Search Terms for Systematic Review paper titled “Methods and Measures for Mental Stress Assessment in Surgery: A Systematic Review of 20 Years of Literature,” Mastaneh Torkamani-Azar, Ahreum Lee, Roman Bednarik, 2022.

1. Search terms used in PubMed, where TOPIC was separately replaced by (“mental stress”[Title/Abstract] OR “mental distress”[Title/Abstract]) and (“mental workload”[Title/Abstract] OR “cognitive workload”[Title/Abstract] OR “mental load”[Title/Abstract] OR “cognitive load”[Title/Abstract]) for the initial and complementary search:

(TOPIC AND (eye-tracking[Title/Abstract] OR questionnaire[Title/Abstract] OR physiological[Title/Abstract] OR EEG[Title/Abstract] OR electroencephalography[Title/Abstract] OR electroencephalogram[Title/Abstract] OR oxygenation[Title/Abstract] OR infrared[Title/Abstract] OR nirs[Title/Abstract] OR fnirs[Title/Abstract] OR magnetoencephalography[Title/Abstract] OR magnetoencephalogram[Title/Abstract] OR MEG[Title/Abstract] OR MRI[Title/Abstract] OR fMRI[Title/Abstract] OR EOG[Title/Abstract] OR electromyogram[Title/Abstract] OR EMG[Title/Abstract] OR accelerometer[Title/Abstract] OR "head positioning"[Title/Abstract] OR electrocardiogram[Title/Abstract] OR ECG[Title/Abstract] OR heart[Title/Abstract] OR gaze[Title/Abstract] OR pupil[Title/Abstract] OR saccade[Title/Abstract] OR fixation[Title/Abstract] OR "skin conductance"[Title/Abstract] OR "skin resistance"[Title/Abstract] OR salivary[Title/Abstract] OR "white blood cells"[Title/Abstract] OR respiration[Title/Abstract]) AND ("operating room"[Title/Abstract] OR surgeons[Title/Abstract] OR surgical[Title/Abstract] OR surgery[Title/Abstract] OR intraoperative[Title/Abstract]) AND (laparoscopy OR laparoscopic OR endoscopy OR robotic OR robot OR "virtual reality" OR microsurgery OR "simulated surgery" OR “open surgery” OR “real surgery” OR mentor OR mentee OR team OR teamwork OR resident OR novice OR fellow OR trainee OR nursing OR nurses OR anesthesiology OR anesthesiologist) NOT (animal[Title/Abstract] OR rat[Title/Abstract] OR mice[Title/Abstract] OR mouse[Title/Abstract]) AND ("2001"[Date - Publication] : "2020"[Date - Publication]))

2. Search terms used in Cochrane Library, where TOPIC was separately replaced by ((“mental distress”):ti,ab,kw OR (“mental stress”):ti,ab,kw) and ((“mental workload”):ti,ab,kw OR (“cognitive workload”):ti,ab,kw OR (“mental load”):ti,ab,kw OR (“cognitive load”):ti,ab,kw) for the initial and complementary search:

TOPIC AND ((“eye tracking”):ti,ab,kw OR (“eye-tracking”):ti,ab,kw OR (questionnaire):ti,ab,kw OR (physiological):ti,ab,kw OR (EEG):ti,ab,kw OR (electroencephalography):ti,ab,kw OR (electroencephalogram):ti,ab,kw OR (oxygenation):ti,ab,kw OR (infrared):ti,ab,kw OR (nirs):ti,ab,kw OR (fnirs):ti,ab,kw OR (magnetoencephalography):ti,ab,kw OR (magnetoencephalogram):ti,ab,kw OR (MEG):ti,ab,kw OR (MRI):ti,ab,kw OR (fMRI):ti,ab,kw OR (EOG):ti,ab,kw OR (electromyogram):ti,ab,kw OR (EMG):ti,ab,kw OR (accelerometer):ti,ab,kw OR ("head positioning"):ti,ab,kw OR (electrocardiogram):ti,ab,kw OR (ECG):ti,ab,kw OR (heart):ti,ab,kw OR (gaze):ti,ab,kw OR (pupil):ti,ab,kw OR (saccade):ti,ab,kw OR (fixation):ti,ab,kw OR ("skin conductance"):ti,ab,kw OR ("skin resistance"):ti,ab,kw OR (salivary):ti,ab,kw OR ("white blood cells"):ti,ab,kw OR (respiration):ti,ab,kw) AND (("operating room"):ti,ab,kw OR (surgeons):ti,ab,kw OR (surgical):ti,ab,kw OR (surgery):ti,ab,kw OR(intraoperative):ti,ab,kw) AND ((laparoscopy) OR (laparoscopic) OR (endoscopy) OR (robotic) OR (robot) OR ("virtual reality") OR (microsurgery) OR ("simulated surgery") OR (“open surgery”) OR (“real surgery”) OR (mentor) OR (mentee) OR (team) OR (teamwork) OR (resident) OR (novice) OR (fellow) OR (trainee) OR (nursing) OR (nurses) OR (anesthesiology) OR (anesthesiologist)) NOT ((animal):ti,ab,kw OR (rat):ti,ab,kw OR (mice):ti,ab,kw OR (mouse):ti,ab,kw)

