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# Yoga-integrated psychotherapy for emotion dysregulation: A pilot study

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## Abstract

**Aims & Objectives:** Yoga has been evidenced as beneficial for physical and mental health. This study sought to pilot the acceptability and feasibility of a yoga-integrated psychotherapy (YiP) intervention, aimed at alleviating difficulties in emotion regulation. A further aim was to explore the perceived effectiveness of YiP in alleviating depression, anxiety and improving well-being.

**Methods:** Seven participants who scored significantly on the Difficulties in Emotion Dysregulation Scale (DERS) took part in a psychological assessment session followed by six weekly one hr therapy sessions. Participants completed self-report measures in each session to quantify the effects of each YiP session on emotion regulation, well-being, depression and anxiety. Following seven sessions, five participants completed qualitative follow-up interviews to explore subjective experiences of YiP and any perceived impacts.

**Findings:** An ANOVA that contained data from seven participants who completed all six sessions revealed that DERS scores were significantly lower, and well-being scores were significantly higher, at both mid and end-points than at baseline. Thematic analysis of qualitative interviews identified five themes: "YiP assists the client's psychological and emotional processing," "YiP improves insight and focus," "YiP is culturally sensitive," "the body facilitates regulation and resilience" and "YiP is acceptable & impactful."

**Conclusion:** The study presents promising findings for the integration of yoga into psychotherapeutic practice and indicates that YiP may have beneficial effects on emotion regulation and psychological well-being. Future research should use randomised controlled methodologies to examine the ability of YiP to alleviate a wide range of affective symptoms using a larger sample of participants.

## KEYWORDS

emotion dysregulation, mind-body approach, psychotherapy, therapy models, yoga

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## 1 | INTRODUCTION

Mind–body interventions are aimed at working towards an integrated mind–body system, where top-down and bottom-up psychological emotional processes behave synchronously. Importantly, the use of such interventions to treat mental health issues has become increasingly common over the last few decades (Vancampfort et al., 2021). Mind–body interventions aimed at working at a physical and mental level have been successfully integrated into psychological talking therapies. Such techniques include yoga (Khalsa et al., 2015), mindfulness (Kabat-Zinn, 2003) and breathing techniques (Brown et al., 2013). Evidence suggests that these practices can positively influence the autonomic nervous system to help individuals successfully regulate their negative emotions (Büssing et al., 2012; Khalsa, 2013; Khalsa et al., 2015; Pascoe et al., 2017; Streeter et al., 2018). Recent advances in neuroscience have revealed the effects of vagal tone on mental distress (Pinna & Edwards, 2020), explicitly linking mind–body processes. Specifically, poly-vagal theory (PVT; Porges, 2009) advocates three internal states of body and mind that pertain in particular to victims of trauma, including social engagement, fight-flight and the freeze state, all of which are impacted by vagal activity and can be regulated through mind–body techniques (Sullivan et al., 2018).

### 1.1 | Yoga for physical and mental health

Yoga practice has been evidenced as beneficial for a wide range of both physical and mental health issues (Khalsa et al., 2016). The definition of the Sanskrit term “yoga” translates as “to unite.” This pertains to the unification of body and mind through breathing exercises, postures and relaxation, shown to give rise to a sense of integration, deeper insight, self-regulation and well-being (Gerbarg et al., 2014). Contrary to popular understandings of yoga, the practice is not isolated to physical exercise but provides a holistic system, which positively influences bodily functions and psychological processes (Khalsa et al., 2016). Yoga can be understood as consisting of five to eight main practices, underpinned by ethical principles of self-control and discipline (Dylan & Muncaster, 2021). The most common practices include physical postures (*asana*), breathing techniques (*pranayama*), deep relaxation (*savasana*) and meditation (*dhyana*). The synthesis of these points provides practitioners with a unique multifaceted system and framework for achieving a balanced mind and good health (Desai, 1972).

Yoga practice has been found to be effective for a wide range of both physical and mental health issues, including the prevention and management of diabetes (Ramamoorthi et al., 2019; Thind et al., 2017), chronic pain (Hall et al., 2019) and depression (Cramer et al., 2017). Medical guidelines in the UK recently added yoga as a treatment for back pain (National Institute for Health and Care Excellence [NICE], 2006). Neuroscientific research reveals that yoga practice can influence the functioning of various neurotransmitter systems to improve social cognition and coping

### Implications for Practice and Policy

- Yoga is a promising mind–body technique in the treatment of emotion dysregulation and alleviating symptoms of depression, anxiety and improving well-being.
- Integrating yoga into psychotherapy is perceived as acceptable and feasible.
- Working with mind–body approaches may offer clients an alternative method of engaging in treatment, which is cost-effective with take-home skills.
- NICE guidelines could consider incorporating yoga into the treatment of mental health difficulties such as depression and anxiety and consider adopting the term emotion dysregulation to speak to a complex range of presenting symptoms.

with symptoms of depression (Streeter et al., 2018). A review on the effects of yoga found the practice decreased blood flow in the amygdala and increased grey matter (Desai et al., 2015). Studies related to mental health have evidenced yoga to be effective in alleviating difficulties in emotion regulation (i.e., emotion dysregulation; Daly et al., 2015), major depressive disorder (Cramer et al., 2017; Streeter et al., 2018), obsessive-compulsive disorder (Shannahoff-Khalsa & Beckett, 1996), post-traumatic stress disorder (PTSD; Van Der Kolk et al., 2014), panic disorder (Williams-Orlando, 2013), insomnia (Khalsa, 2004) and schizophrenia (Dodell-Feder et al., 2017).

Individuals can practice yoga in various ways, and research has recognised that not all yoga techniques may be appropriate for individuals suffering from mental health issues. Trauma-sensitive yoga practice has sought to work with this principle (Emerson, 2015), with positive reported outcomes for symptoms of PTSD (Wells et al., 2016). Similar to many psychotherapeutic models, yoga might have the potential to be adapted to meet individual needs and presenting issues.

Research to date mainly considers yoga as an adjunct to psychological therapy (Büssing et al., 2012; Van Der Kolk, 2014). However, it has been suggested that the effects of integrating yoga practice into a talking therapy model are limited, and therefore research examining such effects is needed (Khalsa et al., 2016; O'Shea et al., 2022). “Y-CBT” (Yoga-Cognitive Behavioural Therapy) has been developed to incorporate yoga into cognitive behavioural therapy (CBT) with reports of significant reductions in symptoms of generalised anxiety disorder (GAD; Khalsa et al., 2015). One of the aims of the current study was to adapt the principle of adopting yoga into other psychotherapeutic approaches, namely integrative psychotherapy (Messer, 1992), which can be delivered according to the needs of the presenting individual. To be successfully adopted into psychotherapy, yoga practice could aim to match the level of client experience of yoga, taking a trauma-sensitive approach for individuals presenting with severe emotion dysregulation.

