


# BMJ Open Mindfulness-based cognitive therapy experiences in youth with inflammatory bowel disease and depression: findings from a mixed methods qualitative study

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## ABSTRACT

**Objectives** Mindfulness-based cognitive therapy (MBCT) is effective in treating psychosocial comorbidities in inflammatory bowel disease (IBD); however, there have been no qualitative studies of MBCT experiences among youth with IBD. We aimed to examine the experiences of youth with IBD and depression who completed an adapted MBCT group programme, and the impact of common psychotherapy and group factors.

**Design** This mixed method qualitative study, nested within a randomised controlled trial (RCT) of MBCT for youth with IBD, employed thematic analysis of qualitative data from three focus groups and open-ended survey questions.

**Setting** The study was conducted in the outpatient department of a tertiary hospital for young adults in Brisbane, Australia.

**Participants** Out of sixty-four adolescents and young adults recruited to the RCT of MBCT for youth with IBD and depression, 29 completed the MBCT evaluation survey and 19 attended the focus groups.

**Results** Four key themes emerged: 'connectedness and shared understanding', 'growing in wisdom', 'therapeutic alliance' and 'barriers to mindfulness practice'.

Participants described MBCT experiences as healing and transformative with the themes of connectedness, growing in wisdom and therapeutic alliance laying the foundation for therapeutic change. Main barriers included fatigue, depression, time and travel constraints.

**Conclusions** The study identified key themes facilitating the process of therapeutic change within the MBCT programme for youth with IBD and elucidated common and group psychotherapy factors underlying the key themes. Participants perceived connecting with peers as essential for learning mindfulness skills which in turn strengthened the connection. Study findings will facilitate interpretation of the results of the RCT of MBCT in youth with IBD and inform the design of future studies of MBCT in this cohort.

**Trial registration number** ACTRN12617000876392; Results.

## Strengths and limitations of this study

- This qualitative study is the first to investigate mindfulness-based cognitive therapy (MBCT) experiences in youth with inflammatory bowel disease.
- It is also the first study that explored the role of common and group therapy factors within MBCT in this cohort.
- Study validity was strengthened by data and investigator triangulation and participant checking.
- One of the researchers conducting thematic analysis also participated in the recruitment and observed focus groups which may have influenced participants' responses and researcher's observations.
- Study findings will help inform the design of future larger studies of MBCT in this patient group.

## INTRODUCTION

### Background

Inflammatory bowel disease (IBD) is a chronic immune-mediated disease of the gastrointestinal tract with frequent extraintestinal manifestations and high rates of comorbid mental health conditions.<sup>1,2</sup> Individuals with IBD have two to three times higher rates of depression and anxiety than general population,<sup>3,4</sup> and increased rates of fatigue, pain and trauma-related symptoms.<sup>5-7</sup> There is considerable evidence that mental health comorbidities can worsen the course of IBD, precipitate flares and significantly impair quality of life in individuals with IBD.<sup>3,8,9</sup> There is also increasing evidence supporting the bidirectional interaction between IBD and mental health comorbidities,<sup>10,11</sup> through the microbiome-gut brain axis,<sup>12-14</sup> mediated by stress, underlying inflammation and other environmental and intrinsic factors.<sup>15-17</sup>

Early recognition and treatment of psychosocial comorbidities within an integrated model of care<sup>18</sup> is especially important in youth with IBD, as the peak incidence of IBD

occurs in adolescence and young adulthood,<sup>19 20</sup> causing interruption in a key developmental stage and impairments in multiple areas of functioning.<sup>21</sup> Timely and comprehensive interventions in adolescents and young adults (AYAs) with IBD may therefore provide both immediate and long-term improvement in their health, as well as their psychosocial adjustment, relationships, education, employment and other important areas.

