The Role of Social Work for Emergency Medical Services (EMS): A Systematic Review

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Abstract

Introduction: Emergency Medical Services (EMS) are integrated services involving doctors, paramedics, nurses, and social workers. This research was carried out to synthesize the evidence concerning social work roles for EMS. The aim of this study was to synthesize literature on the social worker's role in EMS settings.

Methods: The study was a systematic review. Data were collected through selected databases. The researcher used Scopus, Sociology Database, Social Science Database, and Public Health Database related to EMS and social work settings. English papers were selected, without restrictions on publication time, place, and year. The searched keywords were: "Social Work AND Emergency Medical Services AND Ambulance Services," "Social Worker AND Emergency Medical Systems AND Ambulance Services," "Social Work AND EMS," "Social Worker AND EMS," "Social Work OR Social Worker," "Social Work Role AND EMS," Social Worker AND EMS," "Emergency Medical Services OR/AND Emergency Medical Systems."

Results: The study synthesized the literature about the social work role in pre-EMS, during emergency, and post-EMS. The following themes were highlighted: social workers act as cultural liaisons, effective communicators, emergency workers, and mental health practitioners, collaborating with other disciplines and researchers, for this study. In pre-emergency stages, social workers have roles as educators, communicators, advocates, and awareness builders. During an emergency, social workers act as search and rescue workers, advocates, facilitators, networkers, psychosocial assessors, consultants, counselors, and liaisons for referral activities. And in the post-emergency period, social workers have roles as planners, liaisons, interdisciplinary collaborators, researchers, evaluators, and individuals responsible for follow up.

Conclusion: This study synthesizes the roles of social workers in EMS settings. It is the first study on this topic, aiming to produce new knowledge, evidence, and an EMS practice framework for the social worker.

Introduction

"Emergency Medical Services" (EMS) means the planning, delivering services, care, and supervising emergency care by the personnel, organizations, and associations engaged in wounded persons.[1] The prehospital systems were first introduced through Napoleon's chief military physician in 1797,[2] and ambulances were first used for emergency transport by the Spanish forces in 1487.[3] Usually, two types of EMS are described: the Franco-German Model (FGM) and the Anglo-American Model (AAM), providing Basic Life Support (BLS), Intermediate Life Support (ILS), and Advanced Life Support (ALS) in different settings within the capacity.[4]

Social workers have an exclusive perspective on assisting EMS providers to work in challenging situations.[5] They work in diverse settings such as hospitals and they specialize in topics such as disability, elderly care, family health care, youth, and children.[6] It is a

combination service that includes health practice, administration, policy development and implementation, economic development, referral care planning, correction and parole, and case managing.[7] Social workers may have any or many of the following different roles:[8]

- Advocacy: Social work advocacy is a mutual interpretation of a person attempting to analytically influence decision making in a societal system.[9]
- Planner: To understand community needs, gaps in service, and facilitate positive social change; research strategies are used to collect data for action and transfer it to leaders.[10]
- Educators: To help the welfare of humanity, the progress of society, people, and their surroundings, they advocate for welfare, basic needs, and social justice.[11]
- Mediator: Social work employs theories of human behavior and social systems and interacts with their surroundings for social justice.[12]
- Researcher: They contribute by conducting empirical research and sharing their findings with the community; their research is related to human behavior, social environment, and services.[13]
- Promotional Information: Social workers enhance information sharing and research alliances with other health professionals and meet community needs.[14]
- Assessing Community Capacity: Social workers ensure proper assessment, counseling, and referral activities for health promotion in multiple settings; they ensure proper planning, modification, and implementation in the community.[14]
- Volunteer: Social work volunteers engage in charity, relief, recreation services, family welfare association, and mental health associations in the community.[15]
- Enabler: Social workers strengthen clients with information, existing knowledge, and skills; they take collective learning plans to implement educational actions.[13]
- Outreach: Social workers alert the community about social problems, social inequalities, and advise facilities for these issues; they supply information and service accessibility.[16]
- Organizer: A community organizer is a liaison between the needs and resources of the community, for improved community development.[17]
- Trainer: Social work training plans require an assessment of needs, organizational goals, and a solid evaluation process for adult education, mindset change, and learning modes.[17]
- Mental Health Practitioner: Social workers advanced relationship-based skills, and motivations for recovery can help people to make a positive, self-addressed change in the mental health career era.[18]

