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Abstract

Background: Quality and patient safety are essential for the provision of effective health care services. Research on these aspects is lacking in settings of extreme adversity.

Aims: This study aimed to explore the perception of health care stakeholders working in extreme adversity settings of the quality of health care and patient safety.

Methods: This was a qualitative study conducted through semistructured interviews with 26 health care stakeholders from seven countries of the World Health Organization's Eastern Mediterranean Region which are experiencing emergencies. The interviews explored the respondents' perspectives of four aspects of quality and patient safety: definition of the quality of health care, challenges to the provision of good quality health care in emergency settings, priority health services and populations in emergency settings, and interventions to improve

health care quality and patient safety.

Results: The participants emphasized that saving lives was the main priority in extreme adversity settings. While all people living in emergency situations were vulnerable and at risk, the respondents considered women and children, poor and disabled people, and those living in hard-to-reach areas the priority populations to be targeted by improvement interventions. The challenges to quality of health care were: financing problems, service inaccessibility, insecurity of health workers, break down in health systems, and inadequate infrastructure. Respondents proposed interventions to improve quality, however, their effective implementation remains challenging in these exceptional settings.

Conclusions: The interventions identified can serve as a basis for improvements in health care quality that could be adapted to extreme adversity settings.

Keywords: emergencies, quality of health care, quality improvement, health personnel, Eastern Mediterranean region

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Introduction

Good quality health care is a priority according to global health institutions. The Sustainable

Development Goals demand more than just expanded access to care to attain universal health coverage (UHC) (1). In response, the World Health Organization (WHO) launched the national quality policy and strategy as a comprehensive tool that includes stepwise guidance on how to successfully develop and implement specific strategies and interventions that would ensure improved health system capacity for quality and patient safety (2).

Furthermore, WHO's Thirteenth General Programme of Work (GPW-13) has indicated the important need to address quality and patient safety in emergency settings to achieve the Organization's proposed strategic priorities (3). This was emphasized in a resolution of the 71st World Health Assembly in 2018 that set the targets: (i) one billion more people to benefit from UHC and (ii) one billion more people better protected from health emergencies (3). These targets, together with the strategies needed to achieve them, are included in Vision 2023, the roadmap of the WHO Regional Director for the Eastern Mediterranean to enhance progress in providing good quality health care services for all (4).

Alarming numbers of people live in extreme adversity all over the world and these numbers are increasing each year. In 2019, 131.7 million people worldwide were in need of humanitarian aid, and 1 in every 70 people was living in crisis settings such as escalating conflicts, economic hardship and food insecurity. A lack of research in this area has made it difficult to develop appropriate interventions to improve health care quality in these environments (5).

Extreme adversity settings include fragile, unstable states that are affected by acute or ongoing political turmoil, conflicts and natural disasters where there is a breakdown in authority, governance systems, and services. Many of the countries of the WHO Eastern Mediterranean Region are experiencing such extreme adversity (6). In September 2018, eight of the 22 countries of the Region were experiencing 10 graded emergencies, based on the WHO grading system of emergencies, affecting over 71 million people (5,7).

In emergency settings, it is challenging to provide good quality health care and identify the main challenges to improving care at the national level. Health care professionals' definition of good quality health care and patient safety vary, particularly during emergencies (8,9). Substantial difficulties during emergencies impede the provision of good quality and safe health care services (10). For example, due to the war in Yemen, only 45% of health care facilities are still functioning (11). Growing attention is now being paid to developing innovative and practical tools to tackle these challenges and ensure an attainable level of quality and safety in health care services, even during emergencies (10,12).

In view of the pressing need to address the challenges of health care quality in emergencies and identify means of improving care in these settings, the WHO Regional Office for the Eastern Mediterranean, in collaboration with the University of North Carolina, conducted a qualitative assessment to identify these challenges and explore interventions for quality improvement in extreme adversity settings. The objectives were to:

Understand the perception of health professionals working in fragile, conflict-affected and vulnerable setting of the quality of health care, in terms of (i): the meaning of quality; (ii) the main challenges to provision of good quality health care in acute and protracted emergencies; (iii) the approaches, methods and tools used or needed to overcome these challenges; and (iv) the type of support and guidance needed to measure and improve quality of care.

Provide an evidence base for the development of an action framework to promote health care quality in fragile, conflict-affected and vulnerable settings.

Methods

Study settings and sample

As of September 2018, eight countries in the Region were experiencing different grades of emergencies, according to WHO's grading (13,14). We included two of three countries with grade 3 emergencies (Syrian Arab Republic and Yemen), three of four countries with grade 2 emergencies (Iraq, Libya, and Palestine) and one of the two countries with a grade 1 emergency (Afghanistan). In addition, Lebanon was included as a representative country for countries indirectly affected by emergencies (because of the arrival of refugees).