### **Mindfulness-based programmes, inflammatory bowel disease and depression**

Mindfulness-based programmes (MBPs) are therapeutic programmes based on core mindfulness principles and experiential learning through sustained training in formal and informal mindfulness practices.<sup>22</sup> They are increasingly incorporated in the integrated treatment of IBD as they are effective in treating depression, mitigating stress and improving quality of life, as well as attenuating the underlying immune system abnormalities and disease activity.<sup>23–26</sup>

Mindfulness-based stress reduction and mindfulness-based cognitive therapy (MBCT) are two MBPs that have a strong evidence base and have been successfully used in the treatment of individuals with IBD.<sup>24 27 28</sup> The MBCT programme used in this study is an 8-week group mindfulness programme that closely follows the original MBCT curriculum<sup>29</sup> and has been adapted for both IBD and youth. Modifications include the following: youth-friendly poetry; the role of stress in flares and the gut-brain axis; shortened meditation practices and adapted mindful movement postures to accommodate fatigue and pain and fun postcards to facilitate naming mind states. Although mindfulness interventions have been used successfully in adults with IBD,<sup>24 28 30</sup> there has been only one study exploring feasibility and acceptability of a mindfulness-based group intervention in adolescents with IBD<sup>31</sup> and one qualitative study of adult IBD sufferers' perceptions of an MBCT programme.<sup>32</sup>

### **Common psychotherapy factors and group factors in mindfulness training**

Common psychotherapy factors are defined as therapeutic elements that are present in many therapies and contribute to their benefits and relative therapeutic equivalence.<sup>33–35</sup> Common examples include the therapeutic alliance, therapy rationale and expectations, enactment of adaptive actions, exposure and sense of mastery.<sup>36 37</sup> Group factors are key contributors to change in psychotherapeutic, educational and support groups.<sup>38–40</sup> The following eleven are modified from the work of Yalom: instillation of hope; universality; imparting information; altruism; corrective recapitulation of the primary family unit; development of socialising; imitative behaviours; interpersonal learning; group connection; emotional expression and existential factors.<sup>38</sup>

Common and group psychotherapy factors are closely aligned with key mindfulness principles and attitudinal foundations of non-judging, patience, beginner's mind,

trust, non-striving, acceptance and letting go,<sup>41</sup> and mindfulness itself may be one of the core common factors.<sup>42</sup> Despite these close links, there has been only one study of common factors in an MBCT programme for headache that used quantitative methodology<sup>43</sup> and none of group factors. The present mixed methods qualitative study is therefore the first to explore experiences of MBCT in AYAs with IBD and the role of common and group factors in MBCT in this patient group.

### **Objectives**

The aim of the study is to explore experiences of AYAs who attended an IBD-tailored and developmentally informed MBCT group programme. A secondary objective is to investigate the role of common psychotherapy and group factors within the MBCT programme.

## **METHODS**

### **Study design**

This is a mixed methods qualitative study embedded within the randomised controlled trial (RCT) of an adapted MBCT programme for AYAs with IBD and depression.<sup>44</sup> The study explored experiences of AYAs who participated in the MBCT programme. The study design adheres to the standards for reporting qualitative research<sup>45</sup> and consolidated criteria for reporting qualitative research guidelines,<sup>46</sup> as presented in online supplemental file 1 and the study protocol.<sup>47</sup> Qualitative data were collected from focus groups and free-text questions from the post-MBCT evaluation survey. Two researchers analysed the data independently, using thematic analysis framework.<sup>48</sup> Combining qualitative data from different data sources and using two researchers for coding and analysis enabled data and investigator triangulation.

### **Participants, recruitment and sampling**

Participants for the study were recruited from the 64 participants in an RCT of MBCT for AYAs with IBD who completed the MBCT course and a post-MBCT evaluation survey. Recruitment commenced in June 2019, after the second MBCT group, to ensure sufficient participant numbers. Sampling for the focus groups was purposive and consecutive and continued until the researchers conducting thematic analysis agreed that no new relevant knowledge was being obtained indicating thematic saturation, which occurred after the third focus group, in December 2019. Twenty-nine participants returned the post-MBCT evaluation survey and nineteen took part in the three focus groups. [Table 1](#) shows participants' basic demographic and clinical information.

