

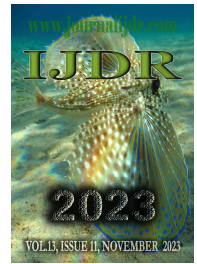


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RESEARCH ARTICLE

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INTERNSHIP CLINICAL PERFORMANCE OF CLINICAL OFFICERS IN SELECTED HOSPITALS IN WESTERN KENYA

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ABSTRACT

Internship is at the epicentre of skill development by clinical officers prior to full time employment. There have been challenges befalling the clinical performance from the newly graduated clinical officers. Clinical internship being the transitional period to enhance clinical officers' competencies this has been challenging to new clinical officers. It is important for clinical officers to master taking of patient's history, performing physical examination, making diagnosis and offering treatments. However, this is still challenging to newly graduated clinical officers. Therefore, this study was conducted to investigate the clinical performance of newly qualified clinical officer interns during internship at Kakamega, Bungoma and Webuye hospitals, Kenya. Descriptive cross-sectional research design was used and a Census method was employed to obtain 100 respondents through a structured questionnaire. A pre-test was done with validity established through crosschecking and reliability calculated using the Cronbach method (0.741). Using a statistical package for social sciences version 25, descriptive and inferential statistics was run. Correlation was performed to ascertain the association of the factors contributing to clinical performance of newly graduated clinical officers at workplace. Results: level of clinical performance by the clinical officer interns was rated above average by the supervisors. This indicated that clinical officer interns exceeded the threshold as per the supervisor's score in the COC's logbooks. The level of clinical performance of clinical officer interns indicated a strong positive association: participation in history taking ($r = 0.745$), case presentations ($r = 0.683$), decision making ($r = 0.745$), plan of management ($r = 0.900$), ethical decision making ($r = 0.900$), professionalism ($r = 0.816$) and therapeutic procedures ($r = 0.816$). The number of the training institutions had skills laboratories (86.1%) though about half of them were not fully functional. On course content, teaching strategies and relevance of knowledge acquired to current clinical performance were rated by CO interns as adequate (50%). The learning environment, relevance to internal rotational assessment and internship booklet were rated above 50%. Skills laboratory was equipped and functional and therefore showing a strong positive association with course content ($r = 0.845$), teaching strategy ($r = 0.920$), previous learning environment ($r = 0.920$), relevant knowledge acquired applicable in workplace ($r = 1.000$) and medium positive association with assessment of competencies from internship booklet ($r = 0.642$). In conclusion for the maintenance of clinical performance of clinical officer interns at high levels and achievement of the quality health care, the clinical officers training curricula should reflect a competent clinical officer working in a complex health system in order to develop a variety of professional skills which should be innovative. The innovations should guide the shift from following a set of standards to curricula based on competencies or practice outcomes. This therefore means that, innovative strategies should be embraced and interprofessional collaboration during training be embraced. The adoption of mentorship and preceptorship model of training and use of cooperation between the institution and the faculty to improve competencies of the clinical officer interns. Recommendation: Kenya clinical officers associations, a professional body together with COC and the ministry of Health policy making body should plan on how they can address the issue of motivation and harassment.

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INTRODUCTION

Clinical medicine has a practical clinical component integral to education process of the clinical officers (Ngatia, 2009). Education attained by clinical officers' graduates must always perform as per the medical codes to achieve the goals of providing services to patients (Basavanthappa, 2009). Clinical officers while practicing medicine are accountable for the quality of their practice. Competence of a clinical officer at a workplace is critical to mitigate diagnostic errors (Gillies, Howard and Storey, 2002). The issue of competence infuses all professional areas including clinical medicine. This is why clinical medicine training uses a competence-based curriculum to ensure that clinical officer receiving clinical learned experience at the end of the training (KMTC, 2010). The curriculum implemented by the clinical officers is competency-based and should be relevant and objective (Quinn, 2007). The clinical skills – simulation-based medical education (SBME) - are believed to be superior to the traditional style of medical education (Iwata, 2012). Furthermore, simulation based medical education provides a learning cycle of debriefing and feedback for learners as well as evaluating of procedures and competency (Iwata, 2012). It is essential to note that, SBME offers both learners and patients a safe environment for practice and error. In a full environment simulation, learners obtain not only technical skills but also non- technical skills such as leadership, teamwork, communication, situation awareness, decision making and awareness of personal limitations. Simulation based medical education also provides effective integration of clinical medicine and basic education.