## 1.2 | Emotion dysregulation

The limitations of diagnostic and classification systems such as the Diagnostic and Statistical Manual (DSM) are well-documented (Davies, 2022). The suggestion that these systems seek to adopt a descriptive approach to symptomology has been perceived to negate the individual's unique sense of feeling distressed (Bluhm & Tsou, 2019). By contrast, the term "emotion dysregulation" is not a symptom-specific diagnosis and has been posited as multidimensional, spanning various mental health issues (Gratz & Roemer, 2004). Specifically, the experience of emotion dysregulation is that of intense and uncontrollable emotions and is most commonly observed in individuals who have suffered interpersonal and/or complex trauma (Van Der Kolk, 2014). Therefore, models of therapy for individuals presenting with emotion dysregulation could engage a greater variety of clients across diagnostic categories.

## 1.3 | The current study

This pilot study had two primary aims: the first aim was to collect data to inform the acceptability and feasibility of integrating yoga with psychotherapy and the second aim was to assess the objective and subjectively perceived effectiveness of six weekly sessions of yoga-integrated psychotherapy (YiP) on reducing symptoms of emotion dysregulation and improving well-being. These factors were determined via quantitative self-report measures and qualitative interview measures. Qualitative measures are adept in assessing subjectively perceived effectiveness, as experienced by participants. A secondary aim was to gather data to inform the development of the YiP model. It was hypothesised that YiP would reduce symptoms of emotion dysregulation and improve well-being. The research questions for the qualitative component were focussed on what clients found helpful and unhelpful; how clients experienced a yoga-integrated model of psychotherapy; and how clients perceived changes in their presenting symptoms, if any.

## 2 | METHODS

Ethical approval was granted by the University of Roehampton's research ethics committee, and all sessions took place at the CREST Therapy and Research Clinic at the University of Roehampton. The clinic is a fit-for-purpose therapy centre, with two rooms for psychological therapy and a waiting room. Informed written and verbal consent was obtained from all participants in the assessment session, and consent forms and other personal data were stored separately from audio files or pseudonymised data, in accordance with GDPR guidelines and as recommended in the university's data protection guidance. A participant information sheet and a data privacy notice for research participants were offered to each participant, with an opportunity to ask questions with regard to confidentiality, data processing and storage. For qualitative follow-up interviews, written

and verbal informed consent was obtained at the beginning of each interview, and the consent forms were stored separately from audio data, in accordance with GDPR guidelines. In accordance with codes of research ethics (British Psychological Society [BPS], 2018, 2021), participants were informed of their right to withdraw, and offered numbers for supportive agencies following the interview, to manage any potential emotional distress.

## 2.1 | Participants

Seven research study participants, all of whom were students, were recruited via print advertisements at the university. Inclusion criteria were (a) participants who believed that a psychological intervention may be of benefit to them and (b) a total score of 62.5 or more on the Difficulties in Emotion Dysregulation Scale (DERS) at assessment interview. Exclusion criteria were (a) severe and enduring mental health problems such as psychotic disorders, personality disorders or dependent drug use, where the primary problem may significantly interfere with treatment; (b) individuals with serious acute or chronic physical illness which are contraindicated in yoga practice; and (c) participants who may be known to the therapist delivering the intervention. In the assessment session, the therapist undertook a psychological assessment to establish that participants met inclusion criteria. If they did not, they would have been offered a debrief, including options for treatment at the university well-being service and numbers of supportive agencies.

There are no standardised clinical cut-offs for the DERS; however, prior research suggests that the clinical range on the DERS total score varies from averages of approximately 80 to 127, with a score of 62.5 indicating moderately high sensitivity (Staples & Mohlman, 2012). As this study was conducted outside mental health services and within the general population, we sought to recruit participants with moderate sensitivity.

## 2.2 | Procedure

### 2.2.1 | The intervention

The YiP intervention was developed by the lead author (JCF). The intervention was informed by the principles of an integrated approach to psychotherapy (Stricker & Gold, 1996), standard hatha yoga practice (Hatha Yoga Pradipika) and trauma-sensitive yoga practice (Emerson & Hopper, 2011). Hatha yoga is a style of yoga which has formed the basis for other research studies using yoga as a treatment for mental health issues (Uebelacker et al., 2021; Vollbehre et al., 2021) and can be delivered in a safe and accessible format tailored to individual needs. In accordance with recent literature (Kamradt, 2017), consideration was given to the ethics of delivering yoga as part of psychological therapy.

Each YiP session took the form of two parts: yoga practice (approximately 30 min) followed by talking therapy (approximately

30 min). The therapist demonstrated all yoga poses for the participants, which formed the basis for the yoga element of the sessions and were adapted to meet individual needs and in accordance with a risk assessment. Integrative psychotherapy was undertaken aligning with the principles of assimilative integration (Messer, 1992; Stricker & Gold, 1996). Psychodynamic core practice was integrated with skills from various third-wave therapies, such as CBT, dialectical behaviour therapy (DBT) and schema-informed therapy, depending on the needs of each individual client's psychological and emotional difficulties.

Participants completed seven sessions. Specifically, the first session took the form of a psychological assessment session, to assess the psychological needs of the client and previous yoga experience (if any). During the assessment process, the therapist explored with the client their reasons for coming to therapy, psychological/psychiatric history, previous yoga experience (if any), general physical health including any current/previous injuries, and identified any areas of risk. This assessment information was used to inform the integration of yoga with psychotherapy. Six sessions of YiP were delivered to the participants by the principal investigator on a weekly basis. The therapist participated in regular clinical supervision with a professor of psychoanalysis, and a yoga therapist, as specified by the professional bodies for counselling psychology (British Psychological Society, 2006; Health and Care Professions Council [HCPC], 2015) and yoga therapy (Yoga Alliance, 2017).

### 2.3 | Self-report measures

Emotion dysregulation was assessed using the 36-item Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Scores on this questionnaire range from 1 ("almost never") to 5 ("almost always"). This questionnaire is comprised of six subscales: lack of emotional awareness (i.e., difficulty understanding that one is experiencing an emotion; six items); lack of emotional clarity (i.e., difficulty understanding the nature and valence of one's emotions; five items); limited access to emotion regulation strategies (eight items); nonacceptance of emotional responses (six items); difficulty engaging in goal-directed behaviours (five items); and difficulties in controlling impulses (six items). All subscale scores can be summed to produce a total score, with higher scores reflecting greater difficulties in emotion regulation. The DERS was administered at baseline (session 0), at YiP session 3 and at YiP session 6.

The Patient Health Questionnaire (PHQ-9) and the Generalised Anxiety Disorder scale (GAD-7) were administered in all sessions. The PHQ-9 (Kroenke et al., 2001) is a nine-question self-report measure used to grade severity of symptoms of depression, with a score of 10 or greater representing greater depression. The GAD-7 (Spitzer et al., 2006) is a brief self-report scale that is used to identify probable cases of GAD, with a score of 10 or greater representing greater anxiety. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007) was administered at baseline (session 0), at YiP session 3 and at YiP session 6. The WEMWBS is a

14-item scale, which has five response categories to create a single score for overall well-being. It is used for monitoring programmes aimed at improving well-being.

Participants were asked to complete a session effectiveness scale (SES) at the end of each session. The SES (Elliott & Wexler, 1994) is a brief self-report measure of the experienced impacts in therapy sessions.

