

Leading with emotional intelligence in perioperative nursing: An integrative review

Supplement: Characteristics of included studies

Author Year	Aim	Design Sample Setting Data collection methods	Key findings Recommendations	Limitations	Quality rating (appraisal tool)
Arakelian et al. ¹ 2019	To ascertain why operating room nurses stay in a health care setting.	Qualitative 15 nurses - Individual interviews	<ul style="list-style-type: none"> Organisational stability contributed to low staff turnover, with good spirits between colleagues, representing everyone's equal value and resulting in a feeling of homelikeness. Sustained development in one's own profession. A humane head nurse who was at hand, who was a facilitator, who knew staff members and eliminated obstacles for them. 	<ul style="list-style-type: none"> Although invited to participate, staff under 33 were not in the study. Male nurses were under-represented (n=2) compared to female nurses (n=13). 	Very high (JBI CQR)
Arakelian et al. ² 2020	To find out what gives nurse managers the strength to keep going as leaders.	Qualitative 12 nurse managers - Individual interviews	<ul style="list-style-type: none"> Seeing strengths of other nurses by working beside them. Being appreciated by nursing staff as a fair leader. Self-reflection and awareness. Leading with integrity. 	<ul style="list-style-type: none"> Small sample size No male nurse managers represented. 	Very high (JBI CQR)
Badu et al. ³ 2020	To identify and synthesise evidence of workplace stress and resilience in Australian nursing workforce.	Mixed methods (integrative review) 41 papers included in review Australian nursing workforce Mixed methods appraisal tool	<ul style="list-style-type: none"> Resilience relates to four themes: <ul style="list-style-type: none"> levels of stress (causative factors and impacts) individual attributes to build resilience organisational resources to build resilience workplace resilience intervention. Individuals' attributes (including emotional intelligence) and organisational resources contribute to managing workplace stress. 	<ul style="list-style-type: none"> search words, language, scope (Australian setting) 	Very high (JBI CSRRS)
Beydler ⁴ 2017	To discuss higher performance in perioperative nursing when demonstrating EI.	Discussion paper	<ul style="list-style-type: none"> EI has been linked to increased job satisfaction, increased success, decreased turnover, decreased burnout. Emphasis on value of holistic nursing with EI. Previous focus on technical skills. Behaviour is important to workplace. Align with organisational goals. Personal assessment. Ongoing training. 	(This cell is intentionally empty.)	Very high (W&W CAT)
Carragher and Gormley ⁵ 2017	To discuss leadership and emotional intelligence within nursing.	Discussion paper	<ul style="list-style-type: none"> Congruent and authentic leaderships related to EI. Need for more resources and education regarding EI and leadership. 	<ul style="list-style-type: none"> Use of google scholar and grey literature in research for article. 	Very high (W&W CAT)
Coladonato et al. ⁶ 2017	To ascertain how EI affects clinical nurse job satisfaction.	Descriptive, cross-sectional study Clinical nurses - The EQ-i 2.0 (an assessment tool based on the Bar-On model of emotional-social intelligence) measured participant EI.	<ul style="list-style-type: none"> Majority of nurse leaders scored average to high when measuring EI. Managers with high EI develop strong working relationships with nursing staff and are able to manage emotions. Strong correlation between nurses' job satisfaction and managers' level of EI. More research needed to understand EI professionally, academically and personally. 	<ul style="list-style-type: none"> Conducted at a single organisation. Instruments were self-administered and nurse managers directly reported to researcher. Sample size small. Group comparisons couldn't be made due to confidentiality. 	Very high (JBI CCSS)

