

An Assessment of the Human Resource Capacity for Quality Clinical Training of Middle Level Health Workers in Kenya

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Abstract

Competency-based health workforce training among public, faith-based and private sector institutions is essential to ensure a continuous supply of adequately trained health care workers. However, competency-based training is often lacking for middle level health workforce. A cross-sectional study carried out in Kenya in 2013 among 43 training and placement institutions aimed at determining the human resource capacities that affect the quality of clinical training of middle level health workers. A third of the 200 purposively selected respondents from public, private and faith-based institutions chose clinical placement institutions for experience and based on high patient; two thirds were not satisfied with mentorship and mentioned lack of clinical instructors to support them. Supervision was constrained by staff shortage and lack of motivation. Students' mentorship, supervision and clinical instruction play an important role in student learning and clinical placement. The study supports the need to reconsider the required training workforce for quality clinical skills and competencies for the health workforce.

Keywords

Clinical Placement, Mentorship, Supervision, Human Resource for Health

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1. Introduction

Health workforce training and development is a major issue for public, faith-based and private sector institutions, which aim to ensure a continuous supply of competent health care workers with the right skills to support service delivery targets. Globally, the education and health service delivery systems are not well-coordinated, contributing to gaps in the health workforce competencies and skills. Appropriate skills to meet the health service delivery require significant policy, curricular, human resource and training reforms.

A key element in the education and training of the health workforce is clinical placements, which provide critical clinical experience and workplace training. The interaction with patients and their families during this experience helps

students to develop technical, psychomotor, inter-personal and communication skills (Ali et al 2008). It provides students with opportunities to practice the theory they have learned outside the practice setting and helps them to develop a professional identity.

To enhance clinical experience, it is important to provide students with appropriate support, guidance and supervision in clinical area (Andrews et al 2003). Mentorship of students has been shown to provide the needed support. An effective mentor who can help students to clarify misconceptions, raise questions and work in a safe clinical environment can provide such facilitation. Evidence suggests that various factors such as the mentor-student relationship and the mentor's knowledge, competencies, attitude and communication skills play an important role in students learning (Pellatt, 2006). However, these elements tend to be

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inadequate to students in clinical placement areas due to challenges in the health workforce that include inequities in geographical distribution, attraction and retention issues, and limited access to quality and affordable training (WHO 2010). Furthermore, the “lack of a mechanism to link training institutions with service needs in the sector” is a key barrier, alongside significant shortages in the different cadres of staff consisting of general practitioners, clinical officers and nurses (Kenya Ministry of Health 2013).

Clinical placements have been identified by students and health professionals alike as the most influential learning experience in a student’s journey to becoming a competent health professional (Koontz et al 2010). Despite consensus about the importance of the clinical learning experience, issues about the quality of the placement process persist.

Quality clinical placement is one key element that successfully achieves the aims of clinical education in the practice environment. These aims include: the quantity and quality of learning that is experienced by students, the degree to which the experience is individualized to meet student needs (Rodger et al., 2011), adequate preparation for professional practice, and efficient use of resources to achieve this (Newberry, 2007). Quality clinical placements are for the most part defined in terms of student learning outcomes, and accordingly occur in high quality environments for clinical learning. The most commonly cited definition of the clinical learning environment states that it is “an interactive network of forces influencing student learning outcomes in the clinical setting” (Dunn & Hansford 1997, p.1299). Quality placements provide students with opportunities for skill development, socialization into the profession and a bridge between academic and workplace learning (Newton et al 2010; Rodger et al 2011).

Learning in quality clinical placements is what experiential learning theory calls ‘situated’ – that is, it transforms theory into practice (Yardley et al 2012). Students must be provided with opportunities to transfer classroom learning to the context where this learning applies. There is much empirical research to show that the clinical learning environment predicts clinical learning outcomes (Plack 2008). As stated by Brown (2011) and Yardley et al (2012), real learning comes from real environments, and is a necessary component of clinical education.

Mentorship plays a key role in ensuring quality clinical placements. Evidence exists on the gap between the theory and practice of mentoring (Myall et al 2008) where the impact of a locality based nursing education initiative on students, practice mentors and academic staff illustrated the importance of mentorship for pre-qualifying students and the need to provide mentors with adequate preparation and

support. A systematic review by Jokelainen et al (2010) on mentoring of nursing students in clinical placements is described according to two themes where a creative and supportive learning environment is provided and where students’ professional competence is attained. This two-pronged approach may result in a positive student clinical placement experience. In other health interventions, clinical mentoring to support scale up of HIV care, antiretroviral therapy and prevention in resource constrained settings supports the application of classroom learning to clinical care and experience, including proper supervision and follow up after training of health care workers to ensure application of lessons learned during initial training sessions (WHO, 2005).