### 2.4 | Physiological measures

Yoga research has advocated the use of monitoring heart rate variability (HRV) as a measure of vagal tone and an individual's response to stress (Tyagi & Cohen, 2016). Participants were asked to wear a HRV monitor throughout the sessions, and the Elite HRV app ([elitehrv.com](http://elitehrv.com)) was used to monitor the data. The final stages of the study coincided with the COVID-19 pandemic, and a total of seven sessions were delivered online to Participant 5 (one session), Participant 6 (three sessions) and Participant 7 (three sessions). This led to missing data on HRV and blood pressure (BP), and it was not viable to include these measures in the findings of the study. The use of these measures in the initial phases of this study indicated that it would be acceptable and feasible to measure HRV and BP in future research studies.

### 2.5 | Qualitative interviews

Following the final session of therapy, participants were invited to take part in a qualitative follow-up interview within 2 weeks of their final session. These sessions were 40–60 min in duration and were conducted by two members of the research team with experience in qualitative interviewing (EF and MM). Five of the six participants who completed the YiP programme agreed to take part in this interview. Thematic analysis was applied to these interview data; a realist approach was taken to consider each client's experience, with a view to paving the way for more complex research questions and analyses in future studies. All interviews were audio-recorded and transcribed verbatim. The coding and analytical process was undertaken by the second author (EF) in accordance with the steps outlined by Braun and Clarke (2006, 2021). Semantic content patterns were summarised in themes which aligned with the research questions.

### 2.6 | Quantitative analyses

The effects of YiP on difficulties in emotion regulation, GAD and mental well-being, as well as both participants' and the experimenter's rating of the effectiveness of the YiP sessions, were all examined by constructing separate ANOVAs in which the dependent variable (DV) was total DERS scores, total WEMWBS scores, total GAD-7 scores or total SES scores, as relevant. Each ANOVA

contained data from all sessions in which the relevant questionnaire was administered (baseline, YiP session 3 and YiP session 6 for both DERS and WEMWBS, baseline and YiP sessions 1–6 for the GAD-7, and YiP sessions 1–6 for the SES) to determine whether these scores significantly differed between sessions. Session number was added as a factor to these ANOVAs to determine the main effect of session on outcome variables, while age and gender were also added to these models as separate factors to control for their influence on the data.

Post hoc ANOVAs were also conducted to determine the main effects of session number on each subscale of the DERS and on each separate item of the GAD-7, WEMWBS and SES. As with the omnibus tests described above, these ANOVAs contained data from each relevant session and also controlled for the influence of age and gender on the data. Bonferroni corrections (BC) were applied to control for the elevated chance of a type I error due to the five ANOVAs that were performed on the total scores of the DERS, WEMWBS, GAD-7, client-scored SES and experimenter-scored SES. Bonferroni corrections were not applied to post hoc ANOVAs that examined the effects of each specific session (i.e., baseline vs. third YiP session, and third YiP session vs. sixth YiP session) on such total scores, as they were considered to be exploratory. Finally, a Fisher's LSD approach was applied to examinations of the subscale scores.

## 3 | RESULTS

### 3.1 | Participant characteristics

Of the seven participants who were enrolled in the study (five females, two males; mean age = 29.46 years old,  $SD = 12.69$  years), one participant dropped out after the first YiP session. As such, only six participants completed the study (four females, two males; mean age = 30.33 years old,  $SD = 13.47$  years).

### 3.2 | Difficulties in Emotion Regulation Scale (Figure 1)

An ANOVA that contained data from all sessions and which controlled for age and gender revealed a main effect of session on total DERS scores ( $F[2,10] = 10.542$ ,  $p = .003$ ,  $p_{BC} = .015$ ). Specifically, DERS total scores dropped from a mean of 121.15 ( $SD = 29.26$ ) in the baseline (i.e., pre-YiP) session to a mean of 105.89 ( $SD = 27.92$ ) in the third YiP session ( $F[1,5] = 6.823$ ,  $p = .048$ ), and further decreased to a mean of 99.00 ( $SD = 26.97$ ) in the sixth YiP session ( $F[1,5] = 7.341$ ,  $p = .042$ ). Neither gender nor age influenced total DERS scores (all  $ps > .731$ ).

Follow-up ANOVAs that contained data from all sessions and which controlled for age and gender revealed a main effect of session on the DERS subscales of lack of emotional clarity ( $F[2,10] = 9.146$ ,  $p = .006$ ), difficulty in engaging goal-directed behaviour ( $F[2,10] = 10.111$ ,  $p = .004$ ), nonacceptance of emotional

responses ( $F[2,10] = 6.697$ ,  $p = .014$ ) and limited access to emotion regulation strategies ( $F[2,10] = 5.262$ ,  $p = .027$ ). There were no significant effects of session number on scores on the lack of emotional awareness or difficulty in controlling impulse subscales (both  $ps > .198$ ), and neither age nor gender influenced any of these results (all  $ps > .347$ ).

### 3.3 | Warwick-Edinburgh Mental Well-being Scale (Figure 2)

An ANOVA that contained data from all sessions and which controlled for age and gender revealed a main effect of session on total WEMWBS scores ( $F[2,10] = 7.210$ ,  $p = .009$ ,  $p_{BC} = .045$ ). Specifically, these scores increased from a mean of 34.86 ( $SD = 6.47$ ) in the baseline session to a mean of 41.00 ( $SD = 8.39$ ) in the third YiP session ( $F[1,5] = 11.757$ ,  $p = .019$ ), and again to a mean of 44.00 ( $SD = 9.65$ ) in the sixth and final YiP session ( $F[1,5] = 7.681$ ,  $p = .039$ ). Neither gender nor age influenced total WEMWBS scores (both  $ps > .768$ ).

Post hoc ANOVAs that also contained data from all sessions and which also controlled for age and gender revealed a main effect of session on scores on the items "I've been feeling useful" ( $F[2,10] = 8.295$ ,  $p = .007$ ), "I've been thinking clearly" ( $F[2,10] = 7.913$ ,  $p = .008$ ) and a nonsignificant trend towards a main effect on the item "I have energy to spare" ( $F[2,10] = 3.885$ ,  $p = .057$ ). There was no main effect of session on any of the remaining items (all  $ps > .370$ ), and neither gender nor age influenced scores on any of the WEMWBS subscales (all  $ps > .176$ ).

### 3.4 | Generalised anxiety disorder (GAD-7) questionnaire (Figure 3)

An ANOVA that contained data from each session and which controlled for age and gender revealed no main effect of session on GAD-7 total scores ( $F[6, 30] = 0.830$ ,  $p = .555$ ). However, exploratory post hoc ANOVAs that contained data from each session and which controlled for age and gender revealed a significant main effect of session on scores on the items "Becoming easily annoyed or irritable" ( $F[6,30] = 3.448$ ,  $p = .010$ ) and "Being so restless that it's hard to sit still" ( $F[6,30] = 2.586$ ,  $p = .038$ ). There was a nonsignificant trend towards an effect of session on the GAD-7 item "Feeling nervous, anxious or on edge" (i.e., anxiety) ( $F[6,30] = 1.974$ ,  $p = .096$ ), and no main effect of session on any of the remaining GAD-7 subscales (all  $ps > .702$ ). Neither age nor gender influenced responses on any of the GAD-7 items, or total GAD-7 scores (all  $ps > .238$ ).

