A prototype for training teams: type 1 diabetes clinic and multidisciplinary meeting simulation

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Background

Medical education aims to equip physicians with the knowledge and skills required to deliver effective and safe patient care. Simulation-based education provides experiential learning and a safe environment for trainees to learn and develop their technical and non-clinical skills. We hosted an endocrinology and diabetes specialist registrar training day and aimed to simulate scenarios akin to those seen on a standard working day for a diabetes and endocrinology trainee. This included holding a referrals bleep, assessing a patient in clinic, and discussing cases in a multidisciplinary team (MDT) meeting. The clinic and multidisciplinary meeting (MDM) simulation aimed to improve trainees' data interpretation, presentation skills and knowledge of relevant technology while considering key psychosocial factors in management of patients with type 1 diabetes (T1D).

Methods

Trainees were divided into groups of 3–4, with those of similar seniority grouped together. In the clinic scenario each group was presented with a different case. The information provided included the patient's background, concerns and diabetes technology data. Small group discussion followed to discuss the information available and construct the management plan. Each group then presented their case to a multidisciplinary team (diabetologist, diabetes specialist nurse, diabetes specialist dietitian, psychiatrist) structured in a similar format to the type 1 diabetes multidisciplinary meeting at an inner-city teaching hospital. The trainees were asked to present the cases to the MDM and discuss management plan to inform the MDT discussion. Following each case there was a debrief to discuss the learning points.

Results

Thirteen specialist registrars attended the session, ten (77%) answered the pre- and post-session questionnaire. Six (60%) were from ST3-4 and four (40%) were from ST5-7. The training day was rated using a Likert scale (poor (1) to excellent (5)) with a mean score of 4.7 ± 0.64 . The qualitative feedback included trainees enjoying the 'interactive sessions' with 'problem-solving aspects',

'MDT approach' and an 'abundance of educators'. Scores (Likert scale 1=strongly disagree to 5=strongly agree) of skills increased after the session compared with pre-session scores in 'Performing an outpatient assessment of a complex patient with type 1 diabetes' (3.64 \pm 0.88 to 4.38 \pm 0.7), 'Analysing data from diabetes technology and using this to inform the consultation' (3.45 \pm 0.99 to 4.13 \pm 0.78), 'Initiating appropriate diabetes technology according to relevant guidelines' (3.27 \pm 0.86 to 4.13 \pm 0.78), and 'Considering the psychosocial factors in diabetes consultations'(3.64 \pm 0.88 to 4.25 \pm 0.83).

Conclusion

Simulating a clinic and MDM setting, in which small groups of trainees discuss challenging aspects of a case and how they would approach the consultation, encourages collaborative learning and promotes problem-solving skills. Presenting the cases in front of a simulated MDT enables feedback from experts with different perspectives on a case. The feedback suggests this method of teaching improved trainees' confidence in performing outpatient assessments, analysing data, initiating technology and considering psychosocial aspects. The presence of the members of the MDT provides different perspectives to the management of patients and offers unique learning opportunities to develop a team approach to the care of patients with T1D.

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