These countries vary in terms of: the degree of fragility of their health systems; the stage of emergency, from acute to protracted; and the need to improve the quality of health care services. These differences allow comparison between these settings and stable countries regarding the definition of health care quality, challenges to providing good quality care and potential interventions to improve care.

The inclusion criteria for selecting respondents were: (i) works in the health emergency response in a public or private health facility as a policy-maker, manager or director of a health department or facility, clinical provider (doctor or nurse), representative of a nongovernmental organization (NGO), academician, or a WHO focal point in one of the countries; (ii) consents to the online interview being recorded during the data collection period, April–November, 2018; and (iii) speaks Arabic or English.

Data collection

We initially contacted 32 candidates in the six selected countries to request a phone or an online interview. A key informant interview guide was developed, pilot-tested with two respondents in the regional office, and adjusted accordingly. Of the 32 people contacted, 24 responded and consented to be interviewed between April and November 2018.

We asked each respondent four key questions.

What is the meaning of quality in your organization or setting?

What are the biggest challenges faced by your organization in this time of crisis?

What approaches, methods and tools does your organization use to overcome these challenges?

What support and guidance are needed to reliably measure and improve quality of care?

The study coordinator conducted semistructured interviews in Arabic or English, depending on the respondent's language proficiency and preference. The interviewer encouraged respondents to elaborate on their responses and to decide on priority populations and priority medical conditions from their perspectives.

Of the 24 respondents, three were from Afghanistan, three from Iraq, four from Lebanon, one from Libya, three from Palestine, three from the Syrian Arab Republic, seven from Yemen, as well the two respondents in the pilot study from the regional office. To validate and further explore the initial findings, we conducted four follow-up, face-to-face interviews with participants from Yemen who were visiting the WHO Regional Office in Cairo. In the follow-up interviews, we asked the respondents if there were additional interventions for quality improvement they could propose, what their top recommendations for quality improvement were, and who the key decision-makers were on provision of health care service.

Data analysis

We applied a thematic approach to the analysis of the data collected to ascertain what themes emerged and determine to what extent they aligned with the types of quality interventions in the WHO Handbook for national quality policy and strategy (15). The taped interviews were transcribed and translated into English, as needed. We reviewed the data, coded the themes identified and categorized the responses into: challenges to quality and safety of health care services, approaches to improve quality and safety, methods, tools, and support needed in order to make improvements.

We also prepared one-page summaries of the transcripts. The summaries highlighted the main messages arising from the definitions of quality the respondents gave, the challenges to provision of good quality health care that they highlighted, and the key approaches, methods and recommended tools they proposed for improving quality of care in their respective settings.

For quality control, one investigator coded a sample of transcripts using emic (from the perspective of interviewees) and etic (from the perspective of external observers) terms, ensuring that the one-page documents accurately summarized the key information from the transcripts. The research team at the regional office and the University of North Carolina, regularly reviewed the transcripts and summaries to synthesize results. We compiled final lists of quality-related challenges and interventions, as stated by participants.

We analysed and synthesized the data as follows: (i) themed quotes emerging from each research question; (ii) priority populations and medical needs; and (iii) categorization of responses by theme.

Ethical considerations

This study is considered as a service evaluation, with no disruption or changing interventions to the regular provided health care services within the participating countries. Therefore, formal ethical approval was deemed unnecessary. However, we assured respondents of the confidentiality and anonymity of their information and obtained their verbal consent to participate.

Results

Definition of quality

Respondents working in extreme adversity settings have a unique perspective to add to the usual definitions of health care quality. In acute emergency settings, the definition of quality highlights saving lives as the main priority, regardless of the quality of care. The standard definitions of health care quality also emphasize doing no harm while providing health care services in most efficient ways.

“We don’t have control over the staff to work according to protocols, guidelines and procedures…they seem to become less of a priority when it comes to saving lives.” (respondent from Palestine)

“Quality in war relies on reducing the number of deaths and handicaps that we see in such times.” (respondent from Syrian Arab Republic)

Priority populations and medical conditions

Public health interventions should be prioritized based on demographic, epidemiological and ethical factors. When asked about populations in greatest need of health care in emergency settings, the respondents suggested women and children, specifically pregnant women and newborns, as well as poor people, disabled people, and people living in remote or difficult-to-reach areas (Table 1).

“During such hardships, all people are exposed to poor quality services, but due to circumstances, women and children are the most vulnerable because men have more mobility and flexibility.” (respondent from Yemen)

The health care service priorities during emergencies cited by the respondents matched those in stable countries (Table 1), i.e. communicable and noncommunicable diseases as well as health services to women and children. However, war-related conditions were frequently mentioned, such as burns and trauma.