### 3.5 | Session evaluation scale (Figure 4)

An ANOVA that contained data from each session and which controlled for age and gender revealed no main effect of session on client-scored SES total scores ( $F[5,25] = 1.513$ ,  $p = .222$ ). Post hoc

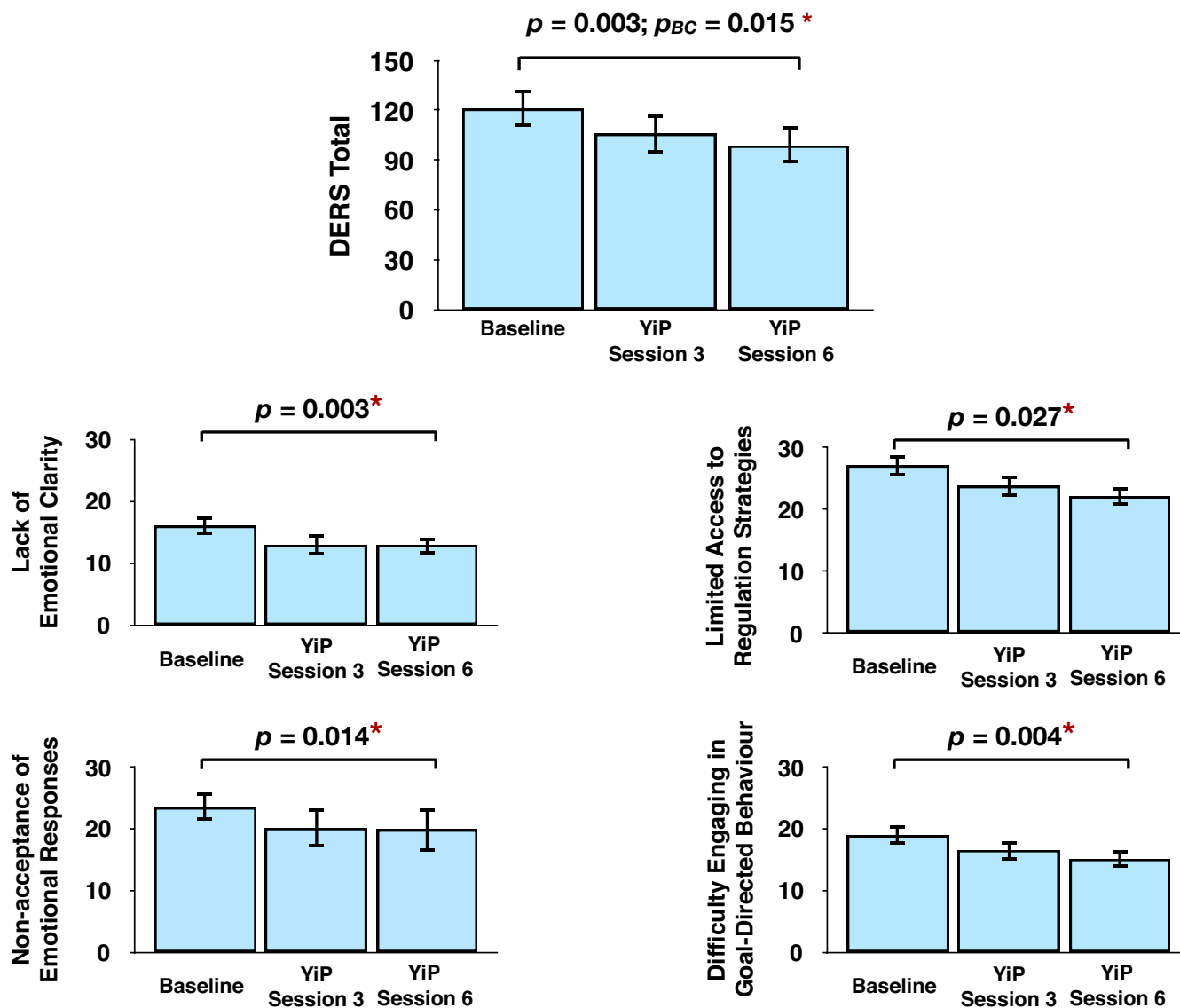


FIGURE 1 Self-reported Difficulties in Emotion Dysregulation Scale scores during the baseline session, and after yoga-integrated psychotherapy sessions 3 and 6.

ANOVAs revealed a significant main effect of session on client-scored item 2 (“How do you feel about the session you just completed?”;  $F[5,25] = 2.905, p = .034$ ), but no main effect of session on any of the remaining client-scored items (all  $ps > .103$ ). Neither age nor gender influenced responses on client-scored SES responses (all  $ps > .212$ ).

There was a significant main effect of session on therapist-scored SES total scores, however ( $F[2,25] = 4.928, p = 0.003, p_{BC} = .015$ ). Post hoc ANOVAs revealed a significant main effect of session on therapist-scored item 2 (“How do you feel about the session you just completed?”;  $F(2,25) = 4.290, p = .006$ ), item 4 (“In this session something shifted for the client”;  $F(2,25) = 5.827, p = .001$ ), and nonsignificant trends towards a main effect of session on item 1 (“how helpful or hindering to the client this session was overall”;  $F(2,25) = 2.443, p = .061$ ) and item 3 (“How much progress do you feel the client made in dealing with their problems in this session?”;  $F(2,25) = 2.507, p = .057$ ).

### 3.5.1 | Qualitative analysis

The research team conducted five semistructured interviews. The interviews focussed on three main aspects:

1. To ascertain which elements of the therapy clients found helpful and unhelpful;
2. To explore how participants experienced yoga practice integrated with talking therapy; and
3. To explore how participants progressed through the sessions and changes they experienced, if any.

Five themes were identified and are outlined below.