Several studies explained the role of social work in the pre-EMS, during emergency, and post-EMS system separately. At the pre-EMS stage, social workers act as cultural liaisons;[19] during the emergency, they act as crisis intervention with family and patients;[20] and the post-EMS services carried out by social workers include avoiding unnecessary hospitalizations, critical illness, and follow up.[21]

This study aimed to synthesize the role of social work at three stages (pre-EMS, during emergency, and post-EMS emergency periods) globally. The role of social work for EMS is a well-known service all over the world, but the practice system is diverse, and community people are still unaware of the professional services of the social worker in EMS. Moreover, there are several pieces of evidence from different scholars with different perspectives, theories, contexts, and dimensions on the social work role in EMS. So, this study would synthesize and summarize the evidence in a systematic way regarding the roles of social workers in EMS for producing a unique shape on social work roles in EMS. There is no prior systematic review of this topic.

Methodology

This study was a systematic review, carried out according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, as outlined in Figure 1. It was registered in PROSPERO as "The Role of Social Work for Emergency Medical Services EMS: A Systematic Review" with ID CRD42022316792 on October 24, 2022. No amendments to the information provided in the protocol have been made.
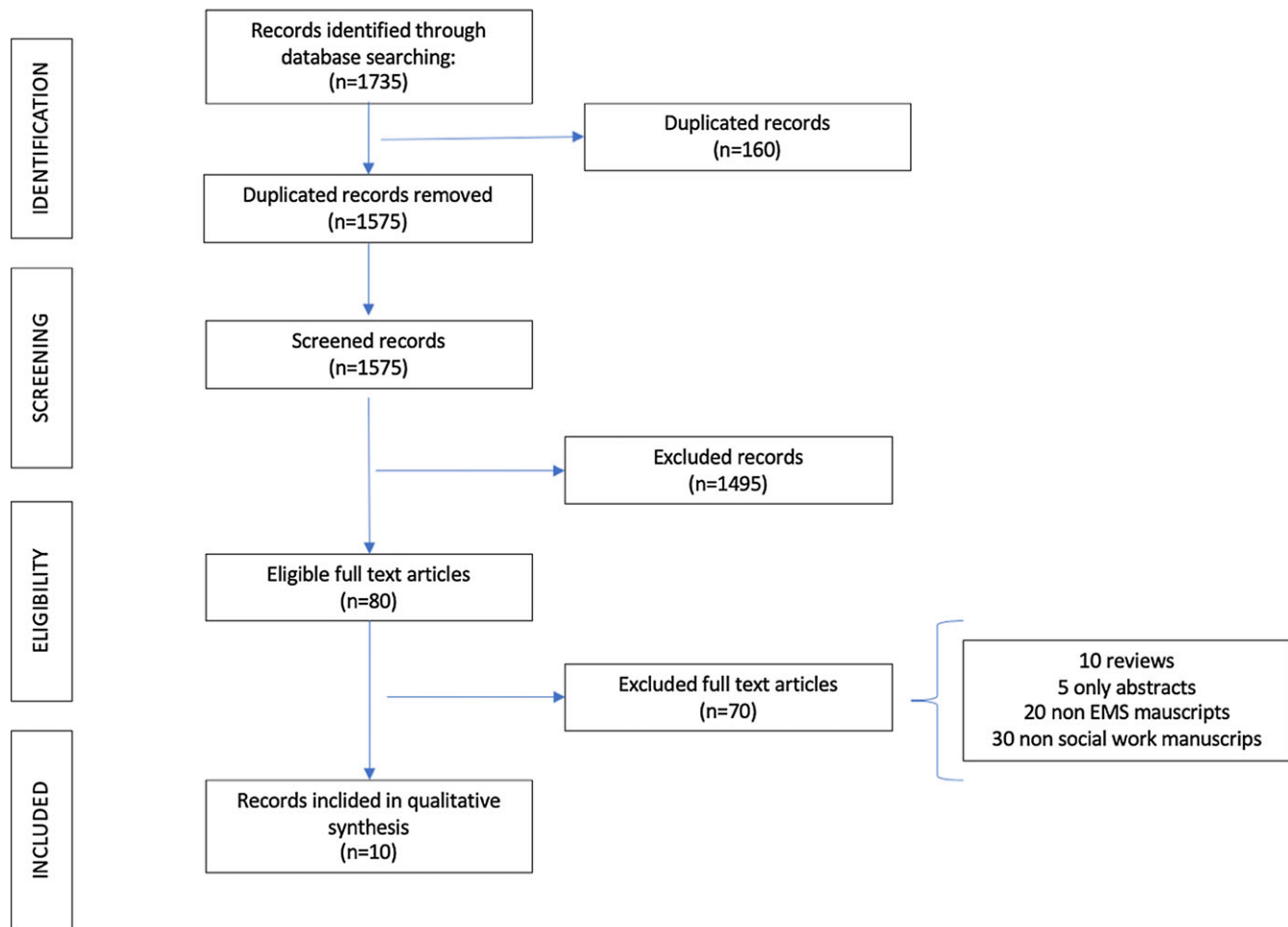
Studies were included in the review if they were on the topic of the roles of social workers at every stage (pre-EMS, during emergency, and post-EMS) for EMS services throughout the world. Studies on social workers of any stage, sex, and age, as well as studies on any level of EMS provider, were included.

