



A Review on the Importance of Midwives' Accompaniment in Crises and Disasters

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Abstract

Introduction: Crises and disasters are unavoidable situations at any time, with destructive effects which lead to the inability of the community to provide health care needs. Considering the importance of reproductive health as well as maternal and infant health and the need for midwives, this study is a review of the important role of midwives in reproductive health in crises and disasters.

Methods: In this study, the articles indexed in databases: Magiran, PubMed, Google Scholar, and Scopus were studied from 2010 to 2020. The vocabularies: crises and disasters, reproductive health, COVID-19, midwives, and other related words were searched and reviews were conducted on 45 articles.

Results: The main challenges in the crises and disasters are lack of services and insufficient access to healthcare and reproductive services, which causes many problems for women. By providing reproductive health care in disaster areas, midwives can have a significant role in the safety and health of women and their families. The self-efficacy of midwives in providing reproductive health services in crises has been assessed at a moderate level.

Conclusion: Providing proper and timely provision reproductive health services in disasters is very important and it is necessary to consider preparations for establishing supervisory systems for the women. Therefore, by providing occupational, physical, and psychological support, as well as developing the necessary policies to take retraining and clinical training courses for students and midwifery staff, they can be prepared to deal with crises and challenges.

Keywords: Midwives, Disasters, Reproductive Health, Promotion of Health, Healthcare.

Introduction

Disasters and crises are inevitable situations at any time and their devastating impact leads to society's incapacities in establishing needs and health which, based on their intensity and significance, might be physical and financial damage.(1)

From the viewpoint of International Crises and Medical Emergency Forum, disasters are incidents by which typical functions of society are interrupted and the need for human resources increases far

beyond natural daily needs meeting which is out of society's functional capacity and capability (2).

Over the past thirty years, the rate of crises and disasters worldwide has doubled, and the number of damages and personal injuries caused by them has increased three times as much. According to the published risk index, Iran is among the countries at high risk of natural disasters (3). For example, with a glance at the past years, it is clear that nearly 90% of the population living in Iran is exposed to the

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dangers of earthquakes and floods (4). Iran ranks fourth in terms of the number of disasters in Asia, and of 40 different disasters, 31 have occurred in Iran and are likely to happen in the future (5). According to the statistics presented in 2017, Iran is one of the 5 countries with the highest loss of life due to natural disasters (6).

One of the most important human social events that happened in the 21st century is the Coronavirus prevalence crisis throughout the world and its social and health-related consequences. The novel Coronavirus-2019 (SARS-CoV-2) is the third known animal Coronavirus disease after the SARS and MERS respiratory infections from the beta-coronavirus category. In January 2020, WHO declared the novel Coronavirus-2019 epidemic a public health emergency with international concern and named the disease COVID-19 (7).

During crises and disasters, women and babies are the vulnerable sections of society, in such a way that they make up 75% of the displaced population after disasters (8).

Physiological conditions of women, such as pregnancy, breastfeeding, and taking care of young children, place them in the vulnerable group of society (9). Also, the sublime role of women in family and society has caused them to be at risk of death compared to men due to their social, cultural, and biological characteristics (10). Mothers and babies need more attention during crises and calamities for many reasons. Some of these reasons are lack of access to pregnancy, childbirth, and newborn healthcare due to infrastructure and hospital centers breakdown, lack of environmental health factors and sanitation materials, women's workload increase due to existing conditions, psychological reasons, lack of women's need assessment in critical situations, and insufficient legal protections for women (11). Disorganization, insecurity, social relations breakdown, and pressure on women to provide food and shelter in emergencies can expose them to sexual abuse which