Theme 1: YiP assists clients' psychological and emotional processing

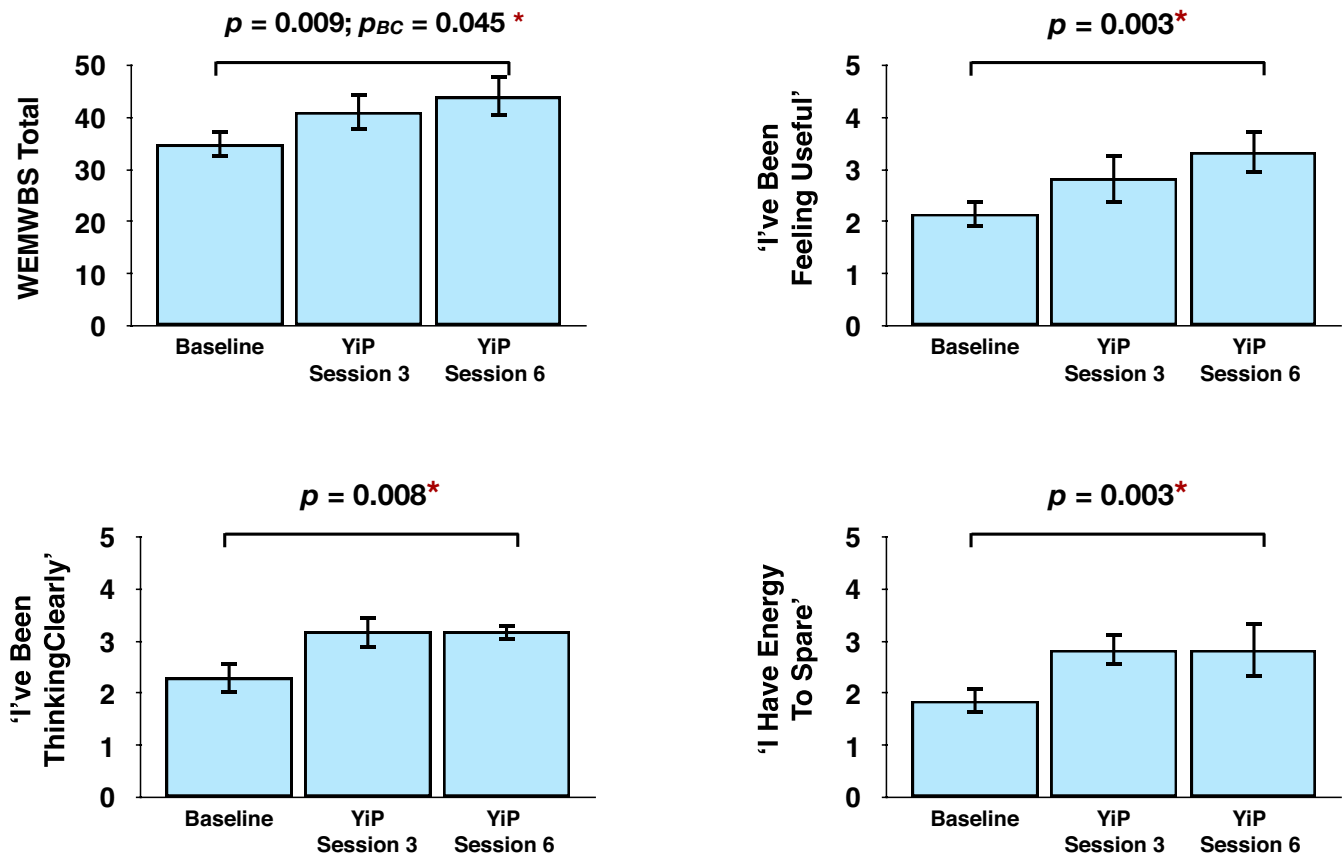


FIGURE 2 Self-reported WEMWBS scores during the baseline session, and after yoga-integrated psychotherapy sessions 3 and 6.

The first theme identified the combination of yoga and talking therapy as helpful, where more options were available to participants to assist with processing thoughts and emotions. This was seen to lead to better emotion regulation, both inside and outside the sessions. When describing their experience of YiP, participants reported that having access to verbal (talking therapy) and non-verbal mechanisms (yoga) was helpful to prepare them for possible uncomfortable issues in the therapy session:

it's a really good thing to mix yoga and therapy because... you know, just talking...is not really... some people might find it uncomfortable like I did in my experience with other counsellors. And I think yoga really open(s) your mind to talking about things.

Participants indicated sometimes being worried about having to talk and open up in talking therapy and reported that yoga helped them to access a better “flow” in their narratives:

You don't want to get in to talk straight away. There is a kind of smooth blending [after the yoga], and then everything flows so well, actually.

The ability to process emotions was highlighted by Participant 5, noting that yoga helped to manage the emotional load which can accompany sessions of psychotherapy:

in the previous therapy, I remember erm I talk quite a lot, and I open up quite a lot, that I come out the session and things are in my head for two or three days or more, with heaviness. With yoga and talking therapy, I never felt, apart from one session; I never felt that heaviness.

Overall, this theme highlighted the ability of participants to engage in the therapy, and to process emotions in a new way due to the practice of yoga before undertaking the talking element of the session.

Theme 2: YiP improves insight and focus

The second theme identified an improvement in focus and insight. Participants reported that yoga practice improved their capacity to bring to mind and focus on what they wanted to explore in the talking element of the therapy:

I feel like if I would have gone straight into [talking] therapy, I would have had other things in my mind and possibly discuss things which wouldn't have as much importance I guess.

Increased focus seemed to enable an improved capacity to discern between different topics to explore in the talking element of the therapy:

