THE COMPOSITION AND FACTORS INFLUENCING PROFESSIONALS' ABILITY TO CONDUCT PUBLIC HEALTH EMERGENCY RESCUES.

Salman Musharraf Abdullah Alamri
Technician - Public Health.

Abdullah Hoede Z. Alrawis
Emergency Medical Services.

Naif Dhaifallah Naif Alotaibi
Emergency Medical Services.

Faraj Muhathil Hathal Aldawsari
Technician - Emergency Medical Services.

Mutlaq Shabab Huwaydi Alotaibi
Technician - Emergency Medical Services.

Fahad Marzouq Mutlaq Alotaibi
Technician - Emergency Medical Services.

Abstract:
Objective: The purpose of this study is to investigate the composition and factors influencing professional capacity in public health emergency rescues.
Methods: This study utilized a descriptive qualitative design. A purposive sampling method was used to recruit medical workers, managers, and members of an emergency rescue team in Hangzhou, Zhejiang. Semi-structured interviews were used to collect the data, which was then analyzed using traditional content analysis methods.
Findings: The analysis revealed two themes and 13 sub-themes: ability composition (knowledge reserve, early warning assessment, information reporting, emergency response, self-protection, personal ability, coordination and cooperation, health education) and influencing factors (educational background, region, experience, hospital level, human resources, and financial investment).
In conclusion: These findings serve as a foundation for the development of a related indicator system and as a guide for pertinent departments looking to enhance their emergency rescue capabilities, fortify their emergency drills, and further optimize their emergency education and training. According to the findings, in order to increase an organization's capacity for emergency rescue, attention must be paid to the formation of an emergency rescue team, modify the staffing ratio, enhance their compensation, and foster a work ethic.

Keywords: professional, public health emergencies, emergency rescue, ability composition, public health.

Introduction

A sudden increase in serious infectious diseases, widespread unexplained illnesses, severe food poisoning or occupational poisoning, or other incidents that have a substantial impact on public health are all considered public health emergencies. Due to economic growth and population expansion, there have been numerous significant public health crises around the world since the turn of the twenty-first century, including SARS, COVID-19, and the Ebola virus. Public health emergencies can have a major impact on property, safety, human lives, and physical and mental health because of their sudden and unpredictable nature. Additionally, it may endanger national security as well as social and economic advancement (Gong, 2019).

An essential component of emergency management is emergency rescue. In the event of natural disasters, accidents, public health incidents, social security incidents, and other emergencies, emergency rescues include emergency responses, emergency rescues, medical treatments, logistics, and other activities to preserve social order and public safety while protecting people's lives and property. Clinical frontline rescues are driven by medical personnel, rescue teams, and other professionals, and their emergency rescue skills have a direct impact on patient safety and the efficiency of on- site rescuers. According to one study, medical staff, public health staff, and other pertinent professionals' emergency rescue capabilities were inadequate in public health emergencies, particularly in primary medical departments (Meng, 2019; An J, 2021).

This study set out to investigate the makeup and variables influencing the ability of public health emergency rescue professionals. The results were intended to serve as a theoretical foundation for the development of pertinent continuing education and training programs as well as an emergency rescue competence index system for professionals handling public health emergencies.

Engage in emergency continuing education to develop professional skills:

Professional emergency responders with strong theoretical backgrounds and a wealth of real-world experience are generally hard to come by. According to earlier research, clinical medical staff, community medical staff, rescue team members, and other professionals in China have average to poor emergency rescue skills when it comes to public health emergencies. As a result, they frequently fall short of emergency rescue requirements in public health emergencies, which somewhat restricts advancements in emergency rescue quality. The findings indicate that the majority of study participants have a strong desire for ongoing education and training in emergency management and rescue. In addition to first aid expertise, emergency rescue in public health emergencies necessitates epidemiological knowledge, risk assessment skills, and public health response capabilities (Sirleaf EJ, 2021).

Boost emergency preparedness exercises and enhance practical skills:

Despite having some theoretical knowledge of public health emergencies, a number of study participants stated that they lacked practical experience in these situations. As a result, they are still preoccupied with their regular responsibilities and are ill-equipped to handle emergencies. According to one study, people who regularly took part in emergency drills typically had greater emergency rescue capabilities than people who didn't. Through exposure to actual scenarios akin to public health emergencies, emergency drills help professionals familiarize themselves with the contents of emergency plans, work procedures, and individual responsibilities in an emergency rescue. Their theoretical knowledge and confidence in taking part in actual rescue operations can both be enhanced by such exposure (Li PH, 2023; Kinder, 2021).

Create an emergency team and emergency plans:

When it comes to handling public health emergencies, emergency plans are essential. Based on pertinent emergency plans, state laws, and regulations, as well as their current circumstances, governments and medical facilities at all levels provinces, cities, and counties should develop appropriate plans and procedures for managing public health emergencies. Additionally, an emergency rescue team is a critical component of emergency capability and is essential to emergency rescue operations. In order to ensure prompt organization and management of the emergency, agencies should immediately deploy emergency response teams that specialize in handling public health emergencies and coordinate their command. This is because public health emergencies are frequently unpredictable (Zhu, 2021).

