Title: Evaluating the input of the nurse to quality of medical/or healthcare in humanitarian settings.

Research Question:

How can nursing contribute to improving quality of medical/or health care in humanitarian settings?

Evaluation sites: This evaluation will take place at an MSF field hospital in Sierra Leone

Proposed date of data collection for evaluation: July 2016

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Background

Quality of medical care is a major global concern and increased public awareness and pressure, mean that every healthcare provider, including non-governmental organisations, are striving to achieve it. Jha et al (2013) estimate that 43 million injuries from seven types of adverse events (including catheter-related urinary tract infections and cannula-related blood stream infections) occur yearly and combined they fall within the top 20 causes of disability and death globally. In low-income countries, poor quality of care, including patient safety, is even thought to be a barrier to access leading patients to opt-out of using health care services.

Yet, to improve quality of medical care there needs to be a clear understanding of what is meant by ‘quality care’. “Without this understanding, it would be impossible to design the interventions and measures used to improve results.”, as well as understanding what it incorporates and who is responsible.

The US Institute of Medicine define quality care as:

“The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”.

While the WHO (2006) uses a ‘working definition’, stating that quality healthcare is achieved by fulfilling six dimensions (Figure 1). All six dimensions start with the term ‘delivering health care’. This delivery is essential and ensures that guidelines and protocols become actions that are physically and psychologically delivered to the patient for them to benefit from.

Figure 1: Six dimensions of quality

- Effective, delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need.
- Efficient, delivering health care in a manner which maximizes resource use and avoids waste.
- Accessible, delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need.
- Acceptable/patient-centred, delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities.
- Equitable, delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status.

These two definitions are the most commonly used in literature discussing quality care, both in developed and developing countries.

The WHO (2001) and Institute of Medicine (IoM) (2003), alongside the International Council of Nursing (ICN) (2012) all then go on to identify nurses as critical for the provision of that quality care (WHO, 2001 and IoM, 2003 and ICN, 2012). Nurses are the largest, most costly...
and valuable group of healthcare professionals a health provider will employ and “there is hardly an intervention, treatment or healthcare programme in which nurses do not play a significant part. Meaning nurses are in a powerful position to improve quality of care and play a major role in improving health outcomes” (Cummings and Bennett, 2012). Their experience, education, and the environment they work in, all affect the quality of care provided to patients.

This link between nursing and quality care if clearly highlighted throughout the literature however there is little research showing the link between nursing and quality of care in humanitarian settings and the different challenges such settings produce with the varying educational level of nurses, their work environment and the experience they have.

**Rational for proposed evaluation**
Quality of care is a strategic goal of MSF-OCA (2015-19), with "a focus on quality assurance and patient safety”. Nursing is a vital component of ensuring quality of care and patient safety, but there is little evidence as to how nursing care improves quality of care in the humanitarian settings.

**Evaluation aim**
To evaluate the quality of nursing care in humanitarian settings, and assess how it can be improved to inform strategic development of quality of care standards.

**Key objective**
- Develop a basic framework to evaluate quality nursing care in humanitarian settings.

**Methodology**
This evaluation will be conducted using a mixed-methods design within the Donabedian evaluation framework, to be used in Sierra Leone over a two week period (July).

Donabedian’s criteria (Figure 2) are frequently used as the basis for assessing quality of care, dividing it into three areas: structure, process and outcome (Donabedian, 1998). Although it has been argued that assessing quality of care is ‘too complicated for the field’, Kerstan et al (2013) demonstrated a ‘quick, feasible and effective [way of] judging quality care’ in an MSF project in South Sudan based on Donabedian’s model. It is proposed to apply a similar approach adapted with specific focus on nursing and its impact on quality of care in order to assess the current situation and inform recommendations for improvement.

The research aims to explore the structure, process and outcomes of nursing in providing quality care using Donabedian’s model. Donabedian’s model is used to help provide structure to the research, data collection and ensure that the focus remains on the predetermined set of structures, processes and outcomes.

Figure 2: Donabedian’s model of quality care (Anderson, 2013)
Structure:
- What are the knowledge, attitudes and competencies (technical and interpersonal) of nurses?
  Data will be collected through nurses self-reporting their competencies and knowledge (based on the fundamental components of nursing, figure 3) in a structured questionnaire and their attitudes will be discussed during semi-structured interviews.
- What amenities/equipment/systems are in place and do they meet needs?
  Data will be collected during non-participatory observation using a checklist of the basic equipment nurses require and its availability, as well as observing the systems in place, such as the medical drugs and material supply for the ward.
- What organisational structure, support and supervision are in place and do they meet needs?
  Data will be collected during the semi-structure interviews, as well as non-participatory observation, where the evaluator will observe the support provided while key nursing tasks are taking place (nursing handover, vital sign taking and drug administration).

