

Identifying tools, metrics, and measures for physical, psychological, and/or cultural safety in healthcare settings

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Appendix 1: Methodological details

We use a standard protocol for preparing rapid evidence profiles (REP) to ensure that our approach to identifying research evidence is as systematic and transparent as possible in the time we were given to prepare the profile.

Engaging subject matter experts

The requestor for this REP included team members who are subject matter experts on the topic of physical, psychological, and cultural safety, and were engaged in virtual meetings at several junctures including: 1) to help us scope the question; 2) to iteratively develop the list of tools, metrics, and measures to focus on for final data extraction, and to help target our evidence searches and jurisdictional scans; and 3) to ensure relevant context is taken into account in the summary of the evidence and insights from jurisdictions.

Identifying a list of tools, measures, and metrics and research evidence about the list of tools

To identify tools, we searched [PubMed](#), [Health Systems Evidence](#), and [Social Systems Evidence](#). We reviewed 768 results to identify evidence syntheses or single studies that were focused on evaluating tools, metrics, and measures for physical, psychological, and/or cultural safety (PPCS) in healthcare settings, or that were explicitly focused on measuring one or all of PPCS. We reviewed abstracts and full texts to identify the tools, metrics, and measures included in the syntheses and single studies, and then extracted the name of the tool and any information provided about it. We excluded:

- tools, metrics, and measures that focused only on patient safety or quality improvement, unless there is an explicit mention of implications for PPCS for staff
- studies focused on describing interventions designed to improve PPCS – [which was covered in a previously completed REP](#) – and that didn't include details of how the effectiveness of these interventions was evaluated using specific tools, metrics or measures.

We also conducted complementary searches in Google to fill information gaps for any tools identified that did not include descriptions in the abstracts or full texts of the studies in which they were used.

For each tool identified, we:

- assigned it a category based on whether it focused on physical, psychological, or cultural safety, or more than one of these areas

- searched for publicly available versions of the tool, metric, or measure online and when possible hyperlinked the title of the tool to the most relevant link (note: some of the identified tools, metrics or measures were not publicly available, and in many instances only adapted versions used in local settings could be identified)
- extracted succinct descriptions of each tool, metric, or measure from the studies in which they were originally identified, or from the publicly available resources identified in complementary searches.

We consulted with the requestor to iteratively refine the focus of which tools were included based on the above criteria, which yielded a total of 35 tools, metrics or measures included in our analysis (see Appendix 2), 39 that were deemed ineligible (see Appendix 3), and 15 documents that were deemed ineligible because they weren't tools, metrics, and measures, but frameworks, guidance, and models that can be used to inform approaches for creating physically, psychologically, and culturally safe environments (which are included as Appendix 6 for reference).

For this REP, we searched for the following types of evidence documents:

- 1) evidence syntheses
- 2) protocols for evidence syntheses that are underway
- 3) single studies.

To identify potentially relevant evidence documents, we conducted targeted searches in PubMed, Health Systems Evidence, and Social Systems Evidence using keywords related to the names of each of the tools and identified 14 documents, of which 10 were evidence syntheses and four single studies. A final inclusion assessment was performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team used a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we typically include published, pre-print, and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French, or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework.

Assessing relevance and quality of evidence

For each document identified, we assessed the relevance of each included evidence document as being of high, moderate or low relevance to the question (i.e., how directly does the evidence document answer the question of what is known from evaluations about the specific tool, metric, or measure that was the focus). We also extracted information related to the recency of the document (i.e., how recently the search was conducted for evidence syntheses, and how recently the study was published for single studies), as well as other key characteristics.

Two reviewers independently appraised the methodological quality of evidence syntheses included in our analysis. Disagreements were resolved by consensus with a third reviewer if needed using the AMSTAR tool. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. High-quality evidence syntheses are those with scores of eight or higher out of a possible 11, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to those pertaining to health-system arrangements or to economic and social responses. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, an evidence synthesis that scores 8/8 is generally of comparable quality to another scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the evidence synthesis can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the evidence synthesis should be discarded, merely that less confidence can be placed in

its findings and that the evidence synthesis needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7(Suppl1): S8.)

For each evidence synthesis, we also provided information about whether a GRADE profile was made available.

Identifying experiences from other countries and from Canadian provinces and territories

For each REP, we work with the requestors to collectively decide on what countries (and/or states or provinces) to examine based on the question posed. For other countries, we search relevant government and stakeholder websites including ministries of health (or their equivalent), health authorities and quality improvement agencies, large hospital and care-delivery networks, regulatory colleges, and professional groups or associations. In Canada, a similar approach was used for each province and territory as well as nationally. While we do not exclude content based on language, where information is not available in English, Chinese, French, or Spanish, we attempt to use site-specific translation functions or Google Translate. A full list of websites and organizations searched is available upon request.

Preparing the profile

Each included evidence document is cited in the reference list at the end of the REP. For all included evidence syntheses and single studies, we prepare a small number of bullet points that provide a summary of the key findings, which are used to summarize key messages in the text.

We then draft a summary that highlights the key findings from all highly relevant documents (alongside their date of last search and methodological quality), as well as key findings from the jurisdictional scan.

Upon completion, we sent the REP to the requestor for their review and updated the final report as needed.

Appendix 2: Summary of what is known from evidence documents and jurisdictions about tools, metrics, and measures focused on physical, psychological, and cultural safety

Name of tools, metrics and measures (n=35)	Purpose	Topic areas where it is being applied (multiple=7, physical=2, psychological=16, cultural=10)	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Methodological characteristics (e.g., number of items, approach to administration)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from evaluations of the tool
Health Standards Organization (HSO) Global Workforce Survey	Developed as a survey instrument to assess the health and well-being of a workforce and support strategic and operational decision-making with evidence-informed data.	Multiple areas of focus	Governments, policymakers, organizational leaders, quality improvement teams, front-line staff, and other healthcare partners	- Web-based survey offered in English and French (approximately 20 minutes to complete) - Addresses 17 healthcare workforce topic areas, which include: - communication and collaboration - engagement - equity, diversity, and inclusion - job burnout - job characteristics - management's focus on workforce health and safety - moral distress - organizational learning - overall quality of work life - people-centred care - psychological health and safety - quality of supervision - relations with co-workers - retention/turnover - safety culture - worker well-being - workplace health and safety	Applied in pan-Canadian healthcare settings to better understand safety culture through healthcare providers, patients, and their families	Survey provides relevant and reliable data for benchmarking and can help to generate action plans that will support ongoing improvement (8)
IHI Safety Climate Survey (SCS)	Developed as a survey tool for healthcare organizations to gain information about the perceptions of safety culture within the organization to assist in	Multiple areas of focus	Physicians and other health professionals (e.g., pharmacists, physiotherapists, occupational therapists, social workers, psychologists, dieticians)	19-item survey that focuses on assessing cultural safety on a five-point Likert scale from disagree strongly to agree strongly - Staff can identify as part of one of five groupings: - medical - nursing - healthcare assistant/support workers - other direct care staff	The Safety Climate Survey has been adopted in New Zealand to survey healthcare professionals on communication, workload, leadership,	None identified

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	implementing changes to improve the safety culture and periodically assess the impact of those changes.			○ administrative/support staff ● The administration of the survey features seven key steps: ○ selecting the healthcare unit ○ identifying staff to participate (it is recommended to include members who have worked 20 hours per week for a minimum of six weeks on the unit, or assigned to the unit for at least three days per week for six weeks) ○ categorizing the responses and customizing the form ○ tracking response rates (target rate is 65%) ○ calculating results (e.g., assigning a numerical value for each question, with a value of one for disagree strongly to a value of five for agree strongly; scoring value is reversed for Question 18 only) ○ monitoring results over time ○ conducting repeat surveys at six months and 12 months	teamwork, and learning to better understand and openly discuss how to improve systems and cultural safety within an organization	
The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS)	Developed a self-assessment for healthcare professionals on LGBT clinical competence to help address training deficiencies, reduce stigma against LGBT patients, and better address disparities in physical and mental health outcomes.	Multiple areas of focus	Physicians and other professionals (e.g., mental health providers, trainees, clinicians, and educators from applied psychology, counselling, psychotherapy, primary care medicine)	● Features 18 items adapted from previous/modified Sexual Orientation Counselor Competency Scales; three factors assessed include clinical preparedness (which assesses LGBT training and clinical experiences) (n=7), attitudinal awareness (which assesses explicit LGBT bias and prejudice) (n=7), and basic knowledge (which assesses LGBT health and mental health disparities) (n=4) ○ Clinical preparedness subscale consists of Questions 4, 10, 11, and 13–15 ○ Attitudes subscale consists of Question 3, 5, 7, 9, 12, and 17	● Administered to health and mental health providers in both the U.S. and U.K. using both in-person paper surveys and online computer administration	● Three studies provided evidence to support the use, reliability, and validity of the LGBT-DOCSS instrument (e.g., 'good internal consistency,' strong initial test-retest reliability, low levels of response bias, supported

