Short Communication

Implementing a daily Continuing Medical Education (CME) at a rural primary care hospital in Nepal

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ABSTRACT

Background: Fostering a culture of continued learning at healthcare facilities is a global priority for healthcare systems performance, patient safety, and quality improvement. In low- and middle-income countries, continuing medical education activities are almost non-existent in rural areas and so is in Nepal. National professional academies tend to be focused almost exclusively at major teaching hospitals in urban centers. In addition to playing a central role in healthcare provision, rural district-level hospitals in Nepal are formative for many young healthcare professionals who are posted there for mandatory government service. The district hospital in Nepal thus represents an important opportunity to be a center for learning. Greater investment in these types of programs may improve healthcare worker satisfaction and retention, thereby improving access to care in these remote areas.

Methods: We conducted a qualitative study to describe the implementation of a continuing medical education program at a district-level hospital in rural Nepal. The particular modalities of continuing medical education include didactic lectures, case presentations, and morbidity and mortality conferences, presented by physicians and mid-level providers. We reviewed the hospital-based CME sessions.

Results: During the first twelve months of the program, 155 sessions, or 73% of scheduled sessions, were conducted as planned. Ongoing challenges to the long-term success of the program include dedicated leadership, time for session preparation and presenter mentorship, and improving participatory engagement across multiple clinician cadres.

Conclusions: Building a robust continuing medical education program in rural district hospitals is feasible and has great potential as a mechanism of developing a professional and sustainable cadre of healthcare workers in these settings.

Keywords: CME (Continuing Medical Education); Continuing Professional Development; Global Health; Implementation Research; Nepal

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INTRODUCTION

Continuing Medical Education (CME) activities consist of lifelong activities to improve the knowledge, professionalism, attitude, and skills of healthcare providers.[1] In many low- and middle-income countries (LMICs), there is a dearth of CME, especially in rural areas. CME activities are typically clustered in urban areas while rural areas almost universally lack such opportunities.[2, 3] This is despite evidence indicating the role of CME in the recruitment and retention of healthcare professionals.[4-6] This is particularly problematic because these countries frequently ask recent medical graduates to serve in rural areas immediately following completion of their degrees.[7]CME can play a major role in attracting recent graduates to rural areas and ensuring they are kept up to date with recent advances. Having well-trained, primary care professionals in these remote areas is vital to implementing effective strategies for prevention and first-line care. The district hospital can also be a platform to share vital national policy guidelines and system updates to the public sector. Here, we present a retrospective case study of the initial phase of implementing a CME program at a rural district hospital in Nepal, discussing its attendant opportunities and challenges.

METHODS

Study design: In early 2014, the Bayalpata hospital leadership conducted an informal focus group discussion with the physicians and mid-level providers. The team reported a desire for additional CME opportunities and responded favorably to the proposal of a daily CME session. Starting in July 2014, the hospital leadership initiated a daily 45 minute period of protected CME time, led by physicians and mid-level providers.[9] The curricular components of the program are described in greater detail below. Following the needs assessment, we conducted a qualitative study of the CME program, focusing on the early stages of implementation. We examined aggregate, summary data of the CME program including the number of sessions and a categorical breakdown of topics. These data are supplemented by anecdotal learning lessons that contextualize the implementation process.

Place and duration: Bayalpata Hospital is a 50-bed district-level government hospital in the Achham district of Nepal. Hospital services include general surgery, orthopedic surgery, outpatient, inpatient, maternity, laboratory, x-ray, and ultrasound. The hospital conducts over 70,000 outpatient visits, 2,000 inpatient admissions, and 600 deliveries a year. The core clinical staff consists of two Doctorate of Medicine in General Practice (MD-GP) level physicians, six Bachelor of Medicine and Bachelor of Surgery (MBBS) level physicians, and 20 Health Assistants (HAs), along with nurses and other allied healthcare professionals. The CME program was implemented between July 2014 to August 2015. The secondary data of CME sessions were de-identified and summarized the number and categories of the CME program sessions. The approval of secondary data analysis was taken from Nepal Health Research Council (NHRC).

History of CME at Bayalpata Hospital: On-going professional development has been a priority for the hospital leadership. The strategy underlying this prioritization has been three-fold: 1) to build Bayalpata hospital as a regional center for rural healthcare worker training and professional development; 2) to

provide for a more appealing employment environment to recruit and retain staff; 3) to inculcate a culture of interprofessional learning and collaboration. In 2010, the hospital leadership instituted weekly morbidity and mortality (M&M) conference, using an interactive method to bring team members together to discuss and address barriers to high-quality patient care.[8] However, owing to staff shortages and high patient volumes, other CME activities proved challenging due to conflicts with both providers' and patients' schedules. As such, CME consisted of the M&M meetings and only sporadic didactic lectures provided by senior physicians.

Didactic lectures: Three days per week, didactic lectures at the hospital are conducted either in the form of whiteboard "chalk talk" presentations or PowerPoint-based talks. Clinicians prepare their presentations by consulting evidence-based medicine sources and Nepali Ministry of Health and Population guidelines,[10] with a focus on tailoring the sessions for locally-relevant clinical content.

