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ORIGINAL RESEARCH: EDUCATION

Evaluation of a compulsory reflective group for medical students

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ABSTRACT

INTRODUCTION: The ability to reflect – reflection – taking time to stop, think and evaluate is an important professional skill to develop.

AIM: To evaluate a compulsory reflective group activity to determine whether compulsory participation enabled students to constructively share emotional clinical experiences and develop ethical and professional behaviour.

METHODS: This was a case study with mixed methodology. Participants were Years 5 and 6 medical students at the University of Auckland, New Zealand. Data collection included pre- and post-reflective group questionnaires with Year 5 and 6 students, questionnaires with general practice academic facilitators, and audiotapes of the reflection group discussions.

RESULTS: Students shared emotional experiences that were organised into three themes: (i) witnessing unprofessional behaviour; (ii) meeting difficult clinical scenarios for the first time; and (iii) the hierarchy of medicine. They reported positive learning experiences relevant to their future practice and valued the opportunity to share their experiences safely. Facilitators thought the groups provided unique educational opportunities that students appreciated. Eighty-two percent of participants would like to repeat the activity during their medical school training.

CONCLUSION: Self-reflection is an essential condition for professionalism. Use of reflective groups can help students become ethical and professional doctors.

KEYWORDS: Balint group; case study; medical students; mixed methods; professionalism; reflective groups

Introduction

Medical schools are responsible for educating tomorrow's doctors, who shape the future health care of the countries where they practise. Medical students need to learn the knowledge, skills and attitudes that will allow them to practise medicine in a safe and professional manner. Professionalism, in part, is the ability to use knowledge and skills learnt in an ethical, cultural and socially responsible way.[1]

Specific skills and attitudes to provide care and assist doctors to be professional are humanism, empathy, compassion, mindfulness and reflection.[2,3] Humanism requires a deep-seated personal conviction about one's obligation to others, especially others in need.[4] Empathy is the ability to be with but not become the patient, allowing a doctor to remain human while still being professional,[5] and compassion can be described as empathy with a positive action.[3] Mindfulness involves paying non-judgemental attention to tasks and experiences,

enabling recognition of errors, picking up on patients' distress and refining technical skills. This facilitates change-making and flexibility to deal with the unexpected.[6] The final and perhaps most fundamental component is reflection – taking time to stop, think and evaluate.[7] These skills and attitudes are important in working with patients who may be vulnerable, stressed and afraid.

It is challenging to teach professionalism in already crowded medical curricula, but important to ensure students acquire professional skills as well as medical knowledge. Learning these skills helps them develop their own professional identity, recognising that being a doctor is a way of life, not just a role,[8] and benefits not only patients but also doctors by ameliorating stress and preventing burnout.[1] Traditionally, medical school education has focused on biomedical teaching – how to 'do' doctoring rather than how to become a doctor. The values, skills and perspectives needed to develop a doctor's professional identity were learned implicitly through the 'hidden curriculum' during training. Professional behaviour modelled by senior doctors enabled students to formulate their own professional identity. However, medical students often witness and experience unprofessional behaviour during their training that the traditional curriculum does not allow them to unpack in a safe environment.[9]

To help students learn professionalism, the Department of General Practice and Primary Health Care at the University of Auckland instigated reflective groups for Year 5 and Year 6 students during their general practice clinical attachments. These sessions are facilitated by general practitioner (GP) academics employed by the Department and delivered in an agreed structured standardised format. The aims are to provide students with opportunities for reflection on challenging cases and experiences and how they responded to these challenges. The sessions also enable other professional skills to be discussed and developed; introduce students to skills to assist in providing safe patient-centred care; and help students to maintain their own health and wellbeing without isolating and distancing themselves from their patients.