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				○ Knowledge subscale consists of Question 1, 2, 6, and 8 • Responses on a seven-point Likert scale from strongly disagree (numerical value of one) and somewhat disagree/agree (numerical value of four) to strongly agree (numerical value of seven) ○ Likert scale scoring is reversed for Questions 3–5, 7, 9, 12, 17, and 18 • Survey questionnaires are available in both online and paper formats • The higher the score, the higher indication of clinical preparedness and knowledge, and less prejudicial attitudinal awareness regarding LGBT clients		• discriminant validity) (9) • Well-suited for research purposes as an outcome variable; not intended as a high-stakes assessment (9)
The Safe Psychiatric Ward Battery	Developed as an instrument composed of a scale and a checklist containing features that collectively form a safe environment within a psychiatric ward to assess relevant factors and plan corrective interventions.	Multiple areas of focus	Physicians and other professionals	• Instrument composed of a 29-item scale and 45-item checklist, assessing four components across both sections: ○ scale: engagement (n=24) ○ scale: perception of the physical environment (n=5) ○ checklist: accident-free living environment (n=23) ○ checklist: staff empowerment (n=22) • 29-item scale scoring is on a five-point Likert scale from never (value of one) to always (value of five), while the checklist items are assigned as yes (value of one) or no (value of zero)	• None identified	• Qualitative study provided evidence to support content validity and reliability of the instrument (e.g., good to excellent stability, and validity confirmed by exploratory factor analysis) (10)
Safety Attitudes Questionnaire (SAQ)	Questionnaire designed to elicit caregiver attitudes through the six-factor analytically derived climate scales: teamwork	Multiple areas of focus	Physicians and other professionals (e.g., front-line workers, healthcare providers)	• 60-item questionnaire focused on examining the following six factors: 1) teamwork climate, 2) safety climate, 3) job satisfaction, 4) perceptions of management, 5) working conditions, and 6) stress recognition; assessed on a five-point Likert scale (e.g., disagree strongly, disagree, neutral, agree, and agree strongly)	• In England, the SAQ was administered as surveys sent to all care home managers and staff at baseline, 12	• The SAQ has been shown to have good psychometric properties, and strong reliability (2)

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	climate, safety climate, job satisfaction, perceptions of management, working conditions, and stress recognition.			○ Scoring was reversed for items that were 'negatively worded' to ensure their valence matched the positively worded items • Features section where respondents indicate the quality of collaboration and communication they experienced with the types of providers in their clinical area (e.g., surgeons, residents, anesthesiologists, and nurses) on a five-point Likert scale (from very low to very high)	months, and 24 months of the SPACE quality improvement program • The surveys were distributed internally by the care home manager/administrator, with all returns being anonymous (only the respondent's care home was identified via a barcode), and the tool measured safety climate through seven questions that elicit attitudes on a five-point Likert scale • The SAQ was used to assess safety culture in a high-volume transplant centre in the U.S. during a period of significant healthcare disruption, specifically the COVID-19 pandemic, in order to identify potential vulnerabilities that	

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					could impact patient outcomes The SAQ was also used in Prince Edward Island, British Columbia in Canada, as well as Australia, the U.K., and the U.S.	
Job Content Questionnaire (JCQ)	Developed as a self-administered instrument to measure the social and psychological characteristics of jobs across key factors including decision latitude, psychological demands, social support, physical demands, and job insecurity.	Multiple areas of focus	Organizational leaders, managers, and 'white- and blue-collar' workers	- Self-administered instrument is designed to assess decision latitude (n=19), psychological demands (n=9), social support (n=11), physical demands (n=5), and job insecurity (n=6), with a recommended length of 49 items assessed on a four-point Likert scale - It can be nationally standardized based on occupation, has been translated to over a dozen languages (e.g., French, Spanish, Swedish, Dutch, Italian), and can be completed within 15 minutes	None identified	None identified
The Practice Environment Scale of the Nursing Work Index (PES-NWI)	Developed as an instrument to measure the nursing practice environment, defined as factors that enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care.	Multiple areas of focus	Other health professionals (e.g., registered nurses, licensed nurses, nursing assistants)	- Instrument assessing five subscales (e.g., nurse participation in hospital affairs; nursing foundations of quality care; nurse manager, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse-physician relations) across 31-items on a four-point Likert scale from strongly disagree (value of one) to strongly agree (value of four) - The higher the score, the more favourable the environment (e.g., scores above midpoint of 2.5 indicate favourable practice)	None identified	The instrument functions well across practice settings, and is reliable, with strong internal consistency and construct validity (11)

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CEMB Lab Risk Survey	Designed to gather data from CEMB laboratory staff for use in the branch's laboratory risk assessment efforts; the goal is to ensure that laboratory staff have the opportunity to engage in lab risk assessment activities.	Physical safety	Laboratory managers and employees/staff members	22-item survey that assesses laboratory safety and focuses on the following categories: - regulatory requirements (n=2) - biologicals (n=9) - equipment (n=1) - process (n=1) - mitigation (n=3) - quality controls (n=3) - safety culture (n=3)	None identified	None identified
Hazard Assessment and Remediation Tool (HART)	Developed a framework to identify and measure hazards in the built environment for simulation-based healthcare facility design testing.	Physical safety	Physicians and other professionals (e.g., healthcare staff)	- Enables trained raters to identify hazards by reviewing audiovisual recordings of simulations for six distinct categories: - slip/trip/fall/injury risk - obstructed access to patient - obstructed access to equipment - obstructed path - poor visibility - infection risk	None identified	- Strong overall reliability, with reliability coefficients for each hazard greater than 0.8 (with the exception of obstructed path) (12) - Tool is highly reliable when applied to direct video review of simulations by either paired raters or trained single clinical raters (12)
Speaking Up About Patient Safety Questionnaire (SUPS-Q)	Developed a short questionnaire allowing healthcare organizations to assess different aspects of speaking	Psychological safety	Physicians and other professionals (e.g., healthcare workers)	Questionnaire included 11 behaviour-related speak up items, one simulated behaviour (vignette) with four items, one item assessing six barriers to speaking up, and 13 items for speak up-related climate	None identified	None identified

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	up about safety concerns among healthcare staff.			○ speak up-related behaviour had three scales (e.g., safety concerns (n=3), speaking up (n=4), withholding voice (n=4)) scored as 'never,' 'rarely,' 'sometimes,' 'often,' and 'very often' ○ self-perceived barriers (n=1) were scored on a yes or no response scale ○ simulated behaviour (vignette) featured four items on a seven-point Likert scale ○ speak up-related climate was assessed on a seven-point Likert scale from 'strongly disagree' to 'strongly agree'		
Effort Reward Imbalance (ERI) questionnaire*	Developed as a standardized questionnaire for self-administration to measure the psychosocial elements of one's work environment such as the relationship between effort and reward to determine what effect the work environment has on the person's well-being.	Psychological safety	Physicians and other professionals (e.g., general population with an occupation)	● Questionnaire measures effort, reward, and over-commitment; long version consists of 22-items (e.g., five or six items for effort, ten items for reward, and six items for over-commitment) coded on a four-point Likert scale from 'strongly disagree' to 'strongly agree,' while the short version only features 16-items (e.g., three items for effort, seven items for reward, and six items for over-commitment) ● The higher the score, the more effort and overcommitment is experienced during work	● None identified	● None identified
Group Environment Scale (GES)	Developed as a means to systematically consider environmental influences within groups (in	Psychological safety	Physicians and other professionals (e.g., student teachers)	● Assesses the domains of relationship (e.g., cohesion, leader support, expressiveness subscales), personal growth (e.g., independence, task orientation, self-discovery, anger/aggression subscales), and system maintenance/change (e.g., order and	● None identified	● None identified

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	workplaces, among teams, etc.)			organization, leader control, innovation subscales) across 10 subscales		
HSE Management Standards Indicator Tool (U.K.)	Set of organizational guidelines documenting six standards to help employers manage the causes of work-related stress.	Psychological safety	Organizational leaders, managers, and employees/staff members	35-item questionnaire that addresses six primary stressors (e.g., demands, control, support, relationships, role, and change) on a 5-point scale, ranging from 'never' (value of one) to 'always' (value of five) for Questions 1–23 or 'strongly disagree (value of 1) to 'strongly agree (value of 5) for Questions 24–35	None identified	None identified
ICU nurse-physician questionnaire	Developed to provide a comprehensive set of measures related to leadership, organizational culture, communication, coordination, problem solving-conflict management, and team cohesiveness.	Psychological safety	Organizational leaders, physicians and other professionals (e.g., nurses)	- Consists of 86-items scored on a five-point scale - Addresses organizational components (e.g., leadership, culture), managerial components (e.g., communication, coordination, problem-solving), team cohesion, and perceived unit effectiveness - A modified, shortened version of the questionnaire exists for nurses	None identified	None identified
Impact of Event Scale – Revised (IES-R)	Developed a 22-item self-report measure that assesses subjective distress caused by traumatic events to correspond to DSM-IV symptoms of post-traumatic stress disorder (PTSD). Has been used to measure PTSD in healthcare workers.	Psychological safety	Patients (e.g., older adults exposed to any traumatic event)	- IES-R is a 22-item self-report measure for DSM-IV that assesses for subjective distress that has been brought upon by traumatic events - Items are scored on five-point scale from 'not at all' (value of zero) to 'extremely' (value of four) - total scale ranges from zero to 88, with the ability to calculate subscale values for intrusion, avoidance, and hyperarousal - intrusion subscale: Questions 1–3, 6, 9, 14, 16, 20 - avoidance subscale: Questions 5, 7, 8, 11–13, 17, 22	The IES-R was used in Quebec, Canada, Germany and Sweden in conjunction with additional screening tools (e.g., GAD-7, PHQ-9, FCV-19S, DASS-12) to investigate the mental health of organizational leaders,	- Appropriate instrument to measure the subjective response to a specific traumatic event; however, is not a diagnostic tool (13) - The hyperarousal subscale has 'good' predictive