Inclusion criteria were any full-text, peer-reviewed papers published in English discussing social work roles in EMS settings. This was a descriptive study; therefore, outcomes were any described social worker role in any EMS setting. Exclusion criteria were other types of documents like empirical studies, book reviews, debate papers, editorial criticism, and critical commentaries. Four databases were used: Scopus Database (Elsevier; Amsterdam, Netherlands), Sociology Database (ProQuest; Ann Arbor, Michigan USA), Social Science Database (ProQuest), and Public Health Database (ProQuest). The keywords used were: "Social Work AND Emergency Medical Services AND Ambulance Services," "Social Worker AND Emergency Medical Systems AND Ambulance Services," "Social Work AND EMS," "Social Work Role AND EMS," "Social Work AND EMS," and "Emergency Medical Services OR Emergency Medical Systems." Study selection occurred in two phases: title and abstract screening, followed by full-text review. Study selection was performed by the main author, and the co-authors independently screened a random selection of the retrieved records at each phase to ensure consistency. In case of any disagreements, a resolution was reached through consultation with the whole team. Covidence software (Covidence; Melbourne, VIC, Australia) was used to facilitate the screening process.

Data Collection Process

Data extraction was performed by the main author, using a custom tool prepared in Excel (Microsoft Excel v. 16.70; Microsoft Corp.; Redmond, Washington USA). The data extraction tool was piloted using the first five studies and amended as necessary. The co-authors independently performed data extraction for a random selection of the included studies to ensure consistency. In case of any disagreements, a resolution was reached through consultation with the whole team.

For narrative synthesis of the extracted data, a thematic analysis procedure was applied.[22] The retrieved data were synthesized using thematic analysis, which is a method of grouping similar result is a particular theme. First of all, all relevant outcomes (ie, social worker roles) were collected from the included studies, stratified by stage (pre-EMS, during emergency, and post-EMS). Then, for each stage, similar roles were synthesized into single, mutually exclusive

Figure 1. PRISMA Diagram.
Abbreviation: EMS, Emergency Medical Services.

theme categories, which were the main results of the study. Therefore, derived themes were categorized and coded roles of social work, in each EMS stage, and these were used for conclusion drawing and verification.[23,24]

To assess the risk of bias for the included studies, the qualitative studies checklist for risk of bias (Critical Appraisal Skills Programme [CASP] Appraisal) was employed.[25] The validity, study results, and local context analysis of the studies were assessed.

