Safety culture in Switzerland: A protocol for a scoping review

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Abstract

Objective: The objective of this scoping review is to provide a comprehensive overview of safety culture in Switzerland in different settings and target groups.

Introduction: This review is part of a national project to provide a recommended framework for the establishment and promotion of safety culture in Switzerland. It aims to provide a comprehensive overview of the current published and unpublished literature on safety culture in Switzerland.

Methods: The Joanna Briggs Institute (JBI) methodology for scoping reviews will be followed. The key terms "safety culture", "patient safety culture" and "Switzerland" will guide the search strategy for this scoping review. Sources will include electronic databases (MEDLINE, EMBASE and CINAHL) and grey literature. Inclusion criteria are published and unpublished studies, reports and reviews conducted in Switzerland and focusing on safety culture. Abstracts and full texts will be assessed by two independent reviewers using a standardised extraction tool implemented in Covidence. The assessment of the methodological quality will be done using the ROBINS-E tool. A PRISMA flowchart will be used to summarize the data collection process and the number of included and excluded studies from this review. We will conduct a descriptive synthesis of the included studies. Data will be presented in tabular form. A narrative summary will accompany the tabulated results.

Dissemination: The results of the scoping review will be reported to the Federal Commission for Quality (EQK) and will be published in suitable professional and scientific journals.

Keywords

Safety culture; health care settings; Switzerland

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Introduction

With the publication of landmark reports like "To Err is Human" [1] and more recently the COVID-19 pandemic, the awareness of patient safety has become widely acknowledged as an ethical, economic and public health concern driving the need for research and improvement initiatives [2]. Unsafe care resulting in unintended patient harm and adverse events accounts for 15% of health spending in OECD countries [2]. To keep healthcare systems safe for both patients and workers, safety culture has gained increasing prominence. The World Health Organization (WHO) Global Patient Safety Action Plan 2021-2030 emphasizes the need to "instil a safety culture in the design and delivery of health care" and urges governments to "adopt global approaches for establishment of a safety culture across the health system, including building competencies in methods for culture change" [1]. In Switzerland, too, the concept of "culture" is one of the strategic domains in its framework for advancing quality within the (Swiss) healthcare system [3]. Several initiatives and projects have been launched. One of these is the project "Safety culture: conceptual analysis and feasibility study" with the goal to provide a recommended framework for the promotion and implementation of safety culture in Switzerland. This scoping review is part of this project.

Safety culture refers to the pattern of behaviors within an organization, both at the individual and collective levels, that are based on shared perceptions and beliefs about safety. It encompasses how safety is valued, managed, and integrated into everyday practices by all members of the organization [4]. It is important to distinguish the concept of safety culture from the concepts of patient safety culture and just culture, which are closely related but have different focuses and purposes. Safety culture refers to the overall culture within an organization, while patient safety culture and just culture are subsets of the safety culture. Patient safety culture is focusing on the aspects of organisational culture that relate to patient safety and is defined as 'an integrated pattern of individual and organisational behaviours, based upon shared beliefs and values that continuously seeks to minimize patient harm, which may result from the process of care delivery" [5]. Just culture focuses on the organisational response to errors, incidents and near misses. Only recently a study to determine the definition of the term and the feasibility of implementing projects to strengthen Just Culture in the Swiss healthcare setting was performed [6].

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Several studies on safety culture, either published or unpublished, have been carried out in Switzerland [7–22] including an overview of the questionnaires used in various he600altcare settings [23].

Review question

This scoping review aims to provide a comprehensive overview (on and determine the status) of patient safety culture in Switzerland in different settings, contexts and target groups.

The review is guided by the following research question:

- What is safety culture in Switzerland in the different settings and target groups?

Keywords

safety culture, patient safety culture, organizational culture and Switzerland

Eligibility criteria

Inclusion criteria

Published and unpublished empirical studies, descriptive reports and reviews related to patient safety culture / safety culture will be included if they focus on safety culture in healthcare settings in Switzerland (Table 1). Safety culture is defined as 'a product of individual and group values, attitudes, perceptions, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of an organisation's health and safety management' [4]. General and detailed information concerning methodology, aims, outcomes and results will form part of the documentation, including a structured description of the implementation strategies applied and of barriers and facilitators addressed with the use of implementation strategies.

Exclusion criteria

Studies, reports or reviews that do not report on safety culture in Swiss healthcare settings will be excluded. We will exclude studies, reports or reviews published before the year 2000.

Table 1: Exclusion and inclusion criteria based on the PICO Framework [24]

PICO Element	Inclusion/exclusion criteria
Population/ participants	• Target populations: managers, front staff all categories (healthcare professionals or paraprofessionals), clients/patients/habitants, non-clinician hospital staff • Settings: all healthcare settings in Switzerland (e.g. hospital, psychiatric hospitals, nursing homes, home care/primary care) • Excluded: non healthcare settings
Interventions/ Exposure	• Interventions aiming at improving safety culture in healthcare settings, including surveys on safety culture • Excluded: any intervention that does not target safety culture
Comparators	• not applicable
Outcomes	• safety culture as primary or secondary outcome • Excluded: Studies that did not report on or evaluate safety culture
Study designs	• Randomized controlled trials (RCTs); non-RCTs; quasi- experimental study designs (e.g., controlled before-after studies); comparative cohort studies; mixed-method studies; cross-sectional studies; Case-control or case studies • Protocols of studies with any of the above-mentioned designs • Descriptive reports related to patient safety culture / safety culture

Methods

The proposed scoping review will be conducted in accordance with the JBI methodology for scoping reviews [25].

Search strategy

The search strategy will aim to locate both published and unpublished literature.