consequently causes mental disorders, unwanted pregnancy increase and suffering from sexually transmitted (venereal) diseases (12). On the other hand, physiological changes occur to reduce acute inflammatory immune responses to prevent fetal rejection (13). Mechanical and biochemical factors affect gas exchange and pulmonary function during pregnancy and cause a decrease in functional residual capacity and residual lung volume during pregnancy (14). Because of these physiological changes in the body's immune and cardio-pulmonary systems during pregnancy, pregnant mothers are more exposed to severe diseases after exposure to microbial and viral infections, especially respiratory viruses. Various studies have shown that the rate of preterm delivery, low-weight newborns, intrauterine growth retardation, perinatal death, abortion, complications during childbirth, and maternal mortality increases during crises and disasters (15). Women and babies' problems management, physical and psychological needs assessment, lack of resources and equipment, different upcoming medical problems, insecurity, etc require different abilities, needless to say appropriate performance in critical conditions is far different from the daily work conditions of midwives. Additionally, adaptation to the type of crisis and calamity, self-protection and safety, mental stress, and heavy workload are also important in these difficult conditions (16). Midwives play an important role in assessing women's needs, and their proper performance in these conditions requires sufficient abilities to provide services in limited facility conditions. In this field, there is a need to empower midwives (8). Considering the importance of reproductively, mothers' and babies' health, and the need for midwives to accompany them, we have done a review on the significance of midwives' presence in crises and disasters.

Materials and Methods:

The main criterion for reviewing the articles is the issue of reproductive health and the importance of midwives accompaniment with women and girls in critical situations to provide reproductive health services. In this review, articles indexed in Persian and Latin databases (Magiran, PubMed, Google Scholar, and Scopus), clinical protocols, and reports of reputable organizations were examined during the years 2010 to 2023. Key searched terms are midwives' self-efficacy, midwifery students, crises and disasters, reproductive health, mother and baby, acute respiratory syndrome, COVID-19, pregnancy, breastfeeding, maternity care, new Coronavirus and unexpected events. In the Latin databases, the Latin equivalents of the words were searched for. A total of 85 articles were found on related topics, and the information from 45 articles was checked by removing similar and unrelated items.

Results:

The main challenges in crises and disasters are the lack of services, drugs, equipment, and trained healthcare workers (17). In disasters, the attention of service providers is limited to the main needs of the affected population, such as water and food, and the assessment of vulnerable groups' needs, such as women and infants, is neglected (8). About 32 million women and girls of reproductive age between 15 and 49 years live in emergencies, crises, and disasters, and all need sexual and reproductive health (SRH) information and services (18). Inadequate access to reproductive health services causes many problems for women. Increase in maternal and newborn mortality including deaths due to pregnancy-related causes, unwanted pregnancy due to lack of information or reduced access to contraceptive services, complications related to unsafe abortion, sexual violence, Sexually transmitted infection increase (STIs), including AIDS, and delay in newborns' vaccination, occur frequently during the crisis (19).

On the other hand, natural disasters have many effects on vulnerable groups, especially infants and children. Protecting breastfeeding in disasters is important because artificial feeding carries many risks for the child. In disasters, artificial feeding is dangerous for children, and its supplementation requires special equipment. Breastfeeding is the safest way to feed babies during disasters (19). Although the challenges of breastfeeding in humanitarian emergencies are global, they are especially problematic in low- and middle-income countries (20).

There is not much information available about the emerging Coronavirus and its effects, including the methods of its transmission, the definite risk factors of the disease, and the mortality rates of pregnant mothers, fetuses, and infants, in many cases, it is unknown. Also, the clinical spectrum of this disease isn't clear among pregnant women. However, no significant changes have been observed between pregnant and non-pregnant women regarding clinical manifestations. Similar results were obtained in a group of positive COVID-19 pregnant women in China, in which the virus was not isolated in amniotic fluid, umbilical cord blood, or throat swabs taken from infants (20). Based on limited data, there is no evidence of intrauterine transmission of COVID-19 from infected pregnant women to their fetuses, but mothers may be at increased risk for more severe respiratory complications (21).

After reviewing the limited data published so far, it can be concluded that our knowledge of the transmission of the SARS-CoV-2 virus through breast milk is quite insufficient. At the same time, we cannot ignore the evidence that proves the benefits of breastfeeding for both mother and baby. Thus, if the health of the mother and her baby allows, breastfeeding should be supported for mothers with COVID-19 (23).

Currently there is limited information about mothers' and babies' infections with COVID-19, despite that, they can be used in special care of pregnant women

and babies. Therefore, preventive measures should be taken at the community level, as long as the information about pathogenicity and its complications in pregnant mothers, fetuses and babies is not widely provided (22). In epidemics, management interventions such as long periods of quarantine, social distancing, and house quarantine have pervasive effects on social and economic life (25). Although we do not know exactly how the COVID-19 pandemic will affect reproductive and sexual health, evidence of racial abuse, violence and gender discrimination has been documented. Access to quality services, information and cooperation will advance the achievement of excellent health (26). Because sexual activity has a positive effect on safety, mental status and cognitive outcome, partners should be encouraged to engage in sexual activity in critical situations (25).

