some elements on feedback guidelines, as presented in Table 4. The participant highlighted the importance aspects of feedback (part of the micro-curriculum), which should be delivered using concrete steps related to experiences that students already had at the community settings (part of the meso-curriculum). We used the ‘experiential learning cycle’ from Kolb to create a feedback guide for the CBE context [29].

The international experts commented that the overall ‘CBE-tree’ model is a simple visual illustration of a framework of a more systematic CBE. The strength relies on its intensive levels of exposures of social determinants of health, emphasizing continuous preventions across the life span of all genders and ages, and the use of different kinds of learning strategies ranging from small group discussions to role-play activities in classes, as well as internships at community health centers and primary health care settings. The main suggestion from an expert was to try to reflect on a ‘WONCA-tree’ figure of graduate general practice/family medicine since the general design and medical scope are closely interrelated [31].

Discussions

We describe a theoretical framework to design and implement a CBE program in a more systematic and meaningful way, of approaching the socio-accountability of medical institutions. By using the ‘CBE-tree’ framework in this study, lessons learned may be significantly more beneficial for the students, faculty members, and participating community. The challenge of bringing the educational issues into implemented training is illustrated by bringing the idealism of the original concepts of CBE (presented as the micro-curriculum of the ‘CBE-tree’) up to coordinating the implementation (presented as the meso-curriculum of the ‘CBE-tree’). Whereas, the most significant challenges are to have the macro-curriculum of a national graduate curriculum of general practice aimed towards strengthening primary health care and the commitment of faculty managers to allocate and prioritize the budget, resources and time for the undergraduate CBE program.

In this study, one of the elements of the micro-curriculum should provide opportunities for students to enhance self-directed and collaborative learning. Confirming these findings, medical education in the twenty-first century should move towards a model of more community-oriented care. Contextual-

learning should be encouraged, possibly with other health professions' students, to early introduce the concept of interprofessional collaborative (IPC) practice [1–4, 7, 9, 32, 33].

As described in one of the micro-curriculum elements, the context of the CBE learning program is closely related to general practice or family medicine as described in the 'WONCA-tree' model [31]. However, the aim and the details are much different between the two 'tree-models'. The 'WONCA-tree' model emphasizes the holistic principles of family medicine in caring for the patients, while our 'CBE- tree' model focuses on the framework of instructional design of a community-based education program for undergraduate medical students. The connection between the 'WONCA-tree' model and our 'CBE-tree' model, in the implementation, relies on the content of the feedback on primary health care and teachers who deliver the feedback. Students need proper guidance by inspiring role models who deliver constructive feedback to assist students' reflection on CBE experiences. It is likely that the doctors who work at the primary care settings, who more fully understand the principles of family medicine, will be the most suitable role models and mentors for the students [9]. Those teachers are also expected to be the general practitioners or family medicine specialists by formal graduate training through which they have sufficient knowledge of practicing primary health care services.

It is evident that any effort to introduce primary health care in any country by implementing CBE programs in many medical schools may be unattractive or misinterpreted by those who participate, primarily if primary health care still viewed as the 'second class' of care [9, 20, 34]. In some countries, the career pathway of doctors working at primary health care levels is set by 'destiny' and not by choice of destination [9]. Nevertheless, when we engage in community-based education, there is no other option than to prepare the students to be the agents of social change [32]. In this regard, to be the future 'change-agents', students need to fully comprehend the essentials of primary health care since the beginning of their medical education, by reflecting on their experiences in a CBE program and role modeling their teachers from primary care settings. Students should learn in the context of the epidemiological transition towards more chronic conditions and multimorbidity, where a paradigm-shift from disease-oriented care towards goal-oriented care is of utmost importance [33]. Essentially, person-centered care and continuity of care are the keys for excellent health care services, combined with interprofessional collaborative practice to provide comprehensive care for the patients oriented towards patient-safety [6–10]. With this purpose, general practice or family medicine graduates can help medical students to better comprehend these shifting paradigms in delivering high quality of health care [9, 20, 34].