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				○ hyperarousal subscale: Questions 4, 10, 15, 18, 19, 21 ○ total scores of 24–32 indicate PTSD as a clinical concern ● Scale has been translated to Spanish, French, Chinese, Japanese, and German	policymakers, physicians, and other healthcare professionals, to measure the psychological impact of the pandemic, and to implement actions to reduce unwanted effects of such events on healthcare workers	validity with respect to trauma (13)
Job Diagnostic Survey (JDS)	Designed to assess the nature of tasks performed on the job, testing whether and how the nature of job tasks leads to several important outcomes including employee motivation, job performance, and job satisfaction.	Psychological safety	Organizational leaders, managers, professionals, clerical, service, process, and machine workers	● Features 15-items that measure five core job characteristics: autonomy, task identity, skill variety, task significance, and feedback ● Each core dimension consists of three items that are measured on a seven-point Likert scale	● None identified	● None identified
Observational Teamwork Assessment for Surgery tool (OTAS-D)	Developed as a tool for capturing teamwork in the operating room.	Psychological safety	Physicians and other professionals (e.g., surgeons, anesthesiologists, nurses)	● Consists of 115 items (i.e., 'exemplar behaviours') that assess communication (n=21), coordination (n=24), cooperation (n=24), leadership (n=27), and team monitoring (n=19) ● Each item is rated on a 0–6 point behaviourally anchored scale	● None identified	● OTAS-D is a valid and reliable assessment tool for nontechnical skills that support safe and effective surgical performance in the operating room (14)

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Operating Room Management Attitudes Questionnaire (ORMAQ)	Measures attitudes to leadership, communication, teamwork, stress and fatigue, work values, and organizational climate.	Psychological safety	Physicians and other professionals (e.g., surgeons and operating room nurses)	- The survey is divided into 4 sections: - operating theatre management attitudes - teamwork - error in medicine - leadership and prioritizing - Each section presents items evaluated with Likert scales	None identified	None identified
Organizational Culture Index (OCI)	Developed to measure organizational culture across three sub-types of culture including bureaucratic, supportive and innovative culture.	Psychological safety	Organizational leaders, managers and other professionals (e.g., human resources professionals and career development specialists)	Analyzes three types of organizational cultures: bureaucratic, innovative, and supportive	None identified	None identified
Perceived Stress Scale (PSS)*	Developed a scored questionnaire to quantify the effect of different situations on one's feelings or perceived stress level.	Psychological safety	General population	- The PSS typically comes in three versions: - PSS-14 (original version with 14 items) - PSS-10 (shortened version with 10 items) - PSS-4 (brief version with 4 items) - Each section presents items evaluated with Likert scales	In Germany and the Netherlands, PSS was modified for local contexts and found to have cross-cultural validity and usability when assessing for migration-related stress among organizational leaders, physicians, and other professionals in everyday life scenarios	- Good internal consistency in Spanish and English - Reliable for diverse Latino subgroups in the U.S. (15)

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Psychological Safety Measurement (Edmonson)	Assesses the level of psychological safety within a team or organization.	Psychological safety	Organizational leaders and team managers	10 sample questions, but recommends modifying and potentially reducing number of items to fit specific context - Administered as a self-report survey to team members - Uses a five-point Likert scale for responses (1 = low agreement, 5 = high agreement)	The Psychological Safety Measurement (Edmondson) was to investigate the psychological safety and affective commitment of Turkish immigrant employees in Germany to better understand their mental health and the benefits of a safe workplace	None identified
Second Victim Experience and Support Tool (SVEST)*	Developed to assess organizational support and personal and professional distress after involvement in a patient safety event, and was administered to nurses involved in direct patient care.	Psychological safety	Organizational leaders and other professionals (e.g., patient safety professionals, researchers)	- It contains 29 items representing seven dimensions and two outcome variables - Used five-point Likert scales - Administered as a self-report questionnaire to healthcare providers	SVEST was administered to multi-disciplinary healthcare professionals in pediatric inpatient and intensive care units in the U.S.; aided in the assessment of a peer support program and second victims' experience and perception of support	Internal consistency reliability (Cronbach's alpha) ranged from 0.61–0.87 for subscales (16)
Short Questionnaire for Workplace Analysis (KFZA)	Psychosocial workplace risk assessment questionnaire	Psychological safety	Organizational leaders, physicians and other professionals (e.g.,	The original KFZA contains 26 items across 11 scales	Applied in Germany within primary care practices to assess the mental workload	Cronbach's alpha for the 7 scales ranged from 0.63 to 0.80, indicating

Name of tools, metrics and measures (n=35)	Purpose	Topic areas where it is being applied (multiple=7, physical=2, psychological =16, cultural=10)	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Methodological characteristics (e.g., number of items, approach to administration)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from evaluations of the tool
	designed initially for office workers and applied to hospital settings with a set of adaptations.		occupational health professionals, researchers)	- An extended version with 11 additional items specific to hospital workplaces, for a total of 37 items - It uses a five-point Likert scale for responses	of 550 assistants; determined that work disruptions and scope of action were viewed as stressors amongst workers	acceptable to good internal consistency (6)
Teamwork in Assertive Community Treatment (TACT) scale	Developed to assess team dynamics and process in Assertive Community Treatment performance.	Psychological safety	Organizational leaders (e.g., Assertive Community Treatment team leaders)	- The scale contains 43 items across nine subscales - The subscales measure constructs like team learning, conflict, psychological safety, information accessibility, and consumer-centred care	None identified	Good reliability, with Cronbach's alphas mostly above 0.70 (17)
The Health Professions Stress Inventory (HPSI)	Designed to measure the sources and frequency of stress among nurses, physicians, and pharmacists.	Psychological safety	Physicians and other professionals (e.g., nurses and pharmacists)	It revealed four underlying dimensions of stress: lack of perceived enrichment potential, patient care, interpersonal conflict, and family responsibility conflict	None identified	High internal consistency was indicated by Cronbach's alpha values (18)
Anti-Racism Self-Assessment Tool	Designed to identify anti-racist behaviours and areas that need further development in order to create an environment that promotes cultural safety.	Cultural Safety	Other professionals working in healthcare settings (e.g., midwifery)	- The tool contains over 60 items across three main sections: looking inward, practice (clinical/professional), and advocacy and accountability - It uses a four-point Likert-type scale ranging from "Never/Not At All" to "Always/Very Well" - It includes open-ended reflection questions at the end for identifying strengths, areas for improvement, and action items	None identified	None identified
Awareness of Cultural Safety Scale (ACSS)	Developed as a self-report tool that aims to measure nursing and midwifery academics' awareness of cultural safety.	Cultural safety	Other professionals (e.g., nursing and midwifery academics)	- The ACSS contains 12 items - It uses a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) - It uses three subscales: cultural application, cultural support, and cultural acknowledgement - Self-report online survey	None identified	- Good internal reliability (Cronbach's alpha of 0.87 for the total scale) - Content validity established

Name of tools, metrics and measures (n=35)	Purpose	Topic areas where it is being applied (multiple=7, physical=2, psychological=16, cultural=10)	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Methodological characteristics (e.g., number of items, approach to administration)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from evaluations of the tool
						through expert review (Content Validity Index of 0.86) (19)
California Brief Multicultural Competence Scale (CBMCS)	Designed as a single instrument from several multicultural competency measurements, with the purpose of measuring cultural competence at the agency/clinical level.	Cultural Safety	Other professionals (e.g., community mental health providers)	- The CBMC contains 21 items - The scale consists of four factors: nonethnic ability, awareness of cultural barriers, multicultural knowledge, and sensitivity to consumers	None identified	- Reliability: Cronbach's alpha values across the four factors ranged from 0.75 to 0.90, indicating good to excellent internal consistency - Content validity was established through expert panel review (20)
Client Cultural Competence Inventory	Designed as a 12-item evaluation to measure cultural competence of mental health clinicians from the parent/caregiver's perspective.	Cultural safety	Clients and patients	- The Client Cultural Competence Inventory contains 12 items - Uses a five-point Likert scale, ranging from 1 (never true) to 5 (always true) - The items are grouped into three domains: community and family involvement, respect for cultural differences, and easy access to care	None identified	None identified
Cultural Competence Self-Assessment Questionnaire (CCSAQ)	Questionnaire designed to assist service agencies working with children with disabilities and their families in self-evaluation of their cross-cultural competence.	Cultural safety	Other professionals (e.g., direct service providers and administrative staff in child- and family-serving agencies)	- There are two versions – one for direct service providers (59 items) and one for administrative staff (59 items) - Uses a Likert-type scale for most items (e.g. 1–4 scale from “Not at all” to “Very well”) - Covers six main subscales: knowledge of communities, personal involvement, resources and linkages, staffing, organizational policies and procedures, and reaching out to communities	None identified	- Demonstrates good internal consistency reliability, with most subscales yielding alpha coefficients of 0.80 or higher - Content validity established through extensive literature review