The sessions are modelled on Balint groups.[10] These groups were originally started for GPs in the 1950s by Hungarian psychoanalyst, Michael Balint, in his study of the doctor–patient relationship.[11] The basic premise is that health professionals can use the group process to explore areas of uncertainty and difficulty in relationships with patients to gain greater personal understanding and enhance the therapeutic alliance between clinician and patient. Evidence shows that participation in Balint groups helps to prevent burnout;[12] enables doctors to be more patient centred;[13] improves empathy and communication skills;[14] and allows sensitive issues to be discussed safely without fear of judgement.[15]

In the reflective groups, students are invited to confidentially share concrete examples of experiencing a troubling consultation or a difficulty encountered during a clinical attachment. The ensuing discussion helps to develop critical thinking and problem-solving skills, reflective practices and access to collegial support to address these issues in a safe and confidential environment. GPs moderate the groups, but most of the input and responses is from the students. While typically Balint groups do not provide a resolution or debrief, in the student groups, the GP facilitator provides a summary and safe closure to the experience.

The aim of this study was to evaluate this compulsory reflective group activity, to determine what themes were discussed and whether participation enabled students to share their challenging clinical experiences constructively.

Methods

Study design

We chose a case study design using different forms of data collection with triangulation of different datasets to answer the overarching research question. We hypothesised that the reflective group activity influenced professional behaviour and was a method of teaching that could be used more widely with medical students and other health professionals.

Setting

We conducted the study during the compulsory teaching days attended by Year 5 and Year 6 medical students during their general practice

placements. Reflective groups were delivered between March and December 2015 at five urban and regional clinical campuses, facilitated by GP facilitators from the Department of General Practice and Primary Health Care.

Participants

All Year 5 and Year 6 students and GP academic facilitators who had participated in reflective group discussions during the study period were invited to participate in this study. They consented separately to completing questionnaires and group audiotaping.

Questionnaire development

We developed pre-and post-group student questionnaires with Likert scales and free-text responses and piloted these with medical students from reflective groups before the study. The questions addressed the perceived usefulness of the groups and views on the format. The GP questionnaire focused on their experiences of facilitating reflective groups.

Consultation and ethics

We obtained ethical approval from the University of Auckland Human Participants Ethics Committee (reference #013996). Students were assured that they would not be penalised if they chose not to participate. Groups were recorded only if all students in the group and their GP facilitator independently consented. Participant anonymity was maintained.

Study processes

Participant information sheets and consent forms were distributed to students during a break by an administrator in the absence of GP facilitators. Consenting students completed questionnaires before and after participating in the reflective group, with code identifiers to match pre- and post-responses. Completed forms were placed in sealed envelopes before collection by the administrator. Similarly, consenting GPs received their questionnaires from an administrator, returning them in sealed envelopes.

For consenting cohorts, group discussions were digitally recorded by the GP facilitators, with audio-recordings electronically password-protected and emailed to the researcher. Audio files were transcribed confidentially.

Table 1. Triangulation of the data

Research questions	Data collected
What does a single compulsory standalone reflective activity enable medical students to share?	Qualitative analysis of the audio tapes Question in GP academic questionnaire Questions in student questionnaire
How do students react to the activity?	Questions in student questionnaire Questions in GP academic questionnaire
What effect does it have on their consideration of attending reflective groups as part of their future professional behaviour?	Questions in student questionnaire

Data analysis

The datasets comprised student participants' and GP facilitators' views (questionnaires) and group content (audiotapes). We entered quantitative questionnaire data into Excel spreadsheets (Microsoft Corporation, Redmond, WA, USA) and analysed these using descriptive and iterative statistics. We analysed the qualitative data from questionnaires and audio files using cross-sectional thematic analysis. We applied theory by reading the text and underlining keywords, then reviewing these to look for patterns that might fall under overarching themes. We all analysed the data independently and came to joint conclusions. We triangulated results looking for convergent themes relating to the different study aims shown in Table 1.

Results

Description of the participants

A total of 303 students (141 in Year 5 and 162 in Year 6) were invited to participate in the survey, with 295 consenting (response rate 97%). Five of the eight GP facilitators who facilitated the reflective groups completed the questionnaire (response rate 62%). Responses were spread across all geographic sites and both year groups. Eighteen of the 34 groups invited to be audiotaped agreed (response rate 53%). Group size ranged from six to

13 participants. We discarded two audiotapes of poor recording quality. We numbered students S1 to S295; GPs E1 to E5, and Groups GA to GQ to ensure anonymity.