In addition to mentorship, supervision of students is important for quality clinical placement of students. Terminology used to describe supervision and other supportive relationships lacks consensus in both health and education (O’Donovan et al 2011). The term ‘supervisor’ includes health professionals engaged in clinical supervision of students of medicine, nursing, or allied health. Clinical supervisors are charged with a dual role of ensuring patient safety while promoting students’ professional development. This requires three primary functions commonly referred to as educational (formative), supportive (restorative) and managerial/ administrative (normative) (Kilminster & Jolly 2000). A clinical supervisor attempts to fulfill these functions in an increasingly challenging service environment characterized by health workforce shortages and heightened patient demand. The supreme significance of the supervisor role to the quality of the clinical learning environment has been illustrated in a rigorous longitudinal nursing study demonstrating a 20% improvement in the quality of hospital based clinical learning environments over a 25 year period largely due to improvements in supervision (Chan 2002).

Students have reported the supervisory relationship to be the single most important factor or one of the most important factors influencing their satisfaction with the clinical learning environment (Rodger et al 2011). Placement experiences characterized by supportive relationships in positive learning environments have been shown to improve learning outcomes significantly.

There are several explanations for this. First, positive working relationships can increase opportunities to practice in the placement setting, whereas negative relationships can restrict the student to routine tasks (Newton et al 2010). Secondly, a culture of support offers students the psychological safety necessary to ask and respond to questions, make and learn from mistakes, and initiate additional opportunities for learning (Plack 2008). Thirdly, environments characterized by mutual respect and positive regard reduce student anxiety, thereby enhancing cognitive

function (James & Chapman 2009). Fourthly, trusting relationships increase the capacity for open and honest feedback that encourages self awareness and reflective learning (Chapman 2009). Given the benefits to student learning, it is not surprising that students identify relationships as critical to their satisfaction with the placement experience.

A fundamental aim of the clinical learning environment is to bridge academic and workplace learning. Students in one study identified reducing the gap between theory and practice as the most positive aspect of the placement experience (Ralph et al 2009). The nature of the opportunities for learning is repeatedly raised by students as a key factor influencing satisfaction with the clinical learning environment. Smedley and Morey (2010) found that together with personalization, student involvement (the extent to which students participate actively and attentively in hospital ward activities) was the most important aspect of students' preferred clinical learning environment. The importance of active participation has been replicated in several countries across disciplines. Generally students want more opportunities to actively participate and observe patient care, teach their peers, observe a range of role models, reflect on learning experiences, build confidence and competence to practice independently, and explore clinical interests.

A study done in Kenya (Nzinga et al, 2009) focused on documenting the experiences of health workers who were expected to implement guidelines on improving clinical management during an intervention study in hospitals. An in-depth interview, non-participatory observation and informal discussions were used to explore perceived barriers to guideline introduction and general improvements in pediatrics and newborn care. The study results showed that issues preventing guidelines uptake included: incomplete training coverage, inadequacies in local standards setting and leadership, lack of recognition and appreciation of good work, poor communication and teamwork, organizational constraints and limited resources. It is therefore against the background of gaps in mentorship, supervision and professional skills development that this study aimed to identify human resource factors affecting the quality of clinical training of middle-level health workforce in Kenya.

2. Methodology

2.1. Study Design

The study was a cross-sectional survey using qualitative and quantitative methods to investigate the variables on human resource capacities affecting the quality of clinical trainings of mid-level health workforce. This study design allowed for

comparison between the different variables of gender, student mentorship, supervision and placement institution as they related to quality clinical placement

2.2. Study Area and Population

The study was designed to cover all training and health care facilities in Kenya offering training for mid level health care workers. The study covered all the geographical areas of the country.

The study population consisted of 200 respondents purposively selected from 43 training institutions, which were public, private and faith based organizations.

2.3. Study Sample and Method

The study sample comprised medical training colleges, government hospitals, private hospitals, private training institutions and faith based hospitals. The study used a non-probability sample design employing a purposive sampling method.

2.4. Data Collection and Analysis

Data was collected using a quantitative tool (structured questionnaire) and a qualitative tool (semi-structured questionnaires). Trained research assistants visited selected sites and administered the questionnaire through face-to-face interviews. Verbal and written consent was sought from all study participants. For the qualitative data, minutes of meetings were reviewed in terms of attendance of group members. Data cleaning was carried out to detect and correct errors and inconsistencies in order to obtain quality data. Data was stored in a safe place with appropriate back-up to maintain confidentiality, integrity and anonymity of participants and researchers, in conformity with research ethics.