“When many people are injured, not all hospitals can handle the burden” (respondent from Iraq)

Challenges

The challenges of providing good quality health care during emergencies reported by the respondents included: health financing and resources issues; inaccessibility of services; inadequate infrastructure; health system breakdown (human resources, medicines and supplies, information governance, and referral systems); and disregard of quality of care protocols. Table 2 shows the quality and safety challenges identified by the respondents.

“Our health provision is mainly donor dependent, so that if today we do not have that donor support, it might collapse completely.” (respondent from Afghanistan)

“…insufficiency of human resources and medical devices, [no] safety protocols or patient referral system. Most of the infrastructure is destroyed due to the war” (respondent from Syrian Arab Republic)

Interventions

The interventions proposed by the respondents to promote quality of health care in emergency situations in practice are summarized in Table 3.

“…[we need] practical implementation addressing infrastructure, equipment shortages, HR and…service provision...” (respondent from Palestine)

“We are focusing on strengthening the health system, because…sometimes [the problem] is the efficiency of using the resources.” (respondent from Libya)

Validation by Yemeni respondents

The validation interviews with four respondents from Yemen indicated the need for strategies to: ensure a minimum basic health services package; mobilize international humanitarian groups to increase funding; ensure that health facilities are prepared for provision of 24-hour services at every level; increase the capacity of health authorities and district health offices; address shortages in human resources; and assess gaps in health care services.

Summary of interventions

Addressing quality of care in extreme adversity settings requires coordinated interventions at all

health care levels to: provide access to health services; qualify an environment for health systems to function; reduce harm; improve clinical care; and engage patients, families and communities. The proposed list of interventions identified by our respondents (Table 4) serves as a basis for designing and implementing improvement interventions adapted to emergency contexts.

Our results also suggest that a minimum basic services package, based on disease burden, risk factors and the cost–effectiveness of interventions, should be provided to health sector stakeholders, including health care professionals, managers, policy-makers, and others, with quality as a cornerstone. The package ensures access to services across eight key health care components: general services and trauma care, reproductive, maternal and newborn health, child health, mental health and psychosocial support, nutrition, noncommunicable diseases, communicable diseases and environmental health.

Discussion

The design and implementation of interventions often require an analysis of possible implementation challenges, and identification of priorities, feasibility of interventions and resource needs (16). In stable countries, governments can set policies and standards on quality, and enforce them through regulations, legislation and licensing of providers. If a country in extreme adversity is fragmented with disparate state and non-state actors, health policy-makers and all relevant stakeholders, such as frontline health care professionals and health workers, should be able to at least implement some interventions to improve quality in priority areas, such as a basic health service package, clinical protocols, or licensing and certifying of health workers. Adapting and contextualizing interventions according to each country’s setting would lead to effective implementation and could be a key for success (17).

Our results highlight the importance of fostering people-centred care in the exceptional circumstances faced during emergencies and crises. All populations suffer in war, but women and children were priority groups identified by our respondents, which is supported by figures of their reported high death rates during emergencies (18,19). Our respondents reported a broad range of challenges that impede the establishment of an efficient health system, which is consistent with previous literature (20,21). These challenges include: geopolitical issues; lack of funding, human resources and medical supplies; security problems; and water, sanitation and hygiene issues (22). The lack of existing emergency plans for actual field conditions in crises suggests a need to tailor policies and strategies to each country’s situation.

Health care innovation was indirectly mentioned as a way to improve quality and safety of health care services in extreme adversity settings, such as mobile clinics, advanced communication

tools and modern health information technologies. International and national collaboration is required to further study and adapt innovative interventions to improve the quality of health care and patient safety in emergency settings (23).

Our study also suggests that the definition of quality differs in acute and protracted emergency situations compared with stable contexts. For example, the global health literature highlights six domains of health care quality: effectiveness, patient-centeredness, timeliness, efficiency, equity and safety (24,25). In acute emergencies (e.g. Iraq, Syrian Arab Republic and Yemen), our respondents defined quality based on health care accessibility, safety and security, clinical guidelines, human resources and referral systems. The quality dimensions may be fundamentally similar, but these dimensions might need to be adapted and prioritized based on the specific circumstances during emergencies.

In contrast, in more protracted emergencies (Afghanistan, Lebanon, Libya and Palestine), themes on quality focused on health care financing, security, gaps in community engagement, planning for quality, and monitoring and evaluation. The literature defines quality of health care in terms of care that improves population health and well-being (26), while in acute emergencies, the definition for quality is fundamental and sad – ”health care services which aim to save lives regardless of the quality of care”.

