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Maturity of Preparedness of Disaster in Nursing: A principle-based concept analysis

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Abstract

This paper aims to evaluate the level of maturity of preparedness as a concept in the nursing discipline. We analysed articles published between 2015 and 2024. Morse and colleagues developed epistemological, logical, pragmatic, and linguistic principles to evaluate the maturity level of preparedness. The results imply that the concept of preparedness in disaster nursing is still developing, with varying definitions and measurement methods. How preparedness is defined can assist adequate nurses in preparing to respond to any disastrous situation, which mitigates the negative consequences of the event. This results in saving victims, improving nurses' fulfilment, and enforcing health facilities' roles in serving populations. Preparedness is an important concept for nursing in disaster; further studies and analysis are needed to develop and clarify preparedness concepts.

Keywords: Concept analysis-maturity level- nursing discipline- preparedness

1. Introduction

The concept of preparedness is widely addressed in the healthcare system, particularly in managing disasters and emergencies. It refers to the system's ability to effectively respond to any crisis, whether it is natural or man-made. This can be achieved by ensuring that the required related knowledge, skills, competencies, and various resources are all in place [1-2]. Utilizing this concept ranged from individual preparedness represented by the patient and caregiver to institutional preparedness through structure, supply, system, and practices, to the national and international preparedness needed for more significant global health threats at a population level [3]. In the nursing literature, it is usually linked with undergraduate teaching [4-6] ; nursing continuing education [3,7-8] ; and nursing practice [2,9]. Further, refocusing attention on the concept of preparedness evolved due to the COVID-19 pandemic shows how many healthcare institutions are unprepared to handle unanticipated crises and impose different kinds of operational challenges [10].

Despite the global recognition of its importance, the concept still has inconsistent definitions and applications across various health-related fields [11-12]. It is usually studied and discussed beside other related terms such as; readiness and resilience. However, these related concepts have not delineated precise boundaries [13]. This is reflected negatively in the concept's applications in the practical health fields and measurements. For instance, preparedness is used in some literature interchangeably with readiness. Whereas others considered both as distinct but overlapped [14-15]. Similar to the concept of resilience, some literature framed it as a preparedness component, while others treated resilience as an entirely independent construct [16].

Multiple frameworks attempt to define the concept of preparedness and measure its complexities in different healthcare contexts. Models that provide critical insight into preparedness are varied, to name a few; the International Council of Nursing (ICN) framework for Disaster Nursing Competencies (2009) is an example of individual preparedness, while both the WHO (2021) Framework for Emergency Preparedness and the Surge Capacity Preparedness [17-18] are examples for institutional preparedness. Employing these models assists the healthcare system in going beyond the simple definition of preparedness, exploring the deeper dimensions of readiness, and then being able to customize policies and protocols to fit their system to manage disasters and emergencies.

How preparedness is defined is essential for the introduced health services [19], health professionals, patients, and the general population [3], and for assessing the instruments used to measure emergency preparedness [20-21]. Studies addressed the importance of readiness and its relevance to nurses, particularly those working in hospitals. However, systematic conceptual analysis to identify the maturity level of the preparedness concept is still lacking [3, 11]. The purpose of this paper is to evaluate the maturity level of the preparedness concept as used in nursing within the context of disaster and emergency crises, based on the four principles of Morse and colleagues [22]: epistemological, logical, pragmatically, and linguistically. Employing this approach aims to identify gaps in the literature and propose recommendations for further research that would enhance preparedness understanding and implementation to improve encountering disaster and emergency conditions.

1.1 Why Preparedness within Disaster and Emergency Crisis?

Since the beginning of human existence, disasters have been embedded in their lives, causing an altered quality of life, impaired health status, and premature death. In this context, the risk of exposure to natural hazards, including global warming, heatwaves, earthquakes, landslides, and floods, in addition to the manufactured threats, namely war, aggression acts, terrorist attacks, and epidemics, is likely to increase to carry out the international societies to spend vast fortunes and efforts on disaster preparedness [3].

As for healthcare facilities, it is probable to be required to call upon any disaster. Its ability to care for an extensive number of victims who are in a vast number of sudden inrushes depends on its structure, staff, and system [23]. In this regard, the decision-makers are working on preparing the healthcare organizations to deal with sudden, unpredictable, life-threatening events through empowering healthcare workers, including the nurses, who are the largest group of workers, ensuring appropriate systems and procedures, and assuring that sufficient resources are in place [24]. Unfortunately, most nurses are not ready to handle disasters or manage large numbers of emergency care seekers [25]. In particular, the emergency department nurses who work with limited resources, a shortage of staff, and work overload [26]. Therefore, when they are thrown into disaster conditions while overburdened, their performance will be less flexible and less able to handle the emergency challenges [27].