Data was analyzed using SPSS. Mean and standard deviations were computed for continuous variables while proportions were computed for categorical variables. To test association between various characteristics of respondents and outcomes, we employed chi-square tests. Data was presented in tables and graphs. In all analyses, a p value <0.05 was considered statically significant.

3. Findings

3.1. Descriptive Characteristics of the Study Population

Most of the respondents both males and female had undergone one year of study at the training institutions (Table 1). During data collections period students undergoing the third and fourth year of training were undertaking their

practical sessions outside the institutions.

Table 1. Students General Characteristics.

	Male		Female	
	No. of Respondents	Percentage	No. of Respondents	Percentage
Years of study				
1	64	59	59	63
2	26	4	45	48
3	1	1	0	0
4	1	1	2	
Total	92	85	106	113

3.2. Students Preference of Placement institutions

A third of the respondents (35% ,n=69) chose placement institutions because of the opportunity to acquire experience,

clinical competency and high patient inflow, 5% (n=10) indicated they chose placement institution based on mentorship (Table 2).

Table 2. Students preference of placement institutions.

	n	%
Opportunity to acquire experience in medical cases and clinical competency through a variety of services and high patient inflow	69	35%
Adequate infrastructure	46	23%
Experienced staff	34	17%
Content of training that included practical experience, i.e. aspects of importance to students, for example, 'community health'	26	13%
Institution approved by the nursing Council of Kenya	13	7%
Mentorship	10	5%
Total	198	100%

3.3. Student Mentorship in Clinical Areas

Mentorship was found to be significant for quality placement (Table 3). Two thirds of the respondents (66.7%, n=125) were not satisfied with mentorship, while the majority (86%, n=160) mentioned insufficient mentorship. A student witnessed a mentor not following standard guidelines while performing a procedure on a patient:

“Our mentors do not follow the right procedures and instead use shortcuts because they are overwhelmed with work”.

Another student witnessed overworked mentors:

“Our mentors have too many students from different institutions at the same time for them to mentor.”

Others mentioned the recruitment of unqualified clinical instructors:

“ Some of the instructors are not qualified and most mentors have diploma certificates, yet they are mentoring degree level students.”

Staff members mentioned lack of motivation, unclear job descriptions and no evaluation mechanisms for the preceptors and mentors.

Table 3. Cross tabulations of the overall quality of clinical placement by background and intervening variables.

Factors	Absence of quality (Percent)	Presence of quality (percent)	Total number of cases
Intervening variables			
Are you satisfied with the mentorship in your clinical area	***		
No	100.0	0.0	
Yes	66.7	33.3	
In your opinion, are you sufficiently mentored	***		
No	86.0	14.0	101
Yes	68.3	31.7	86

Notes:***-p<0.01

3.4. Supervision by Health Workers in Clinical Placement

Over a half of the students (68%, n=134) cited health workers as treating them well and helping them to achieve their learning objectives:

“They supervise us when performing nursing procedures.”

“They take us through the process in the hospital.”

However, 32% (n=63) citing poor treatment and unfriendliness by health workers and staff, as illustrated by the following quote: *“Some of them are good but others are so harsh that they rebuke us in front of patients.”*

Other reasons mentioned included: staff who were difficult to reach, were not accessible or did not provide guidance to students: *“They overload the entire work on us without any consultation,”* mentioned some students.

Study results also indicated that despite the workload and shortage of health workers in placement facilities, the students were well treated and helped to achieve their learning objectives. However, in some instances, the students reported unfriendly treatment and being overworked by health workers.

3.5. Clinical Instruction

Two thirds of students (64%, n=127) reported that they were no clinical instructors to support them during their clinical experience. In addition, 69% (n=137) of the students indicated that they did not get lectures in most of the courses during their clinical placement and there were also shortages of learning materials. The average faculty to student ratio was found to be 1:50 in the 43 surveyed institutions in comparison to the recommendation of 1:10 by regulatory bodies in the country.

4. Discussion

Clinical placement is a key component of capacity building of the health workforce clinical competencies. The quality of clinical training is influenced by the clinical placement experiences, including types of placements, competencies, tools requirements, assessments and forms of supervision. There are a number of gaps and constraints that have been identified in learning activities and clinical placement environments that are most suited for students to develop competence in clinical care. This study found the following as areas to be addressed if quality of placement is to improve:

4.1. Students Preference of Placement Institutions

Both males and females equally aspire to obtain clinical

training. Most students interviewed indicated that they chose placement health facilities annexed to their school as the primary site for their clinical experience. This was because the students felt that they would not require accommodation and transport. At the same time, they felt that they would be closely supervised by their instructors.