### **Focus groups**

Three focus groups were conducted in an outpatient facility, with seven participants attending each of the first two focus groups, and five participants attending the third, in keeping with the current guidelines for focus groups.<sup>49 50</sup> Focus groups were conducted according

**Table 1** Participants basic demographic and clinical characteristics

Baseline	
Age (years) (n, mean, SD)	n=29, Mean age=21 (7.72)
Gender F (n, %), M (n, %)	F=16 (55.2%), M=13 (44.8%)
Disease type	
Crohn's disease (n, %)	19 (65.5%)
Ulcerative colitis (n, %)	10 (34.5%)
Marital status	
Single (n, %)	16 (55.2%)
Committed relationship-not living together (n, %)	5 (17.2%)
Married/cohabitating (n, %)	7 (24.1%)
Divorced/separated (n, %)	1 (3.5%)
Education level	
High school (n, %)	5 (17.2%)
Diploma (n, %)	17 (58.6%)
Degree or above (n, %)	7 (24.2%)
Current employment/education status	
Employed	5 (17.2%)
Student	11 (38.0%)
Employed and studying	13 (44.8%)
Not employed/not studying	0 (0%)

to recommendations from Krueger and Casey's focus groups guide.<sup>51</sup> They were run by the moderator and an assistant, with an observer behind the one-way mirror. The moderator (AH) was a psychologist with training in qualitative research and experienced in running focus groups, the assistant was the study research assistant with a public health degree and the observer (TE) was the study principal investigator, a psychiatrist with training in qualitative research.

All three focus groups followed the same questioning route, summarised in Textbox 1 (see online supplemental file 2). Focus groups were audiotaped and transcribed verbatim. Participants were given the opportunity to review focus group transcripts and the preliminary results of thematic analysis and asked to comment and report any disagreements.

#### Mindfulness-based cognitive therapy evaluation survey

All participants who completed the course were asked to fill out the post-MBCT evaluation survey (see online supplemental file 3). The survey contains a mixture of closed and open-ended free-text questions exploring participants' experiences, perceived barriers and benefits of the programme and suggestions for improvement. As noted in previous research, combining qualitative data from focus groups and open-ended survey questions

provided a rich dataset, enabled data triangulation<sup>32</sup> and broader insights into participants' experiences.<sup>52</sup>

#### Data analysis

Qualitative data from focus groups and open-ended survey questions were analysed using thematic analysis, a flexible and rigorous qualitative research method for analysing and generating key themes and insights.<sup>48</sup> An inductive thematic analysis approach was used given the exploratory nature of the study.

Two research team members (AH, TE), familiarised themselves with the data and individually and separately developed initial codes and themes, following the recommendations from Saldaña's Coding Manual for Qualitative Researchers.<sup>53</sup> Coding was done manually, using double-spaced format and 'comments' function in Microsoft Word, which placed text in the left two-thirds of the page and created a wide right-hand margin for writing codes and notes. In the first coding cycle, the researchers independently developed and tested initial codes on the subsection of data, created a codebook and then discussed the initial codes and themes, rectifying any differences. In the second coding cycle, researchers continued to refine the codes, applied them to the full dataset and grouped them, looking for emerging relevant themes. The two researchers discussed the codes, categories and themes until they reached an agreement on the interpretation and continued to work with the data until no new themes were being identified, signalling thematic saturation.

#### Reflexivity statement

Research team members reflected throughout the study on the impact of their background, training, beliefs and relationship to the research topic and participants on the research process. Four of the research team members have medical training, three specialising in psychiatry (SK, MK, TE) and one in gastroenterology (JB), while two are allied health professionals, a psychologist (AH) and occupational therapist (MT). One of the researchers (TE) had lived experience of caring after a close family member with IBD. Three of the research team members have teacher training in MBCT and longstanding personal mindfulness practice (MK, MT, TE), one of them is the MBCT group facilitator (MT). One of the researchers who conducted thematic analysis (TE) was also involved in recruitment and observation of the focus groups which may have influenced participants' responses and researcher's observations and was mitigated by the researcher's and team reflexivity.

#### Patient and public involvement

Patients' views informed the study design and focus groups questioning guide. They were obtained during the study conception from AYAs from Mater Consumer Youth Consultancy Group members. Participants were not formally involved in recruitment or data analysis although many referrals came through recommendations from previous participants. Study findings will be

disseminated to all participants as a lay summary, through this publication and presentations at consumer consultancy forums.