Name of tools, metrics and measures (n=35)	Purpose	Topic areas where it is being applied (multiple=7, physical=2, psychological=16, cultural=10)	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Methodological characteristics (e.g., number of items, approach to administration)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from evaluations of the tool
						and expert consultation (21)
Cultural Self-Efficacy Scale (CSES)	Designed as a scale to measure the perceived sense of self-efficacy of community health nurses caring for culturally diverse clients.	Cultural safety	Other professionals (e.g., nurses)	- The CSES contains 30 items - The scale ranges from "Very little confidence" (1) to "Quite a lot of confidence" (5) - The items are grouped into three sections: knowledge of cultural concepts, knowledge of cultural patterns, and skills in performing key transcultural nursing functions	None identified	- The scale demonstrated high internal consistency (0.97), indicating good reliability - Content validity was established through review by five expert public health nurses with diverse cultural experiences (3)
Diversity Mission Evaluation Questionnaire (DMEQ)	Scale developed to help academic institutions assess their multiculturalism by measuring attitudes, beliefs and experiences pertaining to diversity.	Cultural safety	Organizational leaders and other professionals (e.g., students, faculty, and staff at one graduate psychology program)	- The DMEQ contains 26 items - Uses a four-point Likert scale (1 = strongly disagree to 4 = strongly agree)	None identified	High internal consistency for total scale ($\alpha = 0.87$) and subscales ($\alpha = 0.82\text{--}0.88$) (22)
Measuring Cultural Awareness in Nursing Students Cultural Awareness Scale (CAS)	Scale developed to measure outcomes of a program to promote multicultural awareness among nursing faculty and students.	Cultural safety	Other professionals (e.g., nursing students)	- The CAS contains 36 items across five subscales - Uses a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree) - Administered via paper questionnaire during class time	None identified	- The CAS showed good internal consistency - Internal consistency (Cronbach's alpha) for total scale was 0.869, with subscales ranging from 0.687 to 0.902 (23)

Name of tools, metrics and measures (n=35)	Purpose	Topic areas where it is being applied (multiple=7, physical=2, psychological=16, cultural=10)	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Methodological characteristics (e.g., number of items, approach to administration)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from evaluations of the tool
Tool for Assessing Cultural Competence Training for Curriculum Evaluation (TACCT)	Developed to measure the degree to which the various elements of cultural competence occur throughout the curricula of medical schools from the perspective of teaching faculty.	Cultural safety	Physicians and other professionals (e.g., medical students and course and clerkship directors at medical schools)	- Original TACCT had 67 items across five domains - Revised version has 42 items across six domains - Administered to medical students in clinical years and faculty course directors via written questionnaire or online survey - Uses yes/no responses to indicate if content is covered in curriculum	None identified	- Revised 42-item version showed good internal consistency (Cronbach's alpha 0.803-0.875 for domains) - More practical and user-friendly than original 67-item version (24)
Truth and Reconciliation Medical School Report Card	Developed to assess and track how Canadian medical schools are responding to the Truth and Reconciliation Commission's Calls to Action 23 and 24 by gathering and reporting on the experiences and perspectives of Indigenous medical students across the country.	Cultural safety	Organizational leaders within medical schools, including deans and Indigenous liaisons	Administered to Indigenous medical students across Canada	Administered annually	None identified

Appendix 3: List of tools, metrics, and measures focused on physical, psychological, and cultural safety excluded from the final analysis

Name of tools, metrics, and measures (n=39)	Purpose	Topic areas where it is being applied (physical, psychological, or cultural safety)
Hospital Survey on Patient Safety Culture	Designed as a 40-item survey for providers and other staff to assess patient safety culture in their hospitals.	Multiple areas of focus
NASA Task Load Index (NASA-TLX)	Developed to rate perceived workload in order to assess a task, system, or team's effectiveness or other aspects of performance (task loading).	Multiple areas of focus
Nursing activities score	Developed a list of nursing activities with scores weighted by their average time consumption to best describe the nursing workload in the intensive care unit for cost-effectiveness studies.	Multiple areas of focus
Person-centred Climate Questionnaire (PCCQ-patient version)	Designed to assess what extent the climate of healthcare settings is perceived by patients as being person-centred	Multiple areas of focus
Person-centred Climate Questionnaire – staff version	Designed to measure the extent to which the climate of healthcare settings is experienced as person-centred by staff.	Multiple areas of focus
Pharmacy Safety Climate Questionnaire (PSCQ)	Developed as a questionnaire measuring respondents' agreement with statements on nine themes related to patient safety and the healthcare work environment to assess the specific organization's safety culture from the workforce's attitudes and perceptions.	Multiple areas of focus
PRESENCA questionnaire	The first tool developed and validated in Spanish for the assessment of presenteeism in nursing to contribute towards the improvement of clinical safety.	Multiple areas of focus
The Physician Practice Patient Safety Assessment (PPPSA)	Measures the extent of adoption of patient safety practices in the following domains: medication management, handoffs and transition, personnel qualifications and competencies, practice management and culture, and patient communication.	Multiple areas of focus
Brevet Violence Checklist (BVC)	Designed as a scored checklist for a clinician to use in documenting a patient's behavioural symptoms, where the presence and changes in certain behaviours are used to calculate a score that helps to determine the risk of violence posed by the patient.	Physical safety
Danger Assessment Tool (CDC)	A scale which categorizes the risk of assault or homicide into five danger levels with accompanying descriptions of typical indicators.	Physical safety
Global Trigger Tool for Measuring Adverse Events	Designed as a method for accurately identifying adverse events (harm) and measuring the rate of adverse events over time to aid in measuring the overall level of harm in a healthcare organization.	Physical safety
Managing Obstetrical Risk Efficiently (moreOB) Program	Guidelines program created to improve outcomes and reduce harm to mothers and babies in obstetrical units and to uphold a culture of patient safety in obstetrical units.	Physical safety
Nursing Home Survey on Patient Safety Culture	Survey designed specifically for nursing home providers and other staff and asks for their opinions about the culture of patient safety and healthcare quality in their nursing home.	Physical safety
Overt Aggression Scale (OAS)	Designed as a tool to divide aggression into four categories: verbal aggression; physical aggression against objects; physical aggression against self; and physical aggression against others to assist with interventions related to these categories.	Physical safety
Oxford NOTECHS II	Developed as a modification of the original NOTECHS scale to evaluate the non-technical skills of an entire operating theatre team, with additional discrimination between levels of	Physical safety

Name of tools, metrics, and measures (n=39)	Purpose	Topic areas where it is being applied (physical, psychological, or cultural safety)
	performance within the normal range. It is combined with technical performance to provide a global description of operating theatre team performance.	
Perception of Aggression Scale (POAS)	Designed as a tool to assess and take inventory of nurses' attitudes towards aggressive patients, derived from a questionnaire distributed to nurses.	Physical safety
Predictors of Historical Clinical Risk Management-20 Version 3 (HCR-20-3)	Identifying predictors of Historical Clinical Risk Management-20 Version 3 (HCR-20:V3) user summary risk ratings (SRRs) and the degree to which these predictors coincided with recommended standards of use and empirically based risks of future violence.	Physical safety
Triage Tool (CDC)	Developed a list of five basic triage questions with the purpose of revealing a history of violence or domestic abuse, support structures, and further associated risks to best determine the individual needs of the patient.	Physical safety
Violence Risk Screening-10 (V-RISK-10) (link to one version of the tool here)	Developed a ten-item screen for measuring a patient's violence risk during hospital stay and after discharge into the community.	Physical safety
Brief Psychiatric Rating Scale (BPRS)	Designed as a questionnaire for a clinician to complete alongside a patient interview to assess the level of 18 symptoms associated with schizophrenia or other psychotic disorders.	Psychological safety
Connor-Davidson Resilience Scale (CD-RISC)	Developed as a 25-item self-report tool to measure resilience in the general population and has been adapted and used successfully to measure resilience among healthcare professionals.	Psychological safety
General Health Questionnaire (GHQ-28)	A self-report screening measure used to detect possible psychological disorders.	Psychological safety
General Self-Efficacy Scale (GSE-10)	A self-report measure of self-efficacy correlated to emotion, optimism, work satisfaction, depression, stress, health complaints, burnout, and anxiety.	Psychological safety
Generalized Anxiety Disorder (GAD-7)	Designed as an individual self-assessment tool to assist in determining the severity of Generalized Anxiety Disorder in a patient. Has also been used to evaluate mental health and well-being of health professionals.	Psychological safety
Maslach Burnout Inventory (MBI)	Set of forms and tools developed to measure burnout as defined by the WHO in the ICD-11. The MBI-HSS and MBI-HSS (MP) contains the tools and resources specific to workers in human services and medical personnel.	Psychological safety
Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale	Developed as a three-item survey to assess job satisfaction in a way that is more affective or emotion-oriented than other job satisfaction surveys.	Psychological safety
Patient Health Questionnaire (PHQ-9)	Designed as a patient self-assessment tool for depression to assist medical professionals with diagnosis. Has also been used to evaluate mental health and well-being of health professionals.	Psychological Safety
Post-Traumatic Stress Disorder Checklist for Civilians (PCL-C)	Designed as a screening tool to assess for post-traumatic stress disorder (PTSD) based on DSM-IV criteria. It has also been adapted for use in primary care or general medical settings.	Psychological safety
Quality Work Competence (QWC) Survey – not publicly available	Questionnaire designed to assess the psychosocial conditions of a work environment from the perspective of the individual working in the specific environment.	Psychological safety

