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Balint groups in undergraduate medical education: A systematic review

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Abstract

Objective: Though Balint groups feature increasingly in UK medical school curricula, there is no evidence-based consensus on what undergraduates might gain from participation, and how this might happen. To address this, we systematically reviewed primary research studies involving medical student Balint groups and their relationship with patient-centredness, using narrative synthesis.

Data sources: Four major databases were searched from origin until 09/09/2016. The Journal of the Balint Society was hand-searched from 1971 until 09/09/2016.

Study selection: English language studies reporting quantitative and/or qualitative methods examining Balint groups in medical students versus other/no comparator.

Results: Eight studies were included. Quantitative findings report statistically significant improvements to student's empathy and intellectual interest following group participation versus control ($p=0.03$, $p=0.046$ respectively). Discussion content was similar across high-income countries. There was considerable heterogeneity when students rated the efficacy of groups. All evidence had high or unclear risk of bias, or was of medium/low quality.

Conclusion: Balint groups might help medical students to become more patient-centred, by increasing students' empathic abilities and supporting their personal and professional growth. Groups are more subjectively effective when optional rather than compulsory. Discussion content is comparable to groups in continuing medical education.

Keywords: Systematic review, narrative synthesis, medical education, medical students, patient-centred, Balint

Introduction

Balint groups and the patient-centred approach

Balint groups are used by general practitioners, allied and para-medical professionals to explore the emotional content and difficult aspects of the doctor-patient relationship (Salinsky 2009; Elder 2015; Van Roy et al. 2015). In the UK, participation in Balint groups is compulsory within postgraduate psychiatry training, and in the general practice curriculum (Elder 2015). With regard to undergraduates, of 34 medical schools, 18 currently offer Balint groups or Balint-style interventions with a further seven in the process of establishing groups. These groups vary in status between compulsory and voluntary across medical schools (Shoenberg & Yakeley 2014; Elder 2015; Johnston 2017).

Balint groups involve six to twelve members plus one or two group leaders, who have had both experience of Balint groups and previous training in small group leadership (The Balint Society 1994). A member presents a case involving patient-related emotional difficulty, which should be from memory (The Balint Society 1994; Van Roy et al. 2015). Once finished, questions are allowed from the remaining participants. The presenter then pushes back their chair to remove themselves from discussion; other group members reflect on the case from the perspective of patient and doctor. The presenter re-joins the group for final discussion (Salinsky 2009). Each case should last between thirty minutes and one hour (The Balint Society 1994). Groups typically meet on a weekly to monthly basis, running anywhere from a few weeks to several years (Salinsky 2009; Parker & Leggett 2014; Van Roy et al. 2015).

Balint groups are believed to be useful in medical education for addressing resilience, burnout, empathy, compassion fatigue and communication skills, however the process of how this might occur is not well understood (Benson & Magraith 2005; Kjeldmand & Holmstrom 2008; Bar-Sela et al. 2012; Airagnes et al. 2014; Van Roy et al. 2016). Here, we focus on the overarching concept of patient-centredness as a unifying outcome, which is a necessary attribute of newly qualifying doctors (General Medical Council 2015). Patient-centredness means providing care that is individualised, respectful and empowering (Lusk & Fater; Epstein et al. 2011; Morgan & Yoder 2012). For patients, it is associated with increased satisfaction, improved quality of care and health outcomes (Kinnersley et al. 1999; Stewart et al. 2000; Bombeke et al. 2011; Morgan & Yoder 2012). For doctors, it is associated with fewer malpractice complaints (Levinson et al. 1997). UK curricula promote the patient-centred approach through a combination of communication skills training, teaching, and frontline experience (Bombeke et al. 2010; Donetto 2012; Shoenberg & Yakeley 2014). A decline in students' attitudes, empathy and patient-centredness has been documented as students progress through medical school, particularly once regular clinical experience begins (Woloschuk et al. 2004; Tsimtsiou et al. 2007; Hojat et al. 2009; Bombeke et al. 2011). Given the scarcity of resources, there is insufficient evidence to justify routine use of Balint groups. We undertook a literature review to understand whether and how Balint groups might help medical students to become more patient-centred.

Methods

This review is approached from a pragmatic epistemological viewpoint (Cherryholmes 1992; Creswell 2014): it is more concerned with the ‘conceivable practical consequences’ of various courses of action than with the building or testing social science theory (Peirce 1984). It was registered on PROSPERO before the final searches, the strategy for which is available online (Monk et al. 2016).

Quantitative, qualitative, and multi-method research studies were eligible. Participants must have been studying for a degree in medicine; groups including non-medical student participants were excluded. Interventions must have been labelled as Balint groups; papers were excluded if they combined Balint group work with other methods. No restrictions were placed on the duration and frequency of sessions, length of course, how or by whom groups were facilitated, or any other dimensions on which complex interventions may vary (Hoffmann et al. 2014). Due to resource constraints we accepted only full-text articles available in the English language. We searched Ovid EMBASE, MEDLINE and PsycINFO, and the Cochrane Central Register of Controlled Trials, from inception until 09/09/2016. The Journal of the Balint Society was hand-searched from 1971 until 09/09/2016.