The meso-curriculum needs qualified teachers who could coordinate a variety of learning experiences [21]. In this study, we envisioned the meso-curriculum involving gradual progress while the students move to later years of medical education. Teachers should be able to coordinate all learning and teaching opportunities, as described in the tables. Support for teachers to provide more constructive feedback is necessary. A guideline for conducting a feedback session with the students based on the 'experiential learning cycle' in this study could be introduced in continuous faculty development programs. By using this guideline, contextual learning can become more meaningful for the students, teachers, and ultimately participative community members.

Another backbone for the success of community-based educational programs, as illustrated in the macro-curriculum in this study, is faculty commitment towards the program. The responsibility could be shown by time allocation for the CBE program and should not interfere with other class-based educational activities such as laboratory practical sessions, lectures, and tutorial sessions. An excellent example, there is one university which designs the first few orientation-day of their medical students are scheduled to be at the primary care settings with their primary care instructors, instead of being at the faculty of medicine to meet the deans and lecturers. Therefore, students get along earlier with the primary care doctors, other health professionals, and a family whom he/she will be attached to, for the rest of their medical education (Table 1, as explained by respondent No.5). In this example, assessing and responding to any problems of the assigned family (called 'partner-family'), were also prioritized

together with any classes' activities. As a result of the high commitment of faculty managers towards the CBE program in that study, the maternal-mortality rate in that community working with the particular faculty of medicine of eastern Indonesia was reported zero for the last 3 years.

Additionally, the faculty managers should show their commitment by providing all committed resources for the CBE programs, including hospital staffs, community medical center doctors, nurses and midwives, community leaders, even the private company/stakeholders nearby the university to be fully supportive and maximally available to be consulted by the students, at any time using any mode of communication. In this arrangement, managers will automatically prioritize the budget, and human resources for the CBE program; including the schedule of the CBE program in the overall curriculum. Faculty development and regular training for teachers should also be maintained. Without a full commitment from the faculty managers, a CBE program usually acts as a stand-alone from the curriculum and is led by only a small number of committed staff.

Future study should test the implementation of the CBE framework for undergraduate students in this study. We should also learn from students' perceptions and furthermore from teachers as well as community members. The design may not completely answer the needs for an ideal CBE program, however many of the themes were found to be essential elements in current theories applied in experiential-learning. Further reinforcing is the insightful statements from the international experts concerning the importance of community-based education, to meet the ongoing global efforts of strengthening primary health care [34].

Conclusions

We propose the use of a community-based educational framework in this study (the 'CBE-tree' model) for undergraduate medical education. By using the 'CBE-tree' model, we hope to approach a more meaningful learning for students, staff, and community members towards a strong primary health care services and education.

Acknowledgments

We thank all the participants in this study who provided a clearer direction for community-based medical education. We are grateful for Prof. Dany Hilmanto, MD and Deni K. Sunjaya, MD, Ph.D. from Universitas Padjajaran Bandung who provided significant feedback for this study. We want to express our gratitude to Dr. Jachin Velavan from Department of Distance Education Christian Medical College Vellore, Tami Nadu, India; Dr. Omneya Ezzat Elsherief from Cairo University Hospitals and Egyptian Fellowship Board; and Prof. Jan De Maeseneer, MD from University of Gent Belgium, who provided precious comments to validate this study. Special thanks to Mubarika Nugraheni, M.Anthro from the Faculty of Culture and Fitriana Ekawati, MD, MPHC, from Faculty of Medicine Universitas Gadjah Mada, who supported the coding process and being valuable partners in research.