1.2 Definitions of Preparedness

Since it was reported in the 16th century, the preparedness concept has been attracting considerable interest indicating the simple meaning of being prepared. However, it is more common when discussing something potentially disastrous [23]. The English Oxford Dictionary defines preparedness as “(to do something) the state of being ready or willing to do something” (Oxford Dictionary, 2022).

The sociologist pointed to preparedness as the capacity to ensure vital components and safety of any system against any threat. Furthermore, they clarified that the guarantee to maintain vital components like infrastructure would avoid system collapse if keeping balance with social equality to have resilience in any critical situation [28]. This term is mainly used internationally within the scope of disaster and emergency. The World Health Organization (WHO) defines preparedness as one of four phases of disaster, which includes mitigation, preparedness, response, and recovery [29]. Disaster preparedness is described as actions that preventively enhance disaster response, including identifying threats, maintaining a stockpile of required resources, and developing the institution's capacity [29].

The complexity of preparedness becomes more detailed; to be understandable when it is viewed through the lens of specific models or frameworks. The Sendai Framework described it by training exercises and establishing support systems. However, the ICN framework defined preparedness as the ability of nurses to efficiently respond to an emergency or disastrous situation. By dominating the required knowledge, skills, and competencies, besides being equipped to manage the social and psychological needs of affected individuals.

In contrast, emergency preparedness is mainly defined at the Institutional level to indicate collaboration between healthcare agencies to regularly tackle, manage, and recover from the looming crisis [29]. This is congruent with how preparedness is defined in the surge capacity model, by the hospital's ability to effectively manage sudden surges in the number of patients, utilizing its available resources to timely deliver sufficient care [30]. Indicated by the hospital's ability to ensure adequate staff structure and system, which is referred to as the 4S framework. On the other side, Mikovits (2021) makes a more scoped view to define this concept by the system and individual ability to draw from previous knowledge and experiences to maintain situational awareness, emphasizing the importance of confidence and resilience while responding [13].

1.3 Preparedness in Nursing Discipline

Nursing for emergencies and disasters is traced back to Florence Nightingale time, the founder of nursing science. She employed environmental resources in war victims' treatment and introduced the triage system for injured soldiers. Since then, nursing disaster management has gained more attention for developing this field in terms of defining the scope of practices, core competencies, and undergraduate educational programs [31]. However, despite continuous practicum, academic, and research efforts in the nursing of disaster, certain related concepts remained inadequately defined [32]. Preparedness has been defined as the process by which nurses are safely trained and equipped to efficiently respond to disasters and emergencies [12]. The concept is closely linked to nurses' education, roles, knowledge, and skills that are necessary for crisis management, as well as hospital readiness [31, 33]. Limited models are designed to guide nurses in disastrous events, which result in a hindered nursing response in such events, notwithstanding accelerated numbers of different kinds of crises worldwide, with dramatic negative consequences at all levels [34].

Nurses' knowledge and skills are improved by accumulated experiences derived from training programs and prior crisis management experiences [33].This accumulated experience equips nurses with the required competencies to respond effectively in hazardous settings and to collaborate with interdisciplinary groups [35]. These skills, represented by their quality practices and competencies, play an essential role in improving their awareness and increasing self-confidence to deal with unpredicted disasters [34]. Their roles in disaster situation are different from their day-to-day nursing activities in typical work environment [33]. In a crisis, nurses are requested to assess a wide range of needs, plan work within a disaster context, and ensure safety. Therefore, they should be well-prepared as first responders. One more dimension that influences the nurses' preparedness is hospital readiness. It is achieved through employing an appropriate emergency plan, safe supply stock availability, well-trained staff, equipped with first aid nursing skills, doing regular evacuation and disaster management exercises, and being updated with standard guidelines of disaster management. Hospital readiness also needs an effectively designed traffic system [3, 36].

Studies show that many nurses lack the required education and training to work under the conditions of mass casualties and unprepared to introduce appropriate timely responses [3,25]. Furthermore, the empirical studies underscored the significance of preparedness in nursing professional work. The cross-sectional study by Saidam and Aljedi [24], investigated the perceived role and knowledge level in disaster preparedness to find that 81.5%, indicated the active role of staff nurses in participating in planning for emergencies and introducing psychological care to victims. Disaster knowledge scored 78.03%, to reflect competency by experience and updated information. On the other hand, the study recommended condensing on-the-job training and aligning more between theoretical and practicum programs during educational programs [24].

