

BEME Review Feedback: What impact do structured educational sessions to increase emotional intelligence have on medical students?

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What did we find?

Following this systematic review, several conclusions for **practice** were found.

1. Overall, educational interventions to improve EI in medical students have a small, positive effect on attitudes and knowledge.
2. Outcomes measuring change in attitudes or knowledge (assessed using Kirkpatrick's hierarchy- levels 2a and 2b) are not applicable to real-life practice, and such self-report measures may overestimate the impact of the intervention.
3. Assessments of changes in behaviour (assessed using Kirkpatrick's hierarchy- level 3) post-intervention show little to no improvement, and decreases in EI have been reported.
4. As assessment becomes more structured and applicable to real life, changes in EI become less.
5. Care must therefore be taken in interpreting the results of educational interventions to assess EI.

We also proposed several **research** recommendations. From the review, we proposed that future research should aim to assess the relationship between EI and objective, behavioural outcomes, transferable to the clinical setting, with the goal of establishing a theoretical, observable link between EI and clinical behaviour. It can be hypothesised that EI is related directly to the competency of interpersonal and communication skills; medical students who are considered to have high EI abilities may be more sensitive to identifying and responding to expressions of psychosocial distress when communicating with patients. It would therefore be beneficial to evaluate the effectiveness of interventions to improve EI on the clinical performance of medical students, for example in communication skills Objective Structured Clinical Examinations (OSCEs).

What have we done with these findings?

We took our own advice and explored how EI related to objective, behavioural outcomes that were transferrable to the clinical setting.

1. We conducted another systematic review to see how EI related to communication, which was published in *Patient Education and Counselling* in 2013 (see Box 1).
2. We concluded that EI was indeed related to communication, but because limited research had explored these relationships, we conducted empirical work with this in mind. We published the first of these empirical studies in *Medical Education* in 2013 (see Box 2). The second and third ones are being prepared for publication now.
3. We then wrote an overview paper for clinicians, which has received revisions from *Medical Education*, to inform them how best to integrate EI training and teaching into undergraduate and postgraduate medical education.

Box 1: Cherry, M.G., Fletcher, I. & O'Sullivan, H. (2013) The influence of medical students' and doctors' attachment style and emotional intelligence on their patient-provider communication. *Patient Education & Counseling* S0738-3991(13)00210-3. doi: 10.1016/j.pec.2013.05.010. [Epub ahead of print]

Objective: Attachment style and emotional intelligence (EI) have been highlighted as potential factors influencing the variation in medical students' and doctors' patient-provider communication (PPC), particularly in relation to emotive issues. The objective of this review is to systematically review and synthesise the published literature relating to the influence of medical students' and/or doctors' attachment style and EI on their PPC.

Methods: Electronic and hand searches were conducted to identify all published literature relating to the aim of the review. Data were narratively synthesised.

Results: 1597 studies were identified. 14 were included in the review, of which 5 assessed the influence of attachment style and 9 assessed the influence of EI on PPC. No studies assessed the impact of both attachment style and EI on PPC.

Conclusion: Whilst tentative links were found between both PPC and both attachment style and EI, heterogeneity in study design, predictor variables and outcome measures made drawing conclusions difficult.

Practice implications: More research is needed to assess the influence of both attachment style and EI on PPC.

Box 2: **Cherry, M.G., Fletcher, I. & O'Sullivan, H. (2013)** Exploring the relationships among attachment, emotional intelligence and communication. *Medical Education*, 47, 317-325

Background: Attachment style has been shown to influence both emotional intelligence (EI) and the clinical communication of medical students and doctors. No research has assessed the relationships between attachment, EI and clinical communication in medical students.

Aim: To evaluate the effect of EI on the relationship between medical students' attachment style and clinical communication.

Methods: First-year students were invited to complete measures of attachment (ECR-SF, a 12 item measure which provides attachment avoidance and attachment anxiety dimensional scores) and EI (MSCEIT, a 141-item measure regarding the perception, use, understanding and management of emotions) at the end of their first year, prior to their summative Objective Structured Clinical Examinations (OSCEs). Clinical communication was assessed using OSCE scores. Structural equation modelling (SEM) was used to analyse a hypothetical model of the relationships between attachment style, EI and clinical communication.

Results: 186/361 (51.4%) students participated. Attachment avoidance was significantly negatively correlated with total EI scores ($r=-.28$, $p<.01$); total EI was significantly positively correlated with OSCE scores ($r=.23$, $p<.01$). A parsimonious SEM revealed that attachment avoidance accounted for 13% of the variance in students' total EI scores and did not directly predict OSCE scores, whereas total EI significantly predicted 7% of the variance in OSCE scores.

Conclusion: Attachment is perceived to be stable from early adulthood, whereas literature suggests that EI can be developed through the use of targeted interventions. This has potential implications for the training of medical students in clinical communication.