To perform well and effectively one does not only need simulators including high fidelity mannequin type simulators or virtual reality simulators but also full-time faculties and instructors. Clinical skills are expected as an integrated medical education centre to achieve continuing professional development, integrated learning of basic and clinical medicine and citizen's participation and cooperation in medical education. Competence as the ability of the practitioners to practice safely and effectively to a professional standard must be achieved especially during internship (Gillies, 2002). A practitioner should be able to determine their level of competence in carrying out particular functions. The competent practitioner must have the ability to solve problems, think critically and utilize effective evidence practice and work within a multi-disciplinary team. Clinical officer interns are able to see connections between intellectual fields in their clinical practice. However, the inadequacies experienced by the CO interns in internship may arise from the programme and teaching strategies that are flawed. Inconsistencies in diagnosis, problem shifting and lack of medical equipment affected their performance. Internship is key in promoting an environment for learning the knowledge and skills acquired for practice. Internship also serves as a vehicle for pre-registration students (interns) socialization into the profession and is a lifelong process involving transmission of professional culture (Quinn, 2007). At the place of internship, it has been evident that interns faced challenges arising from abuse, and mistreatment which negatively affected clinical performance by clinical officer interns. Clinical internship as a transitional period for newly graduated clinical officers it exposes interns to a wide range of clinical career options and development. During internship, the clinical officer intern exposes himself clinically in designated departments under the supervision of respective experienced heads of clinical services in the department. The clinical officer interns are evaluated using the internship booklets. The clinical competences expected of a clinical officer intern as prescribed including: comprehensive history taking and physical examination, order and interpret laboratory and radiological investigations, diagnose and evaluate differential diagnosis, manage and care for patients, carry out client/patient education, provide community health services, manage health systems, attend to medical legal- issues and carry out functions in a professional manner. The clinical officer intern is expected not only to have the above competences but also to perform them satisfactorily.

Problem Statement: There has been general grumbling in the public about the level of clinical performance by health professional practitioners. This may be related to the unsubstantiated deficiency in the professional training of clinical officers that may not be meeting the patients' expectations in the evolving sphere of medical practice. Evaluation of clinical officer interns during internship may provide insights as to the level of clinical performance and evaluate the strengths and weaknesses of clinical officers who are being admitted in the medical practice upon completion of internship and provide essential health service to the public populace.

CONCEPTUAL FRAMEWORK

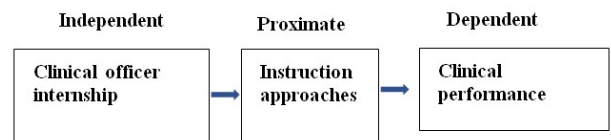


Figure 1. Self-constructed conceptual framework

MATERIALS AND METHODS

The study was carried out in Kakamega County and Bungoma County, focusing on referral hospitals (Kakamega, Bungoma and Webuye). The three hospitals were identified as sites for research since they provide a significant number of clinical officer interns undergoing internship training. These hospitals are also very ideal as they are recognized by the clinical officers' council which is a regulatory body of training and licensing. Finally, the hospitals host interns posted randomly from various training institutions countrywide and had a representative of the Kenyan society with an intern population of 5% of the national population (100). The research design was descriptive cross-sectional. The study population comprised all interns at Kakamega County Teaching and Referral Hospital (KCTRH), Bungoma and Webuye County Hospitals. All one hundred (100) interns in the study sites were targeted and distributed as follows, 40 interns in KCTRH, 30 in Bungoma and 30 in Webuye County hospitals. These interns formed 5% of the total interns in Kenya (100 out of 2,000 nationally). The researcher also enrolled 30 supervisors of CO interns also distributed all over the same hospitals 10 in each hospital. A census method was used to select all COs and their supervisors. A questionnaire was used for data collection. Reliability was determined using the split-half test and Cronbach coefficients of 0.74 was obtained. Quantitative data were presented in frequencies tables, mean; standard deviation was presented. Ethical clearance was obtained from Masinde Muliro University of Science and Technology; Institutional Ethics and Review Committee (IERC), Kakamega County Referral Hospital Research Committee, Bungoma County Research Committee and National Commission for Science, Technology, and Innovation (NACOSTI). The researchers had to maintain the anonymity and confidentiality of the participants.