As discussed, the main outcomes of the study were social work roles in pre-EMS, during an emergency, and post-EMS settings. Study outcomes were tabulated per included study and, following the thematic analysis, per theme. Results were descriptive and narrative in nature, hence formal assessment of heterogeneity was not possible. Heterogeneity in the study results is expected given the multitude of potential social work roles and the multitude of EMS settings. Due to the descriptive nature of the study, reporting biases and certainty in the body of evidence were not assessed.

This study was a systematic review, therefore, no ethical approval or funding was obtained.

Results
A total of 1,735 results were retrieved from the databases, reduced to 1,675 after removal of duplicates. Eighty studies were selected, and 1,495 studies were excluded based on the abstract and title screening. Of the 80, only ten studies met the inclusion criteria and were included in the study, and then were divided into six main topics (Figure 1, Table 1, and Table 2). These were all papers from selected databases, and no grey literature was considered.

At the "Pre-EMS" stage, social workers act as cultural liaisons, and in their roles as educators and facilitators, social workers act as effective communicators; also, where their roles are awareness building and advocacy.

At the "During-EMS" stage, they act as emergency workers with roles such as search and rescue, advocates, networking, and as emergency mental health practitioners with roles in psychosocial assessment, counseling, consultation, and referrals.

At the "Post-EMS" stage, they collaborate with other disciplines such as planners and liaisons. They also work as interdisciplinary and integrated service providers, and they also have roles as researchers, empowering community participation, research, and evaluation (Table 3).

Several biases such as study design bias, selection bias, and reporting bias were identified in the included studies, and these are explained in Table 4.

The results of the synthesis of social work roles in themes, stratified by EMS stage, are narratively presented below.

Theme	#of Studies	Name of Studies
Social Workers Act as Cultural Liaisons	6	(Witmer, et al - 1995); (Ross, et al - 2004); (Hall, et al - 2018); (Yu, et al - 2020); (Padgett - 2002); (Janet - 1995)
Social Workers Act as Effective Communicators	5	(Kwan, et al - 2018); (Hall, et al - 2018); (Yu, et al - 2020); (Monahan - 2019); (Janet - 1995)
Social Workers Act as an Emergency Worker	9	(Yu, et al - 2020); (Monahan - 2019); (Padgett - 2002); (Kwan, et al - 2018); (Ross, et al - 2004); (Janet - 1995); (Rose, et al - 2016); (Hall, et al - 2018); (Cacciatore, et al - 2011)
Social Workers Act as a Mental Health Practitioner	7	(Rose, et al - 2016); (Ross, et al - 2004); (Yu, et al - 2020); (Monahan - 2019); (Padgett - 2002); (Janet - 1995); (Cacciatore, et al - 2011)
Social Worker Collaboration with Other Disciplines	8	(Rose, et al - 2016); (Hall, et al - 2018); (Monahan - 2019); (Ross, et al - 2004); (Yu, et al - 2020); (Witmer, et al - 1995); (Hall, et al - 2018); (Cacciatore, et al - 2011)
Social Workers Act as Researcher	9	(Witmer, et al - 1995); (Monahan - 2019); (Cacciatore, et al - 2011); (Kwan, et al - 2018); (Hall, et al - 2018); (Yu, et al - 2020); (Padgett - 2002); (Janet - 1995); (Ross, et al - 2004)

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Table 1. Identified Main Topics

Pre-EMS Stage
Educator—Social workers interpret the existing health care system and facilities, provide information, and share health care promotion in society. They also teach concepts of primary or secondary prevention of disease. Social workers also educate and train individuals, families, and the community.[26–31]

Facilitator—Social workers facilitate community participation in the health system needs, cultural relevance, and outcomes of care. They also facilitate the expression of feelings, symptoms, and worries about diseases.[26–31]

Awareness Building—Social workers build awareness among diverse cultural and ethnic groups in terms of the health system. They are also aware of people's self-management habits.[28,32] Social workers are participating in disease surveillance, the promotion of healthy habits, and the implementation of well-being training programs.[29–31]

Advocacy—Social workers provide knowledge of local resources to the community. Understanding and explaining emergency medicine, working with patients, and mediating with suitable organizations.[28]