Name of tools, metrics, and measures (n=39)	Purpose	Topic areas where it is being applied (physical, psychological, or cultural safety)
Quebec Psychological Distress Index	Developed to estimate the mental health state of the general population of Quebec for which there was little information. Measures the level of psychological distress by adapting the Psychiatric Symptoms Index (PSI).	Psychological safety
Stanford Sleepiness Scale	Designed as a subjective measure of sleepiness, frequently used for both research and clinical purposes.	Psychological safety
Swedish Occupational Fatigue Inventory (SOFI)	Developed as an instrument for the multidimensional evaluation of work-related fatigue.	Psychological safety
WHO quality of life (WHOQOL-BREF)	A quality-of-life assessment tool developed with the intent to be cross-culturally applicable. Developed for the WHOQOL programme on mental health.	Psychological safety
Checklist for the Examination of Cultural Competence in Social Service Agencies	Self-assessment checklist at the agency level for use in preparation for training staff and administrators as well as for recruiting of staff.	Cultural safety
Consumer-Based Cultural Competency Inventory	Measurement tool developed to assess the cultural competency of mental healthcare providers as determined by adult consumers of mental health services.	Cultural safety
Cultural Competence Assessment Scale	Scale designed to measure cultural competence at the agency level to improve access and retention in treatment of persons from diverse cultural groups.	Cultural safety
Cultural Competence Self-Assessment	Scale designed to help identify the unique attributes of a given cultural group to ensure access, appropriate treatment, and effective communication between provider and patient.	Cultural safety
Multicultural Competence in Student Affairs	Scale developed as an assessment tool to measure multicultural competence in a higher education context.	Cultural safety
Multicultural Counseling Self-Efficacy Scale - Racial Diversity Form	Developed to measure cultural competence of counselling programs at agency level. Assesses ability to counsel racially diverse clients.	Cultural safety

Appendix 4: Key findings from evidence documents that review tools, metrics, or measures organized by document type and sorted by relevance

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
Safety Attitudes Questionnaire (SAQ)*	Systematic review	The Safety Attitudes Questionnaire (SAQ) is a valid tool for primary care, which can be used to detect changes in patient safety culture over time or display associations between outcome measures, but must be adapted to the specific setting and context of the investigation (25) A systematic review of 40 studies investigated the use of SAQ in primary care, dividing the studies into four analytic themes: validation analysis, descriptive analysis, variance assessment, and intervention evaluation	High	No	4/9	2023	Not available	None identified
Second Victim Experience and Support Tool (SVEST)*	Scoping review	Evidence increasingly suggests that the Second Victim Experience and Support Tool (SVEST) is a relevant resource for healthcare providers and organizations promoting a culture of safety and well-being (4) 31 studies were included in the review, and participants in included studies came from various settings (e.g., general hospitals, pediatric hospitals, emergency departments, maternal-child hospitals) where SVEST was applied in either a single centre or hospital, or in multiple centres/institutions - SVEST can help organizations identify physical and psychological distress, reduced professional self-efficacy, and perceived lack of support; the tool is easy to conduct at a low cost but can be improved by including the type of key incident, perceived time to recovery, and positive outcomes from the experience	High	No	4/9	2023	Not available	None identified
Cultural Self-Efficacy Scale (CSES)*	Systematic review	A review conducted in 2004 indicated that American nurses and students perceived poor self-efficacy in caring for culturally diverse populations, and findings show that increased cultural exposure can increase nurses' self-efficacy scores and ability to provide culturally competent care, while inconsistencies in data highlighted the need for further research on the Cultural Self-	High	No	4/9	2002	Not available	Race/ ethnicity/ culture/ language

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
		Efficacy Scale despite supported reliability and validity according to data (26) 26 known uses of the CSES were identified through a literature search, of which 15 reported sufficient data for statistical analysis - Nurses reported the highest degree of self-efficacy with African American and Hispanic patients, and the lowest with Asian American patients; in the sample of 15 reports, nurses did not report confidence in caring for patients of other cultures						
Practice Environment Scale of the Nursing Work Index (PES-NWI)*	Systematic review	While reliable and commonly used to measure the nursing practice environment, the Practice Environment Scale of the Nursing Work Index (PES-NWI) stands to benefit from further psychometric testing, updating, and development, in addition to a shift of focus towards the mechanisms by which the nursing practice environment impacts organizational outcomes for leaders to better target objectives for improvement (11) - A total of 46 articles from 28 countries were included in the review, with most articles reporting associations between the PES-NWI and organizational, nurse, or patient outcomes; most studied more than one outcome 21 of the 46 included studies only reported the significance of the association, without evidence to determine the strength of the association, and 17% of the included studies did not examine the associations between the PES-NWI and an outcome variable - The PES-NWI has remained largely unchanged since its development and scores regarding staffing and resource adequacy remained the lowest	High	No	3/9	2016	Not available	Occupation
Perceived Stress Scale (PSS)*	Systematic review	The Perceived Stress Scale (PSS) remains an effective tool to evaluate stress in stroke survivors, but due to the high levels of perceived stress that are common in poststroke recovery and highly individual nature of this stress, it is recommended that stress scales are incorporated to tailor interventions to the needs of the patient and improve quality of life (27)	High	No	2/9	2022	Not available	None identified

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
		Understanding perceived stress helps the clinician better understand the survivor's point of view (self-appraisal) and using the PSS can create an opportunity for dialogue between patient and provider about resources and supports as well as increase buy-in and survivor involvement in next stages of care						
Awareness of Cultural Safety Scale-Revised (ACSS-R)* - checklist for culturally competent general practitioners (GPs) - Continuous Improvement Cultural Responsiveness Tool (CICRT) – audit tool - Cultural Competency Scale - Cultural responsiveness audit tool - Cultural Safety Survey Scale - Ganngaleh nga Yagaleh (GY) cultural safety assessment tool (previous named the Cultural Capability Measurement Tool) - Koolin Balit Aboriginal Health Cultural Competence (KB-AHCC) audit tool - Meeting people in their own reality' guidelines	Scoping review	A scoping review of audit tools for culturally safe and responsive healthcare practices discovered limitations in their inward-facing effectiveness, highlighting the need for the implementation of action-oriented tools to align with self-awareness, proactivity, leadership, and responsibility and accountability (28) - The 15 studies included were all published after 2006 and conducted in Australia on healthcare practices with Aboriginal and Torres Strait Islander people; 12 different audit tools were reported - One study examined the Awareness of Cultural Safety Scale-Revised, and results are documented: "A reliable and valid measure of cultural safety; can be used across practice settings. Midwives working in education settings have higher awareness of cultural safety than clinical peers." - Indigenous Allied Health Australia's (IAHA) Cultural Responsiveness in Action Framework contains six capabilities according to which the tools were mapped - Only one article examined barriers and facilitators of tool implementation by way of participant evaluation - Barriers identified to implementation were: - tool structure and comprehensiveness (e.g., if it is inaccessible or time-consuming) - organizational responsibility for tool implementation (with small teams or single-staff initiatives found to undermine the potential engagement with the tool) - risk of tool being deprioritized amongst other organizational responsibilities	Medium	No	4/9	2023	Not available	Race/ ethnicity/ culture/ language

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
- Organisational Cultural Competence Assessment Tool - Self-audit of knowledge and skills on Indigenous perspectives and health		not mandating the tool as a practice instrument (which can create a lack of accountability with respect to its implementation within the organization)						
- Family Obligation Social Scale (FOSS) - Hispanic Stress Inventory (HSI) - Hispanic Women's Social Stressor Scale (HWSSS) Perceived Stress Scale (PSS-10)*	Systematic review	Of the currently available tools to measure stress in Latinos in the United States, the Perceived Stress Scale (PSS-10), Hispanic Stress Inventory (HSI), Hispanic Women's Social Stressor Scale (HWSSS), and the Family Obligation Social Scale were demonstrated to be the most useful tools with the strongest validity (7) 12 studies were included, measuring the psychometric properties of scales of perceived stress - The PSS-10 demonstrated reliability and validity across diverse populations, and is recommended for use in clinical or research settings involving screening or intervention - The HSI is more comprehensive and specific to culture and ethnicity-related stress or discrimination, and is more applicable within a cultural safety context than the PSS-10 - The HWSSS and FOSS both emphasize family as a relevant source of stress, while the HWSSS has only been studied for use with Mexican immigrant and Mexican American women - The HWSSS is an interview format while the FOSS is a short self-report, making it useful to examine family roles-related stress across clinical and research settings	Medium	No	3/9	May 2020	Not available	Race/ethnicity/culture/language
<i>None of the tools included in this synthesis were included in the list of tools, metrics, and measures analyzed for this synthesis (see Appendix 2)</i> - AIR - Cardiac arrest debriefing tool	Systematic review	While using a tool to facilitate clinical debriefing (CD) can better impart structure and efficiency, evidence has not yet demonstrated improved patient outcomes, highlighting the importance of clinicians selecting the right tool for the context and implementing a system to learn from debriefs, and for educators and researchers to further investigate outcomes of using CD tools (29) 21 tools were included from studies reporting of the development or use of a structured tool to facilitate CD	Low	No	6/9	2021	Not available	None identified