Clinical case presentations: Two days per week, case presentations are delivered by one of the physicians or mid-level providers, who select a recent case from the clinical departments. This teaching includes refinements to diagnostic steps, additional differential diagnoses, and evidence-based reasons for or against a particular intervention.

Morbidity and mortality conferences: As discussed previously, there had been an on-going weekly M&M at the Bayalpata hospital since 2010,[8] which is now included once weekly in the overall curriculum. Discussion is guided using a seven-domain framework that includes describing: 1) clinical operations, 2) supply chains, 3) equipment, 4) personnel, 5) outreach, 6) societal, and 7) structural concerns in relation to the case. The M&M concludes with a review of lessons learned and recommendations, and responsible personnel and timelines are identified for implementation of recommendations.[8]

RESULTS

In the first twelve months of the program, there were 211 days on which CME sessions were scheduled to occur (excluding holidays), and 155 CME sessions occurred (73% of scheduled sessions). The categorical breakdown of CME topics during that time period was as follows: internal medicine 41%, obstetrics and gynecology 10%, quality improvement 10%, emergency medicine 8%, pediatric 5%, orthopedics 3%, dermatology 2%, mental health 3%, otorhinolaryngology 3%, and the remaining a mix between dental, neurology, ophthalmology, and other topics.

Multiple challenges were present that may have limited the effectiveness and consistency of CME sessions, despite favorable anecdotal reviews from the participating clinicians. Here, we describe lessons learned via two of the primary challenges the program faced and next steps for the program.

DISCUSSION

Lack of sufficient CME leadership and mentorship: At the time of program implementation, CME leadership fell under the purview of the Medical Director. This was just one of a large number of administrative and clinical tasks. This challenge is frequently encountered in resource-limited settings, where hospital leadership is under-resourced to the tasks at hand. As such, the responsibility of conceiving and preparing for the CME sessions frequently was triaged away, given

other responsibilities. This accounted for many of the sessions that did not occur as scheduled.

Most of the hospital's young staff physicians had no prior experience or training in formal pedagogical methods. They had busy days with no dedicated time for teaching or curriculum planning activities, resulting in inconsistent and insufficient preparation for many of the sessions. Given that many of the presenters were mid-level practitioners with limited clinical knowledge and English-reading abilities, the lack of significant mentorship and session preparation frequently resulted in sub-optimal content and presentations.

Engaging all clinicians in an inter-professional CME setting

A priority of the CME program was to integrate physician and mid-level provider learning. This design responded to the substantial need for inter-professional education.[11]This was particularly important at the hospital's locale, given the lack of specialists and reliance on junior physicians and mid-level providers for the overwhelming majority of clinical care. However, the integration of physicians and mid-level practitioners often resulted in lower levels of participation from the mid-level practitioners than the physicians, who were often more knowledgeable and more empowered to speak. Engaging the clinicians who have the least experience or knowledge, who paradoxically would have gained the most from an effective CME program, proved difficult given the current structure of the sessions.

Next steps: institutionalizing CME at Bayalpata hospital

While Bayalpata hospital's CME programming remains nascent, the program thus far demonstrates the feasibility and potential of CME at similar district-level hospitals in Nepal. In addition to improving the quality of medical education, enhanced CME programming may also act as an incentive for recruitment and retention of clinicians to work in more rural areas, where such professional development opportunities are often non-existent.[4-6]

Since the time of writing this paper, Bayalpata hospital has created a new Director of Medical Education position. This role is dedicated to coordinating the CME schedule and curriculum, mentoring the clinician-presenters, assisting with session preparation, and post-session debriefing to identify areas for improvement.

To improve the consistency and effectiveness of the CME program, the hospital leadership is currently discussing ways to allocate dedicated staffing time for CME leadership, preparation, and mentorship. This may improve both the consistency of sessions occurring as scheduled, and the quality therein. Given the difficulties in engaging the mid-level providers in participation, structured mechanisms to ensure equitable participation opportunities may be of benefit.

CONCLUSIONS

Implementing a robust suite of daily CME activities, as we describe here, can be one mechanism towards building a professional and sustainable cadre of healthcare workers in a rural district hospital as seen by this study. Majority of the scheduled CME session was conducted and CME sessions were able to engage participant to learn topics in internal medicine, obstetrics and gynecology, quality improvement, emergency medicine, pediatric, orthopedics, dermatology, mental health and otorhinolaryngology. Historically, there has been a lack of investment in rural CME

programs by governments or non-profit organizations in Nepal, which may contribute to low levels of job satisfaction, and thus retention, for highly-qualified clinicians in these settings. A greater investment, from both a fiscal and human resources perspective, in these types of CME programs may pay significant dividends in strengthening the human resources for health in these settings, ultimately leading to better access to care for patients in these remote rural areas. Further studies are needed to know the perceptions of health professionals about daily CME for rural hospitals in Nepal.

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