During-EMS Stages
Search and Rescue—Social workers act as search and rescue team members during an emergency. They also work in service management and provide relief such as safety, shelter, food, clothing, and fund raising.[29,30,32,33]

Advocacy—A social worker helps victims with decision making, assisting social support, liaison, providing accurate information, coordinating care from home to hospital, and activating support for their family members.[29,32,33]

Networking—During an emergency, social workers liaise with different agencies for disaster relief and social services. They enhance cross-disciplinary collaboration with professional, non-professional, online, offline, government, non-government, public, and private organizations for the emergency community.[27,29,31,33]

Psychosocial Assessment—Social workers focus on the resolution of people's problems through counseling, education, service coordination, follow up, consultation, and collaboration with a team.[27,29–31,33–35]

Counselling—Social workers provide counseling for emotional support, advocating for posttraumatic stress disorder/PTSD. They apply cognitive-behavioral techniques, debriefing, grief counseling, and psychodynamic therapy for victims.[27,29–31,33,34]

Consulting—Social workers organize joint regular meetings and cooperation with practitioners, mental health experts, other care teams, and society members of a patient, along with his/her family.[27–31,33–35]

Referrals—After mental evaluation and diagnosis, social workers refer victims to psychological, social, and/or financial organizations.[27,29,34,35]

Post-EMS Stage
Planner—Social workers create an approach of action with a transdisciplinary support worker. They meet up with patients during therapeutic visits and promote mutual dialogue to help the care team for executing the plan properly.[28,33,35]

Liaison—Social workers help both patients and care providers to choose appropriate and necessary services used. They support chronic illness patients in self-management and behavior modification to avoid hospital admissions and emergency department visits.[27–29]

Interdisciplinary and Integrated Services—Social workers also provide services in collaboration with other professionals like doctors, nurses, psychologists, and community workers. They also facilitate the patient's basic needs from the relief agencies, emotional aid from a psychologist, treatment from a doctor, and

Brief Citation	Database	Setting	Location	Patient Population	Sample Size	Disciplines Surveyed
Witmer, et al 1995	Social Sciences Database	Primary & Preventive Care	United States	Individual and Community Member	Case Studies	Social Workers, Public Health
Rose, et al 2016	Social Sciences Database	Elder Care	United States	Complex Chronic Illnesses Elders	18 Case Studies	Elder Care, Social Workers
Ross, et al 2004	Public Health Database	Primary Care for Children's Families	United States	Families of Pediatric Patients Aged 16	663	Social Workers and Nursing
Kwan, et al 2018	Scopus Database	Emergency Department of Hospital and Community	United States	Addressing Client Objectives	1,600	Social Workers
Hall, et al 2018	Scopus Database	Tertiary Pediatric Hospitals	Australia	Children Aged 2 to 16 Years with Asthma	773	Social Workers, Physical Therapists
Yu, et al 2020	Scopus Database	COVID-19 Response Hospital	China	COVID-19 Pandemic Care Patients	4,695	Social Workers, Medical Workers, Psychologists, and Other Professional Consultants
Monahan 2019	Sociology Database	Mock Disaster at Hospital and University Setting	United States	Natural and Man-Made Disaster Hazards Affected the Population	26	Social Workers
Padgett 2002	Sociology Database	Human Catastrophic	United States	Palliative Patients	Case Studies	Social Workers, Police Departments, Medical Practitioners, Firefighters, and Other Social Service Agencies
Cacciatore, et al 2011	Sociology Database	Fire Department	United States	Motor Vehicle Accidents, Family Abuse, Suicide, Mental Health Incident, Accident, Shootings	2 Case Studies	Emergency Fire Department Social Workers
Janet 1995	Sociology Database	Individuals who Developed PTSD	United States	Natural Catastrophic, Accidental Catastrophic, Human Catastrophic	Case Studies	Social Workers, Psychological Stress Management

Table 2. Overview of Included Articles, by Database
Abbreviation: PTSD, posttraumatic stress disorder.

