

APPENDIX I: QUESTIONNAIRE Survey

Situation analysis of variables relevant to Patient Safety and Quality improvement interventions in health professional training and healthcare worker (HCW) in-service Capacity building (Respondents: Medical school leadership, Hospital leadership, faculty, Healthcare workers and students)

A. General Information

1. Gender of respondent: 1=Female 2=Male
2. Age in years:

1=>65,	[
2=55-64,	[
3=45-54,	[
4=35-44,	[
5=25-34,	[
6=20-24	[
7=15-19	[
3. What is/are your role(s)/Responsibility (ies) in the institution? 1=Institutional head/Principal
 2=Unit head/Dean 3=Program head/HOD 4=Faculty member 5=Student
 6=Administration Staff 7= Frontline Healthcare-worker
4. What is the total number of years served in your position in this institution (Student Respondents: Write year of study)

A. Readiness Domains

1. Transformation in health training and care, calls for integration of Patient safety and Quality Improvement (QI) into Pre- service Training 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree
 6=Don't know
2. Are you aware of Continuous QI Initiatives within the institution? 1=Yes 2=No 3=Not sure
 If yes, specify.....
3. Are you aware of Patient Safety Initiatives within the institution? 1=Yes 2=No 3=Not sure

If yes, specify.....

4. Does your curriculum include a QI topics 1=Yes 2=No 3=Not sure
5. Does your curriculum include a Patient safety topics 1=Yes 2=No 3=Not sure
6. Given the prevailing state of health professional training there is need to include more about quality improvement and Patient safety in training of health professionals? 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree 6=Don't know
7. Which of the following QI indicators are tracked by your institution? (Tick/mark X on **all** that apply)
 - a. Timeliness of Care ☐
 - b. Patient Satisfaction ☐
 - c. Equal quality of Care to all patients ☐
 - d. Efficient use of resources ☐
 - e. Educational programs ☐
 - f. Clinical care protocols ☐
 - g. Facility Mortality audit ☐
 - h. Any other (Specify)

Regarding the following QI elements, Tick/mark X on only one of the responses which is closest to the graded levels of agreement: 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree, 6=Don't know	1	2	3	4	5	6
6. There is an information system which tracks QI indicators.						
7. Motivation for Change: There is pressure from key stakeholders calling for integrating QI into Pre Service Training (PST).						
8. Our institution/Unit has the right structures to implement the revised curriculum integrating QI into PST						

9. (a)Our institution/Unit has the right; systems to implement the revised curriculum integrating QI into PST						
9 (b)Our institution/Unit has the right; Competencies to implement the revised curriculum integrating QI into PST						
10 The Leadership of the institution has manifested commitment to integrating QI into Pre-service curriculum						
11 The curriculum committee is fully functional to support the curriculum review process integrating QI into PST						
12 All Faculty and staffs of affiliate institutions have personal responsibility for successful implementation of QI in PST						
13 The institution has adequate resources (Funding, Staff Development) to effect the change						
14 The institution has mechanisms for motivating/incentivizing performance improvement						
15 The institution has a culture and history of effective consultation and communication on important changes such QI integration into the curriculum						

- 16 Motivation for Change: Where is the greatest pressure for integrating QI into PST coming from:
1=Student, 2=Faculty, 3=Academic Program Leadership, 4=Government, 5= Regulatory bodies,
6=Employers, 7=Public

- 17 List at most three challenges that you foresee as barriers to effective Patient Safety and QI
integration into PST

- a.
b.
c.

Assessable Variables relevant to Quality Improvement interventions in Health Professional training settings

Please mark the option which is closest to your response to the written statements

B. General Knowledge and Understanding of Quality Improvement

1. The six Dimensions of QI (Effectiveness, Efficiency, Safety, Equitable, Timeliness, Patient Centered) are well known and understood 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
2. The key principles (Total Quality Management, Evidence Based Decision making), approaches (Plan Do Study Act, Lean, Sigma six), techniques (Collaborative) and tools (Assessment tools, capacity tools) are well known and understood 1=Strongly Agree 2=Agree
3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
3. Key stakeholders and their roles are well known and appreciated 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
4. Faculty, residents/registrars and clinical rotation students have skills to analyze and prioritize QI areas and design appropriate intervention 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
5. Faculty, residents/registrars, clinical rotation students have knowledge to identify performance indicators and develop relevant assessment, monitoring and evaluation tools 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
6. Faculty's competency development need for QI integration has been assessed and identified
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know