Unlike other emergencies, public health events frequently call for a large number of medical professionals. The training of rescue workers must be strengthened, medical systems must be further strengthened, medical personnel must be encouraged and supported, exercises must replicate the natural environment, and emergency rescue teams must be made more professional (Westfall, 2021).

Better treatment and more government funding:

The government offers public health services to the general public as a public welfare program, and they are essential in the prevention and management of many illnesses. In line with earlier research, the aforementioned findings and interview data imply that emergency rescue systems struggle with low pay, inattention, and a shortage of human resources. Many public health emergency professionals work part-time, according to some participants. In addition to their medical work, they work at many other jobs. Their enthusiasm for their work is diminished because their pay and treatment are out of proportion to their workloads (Hsieh, 2005 ; Otani, 2017).

Many respondents believed that working in emergency rescue was unrelated to their jobs, so they neglected to learn pertinent information, which consequently affected their skills. To encourage their enthusiasm and initiative, raise their attention to emergencies, and enhance their emergency rescue skills, it is recommended that the government pay attention to how professional staff are treated, modify the number of employees, make clear the work responsibilities of professionals,

suitably improve their pay and treatment, and raise the social status of pertinent personnel (Tong, 2007).

Recommendations:

- In addition to first aid expertise, emergency rescue in public health emergencies necessitates epidemiological knowledge, risk assessment skills, and public health response capabilities.
- Retention of pertinent emergency skills is based on scientific retraining. These highlight how crucial it is to regularly provide professionals working in emergency management and rescue with continuing education and training.
- Such exercises would enhance professionals' crisis awareness and emergency response skills in addition to deepening their knowledge and experience in handling public health emergencies. Through emergency drills, the institution's emergency plan and responsibility can be improved by identifying flaws and gaps in the pertinent emergency plans and making additional adjustments.
- Medical systems must be strengthened even more, medical personnel must be supported and encouraged, rescue worker training must be strengthened, exercises must replicate the natural environment, and emergency rescue teams must be made more professional.

Conclusion:

To better understand the makeup and factors influencing professionals' emergency rescue skills in responding to public health emergencies, 15 clinical medical workers, community medical workers, and rescue team members participated in semi-structured in-depth interviews. To participate in emergency rescue, professionals need to have a vast knowledge base, as well as warning and evaluation, information submission, emergency response, self-protection, personal, coordination and cooperation, and health education skills. A professional's capacity for emergency rescue will be impacted by factors such as education, location, experience, hospital level, and inadequate financial and human resources. Thus, more work is required to develop professional skills and maximize the delivery of emergency education and training. To increase their agency's capacity for rescue, pertinent agencies should create emergency plans, assemble emergency teams, and bolster their emergency drills. To enhance the emergency rescue skills of professionals in handling public health emergencies, consideration should also be given to the establishment of an emergency rescue team, the modification of the personnel ratio, the enhancement of staff treatment, and the encouragement of work enthusiasm. The professionals who took part in this study and shared their experiences with us are gratefully acknowledged by the authors.

References:

1. Gong HX, Lin PY, Jiang HL, Li S, Wu BL, Chen XH. Measurement and evaluation of emergency medical rescue capability for public health emergencies in Guangzhou. China J Health Emerg. (2019) 5:26–30.

2. Meng Q. Transformation and reform of the functions of centers for disease prevention and control in the new era. Chin J Prev Med. (2019) 53:964–7. doi: 10.3760/cma.j.issn.0253-9624.2019.10.002.
3. An J, Liu ZR, Liang H, Tong YS, Huang YQ. Discussion on psychological crisis intervention in public health emergencies of infectious diseases. Chin J Ment Health. (2021) 35:795–800. doi: 10.3969/j.issn.1000-6729.2021.09.016.
4. Sirleaf EJ, Clark H. Report of the independent panel for pandemic preparedness and response: making COVID-19 the last pandemic. Lancet. (2021) 398:101–3. doi: 10.1016/S0140-6736(21)01095-3.
5. Li PH. Challenges and legislative suggestions for emergency rescue work in the new era. China Emerg Manag. (2023) 10:52–7.
6. WHO . COVID-19 strategic preparedness and response report, 1 February-30 June 2020. Geneva, Switzerland: WHO; (2020).
7. Kinder K, Bazemore A, Taylor M, Mannie C, Strydom S, George J, et al. Integrating primary care and public health to enhance response to a pandemic. Prim Health Care Res Dev. (2021) 22:e27.
8. Zhu WH. Investigation on knowledge, attitude and practice of emergency rescue of public health emergencies among medical staff. Mass Technol. (2020) 22:117–9.
9. Westfall JM, Liaw W, Griswold K, Stange K, Green LA, Phillips R, et al. Uniting public health and primary Care for Healthy Communities in the COVID-19 era and beyond. J Am Board Fam Med. (2021) 34:S203–9.
10. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. (2005) 15:1277–88.
11. Otani T. What is qualitative research? Yakugaku Zasshi. (2017) 137:653–8.
12. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. (2007) 19:349–57.