## RESULTS

Four themes emerged from the analysis of the qualitative data from focus groups and free text survey questions: 'connectedness and shared understanding', 'growing in wisdom', 'therapeutic alliance' and 'barriers to mindfulness practice'. Thematic map illustrating the relationships between the key themes and subthemes is shown in online supplemental file 4. All the key themes contained inter-related subthemes and corresponded to various common and group psychotherapeutic factors which is elaborated in the discussion section. Table 2 shows the list of all the key themes and subthemes and their representative quotes.

### Connectedness and shared understanding

The theme of 'connectedness and shared understanding' contained three interlinked subthemes: 'meeting and connecting', 'validation, practical and emotional support and understanding' and 'emerging hope'. Participants consistently spoke about the importance of connecting with peers and described mindfulness group as a vehicle for peer-to-peer connection. Table 1 in online supplemental file 5 shows connectedness and shared understanding quotes.

### Meeting and connecting

Participants identified meeting and connecting with peers with IBD as one of the key benefits of the programme and a necessary foundation for practicing mindfulness, 'Like the mindfulness came second and the connection came first' (MIND 1). They described meeting and connecting with peers as an experience of freedom to express themselves, often after a long period of IBD-related isolation: 'a trial where you can actually be a person, so you feel freer to talk about your experiences in the trial itself. It helps us get the most out of the group, I think. It has been created for us. Because we're more like friends, not just colleagues' (MIND 25).

### Validation, practical and emotional support and understanding

Young people with IBD gave detailed accounts of validation, support and understanding that they experienced within the MBCT group. They often described these experiences as profound and yet easy and natural to them, making them feel supported and no longer alone: 'I think that it comes back to the validation where it's like it's confirmed, other young people have it, I'm not alone' (MIND 25).

Many participants contrasted the ease and spontaneity of support from their peers with mindfulness practices, which in their view, required more sustained effort. However, they felt that they needed and benefitted from both, 'I don't think you could have one without the

other—I feel like you need both, but I think meeting people is probably more of an immediate kind of a quick fix, it's just a great support, whereas the mindfulness is like tools that we have to learn and teach and we need to do work to make them work, whereas making friends isn't work' (MIND 28).

### Emerging hope

A subtheme of emerging hope came both out of participants' direct reports of feeling more hopeful and indirect reports of a positive and hopeful outlook: 'it gave me the ability to enjoy life even with its difficulties' (MIND 42) and 'I learned how to appreciate the small things and how amazing life is' (MIND 37). They spoke about mindfulness as a 'gathering point where people could come together and talk about their experiences' (MIND 1) and how lucky they were to get the opportunity to practice mindfulness.

This was reflected in participants' posture and drawings on the evaluation survey such as multiple smiley faces or a unicorn.

### Growing in wisdom

The theme 'growing in wisdom' emerged from a synthesis of participants' reported improvements following the programme. This included subthemes of 'healing and compassion', 'acceptance and mastery' and 'purpose and meaning'. Participants reported that their relationship with themselves, their condition and their environment changed as a result of attending the MBCT group. They described increased self-acceptance and compassion to others which they viewed as catalysts for healing. The MBCT group helped them find purpose and meaning within their difficulties. Table 2 in online supplemental file 6 shows the growing of wisdom quotes.

### Healing and compassion

Most participants described a newfound sense of compassion and kindness towards themselves and others, 'to have this ability to have a new insight on how to approach things with a more kind manner is a major step up for me' (MIND 42) and linked it with self-acceptance and acceptance of having IBD, 'I think the group actually helped me accept it a lot more, as well as what's going on with me and how that affects my life and other people' (MIND 18) and increased confidence in their ability manage their illness and general coping, 'I feel that I have tools to cope when life is challenging' (MIND 7). Participants' accounts highlighted the close links between the subthemes of 'healing and compassion', 'acceptance and mastery' and 'purpose and meaning' and how they worked together within the process of transformation and personal growth.

