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"To Be Finally at Peace With Myself": A Qualitative Study Reflecting Experiences of The Meditation Based Lifestyle Modification Program in Mild to Moderate Depression

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Abstract

Meditation Based Lifestyle Modification (MBLM) is a new mind-body intervention based on classical yoga and implements virtue-based ethical living, physical yoga, and meditation in a therapeutic context. This qualitative study aimed to understand better how depressive patients who received MBLM as a treatment experience intra- and interpersonal outcomes of their practice. In a larger randomized controlled trial of MBLM in depressive outpatients, a subsample (n = 12) completed in-depth interviews. To determine short-term and long-term effects, cohorts were interviewed at two different times after intervention onset (T_1 = 8 weeks; T_2 = 6 months). Verbatim interview transcripts were analyzed using thematic analysis. Three themes emerged in the interviews: (1) Reappraisal of past and present life patterns, leading to reflection on one's own values; (2) Serenity, attained by states of calm, growing acceptance, and the ability to set boundaries; (3) Mindful living as expressed by increased self-awareness, being more present, and conscious interactions. The ethical component of MBLM was identified as a key factor in individual empowerment and appreciation of one's own strengths. Systematic changes in the importance of reported themes after 6 months (T_2) reflected sustained effects of the intervention. The findings speak clearly for the benefits of MBLM in the treatment of depression. In particular, the explicit therapeutic implementation of virtue-based ethics offers a valuable addition to previous yoga and meditation programs.

Keywords: Qualitative analysis, thematic analysis, yoga, virtue ethics, meditation, lifestyle modification

Introduction

Recent research has shown the positive impact of yoga in the treatment of different mental health conditions.[1,2] In particular, the treatment of depression has been investigated through a larger amount of quantitative and qualitative analyses in different populations.[3,4] Commonly, yoga practices in mental health care focus on physical exercises, breathing techniques, and to some extent meditation techniques.[5] These primarily body-oriented techniques contribute to physiological and psychological pathways in alleviating depression: at the physiological level, they likely improve mood based on physiological mechanisms that are related to stress-reducing and anti-inflammatory modulations of the autonomic nervous system and neuroendocrine circuits,[6] presumably mediated by epigenetic mechanisms.[7] At the psychological level, body-oriented yoga has positive effects on body awareness and mindfulness, and leads to feelings of connectedness, reappraisal, and improved coping.[8,9] However, body-oriented aspects represent only part of yoga in the traditional understanding of it as a spiritual practice and path to self-realization.[10] Our work extends research to more traditional – ethical, spiritual, and meditative – aspects of yoga to unveil potentials of yoga practice that have not yet been tapped in mental health care.

What is traditional yoga about? The most authoritative and seminal text answering this question is the *Yoga Sutras* by Patanjali, in which preexisting traditions have been collated and systemized.[10 (p. xxxiii)] Yoga is defined as a primarily meditative practice, by which the mind is stilled to achieve self-realization. The term "self" refers here to "pure consciousness" or innermost self, loosely related to the soul in Western Greco-Abrahamic traditions.[10 (p. xvii)] From a psychological perspective, the humanistic concept of self-actualization is to some extent comparable to that of self-realization in the eastern traditions.[12] Yoga can be interpreted as a developmental process that facilitates self-actualization, which, in Maslow's hierarchy of needs,[13] describes the attainment of one's full potential as a human being – a goal highly relevant in the psychotherapy of depression.[14] In fact, in yoga psychology, the practitioner

ultimately even transcends fulfillment on a personality level, which has been mentioned by Maslow in his later thouhts as a final motivational step beyond self-actualization.[15]

Additionally to yoga postures and breathing exercises (*asana* and *pranayama*), the yoga sutras name further limbs of yoga's 8-fold path to self-realization: inter- and intrapersonal virtue-based ethics (*yama* and *niyama*) and four stages of meditative practice (*pratyahara*, *dharana*, *dhyana*, and *samadhi).* From a perspective of positive psychology, moral virtues and character strengths have been widely recognized and their contribution in depression treatment is well founded.[16] Regarding meditation, recent meta-syntheses of randomized controlled trials unanimously concede that meditation has substantial beneficial effects on depressive symptoms in clinical populations.[17,18]

Meditation Based Lifestyle Modification (MBLM) is a new therapy developed for mental health care,[19] in which all 8 aspects of classical yoga have been integrated and which has been shown to be feasible in the treatment of patients with mild to moderate depression.[20] MBLM goes beyond the third wave of behavioral therapy,[21] seeing itself as representative of more recent developments (second generation mindfulness-based interventions).[22] These focus on human virtues, individual strengths and resilience in the sense of positive psychology, include the body in the individual process of becoming conscious (embodiment) and are overtly spiritual (but conveyed in a strictly non-dogmatic and non-sectarian way).