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
• Cardiac arrests in emergency department • DISCERN • DISCOVER-Tool • Emergency Tairway management • Hot debrief tool • INFO • Neonatal unit debriefing tool • NICU debrief protocol • PEARLS approach to debriefing • PICU cardiac arrest debriefing tool • Postevent debriefing study tool • Proposed TEAMSTEPPS • REFLECT • Safety-II • Self-reflection module • STOPS • TAKE STOCK • TALK • TeamSTEPPS		• The tools were analyzed with the '5 Es' framework to determine key features that should be addressed during CD, and the outcomes of the tools were assessed using a modified Kirkpatrick model that hierarchically categorizes effectiveness of educational interventions • The 5 E's framework consists of: ○ having an educated/experienced facilitator ○ environment (there should be a physically appropriate environment and a psychologically safe atmosphere) ▪ 12 tools specified where the debrief should occur ○ education (debriefs should enhance performance, skills and knowledge) ○ evaluation ○ emotions (the psychological well-being of staff should be addressed and followed-up) ▪ tools commonly employed a statement about a 'blame free' environment, while only six tools included efforts for confidentiality						
None of the tools included in this synthesis were included in the list of tools, metrics, and measures analyzed for this synthesis (see Appendix 2)	Evidence synthesis	16 relevant instruments for measuring perceived racism were reviewed and evaluated the techniques used for factor analysis; authors highlight the ongoing debates between the appropriateness of factor extraction methods and recommend that those developing racism and discrimination instruments continue to report appropriate criteria for the acceptance of rotated factors (30)	Low	No	2/9	2010	Not available	Race/ ethnicity/ culture/ language

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
• Adolescent Discrimination Distress Index (ADDI) • Asian-American Racism-Related Stress Inventory (AARRSI) • Index of Race-Related Stress (IRRS) • Index of Race-Related Stress (IRRS)-Brief Version (B) • Index of Race-Related Stress for Adolescents • Measure of Indigenous Racism Experiences (MIRE) • Perceived Ethnic Discrimination Questionnaire (PEDQ) • Perceived Ethnic Discrimination Questionnaire Community Version (PEDQ-CV) • Perceived Ethnic Discrimination Questionnaire Community Version-Brief (PEDQ-CV-B) • Perceived Racism Scale (PRS) • Perceptions of Racism Scale (TPRS) • Race-Related Stressor Scale for Asian-		• 16 instruments measuring racism and/or discrimination published in 15 articles were included in this analysis • Included instruments measured at least one aspect of perceiving racism, measured perceived discrimination due to ethnicity, and had subscales that had been factor analyzed in one or more studies						

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
American Vietnam Veterans (RRSS) • Schedule of Racist Events (SRE) • Telephone Administered Perceived Racism Scale (TAPRS) • Workplace Prejudice/Discrimination Inventory (WPDI) • Workplace Racial Bias Measure (WRB)								
• The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS)*	Single Study	The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS) clinical self-assessment was initially adapted from the Sexual Orientation Counselor Competency Scale (SOCCS) to develop items with maximum content validity for LGBT clinical competency, after which a reliability study and construct validity study were conducted, collectively supporting the factor structure, reliability, and validity of the LGBT-DOCSS. (9) - The article reviews three studies that provide initial evidence for the development, factor structure, reliability, and validity of the LGBT-DOCSS - The LGBT-DOCSS is suitable for research purposes as an outcome variable, such as for examining LGBT clinical development, exploring clinician characteristics, or a tool by which to guide research and training	High	No	N/A	2017	Not available	Gender/sex
• Maslach Burnout Inventory (MBI)	Single Study	The Maslach Burnout Inventory (MBI) was compared and correlated with four other published well-being instruments in a survey of emergency medicine residents and displayed that lower scores on the quality-of-life scale, negative work-life balance rating, lower appraisal of career satisfaction, and a higher rate of positive screening on the PRIME-MD-PHQ-2 mental disorders screening were all associated with higher levels	Low	No	N/A	2017	N/A	Occupation

Tools, metrics, and measures that are the focus of the evaluation (* indicates the tool, metric, or measure was in the list of those analyzed as part of this evidence synthesis and included in Appendix 2)	Type of Document	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
		of burnout according to the MBI, displaying high emotional exhaustion and depersonalization (5)						
Short Questionnaire for Workplace Analysis (KFZA)	Single Study	Despite having been developed for office workplaces, the Short Questionnaire for Workplace Analysis (KFZA) was discovered to be applicable to hospital workers, with adaptations to the number of factors in the questionnaire and recommended adaptations to the KFZA 'Completeness of Task' factor for use in hospitals, while authors also highlight the potential for further psychometric testing to continue to evaluate the validity of this tool (6)	Low	No	N/A	2014	N/A	Occupation
Person-centred climate questionnaire – staff version (PCQ-S)	Single Study	Evidence shows that the person-centred climate questionnaire (PCQ-S) is reliable for use in residential aged care, and suggested cut-off scores to interpret and compare unit person-centredness indicate that staff in more person-centred units reported higher work satisfaction, less stress, and more social support (31)	Low	No	N/A	2010	N/A	Place of residence

Appendix 5: Detailed jurisdictional scan about the use of tools, metrics, and measures in Canada

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
Pan-Canadian	Health Standards Organization (HSO) Workforce Survey on Well-Being, Quality and Safety	Survey instrument to measure the perceptions of work life quality and safety culture	Cultural safety	Healthcare providers, administrators, researchers, patients, family members, and policymakers	Health Excellence Canada has an interactive webinar that provides information and insights on the design and implementation of the survey (e.g., methodology, validation process, learnings from early healthcare organization adopters)	None identified
British Columbia	Indigenous Cultural Safety Assessment Tool *	To determine the confidence that individuals have in their organizations to include Indigenous perspectives, and combats anti-Indigenous racism	Cultural safety	Physicians and other professionals (e.g., Provincial Health Services Authority staff)	- This tool was developed in 2018 and utilizes a six-point Likert scale from one ("not at all confident") to six ("very confident") - The tool has a range of questions for participants, which include both open-ended questions to select all the statements that apply	- Since its development in June 2018, this tool has been revised several times with input from both Indigenous and non-Indigenous scholars, educators, and managers - Tool has undergone user-acceptance testing by 100 volunteers
Alberta	Diversity Awareness Self-Reflection tool: A Practical Tool for Health Care Teams *	To assess an individual's awareness, sensitivity, and reflection of the beliefs, attitudes, values, and practices that	Cultural safety	Physicians and other professionals (e.g., healthcare teams)	Questionnaire featuring a total of 25 questions across three teams: 1) physical environment, materials, and resources, 2) communication styles,	None identified

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
		promote diversity competency			and 3) values and attitudes • Respondents indicate “A,” “B,” “C,” or N/A for each question, with: • “A” referring to “things I do often, or the statement really applies to me” • “B” referring to “things I do once in a while, or the statement applies to me somewhat” • “C” referring to “things I do rarely or never, or the statement applies to me very little or not at all”	
Saskatchewan	Cultural Safety in the Saskatchewan Health Authority (SHA) *	• To advance cultural safety within the organization by providing guidance on key concepts and practices to create culturally safe care experiences and workplaces, ultimately improving health outcomes and client care	• The tool covers key concepts related to cultural safety, including definitions of cultural awareness, sensitivity, competency, and safety, as well as their importance in healthcare delivery • Provides practical principles for implementing cultural safety, addressing power imbalances, and reflecting on	• Individuals working in the healthcare system	• The tool provides definitions, examples, and five basic principles for SHA employees to understand and implement cultural safety practices in their daily work, fostering culturally safe care experiences and workplaces	• None identified

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
			personal and cultural privilege within the context of Canada's colonial history and its impact on healthcare			
Manitoba*	Cultural safety initiatives in Manitoba *	To improve the delivery of culturally appropriate and safe healthcare services for Indigenous peoples while addressing health disparities and supporting reconciliation efforts	Healthcare delivery, mental health and addiction services, child and family services, public service delivery, and overall health system transformation	The focus appears to be primarily on healthcare providers, organizations, and systems; the document discusses cultural safety initiatives aimed at improving healthcare delivery for Indigenous peoples in Manitoba	Cultural safety tools in Manitoba are primarily being implemented through training programs for healthcare workers and public service employees, such as the Manitoba Indigenous Cultural Safety Training (MICST) program offered by the Winnipeg Regional Health Authority	None identified
Ontario	Creating Cultural Safety *	To build trust, improve relationships between service providers and Aboriginal communities, and enhance health outcomes and experiences for Aboriginal peoples accessing services	Focuses on creating welcoming physical environments, effective cross-cultural communication, self-reflection, challenging assumptions, and advocacy and empowerment	The cultural safety curriculum primarily targets service providers in Ottawa, including front-line workers, managers, and organizational leaders in healthcare, law enforcement, and child protection services	The curriculum is designed as a continuum of learning, incorporating cultural awareness, sensitivity, competency, and safety, and is intended to be adaptable to various contexts and learning styles	None identified
Quebec	Impact of Event Scale – Revised (IES-R)	As part of the post-disaster mental health	Psychological safety	Individuals who have experienced a traumatic event (e.g.,	The revised version consists of 22 items, some of which	The French IES-R has been reported to have good