### Acceptance and mastery

Overwhelmingly, participants gave detailed accounts of their changing perspectives and increased acceptance of their illness, themselves and their environment, 'I think the group actually helped me accept it a lot more as well as what's going on with me and how that affects my life

**Table 2** Key themes and subthemes and their representative quotes

Themes	Subthemes	Representative quotes
Connectedness and shared understanding	Meeting and connecting	<p>'It was so nice to meet other people who have been diagnosed, that was the best part for sure'. (MIND 7)</p> <p>'Like the mindfulness came second and the connection came first'. (MIND 1)</p> <p>'I didn't have many friends because I had to drop out of school, so I didn't really make many friends in high school or in primary school, so this is good'. (MIND 16).</p>
	Validation, practical and emotional support and understanding	<p>'Even over in the infusion centre and stuff, it's all obviously older people, so it was good to meet people our own age, because we have same experiences, we sort of related to each other'. (MIND 18)</p> <p>'As soon as anyone says anything, we're all like, "Oh my God, yes, validation, you feel the same and thank God you agree with that." Because sometimes you sit with a doctor and they're like, "Yeah, okay, yep. How are we going to manage that?" It's kind of like, "Do you trust me, do you believe me? Am I just making it up, am I whinging too much?" And so when you're with other people, it's that validation that's really important'. (MIND 1)</p> <p>'Yeah, like it's an immediate support whereas the mindfulness is like tools that we have to learn and teach, and we need to do work to make them work really whereas making friends isn't work, if you know what I mean. It's just support, it's pure support'. (MIND 7)</p> <p>They'd be able to say, 'Oh, yeah, I understand what that's like, have you tried this or diets or those sorts of things, like helpful tips'. (MIND 25)</p>
	Emerging hope	<p>'Drawing out links between activity and mood seemed to provide the group with a sense of hope'. (MIND-M1)</p>
Growing in wisdom	Healing and compassion	<p>'I think this course has opened a door to a path of healing for myself. Thank you!' (MIND 7)</p>
	Acceptance and mastery	<p>'But having the knowledge, even though I don't necessarily have to reach for those strategies all the time, knowing that I have them there, I think, it gives me a sense of steadiness that I can actually deal with problems that would come up, as opposed to just hoping for the best'. (MIND 8)</p> <p>'I think the group actually helped me to accept it a lot more as well. What's going on with me and how that affects my life and other people as well'. (MIND 18)</p>
Therapeutic alliance	Purpose and meaning	<p>'Being part of the group probably has given me some sort of purpose or meaning to my life, there's something to be discovered'. (MIND 25)</p>
	Embodiment of mindfulness Therapist's relational qualities	<p>'Just her voice kind of sets everyone at ease as well because there's no expectation or judgement behind anything she says'(MIND 62).</p> <p>'She was very understanding, listened to each of us fully, yeah, and really like no one judging either, because she genuinely wanted to hear about what was going on with us. Yeah, interested. She'd always try and fill in gaps waiting for someone to fill it and the questions. She was so cute. She was okay with us swearing, as well. It wasn't like a classroom. It was very relaxed. It felt good and free to be ourselves'. (MIND 47)</p>

Continued

Table 2 Continued

Themes	Subthemes	Representative quotes
Barriers to mindfulness practice	Barriers to mindfulness practice, external, internal and practice-related	'A couple of us have physical problems and physical pain and things like that. I found myself using the pillows quite a lot, so if the chairs had been overall, more cushiony and that sort of thing, that could've been better.' (MIND 8)
	Isolation and shame of an invisible disease	'Parking is \$30 for the 2 hours. We are young, we are poor. And we have pride'. (MIND 39) 'I feel there's a real lacking, especially because it's an invisible disease, it's not like we're walking around with crutches or something like that, so to meet someone that you would have no idea, you'd walk past someone in the street and you'd have no idea.' (MIND 1) 'I was so embarrassed, so scared, wouldn't tell anyone.' (MIND 7) 'If I never done the group, I feel I probably would have got sick. Probably isolate myself, not talk about it, just keep to myself and just ignore everyone, the world and just live in my own little bubble and I'd probably get sick and have flare ups because of all that overthinking'. (MIND 40)

and other people' (MIND 18) and how this attitude of acceptance and 'allowing things to just be' (MIND 9) led to developing and mastery of new skills, 'I am more aware of my thoughts and feelings, I have noticed how I can slowly implement strategies into my life that can lead to mindful actions rather than emotional reactions' (MIND 27).