3. Search terms used on MEDLINE (Ovid), where TOPIC was separately replaced by (mental stress or mental distress) and (workload or mental workload or cognitive workload or mental load or cognitive load) for the initial and complementary search:

((TOPIC and (eye-tracking or eye tracking OR questionnaire or physiological or EEG or electroencephalography or electroencephalogram or oxygenation or infrared or nirs or fnirs or magnetoencephalography or magnetoencephalogram or MEG or MRI or fMRI or EOG or electromyogram or EMG or accelerometer or head positioning or electrocardiogram or ECG or heart or gaze or pupil or saccade or fixation or skin conductance or skin resistance or salivary or white blood cells or respiration) and (operating room or surgeons or surgical or surgery or intraoperative) and (laparoscopy or laparoscopic or endoscopy or robotic or robot or virtual reality or microsurgery or simulated surgery or open surgery or real surgery or mentor or mentee or team or teamwork or resident or novice or fellow or trainee or nursing or nurses or anesthesiology or anesthesiologist)) not (animal or rat or mice or mouse)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

limit 1 to (english language and yr="2001 - 2020")

4. Search terms were used on SCOPUS, where TOPIC was separately replaced by (“mental stress” OR “mental distress”) and (“mental workload” or “cognitive workload” or “mental load” or “cognitive load”) for the initial and complementary search:

TITLE-ABS-KEY (TOPIC AND (eye-tracking OR questionnaire OR physiological OR eeg OR electroencephalography OR electroencephalogram OR oxygenation OR infrared OR nirs OR fnirs OR magnetoencephalography OR magnetoencephalogram OR meg OR mri OR fmri OR eog OR electromyogram OR emg OR accelerometer OR "head positioning" OR electrocardiogram OR ecg OR heart OR gaze OR pupil OR saccade OR fixation OR "skin conductance" OR "skin resistance" OR salivary OR "white blood cells" OR respiration) AND ("operating room" OR surgeons OR surgical OR surgery OR intraoperative) AND (laparoscopy OR laparoscopic OR endoscopy OR robotic OR robot OR "virtual reality" OR microsurgery OR "simulated surgery" OR "open surgery" OR "real surgery" OR mentor OR mentee OR team OR teamwork OR resident OR novice OR fellow OR trainee OR nursing OR nurses OR anesthesiology OR anesthesiologist) AND NOT (animal OR rat OR mice OR mouse)) AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012) OR LIMIT-TO (PUBYEAR, 2011) OR LIMIT-TO (PUBYEAR, 2010) OR LIMIT-TO (PUBYEAR, 2009) OR LIMIT-TO (PUBYEAR, 2008) OR LIMIT-TO (PUBYEAR, 2007) OR LIMIT-TO (PUBYEAR, 2006) OR LIMIT-TO (PUBYEAR, 2005) OR LIMIT-TO (PUBYEAR, 2004) OR LIMIT-TO (PUBYEAR, 2003) OR LIMIT-TO (PUBYEAR, 2002) OR LIMIT-TO (PUBYEAR, 2001))