One reviewer assessed titles, abstracts and full-text papers for eligibility, and entered data directly into data tables in MS Word, after piloting and amendment. Data items included study characteristics (design, publication date, sample size, country, setting, study length), Balint group characteristics (participants per group, number of group leaders, frequency and duration), participants characteristics (age, gender), outcomes and outcome assessments. The primary outcome was any evaluation of, or theme that illuminated some aspect of patient-centredness, or a change to students’ attitudes or behaviours. The secondary outcome was instruments evaluating, or themes illuminating, the appropriateness and acceptability of Balint groups.

Risk of bias was assessed using: the Cochrane tool for RCTs (Higgins et al. 2011); ROBINS-I for observational studies (Sterne JAC, Higgins JPT et al. 2014) and the Institute of Health Economics checklist for case series (Guo et al. 2016). The Joanna Briggs Institute's Quality Assessment and Review Instrument (JBI QARI) was used to assess studies with primarily qualitative methods (Hannes et al. 2010). Quality assessment was not used to exclude studies from analysis, but to inform confidence in their findings (Bohren et al. 2015).

We used an existing framework for narrative synthesis (Popay et al. 2006; Booth et al. 2016). In developing a preliminary synthesis and exploring relationships in the data, we tabulated, grouped and thematically analysed findings from included studies. We determined that themes corresponded well to a pre-existing framework which proposes five domains of patient-centredness (Mead & Bower 2000):

1. **Biopsychosocial perspective** – Understanding that a combined biological, psychological and social perspective is required.
2. **The patient-as-person** – Acknowledging the role of a person's biography in their attitude towards illness (Henbest & Stewart 1989).
3. **Sharing power and responsibility** - Promoting an egalitarian and non-paternalistic relationship; encouraging shared accountability for the health of the patient.

4. **The therapeutic alliance** – Acknowledgement that empathy, unconditional positive regard and congruence are required in order to create a functioning therapeutic relationship which, in and of itself, has potential therapeutic benefit.
5. **The doctor-as-person** – Sensitivity and insight into the subjectivity of the doctor and their reactions in the therapeutic relationship.

We then explored relationships in the data via vote-counting of themes, by tabulating study findings against the Mead and Bower framework and the additional domain of acceptability to students. Examining their frequency of occurrence helped to determine difference in emphasis across domains of the included studies.

In assessing the robustness of the synthesis product, we used tools for the critical appraisal of quantitative (Centre for Reviews and Dissemination 2009) and qualitative syntheses (Morrow 2005) to reflect critically on our own review process.

Results

Searches yielded 127 citations after removal of duplicates (Figure 1). After applying the eligibility criteria, we assessed 33 full-text papers, of which 25 were then excluded (see Appendix). Eight studies met the inclusion criteria (Table 1): four quantitative, one qualitative and three multi-method.

[Figure 1 here]

[Table 1 here]

Study duration ranged from six weeks to 26 months; four studies lasted twelve months or more. All participants were in their third year of training or later. There was considerable heterogeneity in terms of group size, composition, frequency, leadership and duration, where reported. Three studies focussed primarily on whether Balint groups would be useful or acceptable to students; the remainder focussed on the content of group discussion and changes in student thought processes or practice. None reported declarations of interest or funding information.

The overall quality of evidence was mixed (Table 2). Three out of four of the quantitative studies were found to be at high risk of bias (Brazeau et al. 1998; Yakeley et al. 2011; Parker & Leggett 2012). The non-randomised controlled trial was judged to have a low risk of bias for the majority of domains but lacked information about missing outcome data (Airagnes et al. 2014). The qualitative or mixed methods studies were not allocated a value judgement but used for a qualitative consideration of their relative merits and limitations (The Joanna Briggs Institute 2011). Three of these studies were judged methodologically sound, but lacked a statement of the researcher's philosophical perspective, meaning additional points could not be awarded in three of the instrumental domains (Torppa et al. 2008; Stockmann 2015; O'Neill et al. 2016).

[Table 2 here]

Data synthesis

In the narrative synthesis which follows, we coded outcomes to the Mead and Bower domains of patient-centredness, definitions of which can be found in the Methods Section.

The most popular coded domains were ‘doctor-as-person’, ‘therapeutic alliance’ and ‘acceptability’ (Table 3).

