

## Citation

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## Review question

What do prehospital emergency medical service (EMS) ambulance employees perceive to be barriers or facilitators to seeking and accessing organisational mental health support?

## Searches [1 change]

The following electronic databases will be searched: AMED, CINAHL, Cochrane Central Register of Controlled Trials and the Cochrane Database of Systematic Reviews via the Cochrane Library, EMBASE, EMCARE, HMIC, MEDLINE, PsycINFO, Scopus and Web of Science. Searches will be tailored to each database using the Polyglot Search Translator (Clark et al., 2018) and conducted using keywords and relevant thesais such as MeSH and Emtree. To ensure that we capture all the available and relevant research, grey literature will also be sought from the OpenGrey, MedNar and ProQuest databases and through the webpages of industry and charitable organisations active in supporting EMS ambulance employee mental health. A full list of webpages to be manually searched will be developed by the research team and will include sites such as the Global Ambulance Leadership Alliance (which covers the UK, US, Canada, and Australasia), the Ambulance Staff Charity, the Royal Foundation, and the mental health charity Mind.

Quantitative, qualitative, and mixed-method studies written in English since December 2004 will be included. This timeframe accounts for changes in policy that aimed to improve EMS ambulance employee working conditions, such as the UK's National Health Service 'Agenda for Change' which came into effect on 1 December 2004. The reference lists of all studies selected for critical appraisal will be hand searched for further material for inclusion. The searches will be re-run six weeks prior to the final analyses to identify and retrieve any other studies for inclusion.

## Search strategy

[https://www.crd.york.ac.uk/PROSPEROFILES/299650\\_STRATEGY\\_20220201.pdf](https://www.crd.york.ac.uk/PROSPEROFILES/299650_STRATEGY_20220201.pdf)

## Types of study to be included [1 change]

### Inclusion:

All study types that examine factors relating to organisational mental health support for prehospital EMS ambulance employees will be included. All types of relevant systematic review, quantitative, qualitative and mixed-methods studies will be included to assess barriers, facilitators, and associated benefits and/or harms linked to interventions. Qualitative, cross-sectional and survey studies that report barriers and/or facilitators relating to organisational employee mental health support, will also be examined.

### Exclusion:

- Non-English language publications
- Articles written before 2004
- Any study samples that consist of mixed emergency employees (ambulance/ coastguard/fire/police), where results are combined, and samples include less than 50% EMS ambulance staff

## Condition or domain being studied [1 change]

This review will address organisational mental health support for EMS ambulance employees. The outcomes will be EMS ambulance employees self-reported barriers and/or facilitators to accessing and seeking organisational support for their mental health. Organisational support is a distinct construct that signals organisational commitment to its employees and includes supportive interventions that may include concepts of effort-reward expectancies, supervisor support, job satisfaction and procedural justice. Social support (support outside of the employee context, such as non-organisational family and friend support) is a separate construct and is excluded from this review.

## Participants/population [1 change]

Inclusion:

- Adult populations (18-years+) employed by government/state commissioned prehospital EMS ambulance organisations
- Eligible employees contracted to full or part-time roles or hold a bank contract that requires a minimum number of regular working hours
- Employees could include paramedics, Emergency Medical Technicians, Emergency Care Assistants, EMS ambulance nurses and doctors, emergency medical number call centre and dispatch staff, operational managers, support, and central function staff such as Human Resources and patient safety teams, as well as senior leadership

Exclusion:

- Persons under age 18-years
- Paramedic students and EMS ambulance organisation apprentices
- Non-government/state commissioned/private EMS ambulance employees
- Volunteers, including volunteer first responders

These groups are excluded as any available supportive interventions may differ from those offered to employed staff.

## Intervention(s), exposure(s) [1 change]

Inclusion: The review will include studies which report on EMS ambulance employees perceived barriers or facilitators to seeking or accessing help from their organisation for mental health support. This may include individual level factors (any influence or impact upon an action or characteristic) relating to the decision to engage in employee support, the acceptability of the support offered, perceptions and experiences of support, as well as organisational level factors such as, culture and employer perception and finally, policy level factors such as targeted campaigns and regulation of professional standards. Organisational factors examined in this review will include interventions reported to be offered for employee mental health and wellbeing. Any intervention, regardless of the mode of delivery (face-to-face, e-learning, virtual etc), is eligible for inclusion if the employer was involved in any element such as development, design, delivery, funding, signposting.