Other students were sent to other facilities, such as district hospitals and rural health facilities, to gain specific experience in specialties not offered at their facility, such as pediatrics, maternity and intensive care. These facilities are often used as clinical sites by students from various institutions - public, private, and faith-based as well as medical and clinical officer students, resulting in clinical site congestion, and hence affecting student supervision.

The results from the study indicate that despite congestion in these health facilities, students chose their preferred placement institution based on the medical cases and high patient inflow. Smedley and Morey (2010) agrees to the fact that student involvement (the extent to which students participate actively and attentively in hospital ward activities) is the most important aspect of students' clinical practice. Students need more opportunities to actively participate and observe patient care, observe a range of role models, reflect on learning experiences, build confidence and competence to practice independently, and explore clinical interests.

4.2. Student Mentorship in Clinical Areas

The overall crisis in human resources affects the capacity for clinical mentoring. Understaffing at hospitals and health centres means that very few clinicians can stay out of their duty station for a period of time (particularly if they work as facilitators for in-service initial training). This therefore means that there is need to rapidly build local capacity for clinical mentoring. With more clinical mentors, there is a decreased workload for each individual mentor, and hence proper student mentorship. Student mentorship empowers the development of students' professional attributes and identifies and enhances attainment of students professional competences. The results from the study shows that in placement areas, students are not adequately mentored, and therefore lack adequate professional skills and competences. Merja et. al (2011) also support the need for adequate student mentorship, as it enhances and creates enabling environment for individual professionalism.

4.3. Supervision by Health Workers in Clinical Placement

Effective student supervision in clinical areas is key, as it integrates theory and practice, offers an effective support system, increases the ability of the student to acquire new

skills and builds the student's confidence (Health workforce report, 2013). Institutions have various frameworks for undertaking student's supervision, such as peer supervision where two students are paired together throughout placement. This approach facilitates learning by easing the transition from the classroom to the clinical learning environment. Students have opportunities to gain skills and experience in the process of assessing another student's practice. An alternative concept is where two students are paired with one supervisor. This model helps to enhance effective student supervision, especially in placement institutions with a shortage of human resources. Student supervision is significant and therefore there is need to encourage preceptors and mentors to adequately disseminate knowledge and skills that will enhance quality of clinical practice. For proper supervision to take place, shortage of preceptors and mentors should be addressed. There is need for placement and training institutions to have proper equipments for clinical procedures and adequate supplies such as gloves, syringes and detergent for good practice. A conducive learning environment, for example a well-ventilated room with adequate lighting is perceived to contribute to skills and knowledge transfer.

4.4. Clinical Instruction

High student to faculty ratio have resulted in overworked faculty in training and placement institutions, so that they are unable to provide optimal student support. This may be due to a combination of factors, such as shortage of qualified staff, lack of motivation and lack of skills mix. Different institutions have designed various mechanisms of addressing the imbalanced faculty to student ration. Examples include establishing two- to three-year contracts for newly employed faculty in order to enhance retention, continuous professional development, and providing monetary and non-monetary incentives and opportunities for career advancement. Nzinga et. al (2009) confirm that recognition and appreciation of good work would be an element to consider for staff retention. Students need adequate access to technology facilities and learning materials in placement areas to enhance quality of clinical placement especially in rural and remote areas.

5. Conclusion

The findings of this study and the literature support the need to rethink about the quality of clinical skills and competencies that health workforce need for competence. Student's mentorship, supervision and clinical instruction during placement play an important role in student learning and clinical training. The results of this study can help training institutions and policy makers to design strategies for more effective clinical teaching and experience.

Recommendation

It is important to establish standards and harmonized frameworks for clinical placement that can be adapted by training and placement institutions for clinical placement. Orientation of staff on the frameworks will promote their use. To address staff shortage and at the same time provide adequate student supervision, units heads of placement institutions can develop a team approach to supervision. There is need to retain staff by providing incentives, continuous professional development and training to maximize students clinical placement learning. As a means to bridge the gap in student supervision, training institutions and placement institutions need to provide follow up mechanisms to ensure effective student supervision.

Placement institutions and staff should provide a wide range of clinical experience for optimal student learning.

Mentorship should be provided as part of a continuous process of education in order to create a competent health care provider. Mentorship guidelines should be developed to help the faculty provide quality mentorship. Regulatory bodies need to engage with training institutions in formulating guidelines based on realities on the ground for clinical placements.

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