Another longitudinal study was conducted to assess and enhance the ongoing emergency preparedness of hospitals against toxicological Mass Casualty Incidents (MCI). The study has assessed hospital Standard Operating Procedures (SOPs), equipment, infrastructure, personnel knowledge, training, and

exercises as requirements for preparedness. The results revealed that the overall hospital preparedness mean score has significantly increased over the five periods of measurement, increasing from 88 to 95 for 70 % of hospitals (16 out of 23) [37].

2. Methods

2.1 Design

Concept maturity indicates having well-defined and stable meaning. With clearly identified characteristics, established boundaries, and explicitly specified preconditions and outcomes [22]. To evaluate the maturity level of the preparedness concept, the four principles of Morse et al. [22], epistemological, logical, pragmatical, and linguistical, were primarily used. Additionally, the Hupcey and Penrod [38] methodology was considered in this analysis, since it offers insightful operationalization of the concept of interest, and complements the framework of Morse et al by underscoring the importance of theoretical background of the preparedness to achieve a more clarified definition [39].

2.2 Search strategy

A comprehensive literature search was carried out to assess the maturity of the preparedness concept in nursing, specifically within the emergency and disaster context. The search spanned databases such as; the Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, PubMed, Scopus, Science Direct, and Ebsco host from January 1, 2015 to December 24, 2024. However, studies before 2015 were also considered in terms of definitions, related theories, and basic information for preparedness in nursing and healthcare. Keywords such as; “preparedness”, “Hospital readiness”, “emergencies”, “Disaster”, and “nursing preparedness”, and related terms such as “concept maturity” and “ analysis” were used with Boolean operators and MeSH. Synonyms like “emergency readiness” and “hospital planning” were also considered to broaden the search strategies. Additionally, the references list of retrieved studies was screened and then supplemented related studies to the reviewed material. Authors made efforts to ensure content saturation and control selection biases, by considering quantitative, qualitative, and mixed methods approaches, across global related studies.

2.3 Eligibility Criteria

The predetermined inclusion criteria required peer-reviewed, full-text, English language studies. That addressed the preparedness of nurses and hospitals in the context of emergency and disaster, in terms of preparedness definitions, conceptual models, or operationalization of preparedness reviewed and examined. The exclusion criteria counted in studies discussing preparedness in non-hospital contexts, such as pre-hospital or community-based roles. Additional, non-peer-reviewed, and gray literature were excluded.

3. Results

The preliminary search yielded 1,271 studies across all utilized databases. 962 articles remained after removing the duplicated ones, those were narrowed to 185 after titles and abstracts screening. Full-text screening guided by the inclusion criteria released 52 reports deemed relevant for further assessment. The final set of analyzed studies included 23 articles with a diverse range of research methodologies that searched preparedness in terms of conceptual (including attributes, antecedents, conditions, and outcomes or consequences) and operational defining, hospital management approach, or healthcare workers' and nurses' roles in disasters.

3.1 Epistemological

In this principle, the concept is evaluated to decide if it is clearly defined and applied consistently and coherently across different contexts [22]. The preparedness concept has historical roots dating back to the 16th century, which simply meant being ready to encounter any potential danger [23]. This definition has continuously evolved, specifically in the field of disaster. After that, sociologists expanded the preparedness meaning to include the capacity to ensure the safety of vital components of

any system such as infrastructure; to avoid system collapse. This can be achieved by keeping a balance with social equality to have resilience in any critical situation [28].

The preparedness concept has been widely used. However, it remains ambiguously defined across various reviewed literature. Evidenced by inconsistent and unclear delineation; since it is interchangeably used with other closely related concepts, such as readiness, capacity building [13], and contingency planning [40]. Furthermore, the distinction between preparedness and other related concepts such as emergency planning is still blurry; in certain literature, it is defined as a subset of emergency planning, while in others, both concepts are treated as synonymous which affects the preparedness clarity [41].This conceptual overlapping can be confusing given that the preparedness concept has inconsistent applications across various fields [22]. This can hold back most of the utilization of the preparedness concept, particularly, in critical situations such as healthcare services' preparedness to emergency and disaster.