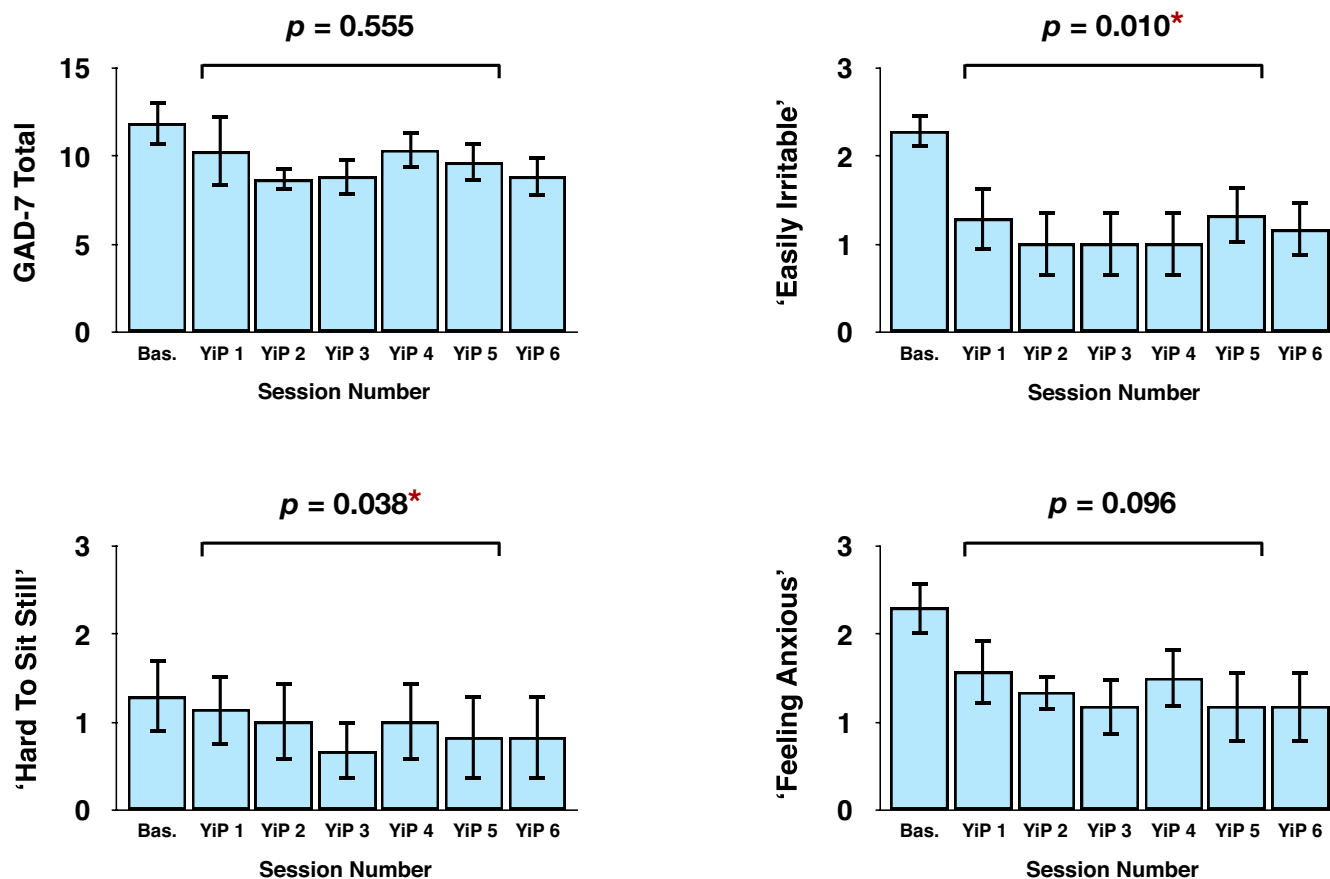


FIGURE 3 Self-reported anxiety scores on the GAD-7 at each session.

so I felt like my body was more relaxed, so I felt more comfortable to sort of choose the topics, the specific topics which I wanted to talk about.

Participants also reported that insight into psychological material would emerge during the yoga practice, to be successively explored:

so some of the issues I discussed were some of the things that were on my mind while doing the yoga. So I found it really really helpful.

This theme encapsulates the positive impact of yoga practice on insight and focus, which appears to facilitate the process of psychotherapy. Emotional and psychological “topics” or material appear to have been brought to the surface, which can then be brought to the fore and processed in the talking part of sessions.

### Theme 3: YiP is culturally sensitive and acceptable

Participants highlighted the potential stigma yoga carries in some cultural environments, sharing a sense of apprehension due to possible judgement or misalignment with their own cultural values:

Well, initially, erm because I grew up in a black community...especially with yoga...no one likes yoga

and stuff like that, it is always looked down upon [...] So, initially I was a bit erm I guess apprehensive, I didn't know what to expect, so I was a bit like oh I don't know what to expect...but I didn't mind the experience.

Participant 5 described a similar view in relation to how their own cultural beliefs based on Sufism integrated with the practice of yoga, and led to a sense of being grounded:

It [yoga] fits well with my general beliefs, and so yoga in a way didn't change any of my beliefs, but it just it confirmed [them] from a different angle... and in almost all my body [I found] there is...space... and there is kind of something I can see...kind of concrete.

The participants reported that the therapist's cultural sensitivity played a major role:

I just liked her overall attitude. I felt like she was aware that we were from quite different backgrounds, and she was willing to be very, very empathetic and try to understand what was going on around me at the time, as much as she possibly could.

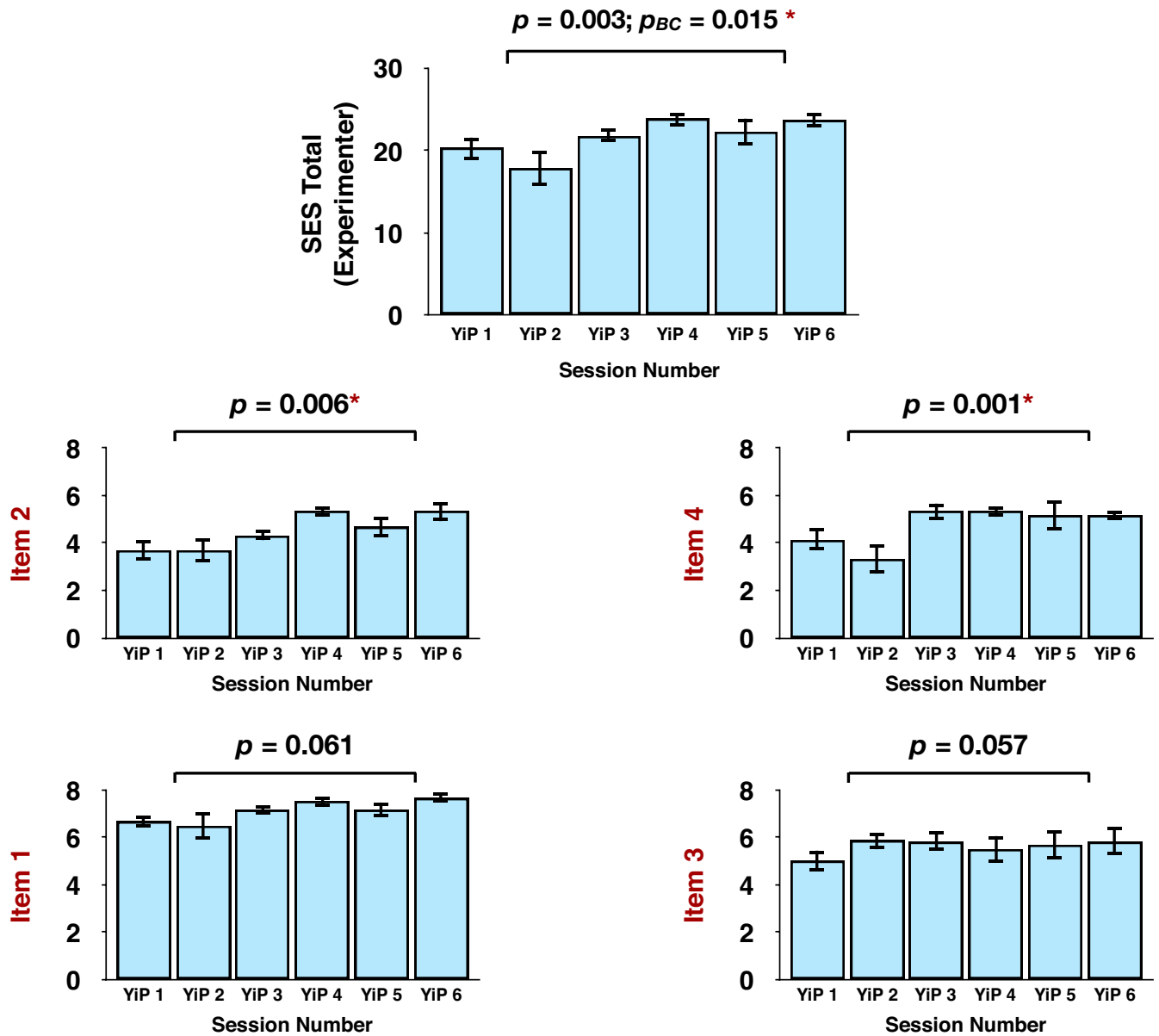


FIGURE 4 Experimenter-scored SES scores after each yoga-integrated psychotherapy session.