Student questionnaires

Most students were not new to some form of reflective group, with 255 (86%) having past experience, mainly at medical school during pre-clinical years, and a few had participated in ward-based reflective discussions.

Two hundred and fifty-eight students (87%) indicated they had experienced emotional challenges during their training, and 105 (35%) shared their cases during the groups. Most (270; 91%) found the group useful, indicating that students who had no opportunity to personally share a case still found the activity valuable. The majority felt comfortable about presenting a case in the future (average Likert score 4.3/5). Post event, students' views on the educational usefulness of the group and benefits to their future practise increased (mean scores moved from 3.8 to 4.1 and 3.2 to 4.2 respectively). Two hundred and forty-two (82%) students would like to participate in more groups.

In the pre-questionnaire, students indicated several possible benefits. The reflective group helped prepare them for future practise ('always need to reflect to learn how to manage and handle situations better' [S278]) and gave them techniques to help avoid burnout ('emotional stress is very common and important to address and we really need to develop ways to manage it' [S119]). They had the opportunity to learn collaboratively ('an opportunity to see some extra minds at work and see how others would react to similar situations' [S117]) and the groups helped to prevent feelings of isolation while on their individual attachments ('find that we have shared experiences and we may not be the only one feeling in a certain way' [S90]). It also gave students the opportunity to learn how to structure a non-judgemental reflective group ('learn a technique to discuss issues in an open and non-judgmental way' [S99]). A few students considered their reflective group would not be useful because they reflected enough already: 'I am frustrated by the repetitive nature of this. I reflect enough already' [S144].

Similar themes emerged from the post-questionnaire analysis. Students enjoyed reflecting upon difficult encounters that they might meet in the future, before being faced with these situations in real life ('helpful to talk about things I hadn't come across because I think that it will be helpful if I do encounter something similar' [S275]). The benefit of talking as a group to share collective knowledge and viewpoints was identified ('it opens my eyes to different facets of a case' [S28]). They appreciated that they were not alone in their experiences ('it was good to debrief about emotional situations faced in the hospital and to find people had similar situations' [S251]). The structured group approach was new to many and described as 'another good tool for reflective practice' [S86]. One learned 'it is possible to have valuable reflective sessions with people whom you don't know well' [S115].

Student participants reported that they learned a variety of specific skills from the group activity such as 'the importance of debriefing after a death and keeping your humanity' [S106]. They had come to appreciate that in medicine 'it is important to look past the physical into the psychosocial' [S23] and felt enabled to deal with 'the difficulty of managing a situation where a senior doctor has breached ethical boundaries' [S32]. Finally, the activity had provided an opportunity to realise that they were important to patients ('patients appreciate the extra time that medical students spend with them' [S262]).

The small groups were valued as 'a very supportive environment for everybody to share their views on the issue' [S68] and students had been 'comfortable discussing sensitive topics' [S75]. It gave them 'the chance to think more deeply about experiences. Often we are too busy to think about them but it is actually very useful' [S90]. For some, the group had been transformative: 'I feel it will make me a much better doc, even this one hour session' [S77].

Students felt that they had had a chance 'to speak up or out about situations in the hospital or community' [S279]. They were struck by the 'collegial nature' [S111] of the activity and appreciated the openness and honesty received from group members ('most people respectful and open and willing to share difficult things and willing to listen' [S88]). They were aware that their contributions

may have helped other students, providing both 'the opportunity to get things off your chest and reassure others' [S199]. The experience allowed 'the humanisation of medicine' [S262] to take centre stage.

Most students found the activity useful in preparing for future practise and preventing burnout. It had helped them 'learn about feeling compassion without getting too drawn in and getting burnout/compassion fatigue' [S107]. They appreciated sharing together – 'so good to process experiences we have had – helpful to realise that we need to do this next year' [S252].