logistic support from government/nongovernment organizations (NGOs).[26–29,32,34,35]

Empowering Community Participation—Social workers are capable of community participation in terms of EMS.[28] They collaborate and work together with fire, health, police, and other service agencies to reduce the vulnerability of society.[26,33,34]

Research—Social workers do research cooperation with partners in health, medicine, law, and mental health experts. They find out the

effectiveness of integration in community care and evaluate the social, financial, and medical risks for the entire community.[26,28–33]

Evaluation—The social worker evaluates and analyzes the effectiveness of the health program. They promote and upgrade health outcomes and decrease the usage of resource-intensive services through regular follow up and home visits.[26–33]

Discussion
The study aim was synthesizing data concerning the social work role in EMS at pre-EMS, during emergency, and post-EMS stages. The following themes were highlighted: social workers act

Brief Citations	Pre-EMS	During EMS	Post-EMS
Witmer, et al 1995	Interpretation, facilitation, community outreach, advocacy, health education, information providing,	Appointment keeping, emotional support, reducing the costs of care, taking the burden off.	Evaluation, empowering, enabling, assisting, resource mobilization, training, volunteering.
Rose, et al 2016	Coordination, mediating, liaison, interdisciplinary collaboration.	Case management, counseling, empowering, trauma healing, capacity building, contacting the patient.	Restoring existing systems, community dialogue, empowering, engaging.
Ross, et al 2004	Consultation, collaboration, online and offline communication, counseling, and expertise with the provider.	Service coordination, counseling, referral, community resources mobilizations, psychosocial assessment.	Counseling, educating, teaching, and service management, meetings with parents and systems.
Kwan, et al 2018	Linkage and connection to community resources, referral, providing education, home visits, broker, mediating liaison.	Psychosocial intervention for psychosocial and chronic disease management.	Trainer, educator, change agent system, making positive changes in their behaviors, research, and evaluation.
Hall, et al 2018	Change Agent System, behavior risk modification, research, and evaluation, facilitating communication on admission to the hospital setting, care manager.	Discharge planner, liaison, case management, facilitating the discharge plan, consultations, cooperating among health agencies, providing education, and recreational support.	Coordinating and improving health education and promotion, mediating for full recovery, and preventing readmission. Follow up, research, and evaluation.
Yu, et al 2020	Educating, promoting health care, training, service networking, enabler, building social awareness, advocacy, mediating, efficient linkages logistical supporter, volunteer, recordkeeping, medical referral, liaison.	Collaboration, rescue, supporting, facilitating change agents, providing critical services, consultation, and group intervention. Psychological first aid, collaboration, cooperation, advocating, resource mobilization, referral, research, evaluation, and follow up.	Resources mobilization, interdisciplinary remote networking, liaison, collaboration, and coalition among community outreach networking, research, evaluation, and follow up.
Monahan 2019	Preparedness planning, sharing information, providing training exercises, and assisting communities with adaptive resilience for survival patterns during a disaster.	Disaster mental health services and crisis intervention. Delivering safety, security, food, clothing, shelter, relief, and fundraising. Mental health support includes debriefing, grief counseling, psychoeducation, and therapeutic intervention.	Mediating disaster impact, recovery efforts, rebuilding of communities and ensuring community participants include emergency units of the community.
Padgett 2002	Research cooperation among different professionals like health, law, and mental health, and multidisciplinary partnerships would improve the psychosocial effects of emergencies.	Counseling, emotional support, and rescue worker advocating for PTSD, and exposure therapy uses cognitive-behavioral techniques like debriefing, psychodynamic therapy, liaison GOs and NGOs among relief agencies for disaster relief.	Innovative network analyses, collaboration for the the resilience of communities, to improve, design, and evaluate the model of community practice model.
Cacciatore, et al 2011	Providing knowledge on local resources, referrals, understanding of emergency medicine, and awareness among the cultural and ethnic community. Educate the family, train for the family, and advocate for clients.	Assessment and appraisal, psychological crisis management, ensuring long-term social support, and facilitating the appearance of emotions, signs, and fears. Mediating, delivering the sad news, and stress debriefing. Intervention approaches.	Advocating social support advocate, liaison, providing accurate information, and activating support for the family.
Janet 1995	Providing mental health services, outreach, home visits, system intervention, empowering, providing education, information sharing, facilitation of community relations, linkages, and awareness building.	Crisis intervention, improving cognitive mistakes, modeling behaviors, and giving support, group therapy to facilitate the recovery process.	Training program, evaluation of the program outcome, community education through information programs, and self-help development.