Abbreviation

CBE	Community-based education
IS	Intensive supervision
RCGP	Royal College of General Practitioners
SLA	Supported learning activities
WHO	World Health Organization
WONCA	WONCA-World Organization of Family Doctors/ General Practitioners (WONCA has been regarded as one term and not anymore an abbreviation)

Authors' contributions

The design of this study was initiated by the first author (MC) together with the second (EPS), third (TNK) and fourth authors (OE) who are all involve in the development of CBE program in their medical institutions. The first draft of this study was written by the first authors (MC) and commented by the other authors until the final form agreed. The last author (CV) provided scientific medical education review since the beginning of this study until finalizing the manuscript. All authors provided consent to publish this study to the BMC Medical Education journal. All authors read and approved the final manuscript.

Funding

This study is funded by Faculty of Medicine, Universitas Gadjah Mada (Senior Lecturer Research Grants - 2015).

Availability of data and materials

Data of this qualitative study were obtained from interviews (with the participants) and coding processes (by the research assistants) and were in Indonesian language. Data for validation of the CBE framework were obtained via electronic mail from international experts and were in English. The data could be retrieved on reasonable request.

Ethics approval and consent to participate

This study was approved by the Universitas Gadjah Mada, Faculty of Medicine – The Medical and Health Research Ethics Committee (MHREC). Protocol Number: KE/FK/831/EC/2015. A letter of explanation about this study and interview guides was provided to all participants prior to interview. Written consent to participate were obtained from all participants in this study.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Footnotes

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Contributor Information

Mora Claramita, Email: mora.claramita@ugm.ac.id.

Elsa Pudji Setiawati, Email: elsapudji@gmail.com.

Tri Nur Kristina, Email: t_nurkristina@yahoo.com.

Ova Emilia, Email: ovaemilia@gmail.com.

Cees van der Vleuten, Email: c.vandervleuten@maastrichtuniversity.nl.

References

1. Dolman D, Wolfhagen I, Heinemen E, Scherpbier A. Factors adversely affecting student learning in the clinical learning environmental: a student perspective. Educ for Health. 2008;20(3):1–10. [Google Scholar]

2. Dornan T, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V. How can experience in clinical and community settings contribute to early medical education? A BEME systematic review. Med Teach. 2006;28:3–18. doi: 10.1080/01421590500410971. [PubMed] [CrossRef] [Google Scholar]

3. Art B, Deroo L, De Maeseneer J. Towards unity for health utilizing community oriented primary care in education and practice. Educ for Health. 2007;20(2):74. [PubMed] [Google Scholar]

4. Art B, Deroo L, Willems S, De Maeseneer J. An interdisciplinary community diagnosis experience in undergraduate medical curriculum: development at Ghent University. Acad Med. 2008;83(7):675–683. doi: 10.1097/ACM.0b013e31817829a6. [PubMed] [CrossRef] [Google Scholar]

5. WHO. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. 2012. https://www.who.int/social_determinants/thecommission/finalreport/en/. Accessed 7 Feb 2019.

6. Silverman J, Draper J, Kurtz S. Skills for communicating with patients. Oxon: Radcliffe Medical Press; 2008. [Google Scholar]

7. Interprofessional education collaborative expert panel . Core competencies for interprofessional collaborative practice: report of an expert panel (update) 2016. [Google Scholar]

8. Boon V, Ridd M, Blythe A. Medical undergraduate primary care teaching across the UK: what is being taught? Educ Primary Care. 2017;28(1):23–28. doi: 10.1080/14739879.2016.1222887. [PubMed] [CrossRef] [Google Scholar]

9. Haq CL, De Maeseneer J, Markuns J, Montenegro H, Qidwai W, Švab I, Van Lerberghe W, Villanueva T, Chan M, Kidd M, editors. The contribution of family medicine to improving health systems: a guidebook from the World Organization of Family Doctors. Oxon: Radcliffe Pub; 2013.