7. There is a strategy for Capacity building of the requisite faculty competency
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
8. There is adequate ongoing coaching and mentoring on QI
1=Strongly Agree 2=Agree
3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
9. Leadership and management provides conducive environment and support for QI
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
10. There is adequate Understanding of the complexities of health systems
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
11. There is adequate provision of Continuity of care
1=Strongly Agree 2=Agree
3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

C. Effective Communication

1. Patients and carers are involved fully as partners in health care
1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
2. Health Care Risks are adequately Communicated to patients by health workers
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
3. There is adequate and honest Communication with patients after an adverse event (open disclosure):
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
4. Informed consent of patient/client is always obtained when necessary
1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
5. Students are taught and guided to be culturally respectful and knowledgeable (Cultural Competence).
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know

D. Identifying, Preventing, and Managing Adverse Events and Near Misses

1. Students / HCW are taught how to recognize, report and manage adverse events and near misses.
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
2. Students are taught principles and practical applications in Managing Clinical Care Risks

1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know

3. Students/ HCW have adequate Understanding of health-care errors 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
4. Students/ HCW know how to Manage complaints in health care settings 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
5. There is an anonymous/confidential system of reporting medical errors 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

E. Using Evidence and Information

1. Quality improvement teaching, training, mentorship in your institution and affiliated practicum facilities are documented in scientific publication, and well disseminated 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
2. Clinical care in the practicum facilities is effective because it is always based on scientific evidence.
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

3. The institution/practicum facilities have all the required clinical care protocols 1=Strongly Agree
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
4. The Standard Operating Procedures for ten most important clinical conditions Incl. HCT, ART, PMTCT, EMOC, MNCH, FP, TB, are readily accessible 1=Strongly Agree 1=Strongly Agree
Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
5. There is optimum use of ICT to enhance learning and practice of QI and patient safety
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
6. There is regular (at least annual) patient/clientsatisfaction survey 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

F. Working Safely

1. The clinical placement facilities have a culture of quality improvement and patient safety 1=Strongly Agree
Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
2. The training institution has a culture of quality improvement 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
3. Teamwork and leadership for safety is taught, encouraged and supported 1=Strongly Agree
Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
4. There is adequate Understanding of human factors in quality and safety 1=Strongly Agree
Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
5. All Clinical instructors and supervisors always ensure that all students on clinical practicum only make decisions and undertake actions that are appropriate at their levels, and receive appropriate supervision 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know
6. Students and faculty are taught and supported to Manage Fatigue and Stress 1=Strongly Agree
Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
7. Patients in practicum facilities have none or very low level of unintended injuries or adverse effects of treatment and care: 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know

G. Professionalism

1. Students and faculty are taught, encouraged and supported to Maintain good health and physical fitness to work or practice
 1=Strongly Agree 2=Agree 3=Neutral
 4=Disagree 5=Strongly Disagree 6=Don't know
2. Students and faculty are taught, encouraged and supported to establish and maintain Ethical behaviour and practice
 1=Strongly Agree 1=Strongly Agree 2=Agree
 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

I. Continuing Learning

1. Students/Faculty HCW/Facility leadership are encouraged and supported to develop a culture of Lifelong Learning
 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
 5=Strongly Disagree 6=Don't know
2. Faculty/ Facility leadership have a regularized Continuous Professional Development (CPD) program, and regularly engage in it at least three occasions annually
 1=Strongly Agree
 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

1 Specific Issues

1. Students/HCW know and understand how to Prevent or avoid wrong site, wrong procedure and wrong patient treatment 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know
2. Students/HCW have adequate understanding of Medication safety 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
3. Students/HCW have adequate understanding and practice of Infection prevention and control
1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree
6=Don't know
4. Clinical treatment and care in practicum facilities is Patient-centered: providing care that is respectful and responsive to individual patient preferences, needs and values 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
5. Patients in practicum facilities always receive treatment and care without potentially harmful delays (Timely) 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know
6. The treatment and care in practicum facilities is Efficient, and avoids waste of resources (Human, supplies/medical products, equipment, infrastructure) 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know
7. The treatment and care in practicum facilities is Equitable, with every patient receiving appropriate care irrespective of person characteristics such as age, gender, ethnicity, geographic location and socioeconomic status. 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
8. The institution has a committee or unit in charge of quality standards of curriculum: If in agreement, name the committee or unit 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
9. The vision and mission of the institution include statement about quality of curriculum and or delivery of teaching and training? 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know
10. The current strategic plan include specific objective and or target of quality improvement of curriculum and education/training 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
11. The clinical placements facilities and resources are appropriate and adequate for delivering quality