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Cummings et al. ⁷ 2017	To identify determining factors of nursing leadership, and the effectiveness of interventions to enhance leadership in nurses.	Systemic review of quantitative research 93 papers included in review, 9 databases searched	<ul style="list-style-type: none"> • EI may be positively correlated with nurse leadership; however, more robust research is required. • Targeted educational interventions are recommended for developing nurse leaders. • For future research; what components of interventions are most useful for nurse leadership? 	<ul style="list-style-type: none"> • Published work tends to overemphasise positives so may be biased. 	Very high (JBI CSRRS)
Donnelly ⁸ 2017	To discuss leadership in the perioperative setting, briefing and debriefing.	Discussion paper	<ul style="list-style-type: none"> • Link between EI and effective leadership, increased team cohesion, increased productivity. • IQ is unaffected by training but EI can be learned. • EI necessary to improve communication and professional skills. 	(This cell is intentionally empty.)	Very high (W&W CAT)
Drigas and Papoutsis ⁹ 2018	To suggest a nine-layered model to improve EI.	Discussion paper	<ul style="list-style-type: none"> • EI is as important as IQ. • EI is separate from but associated with IQ. 	(This cell is intentionally empty.)	Very high (W&W CAT)
Frias et al. ¹⁰ 2021	To understand impact of emotional intelligence training on transformation leadership.	Quasi experimental pre/post experimental survey 45 nurse leaders/managers Hospital/ outpatient cancer facilities Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) Statistical software for statistical analysis	<ul style="list-style-type: none"> • EI training and subsequent follow-up reinforcement education is vital to successful leadership behaviours. • Buddying up with a peer colleague is recommended to maintain accountability and to continue to increase and maintain EI practices. 	<ul style="list-style-type: none"> • Inability of researchers to know which participant completed which parts of intervention. • Does not mention how many completed post survey. • Small sample size (N=45) • Potential disengagement because of four-month period of study. • Participants started with higher EI so may have bias. 	Very high (JBI CQR)
Hartiti et al. ¹¹ 2020	To examine soft skills as leadership skills.	Study, literature review and analysis Qualitative 65 on-duty nurses - Analysis of variance (ANOVA)	<ul style="list-style-type: none"> • EI as important as IQ. • Interpersonal set of competencies. • EI is linked to transformational leadership. • Transformational leadership is a good model to improve performance of staff. 	<ul style="list-style-type: none"> • Lack of supervision between researcher and room leaders. • Relied on honesty regarding self-evaluation. • Small sample (18 nursing students and 47 duty nurses). 	Very high (JBI CSRRS)
Lambert ¹² 2021	To understand the role of EI in nursing leadership. To identify practical activities to develop EI skills.	Discussion paper	<ul style="list-style-type: none"> • Human relationships rely on understanding why people do what they do and what they need. • Understand how you and others behave in situations and using this information to guide decision making. • EI in leadership is important to support others in moments of stress and to make them feel valued. • Delegate, develop trust within team, engage and communicate what is happening. Do not micromanage. • Collective leadership. 	(This cell is intentionally empty.)	Very high (W&W CAT)
Lucas ¹³ 2019	To ascertain how four leadership intelligences relate to development of leadership skills.	Discussion paper	<ul style="list-style-type: none"> • All nurses are leaders. • Encourage nurses to seek educational opportunities to develop EI. • Schwartz rounds for group reflection. 	(This cell is intentionally empty.)	Very high (W&W CAT)

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Mansell and Einon ¹⁴ 2019	To investigate EI and its relationship to nursing leadership.	Qualitative 5 nurse managers One Welsh health board Semi-structured interviews and interpretative phenomenological analysis (IPA) methods	<ul style="list-style-type: none"> Importance of sensing others. Team building. Reading the flux of an organisation. Barriers: time pressure, staffing levels, less time for reflective practice. 	<ul style="list-style-type: none"> Small sample size may not be relevant beyond the study setting. Nurse leaders may be more motivated individuals. 	High (JBI CQR)
Prezerako ¹⁵ 2018	To examine qualitative and quantitative literature on the role of EI in nursing leadership and the rigor of the studies reviewed.	Literature review 11 papers included in review	<ul style="list-style-type: none"> Important for nurse leaders to relate to the needs of their nursing staff. EI linked with transformational leadership. EI management 'triggers' productivity. 	<ul style="list-style-type: none"> Possible lack of effective evaluation tool for literature. 	Medium (JBI CSRRS)
Wang et al. ¹⁶ 2018	To examine the relationship between staff nurse emotional intelligence, transformational leadership and intent to stay in their jobs.	Cross sectional study 535 nurses - Use of Wong and Law emotional intelligence scale ITS (intent to stay) scale measured nurse intent to stay	<ul style="list-style-type: none"> Transformational leadership and EI are significant positive factors in nurses' intent to stay, with a 34.3% variance. Emphasises positive aspects of manager EI on influencing staff EI and intent to stay in workforce. Results may be valuable for future managers and policy makers in developing organisational goals. 	<ul style="list-style-type: none"> Limited sampling method and limited to small regional area. Limited by cross-sectional design, suggests longitudinal design for future research. 	Very high (JBI CCSS)

JBI = Johanna Briggs Institute, CQR = checklist for qualitative research, CSRRS = checklist for systematic reviews and research synthesis, EI = emotional intelligence, W&W CAT = Wallace and Wray's critical appraisal tool, CCSS = checklist for cross-sectional studies, IQ = intelligence quotient

Supplemental material references

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