Medical civil-military cooperation in the management of outbreaks of infectious diseases

Summary Civil-military cooperation in infectious disease outbreak responses has become more common. These collaborations fit WHO's call for multisectoral cooperation in managing health emergencies, emphasizing cooperation in all phases the Emergency Management Cycle (EMC). It seems obvious to ask for military support when civil institutions cannot cope with an outbreak. However, the military is often not structurally embedded in civilian health crisis systems. Therefore, when a crisis emerges, ad-hoc cooperation between civil and military stakeholders occurs generating its own cooperation dynamics. Consequently, it is worthwhile to take a closer look into the mechanisms of civil-military cooperation on this topic.

Methods-Results A scoping review was conducted by a search for peer-reviewed journals, performed in PubMed, Embase, Web of Science and Scopus. Eligible papers addressed substantive contributions to the understanding of civil-military cooperation in outbreak management, specifically in the medical field. Besides extracting study characteristics and areas of cooperation, papers were categorised by EMC phase. By means of qualitative interpretation analysis, recurring themes on challenges and opportunities in cooperation were identified. Civil-military cooperation was described in all EMC phases, with the fewest references in the recovery phase (n=1). Most of the 54 included papers provided a review of activities or expert opinions. In total, eight areas of civil-military cooperation were explored. Regarding a better understanding of civil-military cooperation dynamics, the qualitative analysis of the papers yielded five recurring themes: *managing relations*, *framework conditions*, *integrating collective activities*, *governance* and *civil-military differences*.

Conclusion Military involvement can boost projects, campaigns and emergency responses. Guided by the five themes, successful civil-military cooperation requires sustainable relations, binding agreements, transparency, a clear operational perspective and acknowledgement of organizational cultural differences. To avoid distrust and tension amongst stakeholders, frequently caused by differences in strategical goals, early and continuous engagement proves crucial.