#### Purpose and meaning

Some participants reported that MBCT group helped them change their whole outlook on life, 'I feel like it has helped me manage and take a different stance both on life and how to deal with certain situations' (MIND 1) and connect to their own sense of purpose and meaning, 'being part of the group probably has given me some sort of purpose or meaning to my life, there's something to be discovered' (MIND 25) and a sense that they were also a part of a larger community helping find new ways of treating IBD.

#### Therapeutic alliance

Participants reported that their relationship with the MBCT group facilitator and facilitator's qualities impacted positively on their group experience and their motivation to continue practicing. Therapeutic alliance emerged as one of the major themes, with subthemes of 'therapist's relational qualities' and 'embodiment of mindfulness'. Table 3 in online supplemental file 7 shows therapeutic alliance quotes.

#### Therapist's relational qualities

Participants spoke about facilitator's personal qualities of compassion and patience, but also conveyed their appreciation of the way she interacted with them, 'she was very approachable and warm, and I am appreciative that I never felt pressured to do anything I felt uncomfortable by; her insight and patience allowed me to give 100% effort into the session' (MIND 34).

#### Embodiment of mindfulness

Participants found that therapist's empathy, understanding and genuine interest were connected with her embodiment of mindfulness qualities which they felt engaged them and allowed them to express themselves freely, 'she was very understanding, listened to each of us fully, yeah, and really like no one judging either, because she genuinely wanted to hear about what was going on with us. Yeah, interested. She'd always try and fill in gaps waiting for someone to fill it and the questions. She was so cute. She was okay with us swearing, as well. It wasn't like a classroom. It was very relaxed. It felt good and free to be ourselves' (table 2, quote 14).

Many participants used humorous language and symbols to describe the facilitator such as 'Amazeballs!' (MIND 43) and reported that the facilitator was a good fit for the group, 'She was perfect for the course—Amazing woman!' and helped them transform their lives, 'She has really helped me change my life and I am so grateful to her' (MIND 28).

### Barriers to mindfulness practice

Barriers to ongoing mindfulness practices emerged as a key theme with the subthemes of 'internal, external and practice-related barriers' and 'isolation and shame of an invisible disease'. Table 4 in online supplemental file 8 shows the barriers to mindfulness practice quotes.

Participants identified low mood, overthinking, fatigue and pain as the most common internal barriers, 'Forgetfulness and legit depression were the barriers' (MIND 8). Lack of time was the main external barrier since the majority of participants were working or studying. Practice-related barriers included the length of the practices, 'the meditations that ran longer than 15 minutes were hard to follow for me. Still were helpful though' (MIND 59) and the type of formal practice, especially body scans, 'the really long body scans—too hard to focus for that long' (MIND 8). Interestingly, most of the participants found mindfulness of the breath helpful, especially the 3 min breathing space, and also informal mindfulness practices such as mindful walking.

Some participants reported travel time and parking costs as barriers. The majority identified isolation and embarrassing symptoms as barriers before starting the group, and being alleviated through attending the group, 'shame is like a big deal, but actually since joining the group, being less' (MIND 7).

### DISCUSSION

This study examined experiences of AYAs with IBD who attended an MBCT group programme, and the role of common and group psychotherapy factors within the programme. While there have been numerous effectiveness studies of mindfulness interventions in IBD, this is the first study exploring MBCT experiences in AYAs with IBD and the first qualitative study investigating the role of common psychotherapy and group factors within MBCT.

The study findings indicate that AYAs with IBD highly value social connection and support provided by their peers and consider them essential for practicing mindfulness. This is aligned with mindfulness teaching philosophy of being taught in groups and conceptualised as experiential and relational with group members learning in relation to each other, in relation to the group and the teacher.<sup>54</sup> It raises the question as to whether AYAs would get the same benefits if mindfulness skills were taught within the context of individual therapy. The importance of peer connection is reflected in the key theme of 'connectedness and shared understanding' and its subthemes which correspond to group factors of group cohesion, altruism, interpersonal learning, imparting knowledge and instilling hope. Our findings are supported by previous research showing that individuals suffering from IBD seek to share experiences with others who are affected by IBD,<sup>55</sup> and a meta-synthesis of qualitative studies which identified the impact of the MBCT group as one of the key themes underlying therapeutic change.<sup>56</sup> Our findings extend the MBCT group

impact to include its specific components of validation, shared understanding and emerging hope and highlight their connection to group psychotherapeutic factors of group cohesion, socialisation, imparting knowledge and instilling hope.