10. WHO. Primary health care is now more than ever. Geneva: The World Health Report, WHO; 2008.

11. Lam TP, Lam YYB. Medical education reform: the Asian experience. Acad Med. 2009;84:1313–1317. doi: 10.1097/ACM.0b013e3181b18189. [PubMed] [CrossRef] [Google Scholar]

12. Majumder AA. Issues and priorities of medical research in Asia. Ann Acad of Med. 2004;33:256–263. [Google Scholar]

13. Shankar PR, Piryani RM. Medical education and medical educators in South Asia - a set of challenges. J Coll Phys Surg Pakistan. 2009;19:52–55. [PubMed] [Google Scholar]

14. Oswald N, Alderson T, Jones S. Evaluating primary care as base for medical education: the report of the Cambridge community-based clinical course. Med Educ. 2001;35:782–788. doi: 10.1046/j.1365-2923.2001.00981.x. [PubMed] [CrossRef] [Google Scholar]

15. Hart JT. The world turned upside down: proposal for community-based undergraduate medical education. J RCGP. 1985;35:63–68. [PMC free article] [PubMed] [Google Scholar]

16. Widyandana D, Majoor G, Scherpbier A. Effects of partial substitution of preclinical skills training by attachment to primary health care centers: an experiment study. Med Teach. 2011;33(6):e313–e317. doi: 10.3109/0142159X.2011.565829. [PubMed] [CrossRef] [Google Scholar]

17. Richards RW. Best practice in community oriented health profession education: international exemplars. Educ Health. 2001;14(3):357–365. doi: 10.1080/13576280110085508. [PubMed] [CrossRef] [Google Scholar]

18. Fauziah N, Claramita M, Rahayu GR. The effect of context, input, and process in achieving interprofessional communication and teamwork competences. Ind J Med Educ. 2018;7(1):e24–e35. [Google Scholar]

BMC Med Educ
BMC Med Educ

19. Sherbino J, Frank JR, Snell L. Defining the key roles and competencies of the clinician–educator of the 21st century: a national mixed-methods study. Acad Med. 2014;89:783–789. doi: 10.1097/ACM.0000000000000217. [PubMed] [CrossRef] [Google Scholar]

20. Claramita M, Syah NA, Hilman O, Ekawati FM, Kusnanto H. Indonesia ABRIDGED and FULL report – of PRIMASYS case study (evaluation of primary care system in Indonesia). WHO international. 2018. [Google Scholar]

21. Molenaar WM, Zanting A, van Beukelen P, de Grave W, Baane JA, Bustraan JA, Engbers R, Fick TE, Jacobs JC, Vervoorn JM. A framework of teaching competencies across the medical education continuum. Med Teach. 2009;31(5):390–396. doi: 10.1080/01421590902845881. [PubMed] [CrossRef] [Google Scholar]

22. Talaat W, Ladhani Z. Community-based education in global perspectives. Cairo: WHO Regional Office for the Eastern Mediterranean; 2014.

23. Kristina TN, Majoor GD, van der Vleuten CP. A survey validation of generic objectives for community-based education in undergraduate medical training. Educ Health (Abingdon) 2006;19(2):189–206. doi: 10.1080/13576280600783620. [PubMed] [CrossRef] [Google Scholar]

24. Koponen J, Pyorala E, Isotalus P. Comparing three experiential learning methods and their effect on medical students' attitude to learning communication skills. Med Teach. 2012;34:e198–e207. doi: 10.3109/0142159X.2012.642828. [PubMed] [CrossRef] [Google Scholar]

25. Dhital R, Subedi M, Prasai N, Shrestha K, Malla M, Upadhyay S. Learning from primary health care sentres in Nepal: reflective writings on experiential learning of third year Nepalese medical students. BMC Res Note. 2015;8:741. doi: 10.1186/s13104-015-1727-2. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

26. Kennedy T, Lingard L. Making sense of grounded theory in medical education. Med Educ. 2006;40:101–108. doi: 10.1111/j.1365-2929.2005.02378.x. [PubMed] [CrossRef] [Google Scholar]

27. Charmaz K. Constructing grounded theory: a practical guide through qualitative analysis. London: Sage; 2006. [PubMed] [Google Scholar]