Mixed methods have proven helpful in understanding complex mind-body interventions like MBLM. Qualitative approaches aid comprehensive interpretation of intangible experiential information, which is particularly relevant to mind-body practices.[23] A recent synthesis of 11 qualitative studies explored the lived experience of yoga practice for people with depression, posttraumatic stress disorder, and anxiety disorders.[4] In these studies, the interventions were usually physical yoga exercises with no explicit focus on ethical and meditative aspects. To evaluate the impact of these ethical and medicative components, we present qualitative data generated through in-depth interviews of psychiatric outpatients with mild to moderate depressive disorder who participated in the MBLM program.

The aim of this study was to better understand how MBLM practitioners with depression perceive intra- and interpersonal outcomes of their practice (including subjective assessments of how well it worked), and to discuss these in the light of the existing qualitative findings.

Methods

Design and setting

This qualitative study was part of a larger randomized controlled study, Meditation Based Lifestyle Modification in Depression (MBLM-D), which was conducted from August 2018 to June 2020. The study was registered at clinicaltrials.gov (NCT03652220). All participants completed informed consent forms prior to the study. All methods used in this study were approved by the Ethics Review Board of University of Chemnitz University of Technology (V-276-15-PS-MBLM-D- 14062018). In the MBLM-D study, outpatients at a psychiatric clinic were recruited to investigate the effectiveness of MBLM in depression. The patients were recruited via their attending psychiatrist and via fliers posted in the waiting room of the outpatient department. The study included outpatients who were at least 18 years old, who had been diagnosed with mild or moderate depression, and who achieved a total score of at least 10 points in the BDI-II (Beck Depression Inventory,[24] questionnaire for assessing subjective depression). Participants were included only if they were physically able to do gentle yoga exercises and to sit still for 20 minutes. Patients with obsessive-compulsive disorder, cerebral organic diseases, or addictive disorders, psychotic symptoms, or acute suicidality were excluded.

Participants were assessed quantitatively at 3 points: at baseline, before the intervention (T_0); post-test, immediately following the intervention (T_1); during follow-up, 4 months after the intervention had ended (T_2). At the first visit (T_0), within one week before the MBLM program started, participants provided informed consent and completed a baseline survey including sociodemographic and psychosocial questionnaires. The participants ($N = 81$) were randomized into 3 treatment groups: a) MBLM program;

b) tailored psychiatric-psychotherapeutic therapy; c) drug continuation therapy (Fig. 1). The intervention lasted 8 weeks.

For this qualitative study, we interviewed participants either post-test (T_1) or at follow-up (T_2), to identify any differences between short-term and long-term effects of the intervention. We interviewed only participants from the MBLM program, as we were interested in their subjective theories on the efficacy and working mechanisms of this specific treatment. Participants were contacted and interviewed consecutively after the first patient in the MBLM arm reached the 6-month follow-up (T_2).

Sample

A total of 12 patients (11 = female; 1 = male) aged 30–69 years (mean = 54; SD = 11.23) were interviewed for the present qualitative analysis. Patients were diagnosed with depression according to ICD-10 criteria (mild = 2; moderate = 10). Nine patients (75%) had recurrent episodes of depression (mean number of episodes = 2.58; SD = 2.47) and 3 of these patients had psychiatric comorbidities (2 patients with somatoform disorders, one patient with posttraumatic stress disorder). All patients had been diagnosed with depression for at least one year (mean = 9.67, SD = 10.65) and had received psychotherapy in the past (mean = 33.5 months; SD = 30.82). Six patients received regular antidepressant medication, and 3 of those also neuroleptic medication. Seven patients reported irregular yoga practice in the past and none of the patients reported practicing meditation in the past.

