

Appendix 1: Study Characteristics

| Author, Country | Population, Sample Size | Study Design, Level of Evidence, Kirkpatrick Level | Intervention | Outcome Measures | Results |
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| Abe et al., 2013 ^[28] <i>Japan</i> | Medical students (First to sixth year) <i>n = 181</i> | Quasi-Exp. One group pre-post OCEBM Level 2b Kirkpatrick 2a | Mental health & well-being workshop (Asia Pacific Regional Meeting of the 5 th International Federation of Medical Students' Association); short lecture about mental health, emphasis on grief, loss, listening, and sharing/expressing feelings. Half day | TEIQue-SF ** PTS | Significant improvement in global trait EI scores post workshop ($p = .014$) Repeated measure analysis revealed positive change in EI scores for all students ($p = .034$) and most significant positive change in Japanese female students ($p = .007$) 80% of students reported improvement in attentive listening, 60% reported improved confidence in dealing with emotional issues |
| Borges et al., 2012 ^[29] <i>USA</i> | Medical students (Third year) <i>n = 105</i> | Quasi-Exp. One group pre-post OCEBM Level 2b Kirkpatrick 2a | Team Based Learning (TBL) internal medicine clerkship rotation: students required to work as a team to solve complex problems within framework of internal medicine subspecialties (cardiology, pulmonology, etc.). Each module contained 4 components: (1) advanced preparation (readings), (2) individual readiness assurance (multiple choice test), (3) group readiness assurance (discussion of test), (4) application exercise (team works through challenging cases with discussion). 12 sessions, 1 afternoon/wk 12 Weeks | WEIP-S ** | Significant improvement in team EI scores post clerkship in 3 of 4 WEIP-S domains: Awareness of own emotions ($p = .018$) Recognizing emotions in others ($p = .031$) (3) Ability to manage other's emotions ($p = .013$) *No change in (4) Ability to control own emotions ($p = .570$) |
| Choi et al., 2015 ^[30] <i>South Korea</i> | Nursing students (Second year) <i>n = 87</i> (I) $n = 45$ (C) $n = 42$ | Quasi-Exp. Two group pre-post OCEBM Level 2b Kirkpatrick 2a | I: Communication course; lecture and video recording role-play activities and presentations (themes included empathy, active listening, self-disclosure, conflict resolution). 4 themes for video recordings (3 reality-based scenarios): (1) conflict between family, (2) | AEQT ** GICC | Significant improvement of both communication scores ($p < .000$) and EI scores ($p < .000$) in intervention group post course No change in control group scores in either outcome measure |

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| | | | <p>conflict between friends or lovers, (3) conflict in daily life. (1 virtual scenario) (4) conflict between patients and nurses or nursing students (chosen from scenarios prepared by instructor). C: Communication course; lecture only</p> <p>8 sessions, <i>duration unreported</i> 4 weeks</p> | | |
| <p>Erkayiran & Demirkiran, 2018^[31]</p> <p><i>Turkey</i></p> | <p>Nursing students (First year)</p> <p><i>n = 72</i> <i>(I) n = 35</i> <i>(C) n = 35</i></p> | <p>RCT</p> <p>OCEBM Level 1b</p> <p>Kirkpatrick 2a</p> | <p>I: Emotional Intelligence Skills Development Training; training developed by authors and validated by lecturers, nurses, and psychologists. Themes included 5 dimensions in Bar-On EQ-i (personal skills, interpersonal skills, compatibility, coping with stress, general mood), communication skills, body language, and use of emotions in social relationships. Activities included role-play, group work, and self-report. C: No intervention 10 sessions, 1/wk, 60-75 min/session 10 weeks</p> | <p>EQ-i** (modified & translated to Turkish) ISI</p> | <p>Significant improvement in EI scores in intervention group ($p < .000$), with significant difference between intervention and control groups post training ($p < .000$) Significant change in ISI score in intervention group ($p=0.04$), but no significant difference between intervention and control groups post training ($p = .419$)</p> |
| <p>Goudarzian et al., 2019^[32]</p> <p><i>Iran</i></p> | <p>Nursing students (First to sixth term)</p> <p><i>n = 60</i> <i>(I) = 30</i> <i>(C) = 30</i></p> | <p>RCT</p> <p>OCEBM Level 1b</p> <p>Kirkpatrick 2a</p> | <p>I: Psychologist administered self-care sessions; themes included definition of EI, self-awareness, empathy, stress and coping, personality, management of excitement, problem-solving, decision-making, improving interaction with others, anger control, and the spiritual dimension. Activities revolved around cooperative peer interactions. C: No intervention 12 sessions, 2/wk, >60 min/session 6 weeks</p> | <p>Bradberry and Greaves' standard EIQ**</p> | <p>Significant improvement in EI scores in intervention group ($p < .001$) No change in control group EI scores</p> |
| <p>Kim & Lee, 2021^[33]</p> | <p>Nursing students</p> | <p>RCT</p> | <p>Maternal Nursing Competency Reinforcement</p> | <p>WLEIS** (translated to</p> | <p>Significant improvement in EI scores in intervention group</p> |