improvement training: 1=Strongly Agree 2=Agree 3=Neutral

4=Disagree 5=Strongly Disagree 6=Don't know

12. The organizational vision, mission, values, strategic plan make specific statements on quality improvement and patient safety 1=Strongly Agree 2=Agree 3=Neutral
4=Disagree 5=Strongly Disagree 6=Don't know
13. Faculty/Facility leadership are well-oriented and trained on quality improvement concepts and applications in improving student training 1=Strongly Agree 2=Agree
3=Neutral 4=Disagree
5=Strongly Disagree 6=Don't know

K. Miscellaneous

1. What is the average number of total hours that Clinical instructors work during an average week period? 1= 20 Hrs or less 2= 21-40 Hrs 3= 41-60 Hrs 4=61-80 Hrs
5=>80 Hrs 99=No information
2. The institution recognizes and rewards Quality improvement efforts 1=Strongly Agree
2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree 6=Don't know

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APPENDIX II Qualitative guiding questions

The guiding questions for the qualitative interviews (KII) shall be

1. What is the priority content for Quality and Patient Safety?
2. Where can this training be placed? Which Year?
3. What approaches do they think can work to implement patient safety and quality curriculum?
4. What are the barriers you identify to implementing content for quality and patient safety and what can be done to mitigate these barriers

APPENDIX III ; CONSENT INFORMATION DOCUMENT

Title: Training needs assessment survey proposal for quality and safety curriculum development for healthcare workers

Introduction

Quality of care and patient safety is increasingly becoming an area of concern worldwide; addressing this aspect of healthcare increases the success of Universal health coverage (UHC) initiatives. There is little attempt to teach and assess the quality of care and patient safety during the pre-service period for health worker training. Moreso, in low and middle-income countries.

This proposal seeks to assess the training needs for patient safety curricula for our context to preservice, in-service, and residency. In the African region, existing and published training programs in quality and safety for healthcare workers are still in the nascent stages. A relevant system-based curriculum should offer demand-based training that must be informed systematically and identify training needs showing current existing gaps. The key participants shall include Pre-service and In-service healthcare workers and the leadership and faculty of healthcare and teaching institutions in Kenya. Those included here are the University of Nairobi medical school, Kenyatta National Hospital, Aga Khan University hospital, and Kijabe Mission Hospital.

Study procedure

You shall be requested to participate by any of the two approaches at different occasions

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1. Self-administered questionnaire
2. Key informant interviews

General Study Objective

This study aims at exploring training needs for healthcare workers in Health quality and patient safety in Kenya.

Specific Objective

1. To determine perception of the In-service and Pre-service healthcare professionals on the educational content for training Healthcare Quality and Patient safety.
2. To determine perception of the Faculty in medical training institutions on teaching methods acceptability and feasibility.
3. To assess the barriers to implementing the curriculum on Healthcare Quality and Patient Safety at organizational and individual level among the faculty in medical training institution and leaders in healthcare institution.

Risks

The information you will provide during the study will be kept in confidence and there will be anticipated risks however.

Benefits

By participating in this study and answering the questions you will help in providing information that will improve the quality of care and the training of healthcare workers in the respective departments. This will also ultimately contribute to the improvement of healthcare training and services, benefiting both the individual participants and the broader community.

If you have any concerns about how this study is being conducted, you can get in touch with the secretary of Kenyatta National Hospital- University of Nairobi Research and ethics Committee through the following contacts: KNH/UoN – ERC P.O. Box 20723-00203 or

Email: uonknh erc@uonbi.ac.ke or Tel.726300-9 Monday to Friday 9.00am to 5.00pm

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The Principal investigator is

Dr Lydia Okutoyi works at the Healthcare Quality Division KNH.

She can be reached on email lydiaoctoy@gmail.com 0721814381