In unexpected events, midwives play a very important role in providing help, because women and babies who experience such crises have unique vulnerabilities and needs. Various clinical realities and challenges have been discussed, including the recommended priorities for providing reproductive health care in disaster areas. By entering this field prepared for participation and cooperation, midwives can make a significant contribution to the safety, health and comfort of women and their families who have experienced a natural disaster, armed conflict or disease epidemic. (23). Family planning, maternal and child health including pregnancy, childbirth, and after-birth actions, children's vaccination, prevention and treatment of sexually transmitted diseases are essential services during the crisis that midwives must perform to reduce maternal and infant mortality and to improve health outcomes, they should organize necessary training courses for women and girls in reproductive age (24).

Discussion:

Health and medical services are one of the basic and vital needs at the time of accidents and disasters (10). Hospitals and employees of health centers are directly affected by accidents and crises (29). The occurrence of crises and disasters puts people's health at risk, and the provision of healthcare services faces serious problems. To properly face disasters, the preparation of the health and treatment system is an essential element, and in this regard, there is no more important issue than the of health service providers' readiness. The way health service providers work is always a challenging topic, and the necessity to evaluate and strengthen people's knowledge and ability to provide services in disasters has been emphasized (26). Hospitals, as specialized centers for providing medical services, with facilities and experienced and trained personnel, are considered one of the important components of the responding process to unexpected incidents, which are responsible for the mission of preserving the injured life and health (27). Considering the role of social support in reducing the mothers' anxiety during pregnancy and after childbirth, and their mental health improvement, support planning from the family and surrounding people, as well as from governments and policy-making authorities, should be considered (28). Also, trying to increase the knowledge and ability of midwives to provide information using online methods is very useful due to the social distancing policy in the conditions of epidemic diseases. Moreover, the training of midwifery forces to provide services with limited facilities should be on the agenda of universities of medical sciences (33)

In the study of Taghizadeh et al. (2012), the self-efficacy of midwives to provide reproductive health services in disasters was evaluated at a medium level (29). Also, the results of examining the self-efficacy of Kerman University of Medical Sciences nurses in dealing with unexpected events show the relative nurses' self-efficacy in crises and disasters (30). In a cross-sectional study by Kim Usher et al. (2015), the

assessment of the understanding of nurses in Asia and the Pacific about their level of knowledge, skills and preparedness against disasters was done. It was found that participants had a low to moderate level of knowledge, skills and general preparation. (31). In China, nurses were evaluated at an average level of knowledge, and attitudes during the crisis (32). Studies have shown that low self-efficacy causes an increase in stress, depression possibility, and a decrease in problem-solving ability in people (33). Therefore, by increasing the self-efficacy of midwives and healthcare workers, it is possible to reduce stress and increase skills as a result of a more effective presence in emergencies and disasters (34). The efficiency of health sector employees, especially in emergency and unpredictable situations, is one of the factors that can improve their performance (30). Also, in the systematic review of L J Labrague (2018), it has been widely reported that in crises and disasters, midwives and nurses are not sufficiently prepared and do not have good self-confidence in responding effectively to disasters (35). Therefore, planning to train midwives regarding the provision of reproductive health services in disasters is necessary, and these pieces of training should include special skills for functioning in crisis and disastrous conditions, such as coping with psychological pressures (29). Factors that enhance disaster preparedness include prior disaster response experience and related training. Various findings emphasize that hospitals should make policies to eliminate the lack of preparation among employees and medical personnel. In addition, studies show the importance of providing disaster-based exercises that mimic real incidents to increase the readiness of the nursing and midwifery workforce (35). During a study in Korea on the field of increasing the ability of newly graduated students in the field of self-efficacy in emergencies, they concluded that simulation training has been able to make them more efficient in emergency departments (36). Based on the educational and research plan of Tavosian et al.