Processes:
- What key processes are in place (hand hygiene; vital signs; drug administration; documentation etc.) and are they performed correctly and safely?
- Is continuity of care promoted?
  For both these questions data will be gathered through semi-structured interviews and non-participatory observation using a checklist. A checklist will also be used to assess important medical/nursing notes, as well as equipment, staffing levels and the facilities available.

Outcome:
- What is patients' perception of quality of care and are they satisfied with the nursing they receive?
  Data will be gathered using structured exit interviews of patients or caretakers being discharged from the hospital.
- What is staff's perception of quality of care of staff and are they satisfied with the nursing care provided?
  Data will be collected during semi-structured interviews.
Note: not every dimension of Donabedian’s model will be included and these objectives would be refined upon further literature review and development of evaluation tools.

Through this approach and as indicated both qualitative and quantitative data will be collected. Qualitative analysis will allow for a deeper understanding and examination of the quality of nursing care in terms of the social context of decision making. Quantitative data will be numerated through check lists and scales. This will include nurses self-reporting their level of competencies and knowledge using a nurse competence scale, important medical/nursing notes will be assessed using a checklist. The educational level of all the nursing staff participating, the level of staffing, equipment and facilities available, will all be noted numerically.

The main stages will be:
1. Literature review: To explore and define “quality of care” and “nursing care” in humanitarian settings (including the evaluation setting) as a background to the evaluation and to inform the design of research tools.

2. Semi-structured interviews with key informants including the medical coordinator, medical team leader, expatriate doctor, expatriate nurse, the national staff nursing supervisor and nurses (minimum of 10) based on the fundamental components of nursing outlined in Figure 1. Nurses will also be asked:
   - What they consider quality of care to be and different dimensions it includes?
   - What do they think about the quality of care they provide?
   - What do they consider to assist or prevent them from providing quality care?

3. Structured exit interviews will be conducted with patients and caretakers undergoing discharge from the medical facility. The evaluator would like to conduct a minimum of 8 interviews, ensuring a variety of ages, sex, and reasons for admission. Patients and caretakers will be asked questions on perspectives of quality nursing care, their experience regarding the fundamental components of nursing during their time in the hospital and if they were satisfied with the nursing care they received. This will provide an insight into what is important to the patients and the outcome for them regarding the fundamental nursing components.

4. Non-participant observations: of key nursing procedures using structured checklists, focused on categorised quality indicators of nursing care (e.g. handwashing), will be conducted. This is to enable an observation of the structures of equipment and supervision, as well as assess the competencies and attitudes of the nursing staff towards the five processes of; hand hygiene, drug administration, vital sign taking, communication and documentation.

**Defining concepts**

Nursing incorporates a variety of skills and practices, but for the purpose of this evaluation the main structure, process and outcomes of Donabedian’s model will be focused on the fundamental and basic components of nursing outline below in Figure 3.
Figure 3: Fundamental components of nursing to be assessed

- **Structure**: Assessed through observation with structured checklists, a written test for nurses to assess their knowledge and semi-structured interviews to look at nurses’ attitudes and their perception of quality care.
- **Process**: Assessed through observation with structured checklists.
- **Outcome**: Assessed through semi-structure interviews with patients.

**Key:****
- Orange = Structure
- Green = Process
- Blue = Outcome

**Nurse**
- Knowledge and attitudes
- Competencies
- Equipment
- Support and supervision
- Communication

**Patient**
- Satisfaction
- Perception of quality care

**Hand hygiene**
**Vital signs**
**Drug administration**
**Documentation**
Setting
Will be in the urban OCA field hospital Sierra Leone.

Sampling and recruiting strategy
This evaluation will rely on purposive sampling, allowing the evaluator to select key informants who will provide useful perspectives on the relationship between nursing and quality care. As mentioned above the evaluator has already preselected the medical coordinator, medical team leader, expatriate doctor, expatriate nurse and the national staff nursing supervisor in the project as key informants.

Nurses and patients to be included in the evaluation will also be purposively selected by the evaluator, but to enhance the credibility of this sample the evaluator will maximise the variation of the sample with regard to key demographic variables including age, gender, ethnicity, if a patient reason for admission and if a nurse level of experience as a nurse.

Participation in the evaluation will be voluntary and participants will be recruited with the help of the medical team leader, expatriate nurse and national nurse supervisor. Interviews will be conducted in a private room in the hospital or outside of the hospital in a place that is convenient and comfortable for the participant and that does not breach OCA security regulations.

Inclusion criteria
1. Nurses working in the OCA field hospital in the inpatient departments.
2. Patients or caretakers who are being discharged from the OCA field hospital from an inpatient department.
3. Those who consent to be interviewed and observed or both.