The preparedness concept still lacks a cohesive framework despite its well-identified attributes such as; competence which indicates the ability to accomplish a specific task, responsiveness, as a quick and precise reaction to any stimulus, and readiness, which means being prepared, readiness, and responsiveness [13]. Such oversimplified attributes do little to identify the preparedness scope. One more important issue of the epistemology criterion to define preparedness is to determine its main components [22]. Unfortunately, more information is needed in this regard. It is imaginable that it is difficult to have some unified preparedness in common because of differences from one setting to another end. However, they are interrelated, and some of them depend on others' availability, such as disaster plans and protocols, which include communication tools and public participation strategies that anticipate the availability of staff, equipment, and safety measures to work effectively [13]. Moreover, other conditions around preparedness are still debatable in determining its relation with it. As education, training, and exercise are presented to be preparedness components in the analysis conducted by Mikovits [13] approached those activities as attributes or antecedents of the preparedness concepts. Another considered the skills, knowledge, and experience as the antecedents that ensure preparedness [41].

Regarding the consequences of preparedness, literature documented three main categories of them as positive outcomes to the prepared system, including; comfort with practice; because the staff is confident with what they are doing; understanding of the practices as a result of the knowledge and experience, and situational responsiveness, which means that the staff will approach the situation appropriately as a result of preparedness [13]. Consequently, the epistemology criterion indicates that the preparedness concept has not yet achieved a clear and mature definition. Despite its wide application, it still has interchangeable usage of related terms and fragmented understanding. That can influence the system's ability to work on preparedness requirements or even achieve positive outcomes, and then both will remain contingent until a clear and consistent definition is developed.

3.2 Logical

The second criterion in the principle-based concept analysis method refers to the logical integration of the concept with other related terms, identifying its boundaries, and examining any potential overlapping [38]. Preparedness was used interchangeably with different terms such as disaster planning, disaster readiness, disaster response, and disaster provision [2]. As such terms share specific features; the preparedness concept holds broader dimensions, proactive action that is taken for future anticipated crises, guided by the goal of reducing any negative consequences [3]. This means that preparedness is not just an immediate response, but also it is a holistic framework that includes; planning, capacity building, checking resources, and evaluating risks.

Preparedness was conceptualized through several models for a better understanding of its structure and process. The Jennings community health nursing model (2004) is developed to guide community health nurses to implement nursing practices at the community level by focusing on a community-centered approach, holistic care, and empowered practitioners, and working on prevention and promotion levels. These principles guide nursing roles during all disaster phases and emphasize continuity and developing process of preparedness. In contrast, Wynd [42] developed a military disaster nursing model to prepare nurses for a rapid response based on the military approach to managing any military disaster and mass causality event. This model prepares nurses to work under

conditions of complexity, a large influx of victims, and within unstable environment. Thus it covers all disaster phases including preparedness, response, and recovery. For the preparedness phase, Wynd focused on education and training, coordination skills, maintaining ready resources and supplies, and military and civilian well-trained personnel [42]. Both models emphasize anticipatory action, rapid response, and evaluation of disaster. Despite the usefulness of such models, they need redefining to focus more on certain complex crisis dimensions, particularly, the psychological and organizational aspects.

From the psychological perspective, preparedness is an essential factor in decision-making; when nurses are psychologically prepared they can evaluate in-hand information and resources, then anticipate risks and take the right action, which in the end contributes to a vigorous disaster response [43]. That feeling of control can create a psychological state that encourages nurses to encounter any disastrous situation, and this strengthens the preparedness state. The documented components of preparedness including planning, psychological resilience, resources, evacuation, and capacity building are usually linked with strong and well-structured hospital buildings. That is explained by the survival component which represents medical supply, planning provides health needs, psychological aspects enhance self and client coping, and capacity building will be improved by working with other agencies to confront unexpected events during a crisis, and evacuation is a good function in preparedness [43]. However, further studies are needed to develop a conceptual framework for the preparedness concept as a complex and dynamic strategy to allow effective disaster management.

3.3 Pragmatical

The third criterion in the principle-based concept analysis method refers to the concept's applicability, usefulness, and operationalization in practice [38]. Preparedness has been assessed through numerous tools. Some focus on the preparedness of the system or institution, while others measure individual readiness, particularly, from the nurses' perspectives. Yet, there are still various challenges among preparedness measures in terms of their comprehensiveness and capacity to capture all related dimensions.