Exclusion criteria: Studies that only examine social support and organisational support in response to isolated specialist occurrences such as natural disaster and terrorist events will be excluded.

## Comparator(s)/control

Not applicable

## Context [1 change]

All prehospital government/state commissioned EMS ambulance settings that meet the inclusion and exclusion criteria with no restriction on country of origin.

### Main outcome(s) [1 change]

The identification of EMS ambulance employee's perceived barriers or facilitators to accessing organisational support for their mental health (including formal peer-support networks, manager support and employee assistance programmes).

This will include elements of organisational factors identified by participants as being effective or ineffective for the provision and uptake of support. The presence of any factor that promotes the development, implementation, adoption, uptake of, or participation with, organisational employee mental health support will be considered a facilitator. Any factor that limits or restricts the development, implementation, adoption, uptake of or participation with organisational employee mental health support will be considered as a barrier. The same factor may be both a barrier and a facilitator.

Quantitative studies: self-reported barriers or facilitators assessed with non-standardised and standardised questionnaires or surveys

Qualitative studies: self-reported barriers or facilitators through interviews and/or focus groups

The review will seek to:

- Identify and report the range of the distinct types of supportive interventions available for EMS ambulance employee wellbeing
- Establish the proportion of participants that report barriers and/or facilitators and/or other key factors
- Identify attitudes, perceptions and experiences relating to any barriers, facilitators, and other key factors

### Measures of effect

Not applicable

### Additional outcome(s) [1 change]

Identify the components of wellbeing interventions including:

- Method of intervention delivery
- Frequency of delivery
- Whether interventions are facilitated during working hours or undertaken during employee's non-working hours
- Timescales of interventions offered
- Who delivered the intervention
- Outcome measures used to examine factors such as employee wellbeing, engagement, uptake, non-participation
- Time intervals of when outcomes measures were completed

### Measures of effect

Not applicable

### Data extraction (selection and coding) [1 change]

Identified citations will be uploaded into an online reference manager and duplicates removed. Two reviewers will independently screen a subset (300) of titles and abstracts and include studies for full-text screening based upon a PICoT concept:

- Population: Adults (18+) employed by government/state commissioned EMS ambulance services
- phenomena of Interest: Barriers and/or facilitators to organisational mental health support for ambulance staff
- Context: Government/state commissioned prehospital EMS ambulance organisations
- Types of studies study design: All types of research studies

Studies scoring 4/4 for all the above criteria will be included. Any reviewer uncertainty will be rated as 'unsure', and an agreement made by two independent reviewers discussing findings and reading full text if required. Disagreements will be settled through discussion with an independent third reviewer. The inter-rater reliability of consensus will be calculated.

To identify papers for inclusion the full text of remaining studies will be retrieved and screened. Again, the inter-rater reliability will be calculated to ensure consistency and clarity. From this final selection, all potentially relevant data will be extracted and collated in an Excel spreadsheet including:

- Primary author
- Publication details
- Country of study
- Study methods
- Setting
- Sample characteristics (sample size, age range, EMS job role)
- Phenomenon of interest (self-reported barriers and/or facilitators)

- Intervention (where relevant)

Outcomes measured will include:

- Primary outcome measures (self-reported barriers and/or facilitators)
- Assessment tool names\*
- Reported statistics
- Reported significance levels
- Reported effect sizes
- Secondary outcome measures\*
- Relevant findings

To ensure sufficient detail capture to enable replication, any described intervention content will be extracted using Hoffmann et al.'s (2014) template for intervention description and replication (TIDieR) checklist. If data are missing or additional information is required, authors will be contacted. Search results will be reported in full and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram.