(2012), a series of crisis-based reproductive health training workshops were held for groups of young women. In these workshops, various topics, including reproductive health and the need to pay attention to it and preventive measures against unwanted pregnancy, safe childbirth and breastfeeding in crises, attention to victims of sexual accidents, familiarity with sexually transmitted diseases, their prevention and treatment, men's participation in reproductive health in crisis and health in old age, were presented, and they showed that the educational workshop on reproductive health in crises has been effective in the knowledge, attitude, and performance of learners (37). WHO has also emphasized the importance of educational programs and holding education courses in crisis to prepare midwives to provide services in critical conditions and to add related educational materials in university courses (38). AL Gasseer and his colleagues, emphasizing the important role of midwives in providing a wide range of maternal and newborn services in crisis, considered the most important training needs of midwives to be pre-pregnancy care, safe delivery, care of hypothermic and low birth weight babies, and emphasized on them for educational planning. It is obvious that in the training planning of midwives for the crisis, lack of sufficient facilities, reduction of health, higher risk of the prevalence and spread of infectious diseases, greater vulnerability of women and babies, and their special needs should be taken into account (39). In the study of Taqizadeh et al. (2014), in the field of maternal mortality prevention services, care for mothers suffering from difficult pregnancies, and chronic and referral-required diseases were reported as the priorities of students' educational needs. Moreover, another reported educational need regarding the necessary interventions for a baby suffering from physical trauma, the baby suffering from sepsis and asphyxia was reported (40). Beik-Mohammadi et al. (2014) found that when medical teams face unexpected accidents, there are

many challenges depending on the type and volume of casualties. These challenges in the first moments of unexpected accidents include the lack of specialists and supporters, facilities, and necessary equipment, which makes it very difficult to provide services in the initial moments. Therefore, by anticipating medical needs and treatment staff and planning to meet these needs, challenges can be prevented (41). Jafari Pouyan et al. (2015) evaluated the level of self-efficacy of senior managers of hospitals in dealing with accidents and disasters as moderate (42). Therefore, the preparation of managers to deal with critical conditions helps solve existing challenges. In the research of Yarmohamedian and his colleagues (2020), things like "it is wrong to defend one's own opinions about others", "the ability to communicate effectively with employees in critical situations", "the ability to mobilize subgroups" and "appreciation for good work" and "Employees even in critical situations" have been announced as one of the qualifications of managers (43). Also, managing the mental health and psychosocial health of midwives responsible for healthcare and treatment during a crisis is as important as managing their physical health (44). In times of crisis, significant efforts are focused on providing personal protective equipment, intensive care beds, and medical equipment, while less attention has been paid to maintaining the psychological health of the medical workforce who are challenged by the crisis. (45). Research in China showed that 39.1% of healthcare workers, especially those who work on the front line of fighting the disease during the crisis, had psychological disorders (46). The results of the Iran study during the Corona crisis showed that medical staff, including doctors and paramedics, have faced many challenges in the field of negative psychological emotions, interpersonal and family relationships, work environment, and work difficulty. Also, the findings showed that lack of mental health specialists' help and lack of psychological skills are among the

challenges facing the medical staff (47). For this purpose, it is necessary to use solutions such as seeking help from mental health experts for treatment staff and their families, creating preparation before the start of the crisis in terms of equipment, manpower, and the necessary training about the upcoming crisis, skilling the treatment staff and creating many material and spiritual incentives.

Conclusion:

The importance of midwives accompaniment with mothers to inform them has increased even more. Proper and timely provision of reproductive health services in disasters is of particular importance, and it is necessary to take measures to create monitoring systems for women by the country's health and treatment authorities so that these people are particularly under observation and also health and treatment follow-up. Therefore, it is possible to provide occupational, physical, and psychological support, as well as create necessary policies to hold refresher courses and clinical skills training courses for health and medical midwifery students and personnel, by updating information and awareness to prepare them to face the crises and created challenges.

Therefore, since the performance of midwives in a crisis is related to various psychological, managerial, and behavioral aspects, it is expected to prepare midwives for improvement, considering the importance of the health of mothers and babies and the necessity of midwives' presence as health care providers. Performance in disasters should start from student, and disaster-based and practical courses should be included in their textbooks. Also, retraining and training courses should be held during their service in healthcare.

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Conflict of Interest:

Authors declare no conflict of interests (omission)

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