Preparedness in nursing is measured by the Scale of Perception of Disaster Preparedness among Nurses (SPDPN) by Ozcan [44]. This tool assesses preparedness by 20 items across three main phases as follows; preparation stage, intervention stage, and post-disaster stage. Similarly, the Disaster Preparedness Evaluation Tool (DPET) was developed by Tichy et al. [45] to measure the level of preparedness among nurses by 68 items. The Emergency Preparedness Information Questionnaire (EPIQ) is a validated tool utilized to measure nurses' familiarity with and preparedness. While the Nurse Professional Competence Scale with 88- items measures disaster nursing competence. Regarding institutional preparedness, hospitals were assessed by different tools based on certain dimensions determined by the National Incident Management System (NIMS), and the Association for Professionals in Infection Control and Epidemiology (AIC), to name a few. One broader tool that assesses hospital preparedness was developed by Jenckes and colleagues [46]. It covered six modules that assess a hospital's strengths and weaknesses in responding to disaster, documentation evaluation, victim tracing, and incidents of biological and radiological threats [47].

Another holistic tool used to evaluate hospital preparedness is the Toolkit for Evaluating Hospital Preparedness for Surge Capacity in Disasters, developed by Shabanikiya [48]. It includes 64 components that are categorized into five main areas including; management of operations and space, medication/equipment, manpower, administrative functions, and training/exercise/drills. Scores on a scale from *0* to *5* determine the hospital's preparedness for disaster and emergency which is indicated by the hospital surge capacity level. Despite its well-structured methodology and wide recommendation to employ it as a comprehensive tool appropriate to all kinds of disasters and crises, there is no evidence in the literature of its utilization in a real study with real findings.

Despite the useful insight that was given by the above tools, and other tools that were used by different international bodies including; the Centers for Medicare and Medical Services (CMS), the Centers for Disease Control and Prevention (CDC), and the Joint Commission (TJC), none completely covered all dimensions defined by the (NIMS) [48] to result in gaps in the preparedness assessment specifically, in practical fields. This was supported by the reviewed studies regarding preparedness

operationalization that were implemented by Verheul and Duckers [3], which retrieved nine recurring dimensions that can produce a comprehensive preparedness identification. Those were not grouped with a unified preparedness measure [3]. This indicates the need for developing a comprehensive and standardized measurement approach. In addition, the available tools need to indicate how to prepare the HCWs, specifically, nurses, how to measure their preparation programs, or how to promote this preparation [48-49].

3.4 Linguistical

The fourth and final criterion in the principle-based concept analysis method evaluates the consistency of the concept's utilization across various contexts (Hupcey & Penrod, 2005). Preparedness was used in the healthcare context to identify a framework and protocols for disaster response [50]. This frame included two main interests: one is an external focus targeting the capability and capacity to respond to health needs, and the other is an internal focus targeting the ability to stay functional under the conditions of scarce resources and limited time [3].

Preparedness was assessed through staff preparation and perception, or by public health readiness [3]. However, there is a clear inconsistency in preparedness application across different fields and settings particularly, among operationalization and measurement purposes. These disagreements indicate further research that considers the effect of different contexts on the preparedness definition since those differences can positively influence exchanging the subject of preparedness examination. They also notify the decision-makers to consider these context variations when applying the preparedness principles in their health settings and developing disaster management-related policies [3].

3.5 Conceptual Components of Preparedness

Preparedness analysis indicates unclear definitions and overlapped boundaries of preparedness, besides limited measures to operationalize the concept across different contexts. The general preparedness approach defined its characteristics as competence, responsiveness, and readiness [13], which look individually at diverse attributes. Still, generally, they all represent the state of being able to deal successfully with any disaster and emergency. Besides that, produce the preparedness goals represented by comfort with practice, situational responsiveness, and practice understanding [13].

However, such a picture could not clearly define preparedness when recalling the idea that the concept attributes are not enough to outline it, since the concept maturity also requires deep determination of the components [22]. This can be achieved through further studies comparing preparedness among different sets of interests such as hospitals, versus workers, versus communities. Then identifying commonalities of all discrete units would contribute to a clearer definition. Additionally, this kind of analysis can inform the researchers and practitioners of the main gaps or inconsistencies in the preparedness evaluation. Then they will be able to rebuild preparedness tools and apply best practices for preparedness in different healthcare settings [50].

To develop a comprehensive understanding and a more robust picture of preparedness, applying the appropriate framework is essential. The ICN (2009) model is designed for individual preparedness. Particularly focuses on nurses' competencies. Institutions are required to prioritize continuous professional development and disaster-based training programs. To strengthen the nurses' knowledge, skills, and competencies including psychological aspects that is tailored to nursing roles during emergencies and disasters. Thus this model is still limited in its scope; by emphasizing the individual nurse's readiness without guidance that is directed to the institution or system.