Exclusion criteria
1. Those who do not consent to be interviewed or observed.
2. Patients who are too sick to participate.

Data collection and analysis
Donabedian’s model and the fundamental nursing components identified will be used to construct and guide the semi-structured and structured exit interviews. Interviews will be recorded and transcribed. Non-participatory observation will occur at times when those specific nursing components take place and will be conducted throughout the evaluator’s time in the field. Preliminary analysis of the data will occur throughout the data collection period.

Quantitative data
For the qualitative data analysis this will start from the moment data is generated and be organised by the nursing components and what quality of care means to participants and emerging themes will be identified.

Interview language
Interviews will be conducted in Creole or French, depending on the preference of the participant, with a translator. All interviews will be translated from Creole or French and transcribed in English.

Data validation


Limitations
For the qualitative data, only concepts about the relationship between nursing and quality care in Sierra Leone will be generalizable.

With using a translator there are the risks that s/he may not be trusted by participants, may distort the evaluator’s questions or the participants’ answers. This risk will be minimised by carefully selecting the translator using the help of the medical team leader and national staff nursing supervisor. The translator will then receive a comprehensive overview of the evaluation and training regarding the interviews, their questions and how to relay participant responses.

Ethical consideration
Not indicated as fits criteria for evaluation as part of programme activities

Benefits
Highlighting the impact nursing has on quality care would benefit MSF at all levels. At project level, it will provide a ‘snapshot’ of the current role/status of nursing care, as well as the relationship that the nursing is having on the quality of care. Allowing for suggested improvement or the identification of good practice to be made, which would be beneficial to both the project and mission level. At headquarter level the information gathered could serve as a useful knowledge base in the development of future strategy linked to the improvement of quality improvement plans for nursing care in general.

Potential risks from the evaluation
All participants:
The main burden will be the time taken to participate.

Nurses:
Nurses may feel that if they disclose something negative about the care they provide or the environment they are working in that it could affect their job. Prior to the interview and again at the beginning of the interview, it will be explained that anything they say is completely confidential and will not have any effect on their job.

Patients:
Patients and caretakers may feel that if they disclose something negative about the care they are receiving that it could further affect their care. Prior to the interview and again at the beginning of the interview, it will be explained that anything they say is completely confidential and will not have an effect on any future care they may need at the hospital. Patients and caretakers may also disclose something serious (abuse of power, medical error or mistreatment), a plan/protocol will be put in place to manage such a situation should it occur.

Non-participatory observation:
There is a possibility that the evaluator will observe a misconduct of practice by nursing staff, a plan/protocol will be put in place to manage such a situation, should it occur.

Informed Consent
Prior to their involvement, all participants will be given detailed information about the objectives and methods of the evaluation (that there is no right or wrong answer; we would like to learn about good and bad experiences and hear how it might be possible to improve the nurses role and the quality of nursing care).
The consent process will ensure that participants understand that participation is completely voluntary and that they can change their mind about participating at any time during or after the interview without having to provide any reason.

The participant information sheet (Appendix A) and consent forms (See an example in appendix B) will be translated into Creole by an MSF translator, with the evaluator on the first day of being in the field hospital. Back translation will be done by a different translator to ensure the questions have been clearly understood and translated correctly.

Written consent will be obtained where possible or participants will make their mark on a form that will have been read to them in their either French or Creole depending on their preference.

Confidentiality
Participants will be allocated numbers which will be used to identify all forms and interviews used during the evaluation. Only the evaluator will know which number links to which participant. This will ensure that the results and answers given by participants will not be known by anyone else, their colleagues or supervisors and will not affect their current work status or the care they are being provided in any way. In the final report, care will be taken to ensure any quotes used cannot be linked back to participants.

If there is not already an adequate confidentiality clause in the translators OCA contract, they will be asked to sign an additional form explaining that they understand that confidentiality must be kept at all times and they are not permitted to share or repeat anything they have heard during the interviews. This will be checked by the evaluator on arrival to the project.

Data management and protection
Participant allocation numbers will be kept on an excel spreadsheet on the evaluator’s computer which is password protected. Hard copies will be stored in a box with the researchers name on in it, in a locked cupboard. All the results will then be placed in an excel spreadsheet, on the evaluator’s computer which is password protected. All results will be kept for 10 years after the completion of the evaluation.

Respect for participants and the project
Participants will have the option to opt-in or out of receiving feedback summarising the findings and outcomes of the evaluation. The mission and project will receive the full report.

Evaluation Implementation
Timeline
This evaluation will be conducted over a 3 month period between June and September 2016, comprising on 2 preparation, 2 weeks data collection and 7 weeks data analysis and write-up. Dissemination is aimed to take place in September 2016.