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| <i>Korea</i> | (Third year) n = 61 (I) n = 28 (C) n = 33 | OCEBM Level 1b Kirkpatrick 2a | Program: learning objective themes included childbirth, self-directed learning, EI utilization, and clinical problem solving. Activities included self-study, scenario-based learning, clinical skill practice, and team learning using pelvic models, low-fidelity simulators, and standardized patients. 2-day course, 580 minutes | <i>Korean</i> MNPT APSPT SDLAM | immediately (T1: $p = .015$) and 3 weeks post (T2: $p = .016$) program with significant group x time interaction ($p = .016$) Significant difference between intervention and control groups at T2 ($p = .007$) Significant improvement in intervention group in problem solving ability ($p < .001$) and maternal nursing performance scores ($p < .001$) |
| Orak et al., 2016 ^[34] <i>Iran</i> | Nursing students (First year) n = 66 (I) = 31 (C) = 35 | Quasi-Exp. Two group pre-post OCEBM Level 2b Kirkpatrick 2a | I: Emotional intelligence education program (supervised by psychologist with specialty in EI); themes included definition and significance of EI, anger, assertiveness, stress, self-awareness, empathy, depression, and problem solving. Activities included lecture, role-play, brainstorming, homework assignments, and group teaching. C: Life skills course 8 sessions, 1/wk, 2-hr/session 4 months | MSEIS** | Nonsignificant increase in EI score in intervention group (p -value unknown) No significant change in EI scores between intervention and control groups post education program ($p = .4$) |
| Shahbazi et al., 2018 ^[35] <i>Iran</i> | Nursing students (Fourth year) n = 43 (I) n = 20 (C) n = 23 | RCT OCEBM Level 1b Kirkpatrick 2a | Social Problem-Solving Educational Program (based on six-stage model developed by D'zurilla and Goldfried); themes included identifying, defining, and analyzing problems, developing solutions, decision-making, solution implementation, and revision/evaluation. Activities included group discussions, brainstorming, JIGSAW method*, and use of educational aids (books, posters, videos). 6 sessions, 2 hr/session 2 months | EQ-i** PSSQ | Significant improvement in both EI and problem-solving scores in intervention group immediately ($p < .001$) and 2-mo post program ($p < .001$), with significant difference between intervention and control groups immediately ($p < .05$) and 2-mo ($p < .05$) post program completion |
| Szeles, 2015 ^[36] | Nursing students | Quasi-Exp. Mixed | Student Ambassador Peer Coaching Program; Intro peer | MSCEIT-V2** | Nonsignificant improvement in EI scores in 67% of students (p |