RESULTS

Demographic characteristics: A total of 72 Clinical officer interns participated in the study. Male participants were 55.6% and female participants were 44.4%.

Table 1. Social Demographic Characteristics

Demographic	Frequency	Per cent
Participants	72	72.0%
Male	40	55.6%
female	32	44.4%

Clinical officer interns' clinical performance rating by supervisors: The ratings of clinical officer interns by the supervisors based on the percentages were well above 50% which showed that the

clinical officer interns had adequate skills in reference to the rating scale. While average and excellent ratings were below 30% it was noted that none was rated as inadequate. The majority of the clinical officer interns were at adequate level of clinical performance.

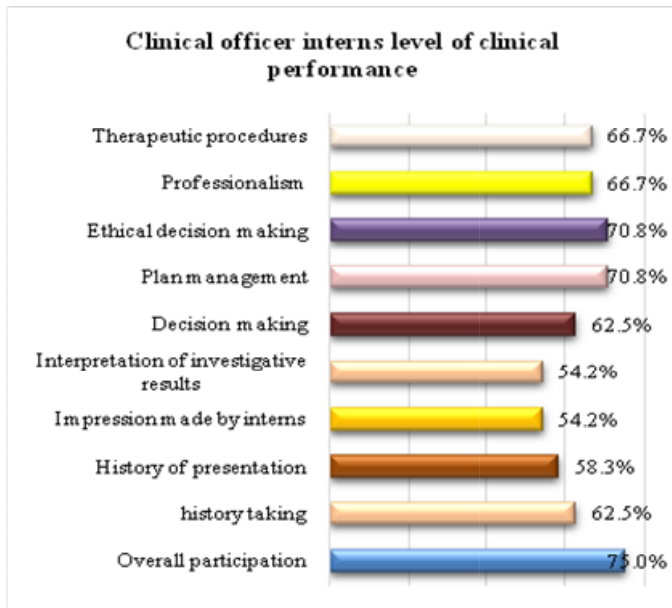


Fig. 1. Clinical officer interns' level of clinical performance

Correlation of the level of performance of clinical officer interns indicated a strong positive association. Thus, overall participation to history taking ($r = 0.745$), case presentation ($r = 0.683$), decision making ($r = 0.745$), plan management ($r = 0.900$), ethical decision making ($r = 0.900$), professionalism ($r = 0.816$) and therapeutic procedures ($r = 0.816$).

Instruction in clinical skills during training: The number of the training institutions had skills laboratories at 86.1% half of these skills laboratories were not fully functional. On course content, teaching strategies and relevance of knowledge acquired to current clinical performance were rated by CO interns below 50% of the respondents at adequate level. The learning environment, relevance to internal rotational assessment and internship booklet were rated above 50% showing a reduced level of the effectiveness of instruction.

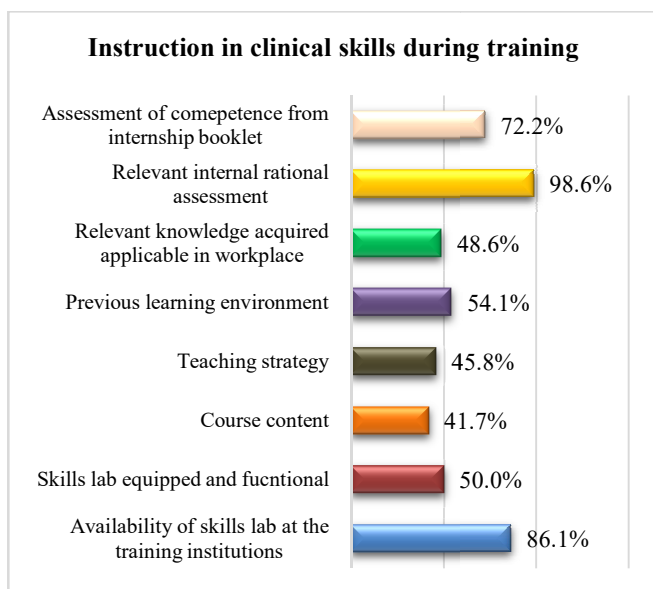


Fig. 2. Clinical participation rating by supervisors

Availability of skills lab at the training institutions had a positive medium association with relevant internal rational assessment ($r = 0.552$) and assessment of competence from internship booklet ($r =$

0.589). Skills lab equipped and functional had strong positive association with course content ($r = 0.845$), teaching strategy ($r = 0.920$), previous learning environment ($r = 0.920$), relevant knowledge acquired applicable in workplace ($r = 1.000$) and medium positive association with assessment of competence from internship booklet ($r = 0.642$).