Table 3. Overview of the Role of Social Work for EMS
Abbreviations: EMS, Emergency Medical Services; PTSD, posttraumatic stress disorder; GO, government organization; NGO, nongovernmental organization.

Brief Citation	Bias in Study Design	Selection Bias	Reporting Bias
Witmer, et al - 1995		√	
Rose, et al - 2016		√	
Ross, et al - 2004	√	√	
Kwan, et al - 2018		√	
Hall, et al - 2018			√
Yu, et al - 2020		√	
Monahan - 2019		√	√
Padgett - 2002	√	√	
Cacciatore, et al - 2011		√	√
Janet - 1995		√	√

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Table 4. Biases of the Study

as cultural liaisons, effective communicators, emergency workers, mental health practitioners, collaborators with other disciplines, and researchers in this study. In pre-emergency stages, social workers are playing roles as educators, communicators, advocates, and awareness builders; during an emergency, social workers act as search and rescue workers, advocates, facilitators, networking, psychosocial assessment, consultation, counseling, and referral activities; and post-emergency, a social worker plays roles as a planner, liaison, interdisciplinary collaborator, researcher, evaluator, and follow up facilitator. Social workers focus on pre-emergency stages of awareness building among the community members, and during the emergency, they focus on search, rescue, relief activities, and mental health support for the victims. At the post-emergency period, they focus on inter-organizational collaboration and research perspective. These study findings are fully supported by other authors' findings which explained social work intervention during the emergency period.[29,30,33] So, this study could be a milestone for practicing social work in emergency settings. During the pre-emergency period, the roles of a social worker are vital for the community people because they can be educated, self-managed, and habituated with good behavior by the social work intervention. And it is supported by the approach that prevention is better than cure. For the during the emergency period, community people can be benefited from social work

intervention by fulfilling basic human needs, mental health support, and interdisciplinary health support in the medical settings. At the post-emergency level, social workers interview and gather vital evidence about a patient and their family's culture, background, and lifestyle habitual pattern to provide optimal care for them.

Limitations

But this study has limitations as well. Given the qualitative studies reviewed, it was difficult to accurately synthesize the literature because the thematic analysis is not as accurate as the meta-analysis. After study selection and data extraction, it was found that studies on social work practice in EMS settings were only available from the United States, Australia, and China, so the findings refer only to these countries. The rest of the world's conditions are unknown regarding social work practice within EMS settings because no paper was found in the study, which is an added value to these findings as an important gap in this matter has been detected. These results can be interpreted only from a high-income country perspective, but EMS is for all over the world. This is a research gap that needs to be addressed. To know the depth of the social work role regarding emergency services, researchers need to individualize and separate phases of research (ie, pre-emergency, during emergency, and post-emergency stages of social worker roles for EMS). For getting the real picture of the EMS and social work practice in the community level, more action research needs to be conducted on these topics. Then it will be discovered how community people respond to emergency situations, their survival pattern, coping strategies, and social work roles. These roles are played by social workers in developing countries where social work is a recognized career. Further studies are needed to investigate the social worker roles in EMS appearing in lower- and middle-income countries' perspectives where social work is not a full-fledged profession.

Conclusions

This is the first review initiated by the researcher to explain the complete shape of social work intervention regarding EMS. Social workers may have an important role in the different stages of EMS (pre-emergency, emergency, and post-emergency) that could be useful to complement daily EMS work from many different perspectives, so as to improve the global approach to emergency care. This study could be a milestone for social work, as well as EMS settings. These findings could be useful for policy makers to implement social work activities in EMS and could drive further research to contextualize social workers' roles in different income settings and cultural backgrounds.

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