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| USA | (Second and third year) <i>n</i> = 9 | Method One group pre-post OCEBM Level 2b Kirkpatrick 2a/2b | coaching presentation and peer coaching demonstration. Activities included weekly peer coaching meetings with a partner (scheduled and performed independently by student pairs) 15 sessions, 1/wk, <i>unknown duration</i> 15-week semester | | > .05) 80% of students reported positive change in perceived EI abilities and 90% reported benefits to leadership development |
| Teskereci et al., 2020 ^[37] Turkey | Nursing students (First year) <i>n</i> = 73 (I) <i>n</i> = 37 (C) <i>n</i> = 36 | Quasi-Exp. Two group pre-post OCEBM Level 2b Kirkpatrick 2a | I: <i>Caring Behavior in Nursing</i> course; themes included concept of care, use of intentions and intuition, Human Caring Theory, and caring behaviors (recognizing the individual, person-centered care, eye contact, authentic listening, touching). Activities included expression, caring analysis, sharing of experienced caring history, debate, roleplay, video, and movie sharing. C: <i>Health protection and Promotion</i> course; themes included concepts of health, history of health promotion, health policies and strategies, health-promoting behaviors, and nurses' role in health promotion. Activities included expression, discussion, question and answer, brainstorming, video discussions, and organization of a community health meeting covering oral and dental health education. 14 sessions, 1/wk, 2 hrs/session 14-week semester | EIES** TCS | Nonsignificant improvement in EI scores in intervention group, no significant difference between intervention and control groups (<i>p</i> = .855) Significant improvement in compassion score in intervention group with statistically significant difference between intervention and control groups (<i>p</i> = .014) |
| West et al., 2020 ^[38] USA | Military medical students (Second year) <i>n</i> = 96 | Quasi-Exp. One group pre-post OCEBM Level 2b | Hyper-Realistic Trauma Training (STOPS [Strategic Operations]; San Diego, CA); movie set based scenarios to simulate deployment setting. Activities included controlled visual effects; explosions, gunshots, actors playing | EQ-i 2.0** | Significant improvement in EI scores in all domains (<i>p</i> < .05) with greatest improvement in stress management and self-perception (<i>p</i> < .05) Highest post-test scores were in self-actualization (<i>p</i> < .001), impulse control (<i>p</i> = .018), and |

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| | | Kirkpatrick 2a | victims and hostiles, cut suit simulator (2 versions); (1) allows for simulation of hemorrhage, tension pneumothorax, and airway compromise, (2) simulates surgical procedures to thoracic and abdominal organs 5 days, <i>schedule/hours unreported</i> | | social responsibility ($p < .000$) No significant change in subdomains of emotional expression, empathy, and problem solving |
| White et al., 2020^[39] <i>USA</i> | Military medical students (Second year) <i>n = 68</i> | Quasi-Exp. One group pre-post OCEBM Level 2b Kirkpatrick 2a | Hyper-Realistic Surgical Simulation Course (STOPS [Strategic Operations]; San Diego, CA); simulation of immersive environment of mass casualty event where attack, assessment, triage, and medical management are simulated in real time. Activities include use of “cut suits” that enable surgical teams to practice managing realistic simulated life-threatening injuries. Event scenarios and individual roles reassigned every day. <i>6 days, schedule/hours unreported</i> | EQ-i 2.0** HRG | Significant improvement in EI main scores and hardiness scores post course (Bonferroni significant) with the most significant increase in EI subdomain of stress management (5.41 ± 1.14) Significant association with age in EI main score (0.95 ± 0.39 -point increase/yr) and self-expression score (1.07 ± 0.46 -point increase/yr) |

Note. I (intervention group), C (control group) ** indicates primary outcome measure correlated to effect sizes (Figure 2) TEIQue-SF (Trait Emotional Intelligence Questionnaire-Short form), PTS (Personality Trait Scale), WEIP-S (Workgroup Emotional Intelligence Profile-short), AEQT (Adult Emotional Quotient Test), GICC (Global Interpersonal Communication Competence Scale), EQ-i (Emotional Quotient Inventory), PSSQ (Problem Solving Skill Questionnaire), ISI (Interpersonal Style Inventory), MSEIS (Modified Schutte Emotional Intelligence Scale), WLEIS (Wong Law Emotional Intelligence Scale), MNPT (Developed by researchers for study: Maternal Nursing Performance Tool), APSPT (Adult Problem-Solving Process Tool), SDLAM (Self-Directed Learning Ability Measurement), MSCEIT-V2 (Mayer-Salovey-Caruso Emotional Intelligence Test Version 2), EIES (Emotional Intelligence Evaluation Survey), TCS (The Compassion Scale), EQ-i 2.0 (Emotional Quotient Inventory Version 2.0), HRG (Hardiness Resilience Gauge) *JIGSAW method: Collaborative classroom technique that breaks class into groups; each group is tasked with a specific topic/piece of the assignment or activity with synthesis of all group topics to conclude activity