This theme illustrates the notion of therapy being delivered in a culturally acceptable and sensitive way. Although the therapist was not of the same ethnic or cultural background as that of the participants, there was a sense that participants felt a level of empathy by being met by the therapist from a position of curiosity and non-judgemental awareness.

Theme 4: The body facilitates regulation and resilience

The fourth theme related to the concept of participants realising the mind-body connection as an agent of understanding, regulation and resilience. It appeared noticeable that participants perceived the connection between body and mind as a bidirectional understanding of their experience. Participant 5 reported an improved understanding of bodily reactions and the body's connection with the intellect:

I am more (.) more connected with my body, and the things happening in my body can explain in my brain more intellectually, and I understand them better.

The recognition that thoughts might express themselves through the body was highlighted by Participant 7:

maybe that's your body telling you that something is up, and going on, 'cause at the beginning, I thought it was just my mind, but it's actually everything else that you feel around your body so [that connection] that's very eye-opening to me.

Participants reported that working with the body facilitated resilience during the session:

you come in...knowing that in therapy we talk about very hard issues. And there is a tension in your body. That tension...especially in the last part, the relaxing part [of the yoga practice]...goes away.

All participants reported a positive shift in emotion regulation, although this differed in terms of perceived impact. Some felt it was an ongoing process to be continued following the 6-week intervention, whilst others reported significant reductions in their difficulties, such as feeling less suicidal and having fewer nightmares. One participant described how the body was involved as a helping factor in developing emotion regulation:

I gained a friend, a friend [with] my body.

Clients can sense a disconnection from their bodies when dealing with mental health issues, especially those presenting with symptoms of trauma. This shift from alienation from the body to something more connected could be indicative of psychological healing, or progress in the therapeutic outcome.

#### Theme 5: YiP is acceptable and impactful

The fifth theme identified the intervention as acceptable and facilitating change. The intervention was experienced as acceptable by all participants, with few unhelpful aspects being reported, illustrated by Participant 4 who said, *"there wasn't anything I would prefer to be done differently."* However, participants reported wanting more time to talk following yoga, suggesting the sessions could be longer.

The approach of delivering the intervention was highlighted as positive, mirroring the stance of the therapist practising from an integrative perspective:

I don't think there were any negatives towards the actual process and it was conducted very, very well. It wasn't like, oh we are doing yoga now and then we will talk...it was laid back towards care and mood of the day. It was a nice experience.

The feasibility of practising the skills learnt in sessions in daily life was highlighted by those who reported practising yoga at home:

I have been doing yoga since I erm finished [the intervention] almost every day, apart for a couple of days off. And I feel the benefit of it. Every morning I wake up early, and I do my yoga for 40 minutes.

The perceived impact of YiP on participants following the intervention was reported, with symptoms of distress being alleviated by the end of the intervention. One participant reported a decrease in flashbacks:

I felt a lot calmer towards the end... also, I struggle with flashbacks quite a lot and I noticed that in the middle, and especially at the end, the amount of flashbacks I would have decreased significantly.

Participant 2 mentioned an outcome linked to self-agency, in the realisation that change can be facilitated by the client, as opposed to an over-reliance on the therapist:

Overall, it was a good tool for me to start guiding myself.

A strong impact of developing skills—in terms of both yoga practice and emotion regulation strategies—was reported and highlighted by one participant who stated:

The yoga [psycho]therapy has been life-changing, absolutely life-changing, cause I have learned skills I can apply literally for the rest of my life.

This was mirrored by Participant 5, who went on to comment on the impact of practising yoga and engaging in talking therapy:

it's life-changing in the sense that...a different perspective has given to me...my eating habits are different...the way I look at the world is different... But also the spiritual side of it.

This theme identifies the feasibility of the YiP model and illustrates how this particular group of participants experienced any impacts on their ability to regulate emotions. Furthermore, the theme shows that perceived impact can vary, with some participants choosing to disclose "life-changing" impacts, whilst others feel that they were given skills and tools to assist in their well-being following the intervention.

In summary, the themes illustrate the key aspects of what was helpful to the participants, such as the use of the body in yoga practice and its integration with talking therapy. The themes capture how the delivery of yoga and psychotherapy in the same session could be a helpful combination in positively impacting psychotherapeutic processes.

## 4 | DISCUSSION

This study aimed at determining the acceptability and feasibility of YiP as an intervention and at identifying the perceived effectiveness of YiP for reducing symptoms of emotion dysregulation. The acceptability of the model was based largely on the participants' experiences, and the feasibility was determined by the researcher's and therapist's ability to carry out the procedures and intervention.

Results revealed that the YiP intervention significantly alleviated emotion dysregulation, improved emotional well-being and reduced feelings of irritability. Furthermore, participants reported experiencing a positive interaction between the yoga and psychotherapy elements of the sessions.

## 4.1 | Acceptability and feasibility of YiP

### 4.1.1 | Helpful and unhelpful aspects

Thematic analysis of qualitative interviews identified a number of helpful factors in the delivery of YiP. First, the yoga practice seemed to be helpful by inducing relaxation, enabling positive mental focus, engaging the body as an agent in recovery and increasing focus and insight. Second, these features of the yoga practice seemed to have a positive impact on psychotherapeutic work. Third, integrative psychotherapeutic practice led to the delivery of skills and coping strategies which were perceived to be helpful. Lastly, the stance and attitude of the therapist were perceived as acceptable, including an empathetic, culturally sensitive and humanistic stance.

The feasibility of the intervention was ascertained by delivering the intervention and protocols. For the purpose of this study, integrative psychotherapeutic practice (Stricker & Gold, 1996; Messer, 1992) was applied, which appeared to be well-received by participants who reported a positive experience overall. The advantage of taking an integrative approach was that the therapist was able to adapt the intervention according to the needs of individual clients and build in skills and coping strategies. This was mirrored in the delivery of yoga practice, which worked with a set of very simple and accessible postures based on the hatha yoga tradition, tailored and adapted to meet the needs of individual clients. This approach to delivering YiP could therefore be seen to be acceptable and feasible, and further studies could seek to replicate this work in order to apply findings to a wider group. Further research could also consider a YiP intervention with users of mental health services, as well as university students.

### 4.1.2 | Cultural acceptability

One aspect identified in qualitative analysis was the cultural sensitivity of the YiP intervention. Yoga has the potential to be misconstrued as a practice with religious connotations and is often adapted to ensure this misapprehension does not occur (Vollbehr et al., 2021). Participants of various ethnic, cultural and religious backgrounds took part in the study and reported how yoga complemented their values and beliefs. This was reported in conjunction with the stance and attitude of the therapist. The therapist was seen to be empathetic and attuned to cultural and religious backgrounds, speaking to the notion of “cultural competence” in psychotherapy (Tehee

et al., 2020). This aspect could be taken forwards in future studies in terms of how therapists attune to clients in a yoga-informed model of therapy. In this study, it was the therapist's openness to diversity and ability to empathise which was reported to be important. Further research would be needed to take forwards the acceptability of YiP for diverse groups.