28. Strauss AL, Corbin J. Basics of qualitative research: grounded theory procedures and techniques. 2. London: Sage; 1998. [Google Scholar]

29. Kolb DA, Boyatzis RE, Mainemelis C. Experiential learning theory: previous research and new direction. Cleveland: Department of Organizational Behavior, Weathead School of Management, Case Western Reserve University; 2010. [Google Scholar]

30. Mboi N, Surbakti IM, Trihandini I, et al. On the road to universal health care in Indonesia, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2018;392:581–591. doi: 10.1016/S0140-6736(18)30595-6. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

31. WONCA tree model – adapted from the Swiss College of Primary Care Medicine 2004/2011, World Organization of Family Doctors Europe; 2011. https://www.woncaeurope.org/sites/default/files/documents/Definition%203rd%20ed%202011%20with%20revised%20wonca%20tree.pdf. Accessed 7 Feb 2019.

32. Frenk J, Chen L, Bhutta ZA, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010;376(9756):1923–1958. doi: 10.1016/S0140-6736(10)61854-5. [PubMed] [CrossRef] [Google Scholar]

33. De Maeseneer Jan, Boeckxstaens Pauline. James Mackenzie Lecture 2011: multimorbidity, goal-oriented care, and equity. British Journal of General Practice. 2012;62(600):e522–e524. doi: 10.3399/bjgp12X652553. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

34. The Astana Declaration: the future of primary health care? Editorial. Lancet, 2018; 392, 2018. https://www.thelancet.com/action/showPdf?pii=S0140-6736%2818%2932478-4. Accessed 18 May 2019. [PubMed]

C8 CBE grounded Theory

ORIGINALITY REPORT

22%	16%	18%	17%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.egms.de Internet Source	1%
2	hdl.handle.net Internet Source	1%
3	translational-medicine.biomedcentral.com Internet Source	1%
4	Anushka Patel, Devarsetty Praveen, Asri Maharani, Delvac Oceandy et al. "Association of Multifaceted Mobile Technology–Enabled Primary Care Intervention With Cardiovascular Disease Risk Management in Rural Indonesia", JAMA Cardiology, 2019 Publication	1%
5	journals.sagepub.com Internet Source	1%
6	www.dovepress.com Internet Source	1%
7	e-sciencecentral.org Internet Source	1%

8	www.ijhpm.com Internet Source	1%
9	Roberts, Chris, Narelle Shadbolt, Tyler Clark, and Phillip Simpson. "The reliability and validity of a portfolio designed as a programmatic assessment of performance in an integrated clinical placement", BMC Medical Education, 2014. Publication	1%
10	res.mdpi.com Internet Source	1%
11	Lucyna Iwanow, Mariusz Jaworski, Joanna Gotlib, Mariusz Panczyk. "The nature of a nurse's workplace and their attitude towards learning communicative competence — a representative study of Polish nurses' population", Medical Research Journal, 2019 Publication	1%
12	bmcmededuc.biomedcentral.com Internet Source	1%
13	preview-bmcmededuc.biomedcentral.com Internet Source	1%
14	www.cureus.com Internet Source	1%
15	Anargiros Mariolis, Constantinos Mihas, Alevizos Alevizos, Marek Papathanasiou et al.	1%

	"Evaluation of a clinical attachment in Primary Health Care as a component of undergraduate medical education", Medical Teacher, 2009 Publication	
16	Gordon Gong, Eric Belasco, Kristopher A Hargrave, Conrad P Lyford, Billy U Philips. "Determinants of delayed detection of cancers in Texas Counties in the United States of America", International Journal for Equity in Health, 2012 Publication	1%
17	www.docstoc.com Internet Source	1%
18	Submitted to Cardiff University Student Paper	1%
19	abuqevagyq.ga Internet Source	1%
20	www.tandfonline.com Internet Source	<1%
21	Submitted to Comptsai Training Solutions Student Paper	<1%
22	Mariet Paes, Jan De Maeseneer. "What about the context in family medicine?", British Journal of General Practice, 2010 Publication	<1%