### Risk of bias (quality) assessment [1 change]

The quality, trustworthiness, relevance, and findings of the studies identified for final selection will be assessed by two independent reviewers using two rating checklists developed by Kmet, Cook and Lee, (2004). One checklist is designed to assess the quality for quantitative studies (and will also be applied to quantitative components of mixed-methods studies) and the other for qualitative studies (which will also be applied to qualitative components of mixed-methods studies). Each checklist item will be rated on a quality scale from 0–2:

- criteria not met=0
- criteria partially met=1
- criteria fully met=2

Any included grey literature will be assessed using Tyndall's (2010) 'AACODS' checklist. Reviewer discrepancies will be resolved through discussion and third reviewer consultation when necessary. We plan to include all studies, regardless of the risk of bias, as it is anticipated that the availability of high-quality evidence will be limited. However, a sensitivity analysis will be conducted by removing any studies rated zero for quality, to determine the effect of excluding such studies in the results. Critical appraisal results will be displayed in a pre-determined 'risk of bias' table. The narrative will include a summary of the relative impact of missing data and of methodological flaws on the findings.

### Strategy for data synthesis [1 change]

It is anticipated that data from the included studies will be heterogeneous since they are likely, for example, to include different approaches to design and use of different outcome measures. We will determine heterogeneity by summarising:

- Population characteristics (e.g., sample-size, age, type of mental health problem/disorder)

- Methodological approach (e.g., qualitative, survey, experiment)
- Assessment (the measures used to assess staff perceptions of organisational support, barriers or facilitators where relevant)
- Intervention characteristics (e.g., intervention type, frequency, duration, uptake)

It is therefore unlikely that a meta-analysis will be possible. Instead, a narrative review and synthesis approach will be taken by conducting inductive thematic analysis, using NVivo software and data from the excel data extraction sheets in the following steps:

1. Key data and quotations will be transposed from data extraction sheets to NVivo for coding by two reviewers, who will agree a coding structure for coding of participant data. The third reviewer will arbitrate any conflict.
2. Using the agreed upon coding structure, the two reviewers will undertake thematic analysis of the coded data and will meet regularly to ensure the coding structure is appropriate and can be applied to the conclusions being drawn from the identified themes.
3. Factors impacting on participation with EMS organisational employee mental health support with a focus on information from studies relating to employee experiences and/or perceptions of barriers against, or facilitators to, accessing and utilising support, will be synthesised in this systematic review (there will be no minimum number of studies).
4. We will use a narrative (descriptive) synthesis, following Campbell et al.'s (2020) SWiM guideline.
5. The certainty of evidence will also be synthesised using #27 quality checklist.
6. We will seek to identify and describe relationships between the quantitative and qualitative data across all study types and present the results as a combined narrative, descriptive synthesis.

### Analysis of subgroups or subsets

None planned

### Contact details for further information

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### Organisational affiliation of the review [1 change]

Oxford Centre for Anxiety Disorders and Trauma (OxCADAT), Department of Experimental Psychology, University of Oxford.

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### Review team members and their organisational affiliations

Mrs Sasha Johnston. University of Oxford and South Western Ambulance NHS Foundation Trust  
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Professor Lucy Bowes. Department of Experimental Psychology, University of Oxford, UK

### Collaborators

Professor Kristy Sanderson. School of Health Sciences, The University of East Anglia, UK

### Type and method of review

Narrative synthesis, Systematic review, Other

### Anticipated or actual start date [1 change]

14 February 2022

### Anticipated completion date [1 change]

02 December 2022

### Funding sources/sponsors

NHS England and NHS Horizons

**Grant number(s)**

State the funder, grant or award number and the date of award

Project A

**Conflicts of interest**

**Language**

English

**Country**

England

**Stage of review**

Review Ongoing

**Subject index terms status**

Subject indexing assigned by CRD

**Subject index terms**

Ambulances; Humans; Mental Disorders; Mental Health; Workplace

**Date of registration in PROSPERO**

02 February 2022

**Date of first submission**

21 December 2021

**Details of any existing review of the same topic by the same authors [1 change]**

JW is a named author on the following review:

Auth, N., Booker, M., Wild, J., & Riley, R. (2022). Mental health and help-seeking among trauma exposed emergency service staff: A qualitative evidence synthesis. *BMJ Open*. In press

**Stage of review at time of this submission**

The review has not started

<b>Stage</b>	<b>Started</b>	<b>Completed</b>
Preliminary searches	No	No
Piloting of the study selection process	No	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

*The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be*

*construed as scientific misconduct.*

*The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.*

## Versions

02 February 2022