Dissemination
This evaluation is a thesis for an MSc Public health in developing countries at the London School of Hygiene and Tropical Medicine and therefore once marked will be available in the school library.
An internal report will be produced for OCA highlighting the key findings and recommendations of the evaluation. A summary of the findings will also be written and made available to participants through the field teams.

**Budget and Resources**
The cost of flights, food, accommodation, and a translator while in Sierra Leone will be covered by OCA. No further costs are required.
References


Appendix A: Participant information sheet

Evaluating the input of the nurse to quality of medical/or healthcare in humanitarian settings

Participant Information Sheet
Version 1 – 03/03/16

What is the purpose of this evaluation?
This evaluation will assess the relationship between nursing and quality of medical care in humanitarian settings, and how nursing can improve quality of care to inform strategic development of quality of care standards.

What is involved in participating in the evaluation?
We would like you to be involved and are keen to learn from your experience of nursing care in the hospital and what you consider to be quality care. There are no right or wrong answers, we would like to learn about good and bad experiences and hear how it might be possible to improve the nurses' role and the quality of nursing care.

If you agree to take part in the evaluation you will be interviewed for between 20-60 minutes by Josie Gilday and a translator. If you are a nurse, you will also be observed by Josie Gilday during your working hours or time spent in the hospital. This may occur on several different days for around 3-4 hours. Data will be collected during the interview and the observation and will be completely confidential and anonymous, meaning you name will not appear on any documents with data on.

Who is conducting the evaluation?
The evaluation is being conducted by Medecines Sans Frontieres (MSF) and the London School of Hygiene and Tropical medicine (LSHTM). The observer and interviewer will be Josie Gilday.

Who is funding the evaluation?
The evaluation is being funded by MSF.

Do I have to take part?
It is completely voluntary and up to you if you want to take part in the evaluation, to be observed and interviewed and you can use the information provided on this sheet to help you decide. If you do decide to take part in the evaluation then the evaluator may observe your interactions with patients and medical staff and organise a time to conduct an interview with you. Before either of these things can take place we will ask you to sign a consent form. Even after this consent form is signed you are free to withdraw from the evaluation at any time, even during observation and the interview without needing to give any reason.

What will happen to me if I take part?
If you agree to take part in the evaluation, your interactions with patients and medical staff will be observed for a period of time and an interview will be conducted for 20-60 minutes. With your permission, the interviewer will take notes during the interview.

Will my taking part in the evaluation be confidential?
Yes. Any information you share with us during the course of the evaluation will be kept strictly confidential and we will not tell anyone about your participation in this evaluation. The notes made during the observations and interviews will be made anonymous and stored securely in line with Research Ethics Committee guidelines. Where appropriate, anonymised quotes from your interview may be used in publications or reports to illustrate certain points.
Utmost care will be taken to ensure that no individual can be identified in reports presented to collaborators and publications disseminated in documents and academic websites or journals.

**What are the possible benefits of taking part?**
Through taking part we hope to learn about how you feel about the nursing care in the hospital and what quality care means to you. Our aim is to identify nursing as critical to providing quality care for patients while they are in the hospital. Through your participation, we hope to understand your experience of nursing care and what you considered to be quality care in order to identify ideas and solutions of how to improve them.

**What are the possible disadvantages and the risks of taking part?**
You may feel uncomfortable talking about your experience. Please be reassured that anything you say is completely confidential and will not be shared with anyone else, including your colleagues and supervisors. The evaluator will continuously respect your confidentiality and professional position.

Thank you very much for taking the time to read this information sheet. Please contact us if you would like to find out more about the evaluation.

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Appendix B: Informed consent form

INFORMED CONSENT FORM
**Full title of the project:**

**Evaluating the input of the nurse to quality of medical/or healthcare in humanitarian settings**

To evaluate the quality of nursing care in humanitarian settings, and assess how it can be improved to inform strategic development of quality of care standards.

**Name of Principal Investigator: Josie Gilday**

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1. I confirm that I have read and understand the participant information sheet dated attached for the above evaluation. I have had the opportunity to consider the information, ask questions and have had these answered fully.

2. I understand that my participation is voluntary and I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

3. I agree to be interviewed and observed and for my interview to be recorded and transcribed.

4. I agree to be quoted anonymously in publications or reports released on the evaluation.

5. I agree to take part in the above evaluation.

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**Participant’s Name** ___________ **Date** ___________ **Signature** ___________

**Evaluator’s Name** ___________ **Date** ___________ **Signature** ___________

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This evaluation has been approved by the London School of Hygiene & Tropical Medicine’s Research Ethics Committee and is funded by the National Institute for Health Research

1 copy for participant; 1 copy for Principal Investigator