23	Vaughan, Brett. "Developing a clinical teaching quality questionnaire for use in a university osteopathic pre-registration teaching program", BMC Medical Education, 2015. Publication	<1%
24	www.jeehp.org Internet Source	<1%
25	bjgp.org Internet Source	<1%
26	Submitted to City University Student Paper	<1%
27	Veronica Boon, Matthew Ridd, Andrew Blythe. "Medical undergraduate primary care teaching across the UK: what is being taught?", Education for Primary Care, 2016 Publication	<1%
28	Mora Claramita, Nungki Arininta, Yayuk Fathonah, Sandra Kartika, Yayi Suryo Prabandari, I Dewa Putu Pramantara. "A partnership-oriented and culturally-sensitive communication style of doctors can impact the health outcomes of patients with chronic illnesses in Indonesia", Patient Education and Counseling, 2020 Publication	<1%
29	Submitted to University of Cumbria	

	Student Paper	<1%
30	Submitted to Trinity College Dublin Student Paper	<1%
31	Rebeca Maria de Medeiros Vieira, Tiago Rocha Pinto, Lucas Pereira de Melo. "Narrativas e Memórias de Docentes Médicos sobre o Ensino Baseado na Comunidade no Sertão Nordestino", Revista Brasileira de Educação Médica, 2018 Publication	<1%
32	"Primary Care Revisited", Springer Science and Business Media LLC, 2020 Publication	<1%
33	Manisha Nair, Premila Webster. "Education for health professionals in the emerging market economies: a literature review", Medical Education, 2010 Publication	<1%
34	Yali Wu, Mingfu Gong, Dong Zhang, Chun Zhang. "Educational impact of the mini-Clinical Evaluation Exercise in resident standardization training: a comparative study between resident and professional degree postgraduate trainees", Journal of International Medical Research, 2020 Publication	<1%

35	www.ncbi.nlm.nih.gov Internet Source	<1%
36	Submitted to University of Leeds Student Paper	<1%
37	Nigel Oswald. "Evaluating primary care as a base for medical education: the report of the Cambridge Community-based Clinical Course", Medical Education, 8/2001 Publication	<1%
38	Bonnie Olivia Hughes, Mosa Moshabela, Jenni Owen, Bernhard Gaede. "The relevance and role of homestays in medical education: a scoping study", Medical Education Online, 2017 Publication	<1%
39	Submitted to Universidad Nacional de Colombia Student Paper	<1%
40	www.sciepub.com Internet Source	<1%
41	Submitted to Universidade Nova De Lisboa Student Paper	<1%
42	www.pubmedcentral.nih.gov Internet Source	<1%
43	Submitted to University of Wales, Lampeter Student Paper	<1%

44	www.espalibrary.eu Internet Source	<1%
45	Submitted to Universiti Sains Malaysia Student Paper	<1%
46	Submitted to Intercollege Student Paper	<1%
47	Mora Claramita, Mubarika D. F. Nugraheni, Jan van Dalen, Cees van der Vleuten. "Doctor–patient communication in Southeast Asia: a different culture?", Advances in Health Sciences Education, 2012 Publication	<1%
48	Mohi Eldin M. A. Magzoub. "A Taxonomy of Community-based Medical Education :", Academic Medicine, 07/2000 Publication	<1%
49	www.liebertpub.com Internet Source	<1%
50	Submitted to University of Hawaii, Manoa Student Paper	<1%
51	www.asme.org.uk Internet Source	<1%
52	Submitted to International Health Sciences University Student Paper	<1%

53	Submitted to University of Pretoria Student Paper	<1%
54	Submitted to University of Stellenbosch, South Africa Student Paper	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		

C8 CBE grounded Theory

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12