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
		impacts surveillance toolkit, this is a self-reporting instrument to assess one's response to a traumatic event		professionals and patients)	measure 14 of 17 post-traumatic stress disorder symptoms	internal consistency, with alpha coefficients from 0.81 to 0.93 for subscale and total scores; overall has satisfactory internal validity and test-retest reliability
New Brunswick	Primary Health Survey *	Most comprehensive health services survey in the province, with a focus on improving the understanding of patient's experiences with primary care	Patient experiences, mental health and addiction services, and overall health system transformation	New Brunswick residents and patients accessing healthcare services in the province	- The survey asked respondents to comment on their access to primary care physicians and nurse practitioners, and their experience with the providers, use with emergency departments, specialists, and after-hour clinics 13,500 residents complete this survey each year and it is conducted every three years since its inception in 2011	None identified
Nova Scotia	Nova Scotia Health Authority Diversity Lens Tools *	To assess current practices and supports the integration of diversity, equity, and inclusion concepts and principles in the revision and development of programs,	Cultural safety	Physicians and other health professionals (e.g., staff, learners, and volunteers)	- Lens tools are built on the awareness of one's own culture, learning about others, and improving relationships - Lens tools include: 1) a personal reflection tool; 2) 30-item direct care provider tool (assessing attitudes, awareness,	None identified

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
		policies, and practices			knowledge, and skills on a scale from one to four); 3) 27-item self-assessment tool for those working in public spaces (which assesses physical environment, communication, social interaction, health, assumptions, and attitudes on a scale from “I do frequently (A)” to “I rarely or never do (C)”); 4) program development tool; 5) policy development tool; and 6) health organizational assessment tool	
Prince Edward Island	Safety Attitudes Questionnaire (SAQ)	To explore current perceptions and attitudes of patient safety culture in community pharmacies	Cultural safety	Health professionals (e.g., registered pharmacists and pharmacy technicians)	213 participants completed an online 39-item SAQ on a five-point Likert scale from “strongly disagree (1)” to “strongly agree (5)”	None identified
Newfoundland and Labrador	None identified	None identified	None identified	None identified	None identified	None identified
Yukon	None identified	None identified	None identified	None identified	None identified	None identified
Northwest Territories	None identified	None identified	None identified	None identified	None identified	None identified
Nunavut	None identified	None identified	None identified	None identified	None identified	None identified

Appendix 6: Detailed jurisdictional scan about the use of tools, metrics and measures internationally (Australia, New Zealand, United Kingdom, United States, Germany, Netherlands, Sweden)

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
Australia	Safety Attitudes Questionnaire (SAQ)	To support hospital wards, departments, and facilities in improving their culture of safety and care	Cultural safety	Organization leaders (e.g., health supervisors, managers, and administrators) - Physicians and other healthcare professionals - healthcare staff with direct patient interaction (e.g., both clinical and nonclinical staff) - healthcare staff whose work directly affects patient care (e.g. ward clerk, cleaning, pharmacy, and pathology)	- The SAQ is divided into six domains, with each domain assessed through four to eight questions - The domains include: 1) safety climate, 2) teamwork climate, 3) job satisfaction; positivity, 4) stress recognition, 5) perceptions of management, and 6) working conditions - Participants respond to each question on a scale from “A” to “E” from “strongly disagree” to “strongly agree”	The SAQ has been selected by the Clinical Excellence Commission as the preferred tool of choice in particular given its psychometric properties and extensive use in healthcare settings both domestically and internationally
	Organisational Culture Inventory (OCI) *	Most widely used tool to determine and measure organizational safety	Organizational safety (e.g., cultural safety)	Organizational leaders and staff/employees	- OCI assesses an organization's current culture with respect to behavioural norms required to succeed, and then works on building a vision for “the ideal culture” - The organization can compare and contrast between the current and ideal cultures to identify gaps and develop targets for change - OCI surveys are available both digitally and in paper copies	None identified

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
New Zealand	Safety Climate Survey	To openly discuss how to improve systems and cultural safety within the organization, and address the issues raised	Cultural safety	Healthcare professionals (e.g., staff)	- Comprised five subject areas, including: communication, workload, leadership, teamwork and safety systems, and learning - Each subject area features a range of four to eight questions - Survey responses are anonymized	None identified
	Psychosocial Survey of Healthcare Workers * (e.g., Copenhagen Psychosocial Questionnaire III (COPSOQ-III), Psychosocial Safety Climate, World Health Organization Wellbeing Five Index (WHO-5))	To understand psychosocial health and well-being in the health sector	Psychological, physical, and cultural safety	Health professionals (e.g., staff)	COPSOQ-III consists of 32 items answered on a five-point Likert scale, with a maximum score of 100 - Assessed horizontal trust, threats of violence, bullying, sexual harassment, burnout, stress, and cognitive stress - Psychological Safety Climate survey featured a total of 12 items across four domains (i.e., three items per domain) - Questions are answered on a five-point Likert scale from “strongly disagree (1)” to “strongly agree (5)” - Domains include: 1) management commitment, 2) management prioritization, 3) organizational communication, and 4) organizational participation - WHO-5 assesses psychological well-being and is used to explore/screen for depression - Participants respond on a six-point Likert scale from “at no time (0)” to “all the time (5)”	Upon cognitive testing for the New Zealand Psychosocial Survey (2022), changes were made to the COPSOQ-III to ensure transferability to the New Zealand context

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
United Kingdom	Safety Attitudes Questionnaire (SAQ)	To assess changes to care home safety climate between baseline and the end of the Safer Provision and Caring Excellence (SPACE) program at 24 months	It focused on assessing safety climate in care homes	Care home managers and staff, including those in clinical and non-clinical roles at all levels of seniority	- The SAQ was administered as surveys sent to all care home managers and staff, regardless of role or seniority, at baseline, 12 months, and 24 months of the SPACE quality improvement program - The surveys were distributed internally by the care home manager/administrator, with all returns being anonymous (only the respondent's care home was identified via a barcode), and the tool measured safety climate through seven questions that elicit attitudes on a five-point Likert scale	The SAQ was found to be valid for use in the care home setting
United States	Safety Attitudes Questionnaire (SAQ)	To evaluate how safety culture in a high-volume transplant centre may evolve during a period of significant healthcare disruption, specifically the COVID-19 pandemic, in order to identify potential vulnerabilities that could impact patient outcomes	It assessed six key domains of safety culture in the transplant centre: teamwork climate, job satisfaction, perceptions of management, safety climate, working conditions, and stress recognition	Healthcare professionals in a transplant centre, including nurses, physicians, administrative staff, and other allied health professionals	It was administered as an anonymous, voluntary survey to multidisciplinary transplant staff via email before and during the COVID-19 pandemic (in 2019 and 2021) to assess changes in safety culture at a high-volume transplant centre	It is a valuable tool for longitudinal assessments of safety culture in transplant centres
	Second Victim Experience and Support Tool (SVEST)	To evaluate the impact of a newly implemented peer support program on pediatric healthcare professionals' (HCPs)	The SVEST is applied to assess various aspects of second victim experiences among healthcare	Healthcare professionals (HCPs) in pediatric settings, including medical doctors, registered nurses, patient care	The SVEST was administered as a survey to multidisciplinary HCPs in pediatric inpatient and intensive care units	Not reported

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
		second victim experiences and perceptions of support To assess changes in second victim experiences and support perceptions over time	professionals in pediatric settings, including psychological and physical distress, professional self-efficacy, institutional support, turnover intentions, and preferences for support resources following adverse events or medical errors	assistants, health unit coordinators, respiratory therapists, pharmacists, and pharmacist technicians	- It was used before and one year after implementing a second victim peer support program - The tool assessed HCPs' second victim experiences, desired support, and perceptions of supportive resources	
	Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS)	To assess LGBT clinical skills, attitudinal awareness, and basic knowledge within an interdisciplinary and multinational context	Three key areas: LGBT clinical preparedness (including experiences, training, and assessment skills), attitudinal awareness (measuring prejudicial attitudes), and basic knowledge of LGBT health disparities among health and mental health providers	Physicians and other professionals (e.g., health and mental health providers, including trainees, clinicians, and educators from applied psychology, counselling, psychotherapy, and primary care medicine)	- A self-assessment scale consisting of 18 items across three subscales (clinical preparedness, attitudinal awareness, and basic knowledge), using a seven-point Likert scale - Administered to health and mental health providers in both the U.S. and U.K. using both in-person paper surveys and online computer administration - Assess LGBT clinical skills, attitudinal awareness, and basic knowledge within an interdisciplinary and multinational context	- Strong internal consistency for the overall scale ($\alpha = 0.86$) and subscales ($\alpha = 0.80$ to 0.88) - Good two-week test-retest reliability ($r = 0.87$)
Germany	Perceived Stress Scale (PSS)	To test the PSS-10 measurement invariance between the German native and migrant sub-	Daily stress and stress in everyday life scenarios	Organizational leaders, physicians, and other professionals	Data was used from a population survey of 2,527 participants in 2014, where face-to-face interviews were conducted, and	The German version PSS-10 is suitable for German residents with a