We found that AYAs with IBD perceived the MBCT groups conducive to personal growth and transformation as depicted in the key theme of 'growing in wisdom' and its subthemes of 'healing and self-compassion', 'acceptance and mastery' and 'purpose and meaning' which correspond to the common factors of 'exposure and sense of mastery', 'enactment of adaptive actions' and 'existential factors'. These findings are in keeping with the themes of feeling towards the self, awareness and acceptance and taking control through understanding that were found in the meta-synthesis of qualitative studies examining the process of therapeutic change in MBCT in other patient groups.<sup>56</sup> The findings are also supported by two recent systematic reviews of psychological mechanisms of MBCT that reported strong evidence for reducing cognitive and emotional reactivity and preliminary evidence for self-compassion.<sup>57</sup> Our findings further elaborate on the MBCT factors of change in AYAs with IBD and link them to the corresponding common and group psychotherapeutic factors.

The study findings also demonstrate the importance of the therapeutic alliance in the MBCT group programme given participants consistently gave positive feedback about the group facilitator and her role in engaging them in mindfulness practices and facilitating their personal growth. These features of the facilitator and therapeutic relationship are reflected in the main theme of 'therapeutic alliance' and its subthemes of 'embodiment of mindfulness' and 'therapist's relational qualities' which are linked to mindfulness teaching competence factors of 'embodiment of mindfulness' and 'relational skills'.<sup>58 59</sup> that belong to the six core competence domains and are considered crucial for the mindfulness-based teaching integrity.<sup>60</sup> They correspond to the common factors of therapeutic alliance and therapist's effects.

Main barriers were participants' study and work commitments, their health issues, such as depression, and fatigue and practice-related factors. The barriers were somewhat different from the previous study of MBCT experiences in adults as AYAs placed more emphasis on the internal barriers followed by time constraints and practice-related barriers such as long formal practices especially body scans. They expressed strong preference for short formal practices such as the 3 min body scan and informal practices. These findings will help refine content of future MBCT programmes in AYAs with IBD with most pertinent adaptations involving shorter formal practices and encouragement of informal practices. Importantly, participants identified that IBD-related isolation and shame they experienced as barriers prior to joining the MBCT group were alleviated and reframed through the group participation. This extends previous research on the impact of shame and isolation in IBD population.<sup>55 61</sup>

and has both clinical and research implications as MBCT-related alleviation of these symptoms is likely to lead to significantly improved quality of life in AYAs with IBD. Furthermore, they may benefit from recruitment strategies that are considering these symptoms and participating in MBCT groups that are specific to IBD youth.

These findings need to be considered in the context of the study limitations. One of the study limitations is related to the relatively small sample size potentially affecting the generalisability of results; however, given the study aims, specificity of the sample and a rich dataset, this sample size has been able to provide adequate information power about the phenomena explored and this patient group.<sup>62</sup> Another limitation is related to one of the researchers conducting thematic analysis being involved in the recruitment and observation of the focus groups and potentially influencing the findings. This was mitigated by the data and investigator triangulation, participant checking of the focus group transcripts and the results of thematic analysis as well as researcher's and team reflexivity which strengthened the study validity.

## CONCLUSION

This qualitative study of MBCT experiences and common and group factors within an adapted MBCT group programme for youth with IBD found MBCT to be well accepted and perceived as effective. The core themes of connectedness and shared understanding, growing in wisdom and therapeutic alliance were linked to the corresponding common and group therapy factors. The study identified key barriers to ongoing mindfulness practice in AYAs with IBD and their key clinical and research implications, thus contributing to the clinical applicability of MBCT in this population. The study findings will facilitate interpretation of the results of the RCT of MBCT in AYAs with IBD and help inform the design of future larger studies of MBCT in this patient cohort.

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