[Table 3 here]

Biopsychosocial

Three studies with moderate quality (Airagnes et al. 2014; Stockmann 2015; O’Neill et al. 2016) made assessments which mapped to the ‘biopsychosocial’ domain. Qualitative findings suggested students were more appreciative of patients’ unique biological, psychological and social circumstances following groups; reflective essays suggested students’ increased awareness of the potential emotional meaning of physical symptoms, and students began to welcome the idea of ‘putting them self in the patient’s shoes’ (this mapped to both ‘biopsychosocial’ and ‘the patient-as-person’) (O’Neill et al. 2016). One study used a ten-point Likert scale for students to rate agreement that Balint groups had encouraged them to consider the whole patient (0= strongly disagree, 9= strongly agree), which we mapped to all patient-centredness domains except ‘sharing power and responsibility’; students scored a mean of 7.8 (no standard deviation) (Stockmann 2015). No statistically significant difference between Balint and control was found in ‘perspective taking’, a domain of the Interpersonal Reactivity Index (IRI) (Davis 1980), which also mapped to ‘the patient-as-person’ (Airagnes et al. 2014).

The patient-as-person

Four studies presented moderate quality evidence that Balint groups improved outcomes relating to the domain ‘the patient-as-person’, (Torppa et al. 2008; Airagnes et al. 2014;

Stockmann 2015; O’Neill et al. 2016). Analysis of field notes indicated themes surrounding ‘feelings related to patients’ and ‘identification with the patient’ (Torppa et al. 2008; Stockmann 2015)(Torppa et al. 2008)(Torppa et al. 2008)(Torppa et al. 2008)(Torppa et al. 2008)(Torppa et al. 2008). A questionnaire and reflective essays showed groups encouraged students to confront their prejudices and preconceptions about patients (O’Neill et al. 2016).

Sharing power and responsibility

There was no reliable evidence that Balint groups encouraged the students to share power and responsibility. The RCT used a non-validated questionnaire which mapped to ‘sharing power and responsibility’ (in addition to ‘therapeutic alliance’ and ‘the doctor-as-person’); it found no statistically significant difference in scores between groups after three months (Yakeley et al. 2011).

Therapeutic alliance

Qualitative and quantitative evidence of mixed quality suggests that ‘therapeutic alliance’ is influenced by Balint group participation. All except two studies (Brazeau et al. 1998; Parker & Leggett 2014) measured at least one outcome or theme mapping to ‘therapeutic alliance’ (see last section for the findings of one study). A non-validated questionnaire reported a statistically significant between-group difference in ‘empathic approach’ (n=163; p=0.03; no CI or effect size reported) but not the ‘empathic concern’ dimension of the IRI (Airagnes et al. 2014). Qualitative analyses identified perceived improvements in relationships with patients (Torppa et al. 2008; Stockmann 2015). Mean scores on Likert scale questionnaires were neutral to mildly positive about the improvement in usefulness to patients, communication skills and aspects of thought or practice (Parker & Leggett 2012; Stockmann 2015; O’Neill et al. 2016), with mildly increased recognition of the inherent value of the consultation (O’Neill et al. 2016).

The doctor-as-person

Six studies of mixed quality reported greater consideration of the ‘doctor-as-person’ following group participation (Torppa et al. 2008; Yakeley et al. 2011; Parker & Leggett 2012; Airagnes et al. 2014; Stockmann 2015; O’Neill et al. 2016), suggesting Balint groups improve students’ awareness of the impact of their own traits on the consultation. Likert scales produced neutral to mildly positive mean scores on improvement of confidence (Parker & Leggett 2012; Stockmann 2015), but stronger agreement that students could appreciate the effects of their own personality on the patient after groups (O’Neill et al. 2016). There was no statistically significant difference between groups in the IRI item ‘fantasy scale’ (tendency to get caught up in fictional stories), nor in the ad-hoc questionnaire items ‘rejecting attitude’ or ‘fear of emotion contagion’. There was a statistically significant difference between groups in the ‘intellectual interest’ domain of an un-validated questionnaire ($p=0.046$, no CI or effect size reported) (Airagnes et al. 2014). Qualitative analysis of field notes (Torppa et al. 2008; Stockmann 2015) identified themes of ‘role confusion’, ‘building a professional identity’ and ‘anxiety over role’ in most groups in both studies.

Acceptability

Five of the included studies reported on the acceptability of groups to students, or the subjective value of discussions (Brazeau et al. 1998; Parker & Leggett 2012; Parker &

Leggett 2014; Stockmann 2015; O’Neill et al. 2016). Studies involving mandatory participation (Parker & Leggett 2012; Parker & Leggett 2014) reported poorer feedback on the value of discussions than in studies where groups were advertised and optional (Brazeau et al. 1998; Stockmann 2015; O’Neill et al. 2016). Two studies highlighted the use of relaxing the traditional parameters of Balint group process when all of its members are students, to accommodate wider concerns regarding role, and to reflect students’ lack of repeated contact with individual patients (The Balint Society 1994; Yakeley et al. 2011; O’Neill et al. 2016).