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
		samples and examine its reliability			questionnaires were independently completed The PSS-10 was used by respondents in the general context of everyday life	migration background, which suggests cross-cultural validity and usability for migration-related stress The PSS-10 measures both perceived helplessness and perceived self-efficacy
	Impact of Event Scale (IES-R)	To measure the psychological impact of the COVID-19 pandemic	IES-R was used in conjunction with the DASS-12 tool to score and display associations between demographic and psychological outcomes of depression, anxiety, stress, intrusion, avoidance, and hyperarousal	Government policymakers and organizational leaders (decision-makers for long-term COVID-19 support in healthcare workers)	- IES-R was administered in a self-assessment to 732 dentists in Germany - Respondents were requested to rate the distress level for each statement on similar Likert-type scales, also referring to the previous seven days of their survey - The IES-R sub-scores were categorized as normal (0–23 IES-R points), mild (24–32 IES-R points), moderate (33–36 IES-R points), and severe psychological impact of events (>37 IES-R points)	- IES-R can be used in conjunction with other tools to measure psychological impact - The psychological outcomes measured by the IES-R can correspond to both the physical and psychological safety of the sample - Analyzing these aspects can help health authorities implement

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
						actions to diminish the unwanted psychological effects of events such as the pandemic on healthcare workers
	Job Content Questionnaire (JCQ) *	To identify cut-off scores for job strain (low job control and high job demands) for nurses working in breast cancer care	Psychological workload cutoffs for the nursing practice were established through using the JCQ in together with the WHO-5 well-being index	Organizational leaders, physicians and other professionals	329 nurses from 33 hospitals participated in the survey, which measured psychological well-being using the WHO-5 and job control and job demands using the JCQ	Determined cut-off scores indicate that there is a risk of becoming psychologically ill from a high workload when an individual reaches a score of ≤ 34.5 for job control and ≥ 31.4 for job demands
	Psychological Safety Measurement (Edmondson)	To investigate the affective commitment of Turkish immigrant employees in Germany and their subsequent work engagement, mental health, and turnover intention	- Immigrant employees - Work engagement, mental health, and turnover intention - Psychological safety	Government policymakers, and organizational leaders	- Psychological safety was measured with six items based on Edmondson, but reformulated to reflect the work environment in general, and answers were given based on a seven-point Likert-type scale - The applied measure of psychological safety was measured alongside values for affective commitment, turnover intention, work engagement, and mental health for three groups: Turkish employees in Germany,	The effect of an immigration background on mental health, work engagement, and turnover depends on the level of perceived psychological safety at the workplace, specifically in

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
					German employees in Germany, and Turkish Employees in Turkey Results were used to determine conclusions about the impact of immigration on these outcomes	terms of an open and inclusive work climate Suggests the benefits of psychological safety in the workplace, specifically towards the well-being of immigrant employees and the needs of diverse workforces
	Short Questionnaire for Workplace Analysis (KFZA)	To address the mental workload of practice assistants working in primary care practices	Socio-demographic and work characteristics, versatility, completeness of task, scope of action, social support, cooperation, qualitative work demands, quantitative work demands, work disruptions, workplace environment, information and participation, and benefits	Organizational leaders, physicians, and other professionals (e.g., occupational health professionals, and researchers)	550 practice assistants from 130 German primary care practices participated, and were given the KFZA questionnaire as well as a descriptive analysis performed	- Work disruptions and scope of action were perceived as stressors - Social support and participation were protective for mental workload. These are elements of psychological safety

Jurisdiction	Tools, metrics and measures included in our analysis (see Appendix 2, with * denoting additional tools identified through the jurisdictional scan)	Purpose for which it is being used	Topic areas where it is being applied	Focus (e.g., government policymakers, organizational leaders, physicians and other professionals, patients)	Details about how the tool is being used (e.g., by whom, for what, and in what contexts)	Insights from its use in evaluations of strategies to improve PPCS
Netherlands	Perceived Stress Scale (PSS)	To investigate changes in lifestyle behaviors and perceived stress during the initial phase of the pandemic and associations with COVID-19 symptoms	Lifestyle, health behaviour, diet quality, physical activity, and COVID-19 symptoms	Organizational leaders, physicians, and other professionals (e.g., occupational health professionals, and researchers)	- An online longitudinal survey study was performed on the Dutch general population with pre-lockdown measurements in February, and subsequently in April and June 2020, where the PSS-10 was used in conjunction with other self-report questionnaires to gauge overall lifestyle responses - The presence of COVID-19 symptoms was associated with increased perceived stress	COVID-19 symptoms associated with increased perceived stress ($p_{\text{interaction}}=0.003$) and alcohol consumption ($p_{\text{interaction}}=0.03$)
Sweden	Impact of Event Scale (IES-R)	To investigate the relationship between post-COVID conditions and mental health	Mental health of people with post-COVID conditions	Organizational leaders, physicians and other professionals (e.g., occupational health professionals, researchers)	IES-R was used in a cross-sectional study alongside demographic data (including terms related to COVID-19), the COVID-19 scale (FCV-19S), Patient Health Questionnaire-9 (PHQ-9), and General Anxiety Disorder-7 item (GAD-7)	IES-R results were used in conjunction with other tools to recommend that long-symptoms and mental health risks be considered in COVID-19 medical policy

Appendix 7: Frameworks, guidance, and models focused on physical, psychological, and cultural safety initially deemed eligible identified in searches for tools, measures, and metrics

Name	Description	Area of focus
British Columbia Cultural Safety and Humility Standard	Provides guidance to health and social system organizations to combat Indigenous-specific racism within service delivery and ensure culturally sensitive and safe care to First Nations, Métis, and Inuit peoples and communities.	Multiple areas of focus
Health System Performance Measurement Framework (CIHI)	A system-level overview of performance dimensions and contextual elements needed to assess the achievement of health system goals for both individual and the general population; provides a foundation for selecting measures and indicators to monitor health system performance.	Multiple areas of focus
Systems Thinking for Everyday Work (NHS Scotland)	Developed a set of principles that make up a safety a improvement model for healthcare to help understand the current system, analyze incidents, identify improvement priorities, develop change ideas and their implementation, and monitor, evaluate, and spread change.	Multiple areas of focus
PRECEDE-PROCEED planning model	Organizing framework for an entire health promotion effort with an 'ecological' approach, evaluating all factors in an environment as potential interventions, to assist in building and improving intervention programs.	Multiple areas of focus
SBAR Tool: Situation-Background-Assessment-Recommendation	A communication tool for framing any conversation, especially critical ones, requiring a clinician's immediate attention and action, with the intent to foster a culture of patient safety.	Multiple areas of focus
TeamGAINS	Developed as a hybrid, structured debriefing tool for simulation-based team trainings in healthcare that integrates three different debriefing approaches: guided team self-correction, advocacy-inquiry, and systemic-constructivist techniques.	Psychological safety
TeamSteps (AHRQ)	Evidence-based set of teamwork tools, developed for optimizing patient outcomes by improving communication and teamwork skills among healthcare teams, including patients and family caregivers.	Psychological safety
Failure Modes and Effects Analysis	Developed as a tool to structure an approach for analyzing a healthcare process where harm may occur to assist in devising improvements to prevent failures in the specific process.	Physical safety
Framework guidelines for addressing workplace violence in the health sector: the training manual (WHO)	Developed as a framework to provide general guidance in addressing workplace violence in the health sector.	Physical safety
Guidelines for Preventing Workplace Violence for Health Care and Social Service Workers (Occupational Safety and Health Administration)	Designed as a series of advisory guidelines, checklists, and violence prevention programs to identify and respond to workplace violence risk factors depending on the context and scenario.	Physical safety
Indicator for Violent Behavior (CDC)	Developed to identify five observable behaviours that point to the potential for violence by patients and those who accompany them.	Physical safety
National Standard of Canada for Psychological Health and Safety in the Workplace (with contextualization specific to healthcare here: Advancing Psychological	Developed as a set of voluntary guidelines, tools, and resources to guide organizations in promoting mental health and preventing psychological harm at work. The standard also acknowledges the unique challenge of its implementation in healthcare contexts.	Psychological safety

Name	Description	Area of focus
Health and Safety within Healthcare Settings)		
Aboriginal and Torres Strait Islander Health Curriculum Framework (AU DOH)	Framework developed to prepare graduates across health professions to provide culturally safe health services to Aboriginal and Torres Strait Islander peoples.	Cultural safety
Cultural Competence Self-Assessment Checklist	Self-assessment designed to assist the individual to recognize what they can do to become more effective in working and living in a diverse environment with a focus on race, ethnicity, and ancestry.	Cultural safety
Measuring Cultural Safety in Health Systems (CIHI)	Developed as a framework for measuring cultural safety and anti-Indigenous racism in health systems based on interventions, experience, performance, and outcomes, to ensure that health service providers and systems remain accountable for providing culturally safe and equitable care as determined by those who receive it.	Cultural safety

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