A few did not value reflection ('I have issues with reflection' [S110]) and a low number remained ambivalent, while recognising that the activity had helped some of their classmates ('I don't personally feel I benefit through this activity, but I certainly see that others do' [S242]).

Results of the GP questionnaire

The five GPs ranged from relatively new to experienced educators. Emotional cases were always discussed in the groups they led. 'The students really value the experience of being able to discuss and reflect on challenging situations at times. Students experience some really harrowing situations. The students participate well and support each other' [E1]. All GPs considered the groups valuable; for example, maintaining that the students 'like it and say they want more' [E3]. One had received emails of thanks. This was 'the first and only time they get to speak about their experiences of being a medical student.' [E2]

Overall, the GPs reinforced the view that most students valued the opportunity to share their experiences with their colleagues in a safe environment. The GPs provided less feedback than the students, so these data are limited.

Group transcriptions

The transcripts provided a rich dataset, identifying many ethical dilemmas and situations the students had encountered that caused distress or other strong emotions. There were three main themes identified: (i) witnessing unprofessional behaviour; (ii) meeting difficult clinical scenarios for the first time; and (iii) the effects of medical hierarchy on students. Within each theme, there were several sub-themes. These are outlined with representative quotes in Table 2.

Triangulation of the evidence

Qualitative data from questionnaires and transcriptions demonstrated that the students use the group activity to discuss many emotionally challenging issues. The transcripts similarly provided evidence that during the groups, the participants were using the professional skills of empathy, humanism, reflection and compassion. They affirmed values that would enable them to build their own professional identities.

Discussion

The study results indicate that the students took this opportunity to share emotional issues, with many different issues discussed. Most students valued the activity both in terms of its educational value and its use for future practise. This practice was confirmed by the GP facilitators. Reflection about emotional challenges was not something the students did regularly on their own without facilitation. The results demonstrated that the students were using professional skills, including reflection, compassion, empathy, mindfulness and humanism, while participating in the group discussions.

How results relate to what is already known

Students provided more positive feedback about the reflective groups than reported in some other studies.[14,16] Contributing factors may be the non-judgemental format, which has been shown to promote good learning;[17] it is not summatively assessed;[18] there is no requirement for preparatory work;[19,20] and insights that colleagues might hold different viewpoints from their own.[21] Facilitation by the GP facilitators, explaining the benefits of reflection,[22] and providing guidance and feedback,[23–27] may be a factor in students valuing the experience, and the deep level of sharing indicates they felt safe to expose themselves,[28] despite other work suggesting such groups require time to get to