Our study identified some distinctive challenges and gaps in providing good quality health care in extreme adversity settings. However, there have been some unusual findings; for example, in Yemen, given the magnitude of malnutrition during the crisis (27), prioritization or treatment of malnutrition as a quality intervention was not much mentioned by our respondents, which was surprising. Other quality measures that were underemphasized during the interviews were emergency preparedness, the private sector’s role, gender inequality, accountability of different actors to health care services, patient safety measures, and the value of community engagement. These underemphasized measures should be an avenue for further research to explore reasons behind that in emergency contexts. The views of our respondents differed on elimination of the causes of human error during clinical practice, facility-based infection control measures and the safety of health care workers.

Of the determinants of quality of health care, the security and personal safety of medical teams working in emergencies was emphasized as a major gap from the interviewees’ perspective. This finding is consistent with other studies that showed unsafe working environments were a reason for health workers suspending services in countries affected by crises (28,29). Another factor that our respondents did not really highlight was the role of community engagement; however, a previous study illustrated that patient engagement can have a significant impact on

improving the quality of health care (30). Furthermore, engaging the private sector (31) and involving primary health care services (32) were also found to have a positive influence on quality of care and patient safety.

Our study engaged international, regional, national and local experts to explore an increasingly important but difficult aspect of quality of care research, especially in emergency settings, and responded to a clear gap in the research. Our study has some limitations which are largely due to the nature of the data collection, as it was not possible to cost–effectively and safely conduct face-to-face interviews in many of the settings where our respondent were working. Poor communication networks and internet connectivity issues hampered the interviews. Although confidentiality and anonymity of information were ensured, and consent was obtained from the participants, the sensitivity of some questions resulted in several respondents being noticeably reluctant to elaborate on their responses, although others freely expressed their views. Lastly, knowledge about quality of care varied considerably among the respondents.

Evidence-based quality interventions must be selected, adapted to the context and implemented based on the phases of a crisis (33). In the emergency phase, interventions may simply focus on establishing access to care and a basic minimum services package. In the transitional phase, when a country tries to move from an emergency to a recovery state, the focus shifts from relief to more long-term strategies, while the post-crisis phase entails health system strengthening and integration (34). Stakeholders at various levels of the health system have a role in the selection, implementation, monitoring and evaluation of interventions, and these roles need to be well-defined and coordinated across the health sector (33,35).

Our respondents proposed short- and long-term strategies to provide the best quality services applicable to the context. These interventions now need to be tested at the operational level, with continuous monitoring and evaluation. While the challenges differ, enforcing quality standards is a starting point for improving health status and rebuilding communities (36). It is to be hoped that implementation of these interventions will shift the focus from just saving lives to consideration of the quality of health care services in terms of safety, effectiveness, patient-centeredness, timeliness, efficiency and equity.

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Competing interests: None declared.

Qualité des soins de santé et sécurité des patients dans des contextes d’extrême adversité dans la Région de la Méditerranée orientale : évaluation qualitative multipays

Résumé

Contexte : La qualité des soins et la sécurité des patients sont essentielles pour la prestation de services de soins de santé efficaces. La recherche sur ces aspects fait défaut dans les cont extes d’extrême adversité.

Objectifs : La présente étude visait à examiner la perception des intervenants en soins de santé qui travaillent dans des situations d’extrême adversité pour ce qui concerne la qualité des soins de santé et la sécurité des patients.

Méthodes : Il s’agissait d’une étude qualitative réalisée dans le cadre d’entretiens semi-structurés avec 26 parties prenantes du secteur des soins de santé de sept pays de la Région de la Méditerranée orientale de l’Organisation mondiale de la Santé confrontés à des situations d’urgence. Les entretiens ont examiné le point de vue des répondants sur quatre aspects de la qualité des soins et de la sécurité des patients : la définition de la qualité des soins de santé, les obstacles à la prestation de soins de santé de qualité dans les situations d’urgence, les services de santé prioritaires et les populations vivant dans des situations d’urgence, et les interventions visant à améliorer la qualité des soins de santé et la sécurité des patients.

Résultats : Les participants ont souligné le fait que sauver des vies était la principale priorité dans les situations d extrême adversité. Si toutes les personnes vivant en situation d’urgence étaient vulnérables et à risque, les répondants considéraient que les femmes et les enfants, les personnes pauvres et handicapées et les personnes vivant dans des zones difficiles d’accès étaient les populations prioritaires à cibler par les interventions d’amélioration. Les défis à relever pour ce qui est de la qualité des soins de santé sont les suivants : problèmes de financement, inaccessibilité des services, insécurité des agents de santé, effondrement des systèmes de santé et insuffisance des infrastructures. Les répondants ont proposé des interventions pour améliorer la qualité, mais leur mise en œuvre efficace reste difficile dans ces contextes exceptionnels.

Conclusions : Les interventions identifiées peuvent servir de base à des améliorations de la qualité des soins de santé qui pourraient être adaptées à des contextes d'extrême adversité.

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