We will search for evidence in the following electronic databases: MEDLINE, EMBASE, CINAHL and Google Scholar. An initial limited search of MEDLINE/PubMed will be undertaken to identify articles describing safety culture in Switzerland. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles will be used to develop a full search strategy for MEDLINE/PubMed. The search string will subsequently be revised with the support of an information specialist. This search strategy will be adapted for the other databases using Polyglot Search Translator (https://sr-accelerator.com/#/polyglot) and through manual adjustments.

Snowballing through backward and forward citation tracking of the included studies will be used to search for additional studies.

To identify the grey literature we will directly contact professional associations, cantonal authorities, hospitals, using the network of experts (e.g. H$^+$ Die Spitäler der Schweiz, Unimedsuisse (working group quality indicators), Spitex, Curacasa, Curaviva), Swiss mental health care (SMHC), FMH Swiss Medical Association, GDK, BAG / mfe Haus- und Kinderärzte Schweiz, Kantonale Ärztegesellschaften) and check their websites, if applicable. Databases from Swiss universities and universities of applied sciences are searched for theses on the topic of safety culture.

We will view existing work done by the authors of the feasibility study "Just Culture in Healthcare", conducted on behalf of EQK and the references listed in the application for the tender of the EQK for the project safety culture: conceptual analysis and feasibility study.

Study/Source of Evidence selection

Following the search, all identified citations will be collated and uploaded into Covidence [26]. Reports or information obtained from the grey literature search will be filed separately. After duplicate removal, two researchers will independently screen titles and abstracts for their eligibility. Potentially relevant citations will be retrieved in full and screened in detail for their eligibility by two or more independent reviewers.

Potential disagreement at any stage of the selection process will be resolved by discussion between reviewers, or with a third, more senior researcher. The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram [27]. To manage the references, we will use Zotero [28].

Data Extraction

Data extraction from the previously included studies will be conducted in Covidence [26] by a primary reviewer and checked by a secondary reviewer. Disagreement will be resolved in discussion, potentially with a third reviewer.

The extraction form will be piloted and adapted with the first 5 studies. All decision steps and modifications to the initial data extraction form will be documented and reported in the scoping review. If data extraction of results is unclear or incomplete, we will not contact study authors to obtain the missing data due to time restraints.

The information extracted will include - at least - the following information:
- <u>bibliographic data</u> (authors, title, journal name, year of publication, volume, page numbers)
- <u>study design/methodology</u> (quantitative, qualitative, mixed method designe, reviews)
- <u>Swiss region</u> of the study
- study <u>objectives/purposes</u>
- information on <u>target groups</u> (types of participants: managers, front staff all categories (healthcare professionals or paraprofessionals), clients/patients/habitants, non clinician staff)
- information on <u>context factors</u>
    - o Micro level factors: e.g. motivation, individual autonomy, self-efficacy, or individual knowledge, attitudes and beliefs
    - o Meso level factors (organizational characteristics): e.g. organizational culture and climate, networks and communication, leadership, resources (financial, staffing and workload, time), learning culture
    - o Macro level (external factors): e.g. political support, local infrastructure, policy and legal climate, relational climate, target population, and the funding and economic climate
- <u>settings</u>: somatic hospitals, psychiatric hospitals, readaptation hospitals, nursing homes, primary care setting and home care setting in Switzerland
- clinical specialities (Fachrichtung)
- description of the implemented <u>intervention</u>(s)
- description of the <u>implementation strategy</u>
- <u>main findings</u> (e.g. change of culture, implementation outcomes, effectiveness, facilitators, safety culture dimensions
- limitations
- for reviews number of included primary studies, explanations for association as well as comments by the reviewer

Assessment of study quality

The assessment of the methodological quality will be done using the ROBINS-E tool (Risk of Bias in Non-randomized Studies of Exposure) will be used to assess the risk of bias [29].

Data Analysis and Presentation

A PRISMA flow chart will be used to summarize the data collection process and justify the number of included and excluded studies from this review. We will conduct a descriptive synthesis of the studies found. Data will be presented in tabular form. A narrative summary will accompany the tabulated results.

The findings of the qualitative studies and qualitative parts of mixed-method studies will be analysed using thematic analysis.

The themes for thematic analysis will be related to:

- Interventions
- Implementation strategies
- Surveys on safety culture
- Uptake of interventions to enhance safety culture, barriers and facilitators
- Target groups, settings and clinical specialities
- Context factors
- Safety culture dimensions [30], e.g. leadership; perceptions of safety; teamwork and collaboration; safety systems; prioritization of safety; resources and constraints; reporting and just culture; openness; learning and improvement; awareness of human limits; and wellbeing

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Conflicts of interest

There is no conflict of interest for this proposed scoping review.

Dissemination

The results of this scoping review will be reported to the EQK and published in suitable professional or scientific journals.

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Appendices

Appendix I: Search strategy

Table A1. Search string for MEDLINE/PubMed

Block A (safety culture/climate)	("safety management"[MeSH Terms:noexp] OR ("organizational culture"[MeSH Terms] AND ("safety"[MeSH Terms:noexp] OR "patient safety"[MeSH Terms])) OR "safety culture"[Title/Abstract] OR "safety climate"[Title/Abstract] OR "culture of safety"[Title/Abstract] OR "safety attitude"[Title/Abstract] OR "safety attitudes"[Title/Abstract] OR "safety management"[Title/Abstract] OR "positive safety culture"[Title/Abstract] OR "just culture"[Title/Abstract] OR "safety checklist"[Title/Abstract])
Block B (Switzerland)	("Switzerland"[Title/Abstract] OR "Swiss"[Title/Abstract] OR "Switzerland"[Affiliation])
Combination	(Block A) AND (Block B)

Note. Mesh, Medical Subject Headings; tiab, Title/Abstract