Table 2. Themes and subthemes from the transcribed groups

Themes / sub-themes	Examples
Witnessing unprofessional behaviour	
Bullying	'X terrorises you until you apologise.' [GO] 'X would shout at me in front of the patients.' [GB] '[surgeon says] Let's face it you are far too attractive to be a surgeon or a doctor generally.' [GB] 'Registrars bullied to the point of crying.' [GO]
Breaking bad news badly	'The support person and the patient were distressed [by the way a senior doctor delivered bad news].' [GI]
Being left by senior staff to carry out clinical procedures unsupervised	'Feeling betrayed and anxious to be placed so far out of our comfort zone.' [GO] 'Patients not able to give proper consent because we were standing there with our trolleys all ready to start suturing it was very hard for them to say no.' [GO]
Uncoordinated and uncooperative approach to patient care	'No one considered how the patient was feeling [and the care which they were receiving was not collaborative].' [GA]
Unprofessional behaviour of medical students	'Irresponsible use of Facebook by some students sort of celebrating the fact that people are so ill.' [GA]
Meeting difficult clinical scenarios for the first time	
Patients dying	'Your heart goes out to this person you want to help can't really do anything.' [GJ] 'Seeing a young person have such an advanced stage of disease… realising that she's on the sort of end of her road in life's journey, and is aware of that but is making the most of what is happening at the time made me think afterwards.' [GJ]
Request for termination of pregnancy	'I wasn't sure of what info I should be gathering… pretty intense because I have never been in that sort of thing before.' [GK]
Long-term patient stay	'A long stay in hospital may result in a patient forgetting the simple things like having the breeze on you.' [GQ]
The angry patient	'The patient didn't think I knew what I was doing.' [GC]
Child sexual abuse cases	'[dealing with sexual abuse as it was occurring] that is pretty heavy.' [GM]
Knowing a patient socially	'And then bumped into an old school classmate probably, so that was a new experience to see someone I knew unexpectedly as a patient. And also probably, you know, one of the more sensitive things to see someone on a psychiatry ward. So yeah, I had to talk to him, I didn't really know what to do.' [GD]
Witnessing patient abuse by their relatives	'And he just screamed at her, wear your scarf. And I'm like, she can't move her arms, she's not supposed to move her neck I was really angry inside. I'm like what are you saying you don't even care if she is ok or not. But I couldn't do anything.' [GB]
Hierarchy and its effect on the medical students and their training	
The vulnerability of the medical student learner	'Something wrong has happened and it is frustrating that you cannot do something.' [GQ] 'Our teachers are our future employers.' [GN]
The power of the patient	'I shouldn't have to talk to a medical student you don't know what you are doing.' [GP]
The vulnerability of the patient	'Hard for them to come forwards …health may be compromised if they attack the person they are relying on.' [GN]

*Groups were labelled as Groups GA to GQ for anonymity purposes.

know one another.[29] The realisation that other students have similar experiences to their own was acknowledged to be helpful.[30] Students' high satisfaction rates may be because they found the reflective group relevant and meaningful.[28,31] The themes discussed in the groups are similar to others described in the literature.[30,32–34]

While the use of these reflective activities may help develop a professional identity, there is no one definition of professionalism, and context matters. In the modern age, core components of professionalism can be considered to be expert knowledge and skills; self-regulation following ethical principles; a sense of altruism and selflessness; meaningful

engagement with the public; and self-reflection and mindfulness.[35,36] There may be changes to the balance of these elements in different eras; for example, the current generation of medical students may wish to 'do good work', but they value their work–life balance and their altruism may not extend to 'subordinate their own interests to the interests of other', an earlier characteristic of medical service.[37] However, self-reflection, the personal equivalent of peer review, remains an essential condition for professionalism.

Strengths and limitations

Strengths of the study include the high student and group response rate, the triangulation of datasets, data collection that elicited students' voices, and the support given by the GP facilitators to the project. A limitation was that not all GPs completed the questionnaire, although they did consent to audiotaping of their groups.

Implications

The findings of bullying on the wards and lack of measures to obtain adequate patient consent have implications for clinical practice. Bullying is clearly a problematic issue for students, given their position at the bottom of the medical hierarchy. The identification of bullying can inform actions towards cultural change. Adequate patient consent is one of the pillars of professionalism, highlighting the principle of doing no harm to patients. Reflective groups can offer an opportunity for students to safely discuss bullying they have witnessed or experienced, as a first step to addressing this.

Engaging in this reflective activity about emotional challenges can help students develop mindfulness in their clinical practice, to identify situations where they experience emotional challenge or disquiet, examine what has happened and what they may learn from this. They are encouraged to incorporate this reflexivity into their daily practise. These activities could be reinforced by being further incorporated into the medical school curriculum. Specialities other than general practice could similarly introduce reflective groups. Embedding reflection as part of clinical practice may reduce burnout and impact positively on workforce retention. Future research could examine various aspects of such groups and the contributions they bring to learning professionalism.

Conclusion

The consistent themes addressed in these reflective groups create an opportunity for formal education around these issues to be incorporated into the curriculum. To develop doctors who are well and who can lead the medical profession, medical schools need to create an environment where students can develop into ethical and professional doctors. The use of such groups could form part of the solution.

Competing interests

The authors declare no competing interests.

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