DISCUSSION

Instruction in clinical skills of clinical officers: The study showed that the course content coupled with acknowledgement of relevant knowledge acquired to current clinical performance and teaching strategies employed by previous training institutions was below 50% implying that, only less than half of the students rated it adequate. This factor is further reinforced by the findings of the study that some training institutions have no skills laboratory facilities and worse still those who have the facilities are not fully functional. The implications of the findings of this study could be grave given the fact that the curriculum implemented by the clinical officers is competency based (KMTC, 2010). Whereas the curriculum is competency based, the strategies employed in the delivery should possess the characteristics of a quality curriculum that includes relevance, objectives, content, integration plus core skills (Nyangena, 2011). It is expected that the curriculum is a modern one which is based on the SPICES Model with innovative strategies applied. Further findings show that most of the skills laboratory facilities are not fully operational in this 21st century and worse still some institutions do not have skills laboratory at all yet the clinical skills laboratory is a simulation based medical education (SBME) that is believed to be superior to the traditional style of medical education from the view point of the active and adult learning theories (Iwata, 2012). Simulation based medical education provides a learning cycle of debriefing and feedback for learners as well as evaluating of procedures and competency (Clinical officer's council cap260). It is essential to note that, SBME offers both learners and patients a safe environment for practice and error. In a full environment simulation, learners obtain not only technical skills but also non-technical skills such as leadership, teamwork, communication, situation awareness, decision making and awareness of personal limitations. Simulation based medical education also provides effective integration of clinical medicine and basic education. To perform well and effectively one does not only need simulators including high fidelity mannequin type simulators or virtual reality simulators but also full-time faculties and instructors as professionals of SBME which are essential in a clinical skills laboratory for simulation based medical education. Clinical skills laboratory is expected to become an integrated medical education centre to achieve continuing professional development, integrated learning of basic and clinical medicine and citizen's participation and cooperation in medical education.

Clinical Performance of clinical officer interns: Competence as the ability of the practitioners to practice safely and effectively to a professional standard as such the practitioner should be able to determine their level of competence in carrying out particular functions and take measures to develop and maintain competence (Al-Shafaeel, 2013). The competent practitioner must have the ability to problem solve, think critically and utilize effective evidence on which to base their practice and work within a multi-disciplinary team. It is worth noting that the supervisors of clinical officer interns rated the clinical officer intern's clinical performance at adequate level through a majority rating of over 50%. This was in contrast with a study carried out in Norway that put the incoming medical interns at average rating of the skills (Eika, 2002) compared to the adequate in the finding of the study in clinical performance. This indicated minimal performance level. The findings contradict a belief that clinical officer interns' clinical performance is below the required standard but reinforces the fact that the CO intern's clinical performance is adequate and safe to the public. This is further reinforced by a study conducted to compare clinical officers' performance with medical doctors on outcomes of caesarean section in the developing world which showed that there is no significant

difference in the procedures performed by the two professionals (Wilson, 2012). In the ratings of clinical performance of clinical officer interns, none was rated inadequate, however a few were rated as excellent in their clinical performance. In the same vein therefore, clinical officer interns may be viewed as being educated rather than merely being trained. Clinical officer interns are able to see connections between intellectual fields in their clinical practice (Tsuma, 1988).

CONCLUSION

For the maintenance of clinical performance of clinical officer interns at high levels and achievement of the quality health care, the clinical officers training curricula should reflect a competent clinical officer working in a complex health system in order to develop a variety of professional skills which should be innovative. The innovations should guide the shift from following a set of standards to curricula based on competencies or practice outcomes. This therefore means that, innovative strategies should be embraced and interprofessional collaboration during training be embraced.

Recommendation: Innovative strategies and curricula frameworks should be embraced by the institutions of training and clinical officers' council. Mentorship and preceptorship models should be natured in order to improve clinical training of clinical officers. Kenya clinical officers' associations, a professional body together with COC (clinical officers council) and the ministry of Health policy making body should plan on how they can address the issue of motivation and harassment.

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