[Table 4 here]

Assessing the robustness of the synthesis

Assessment of quantitative outcomes and qualitative themes was limited by study quality. When assessed using validated instruments, the overall strength of evidence was generally weak, so conclusions about effect sizes or theoretical robustness should be drawn with caution. Included studies mostly lacked separate staff for outcome assessment, with authors usually responsible for study design, Balint group leadership, outcome assessment, and result reporting. This weakened the studies’ confirmability (qualitative studies) or objectivity (quantitative studies) (Morrow 2005). Reporting of intervention protocols and participant characteristics was inconsistent, limiting our understanding of between-study variation. Participant stage of training was well-reported / contextualised, with participants in all studies at a similar stage in their training, late enough to have experienced contact with patients (The Balint Society 1994). Studies were based in the UK, France, USA, Finland and Australia, making our findings more generalisable to high-income countries (Morrow 2005).

Discussion

We systematically reviewed four quantitative, one qualitative, and three multi-method studies of mixed quality. The quantitative findings did not always suggest Balint groups increased patient-centredness compared to control conditions. Where it did so, this may have been through improved consideration of the patient-as-person, the therapeutic alliance and the doctor-as-person. Balint groups in studies where they were optional were rated higher on acceptability and subjective educational value compared to where they were mandatory. Across the high-income countries studied, students addressed similar themes to medical professionals in continuing education, suggesting that their ability to partake in discussion is not limited by their clinical experience (Botelho et al.; Torppa et al. 2008; Salander & Sandström 2014). Students therefore may be valuable members in Balint groups comprised of mixed-tier medical staff.

Moderate quality qualitative evidence suggests Balint groups aid professional growth and help students to understand the impact of their own traits on the consultation. Those considering delivering Balint groups should consider doing so on an optional rather than compulsory basis, which seems to provide greater value (Brazeau et al. 1998; Parker & Leggett 2012; Parker & Leggett 2014). Educationalists will need to balance the costs of a series of Balint groups against possible benefits.

The main themes of discussion in student Balint groups involve feelings related to patients, professional identity and role models; it has been suggested in multiple studies that such discussions support students' professional growth process (Torppa et al. 2008; Stockmann 2015).

This is the first systematic review examining the use of Balint groups in medical students, and is exploratory in nature. Its findings are comparable to a 2015 non-systematic review of Balint group research with a broader scope, which concluded that research is scarce, heterogeneous and methodologically weak (Van Roy et al. 2015). Practical limitations meant we had a single reviewer responsible for the selection and data extraction processes, increasing the risk of subjectivity and errors (Edwards et al. 2002; Buscemi et al. 2006). Our review is susceptible to language bias, having excluded ten studies not available in English (Centre for Reviews and Dissemination 2009; Higgins JPT 2011). The decision to 'lump' studies of, for instance, different intervention duration, in the analysis is appropriate to the purpose of the review, part of which is to identify mechanisms by which the intervention may work (Caldwell & Welton 2016). This is especially important considering traditional dose-response patterns may not be relevant in evaluating complex interventions (Hawe 2015).

Future research should prioritise qualitative methods capable of identifying an explicit theory that links Balint components through mechanisms of action (processes by which change is induced) to measurable aspects of the participant's functioning (including cognitive and affective representations). Future RCTs should compare Balint group recipients to waiting-list controls. They should assess patient-centredness using a validated tool, such as the Patient-Practitioner Orientation Scale or Self-Efficacy in Patient-Centredness Questionnaire

(Shaw et al. 2012; Zachariae et al. 2015). They should consider measuring burnout scores longitudinally using the Maslach Burnout Inventory (Maslach & Jackson 1981; West et al. 2012). An economic model is required to understand health system and societal benefits from offering Balint groups to medical students (Drummond et al. 2015).

Conclusion

Based on empirical and theoretical literature, Balint groups might help medical students to become more patient-centred; increasing students' empathic abilities, and supporting their personal and professional growth. The evidence that these statements are drawn from is of mixed quality. Acceptability and educational value is rated more positively when groups are an optional, rather than compulsory part of the curriculum. We suggest that this may be due to a shared characteristic of students that opt to engage in Balint-style interventions, which remains undefined. Students may be capable and valuable members in groups of mixed professional status, despite their relative lack of clinical exposure. More rigorous research using validated instruments is required to establish whether Balint groups should be considered as a component of medical school curricula.

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Figure captions

Figure 1: PRISMA flow diagram of study selection

Table captions

Appendix: Reasons for exclusion of articles assessed at full-text

Table 1: Characteristics of individual studies

Table 2: Risk of bias within studies

Table 3: Pilot data extraction outcomes mapped to Mead & Bower domains of acceptability

Table 4: Results of individual studies

Declaration of interest

The authors report no declarations of interest.