On the other hand, the Surge Capacity framework Shabanikiya et al [48] addressed institutional preparedness. It is proposed that the well-prepared institutional components including; structure, stuff, staff, and system (4 Ss) enable the institution to manage the large influx of victims resulting from disasters or emergencies besides the ability to deal with daily routines of healthcare services [48]. This model is highly applicable to healthcare settings. It clearly defines and guides the institution's readiness to encounter the emergent situation and allocate the required resources. However, its limitations are clear in its assumption that the institution has a well-established system and infrastructure.

Moving to a broader model, the World Health Organization (WHO) Strategic Framework for Emergency Preparedness (2021), which is situating preparedness along the four phases of emergency

and disaster management, encompasses; mitigation, preparedness, response, and finally recovery phase. This framework guides institutional preparation at local, national, and international levels by focusing on collaboration and intersectional principles. However, its high level of planning may make it difficult to be adopted by individual institutions or nurses at the operational level for day-to-day activities. Similarly, the Sendai Framework UNDRR, (2015), draws the preparedness and risk reduction perspectives at the global level. Emphasizing the importance of education, training, support systems, and risk management integration in healthcare facilities and communities. In a similar manner to the WHO model, its major advantage is the focus on collaboration across sectors, but its direct effect on the individual institution or nurses couldn't be translated into daily operations. Thus, when these frameworks are considered to be applied in healthcare settings or for nurses' preparedness, each has advantages and limitations. Then, preparedness requires a merged model beginning with individual preparedness to guide and ensure nurses' education and training. As well as, providing an overarched guidance to prepare institutions and systems.

4. Discussion

The preparedness concept is used in diverse contexts ranging from caregiver preparedness, practice preparedness, and disaster preparedness. Different requirements include knowledge, experience, orientation, and understanding of emergency preparedness.

Emergency preparedness and disaster preparedness were used interchangeably in some kinds of literature. Some others use emergency preparedness to describe human-made disasters and outbreak diseases rather than natural disaster preparedness [14-15]. Nurses' preparedness was correlated with their responsiveness. How much they are prepared in terms of readiness and awareness through training and continuing planning; they can respond to manage the disastrous situation [13]. The preparedness concept was evaluated based on the principles of Morse et al. [22] to assess its level of maturity. Studies revealed that preparedness plays a more significant role in effective nursing responsiveness to emergency and disaster situations. Most of them confirmed that preparedness is a complex concept with a multidimensional nature, resulting in challenges in its application across varied healthcare settings. Thus effective preparedness especially, in nursing which forms the largest sector in health professions requires further research to identify the preparedness boundaries, and where they overlap with other related concepts such as; readiness and resilience. The outcomes of this research can produce a standardized preparedness definition, develop appropriate protocols matching the setting, can also refine the tools to examine the preparedness level among HCWs and health institutions to enable monitoring and evaluation. Moreover, preparedness maturity necessitates an additional interest in designing and implementing discussion-based and operation-based exercises, as well as the need to examine its critical dimensions, such as capacity and safety levels, as are necessary for hospital nurses to serve patients in emergencies. Furthermore, it improves the validity and reliability of the employed tools [48].

5. Conclusion

Preparedness provides a platform for practical, applicable, and coordinated planning. It plays a significant role in reducing duplicated efforts and improving the efficiency of response at the individual and health institutional levels, positively reflecting on the community and population levels. This paper has highlighted inconsistent preparedness definitions and applications in nursing and hospitals, pointing to the concept's complexity and multidimensional nature. To address such challenges, further research is needed to standardize the preparedness definition; by examining its multidimensions including; readiness, resilience, and capacity. This work can produce an adjustable protocol that can be customized based on the targeted setting in certain crisis conditions. Additionally, the healthcare system needs to invest more in education and training to develop the resilience and readiness competencies that enable workforces to introduce timely efficient responses during emergencies and disasters. Furthermore, currently, available preparedness tools should be revised and redesigned by discussion-based and exercises-based besides investigated studies to offer the needed continuous evaluation and monitoring of preparedness in practice and for healthcare workers, particularly, for nurses.

Declaration of Conflicting Interest

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Authors' Contributions

E.S and H.O: designed, collected, analyzed the data, and drafted the manuscript. E.S: re-assessed and revised the draft manuscript. All authors: read and approved the final manuscript.

Data Availability
The data related to this research can be provided upon request**.**

Declaration of Use of AI in Scientific Writing
There is nothing to declare.

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