## 4.2 | Perceived impact on emotion dysregulation and well-being

Overall, results showed a decrease in emotion dysregulation and an increase in overall well-being. Data revealed reductions in various symptoms, such as flashbacks, feeling anxious and becoming easily irritated. Findings identified increased resilience and greater ability to cope with and manage stress with greater equanimity. It seems that the yoga practice was something that was able to be transferred into daily life, which positively impacted lifestyle choices such as eating habits.

In this pilot study, participants began to practice yoga at home, and some adopted lifestyle changes throughout the course of the intervention. This is not unusual as a response to practising yoga and would align with the notion of social prescribing, which seeks to enable patients to transform their lifestyles to prevent physical and mental health issues (Public Health England [PHE], 2018).

## 4.3 | Impact of integrating yoga with psychotherapy

Engagement in yoga enabled insight into and focus in the sessions, which led to participants speaking about pertinent issues more readily. Literature suggests that the essence of effective psychotherapy is its potential to be transformational, which can lead to positive psychological shifts (Castonguay & Hill, 2012; Mahrer, 1993; Wright, 2020). However, one barrier to this is the *resistance* clients can feel to engaging in deeper, and potentially more uncomfortable, psychological and emotional issues (Abbass & Town, 2021). Yoga, meanwhile, has the capacity to induce relaxation and self-awareness (Gerbarg et al., 2014; Khalsa, 2007).

One interpretation could be that yoga's potential for increasing self-reflection and insight may have assisted in psychotherapeutic work. Engagement in yoga may have increased the capacity for clients to access and focus on deeper psychological issues, which were important factors in understanding their emotions and alleviating distress. If this is the case, then yoga practice could hold the potential to “speed up” client recovery in psychotherapy. Further research would be needed to ascertain the impact of yoga on the talking element of the sessions, as well as how change occurs, and if change is sustained over time.

A second interpretation of this finding could align with PVT (Porges, 2009). For clients easily triggered into in the “fight or flight”

or the “freeze-frame” states put forward by PVT, the beginnings of psychotherapy can be tenuous whilst the therapeutic alliance is being formed (Keller et al., 2010). By incorporating yoga practice into therapy with emotionally dysregulated individuals, clients were potentially more relaxed and able to positively engage in therapeutic work.

The sessions were also perceived to be effective by the therapist delivering the intervention. It is worthy to note that in a field rapidly progressing towards online provision of treatment, and one which recently coined the term “Zoom Fatigue” (Lee, 2020), the practice of yoga may have something to offer clinicians to achieve a sense of well-being in an ever pressurised field. The Yoga in Healthcare Alliance in the UK is currently working with the National Health Service (NHS) to implement a yoga programme for its staff (Mason et al., 2017) in the recognition that both clients and professionals need support in striving for well-being. It would seem that yoga's positive impact on well-being could benefit the wider population. Further research could look at delivering yoga to relatively healthy individuals to see the impact on well-being, relationships, work satisfaction and quality of life.

#### 4.4 | Limitations

Based on both quantitative and qualitative findings, YiP appears to be a promising intervention for individuals experiencing emotion dysregulation. However, the results should be considered in the light of certain limitations. First, the study was limited by its small sample size. Although a total of 45 sessions were conducted, this was with a total of seven participants. One of these participants dropped out after session one. The reason given for dropout was the participant having conflicting academic demands. Furthermore, all participants were university students. Although sample sizes such as this are not uncommon for pilot studies, and especially for qualitative research, it does limit the generalisability of the findings due to the limited statistical power to detect small but positive effects of YiP on dependent variables. Indeed, some of the findings, for example pertaining to the effects of YiP session number on scores on the lack of emotional awareness subscale of the DERS, would likely be significant and meaningful if a larger sample size was employed. As such, future studies may wish to examine the effects of YiP on emotion regulation using a larger sample of participants to truly determine the effectiveness of this novel intervention. Further research could broaden and increase the participant sample and consider randomised control trial methodologies to better determine the true effectiveness of YiP. Increasing the sample in this way would enhance the significance of some of the results in this study, such as the lack of emotional awareness of the DERS. Lastly, seven of the 45 total sessions were delivered online due to the COVID-19 pandemic.

## 5 | CONCLUSION

There is evidence that yoga practice can complement approaches to mental health care by enhancing treatments and outcomes (Khalsa et al., 2016). This study has presented a model for the synthesis and merging of psychotherapy with the practice of yoga into an accessible and deliverable evidence-based format. This pilot study reveals promising findings, with participants reporting decreases in emotion dysregulation, increased well-being and an alleviation of depressive symptoms. Yoga-integrated psychotherapy which incorporates integrative psychotherapeutic practice could provide a novel approach for clients presenting with emotion dysregulation.

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### CONFLICTS OF INTEREST

The authors declare no current financial interest from applications of the YiP model. The model is not currently being delivered in any clinical or private setting for financial gain.

### ETHICAL APPROVAL

This work conforms to the Declaration of Helsinki on the Ethical Principles of involving Human Participants.

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## AUTHOR BIOGRAPHIES

**Jasmine Childs-Fegredo** is an HCPC-registered and BPS-chartered counselling psychologist. She has worked in research, teaching and clinical practice in UK-based universities and in the UK National Health Service (NHS). She carried out research into the early identification of mental health issues in schools at the University of Cambridge, before taking up a lectureship at the University of Roehampton. She worked in a CAMHS service delivering CBT and DBT-informed therapy to children, young people and their families. She currently works as a senior lecturer at York St John University, teaching on a doctoral programme in counselling psychology. Jasmine is interested in translating research on mind–body interventions into clinical practice to enhance client outcomes. She is a trained yoga teacher (YT-800) and Vipassana meditator, holds a certificate in Yoga Psychology, and aims to retain the spiritual essence of yoga in its application in healthcare.

**Elisa Fontana** has earned an MA in Play Therapy and BSc (Hons) in Early Years and a BSc (Hons) in Art and Drama Studies. Elisa currently works as play therapist, project manager and lecturer in adult and child mental health. She has delivered training in the use of body–mind integration, and the art and play in therapies at the University of Roehampton (UK), the University of Dhaka (Bangladesh) and the Academy of Art in Palermo (Italy). She has trained in Thai Yoga Massage in Thailand.

**Mary Moran** was awarded her professional doctorate in Counselling Psychology in 2017 by the University of East London. Her research took a qualitative approach to explore the experience of shame in clinical supervision. She is a clinician currently working in an NHS secondary care service in Wales, UK, delivering psychological therapy. She specialises in working with personality disorders.

**Paul Faulkner** undertakes research into the cognitive deficits that contribute to the continuation of addiction and mood disorders, including deficits in emotion regulation and decision-making, with a view to developing novel interventions aimed at alleviating these deficits, such as non-invasive brain stimulation techniques and psychological therapies. He completed his PhD at the Institute of Cognitive Neuroscience at University College London (UCL) in 2014 and completed a Postdoctoral Fellowship at the Semel Institute for Neuroscience and Human Behavior at the University of California Los Angeles (UCLA) in 2018. He joined the University of Roehampton as a lecturer in 2018 and has been a senior lecturer at the same institute since 2019. For a full overview of his research, including a list of his publications, please visit <http://www.paulfaulkner.uk>.

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