Intervention

The MBLM program[19] consists of 8 consecutive, weekly group sessions of 180 minutes each, and 45 minutes of recommended, daily home practice. Each group session (as well as training at home) includes 3 domains of practice, based on the 8-fold path of classical yoga: ethical living, healthy lifestyle, and mantra meditation. In the first part, ethical living, the therapists present the major aspects of yoga practice concerning virtue-based ethics, including constraints (nonviolence, truthfulness, non-stealing,

non-excess, and non-greed) and spiritual observances (purity, contentment, and transcendence). The topics change each week and the approach is educational and psychotherapeutic, with group discussion, considering participants' individual processes, and deepening them through mindful living exercises for home practice. During the second part, healthy lifestyle, the participants learn breathing exercises and gentle yoga postures suitable for people with depression and anxiety.[25,26] The therapist demonstrates all exercises and supports the participants by giving corrections if necessary. Participants also receive individualized healthy lifestyle advice based on basic Ayurvedic recommendations prior to the course. The third part of each group session is a mantra meditation period where participants silently recite a mantra, which they have chosen themselves from a list and learned to apply in an introductory session prior to the course.

Data collection

We created a semi-structured interview guideline, including topics that focused on subjectively perceived intra- and interpersonal outcomes of the participant's MBLM practice. The topics were inspired by the results of a previous feasibility study[20] and consensually developed by the research team. They referred to general perceptions about program-related changes in everyday life, depressive symptoms, and spirituality (Table 1). The topics were addressed in no specific order, but adapted to the individual course of the conversation, to create the most natural dialogue possible. Finally, the interviewees were offered space for any additional topics. Interviews typically lasted for about 45 minutes, were audiotaped, and then transcribed.

Data analysis plan

Data analysis was subjected to thematic analysis to extract overarching themes, guided by Braun and Clarke's methodology.[27] The approach consisted of 6 steps: (1) transcribing, multiple reading, and writing down of comments to familiarize oneself with the data; (2) generating initial codes through

systematic identification of text passages (an inductive approach was used, since the aim was not to test a theoretical framework, but to describe the data comprehensively; (3) condensing by classifying codes into potential higher-level themes and collating all relevant data; (4) aligning the themes with individual coded text passages of an interview and then with the entire data set (in this phase, a thematic map was created to illustrate connections, groupings, and hierarchies); (5) naming and defining the themes; (6) writing the analysis report, enriched with excerpts from the interviews.

The software f4analyse (version 2.5.4.0) was used to manage and analyze the data. JV and JG conducted the interviews and engaged in a recursive process of consensual coding to increase intercoder reliability. JV analyzed the first n = 6 (3 conducted at T_1 and 3 at T_2) interviews and created an initial thematic map. Based on the code system of these interviews, HB analyzed the remaining n = 6 (3 conducted at T_1 and 3 at T_2) interviews and created a final thematic map of the entire data set. Additionally, JG checked the coding process with the first n = 6 interviews by recursive consensual coding to increase the intercoder reliability. Researchers experienced in qualitative data analysis (KM and PS) supervised and evaluated the process.

Results

Thematic analysis of the interviews with participants in the MBLM program revealed 3 key themes: (1) reappraisal, (2) serenity (3), and mindful living. All themes were further differentiated into subthemes (Fig. 2): 1.1 Recognizing past cognitive and behavioral patterns; 1.2 Recognizing new opportunities; 1.3 New values; 2.1 Experiencing calm; 2.2 Recognizing and setting boundaries; 2.3 Acceptance; 3.1 Self-awareness; 3.2 Being present; 3.3 Conscious interactions. Each theme is presented in turn below, and the frequencies with which they were mentioned are shown in Figure 2. At the times when the participants were interviewed, no different themes emerged at T_2 compared to T_1, but quantitative differences were evident (see below). In addition to the quotes in the body text, Table 2 contains statements from participants to support each summary.

1. Reappraisal

Reappraisal was identified as the most dominant theme. All participants reported that the course stimulated them to engage with their lives, more precisely with ethical living, although this was more marked at T_2. In doing so, they considered both their past and present lifestyles in terms of ethical living and reported on new opportunities and values that emerged for them.

> "I have become aware of so many things about ethical living; I never paid attention to how important it is before." (56 yrs old, T_2)

1.1 Recognizing Past Cognitive and Behavioral Patterns

During the MBLM course, participants became aware of the basic behaviors and experiences that had caused suffering or difficulties in their previous lives. They mentioned low self-esteem, lack of self-congruence, feeling controlled by others, and aggressiveness toward others.

> "My self-esteem and self-confidence had hit rock bottom. And I really had to face up to that here" (63 yrs old, T_2)

The process of confronting one's own past was repeatedly experienced as painful:

> "First of all, THINKING about the fact that you did totally messed things up, that really did hurt a bit." (53 yrs old, T_2)

Instead of avoiding these uncomfortable issues, participants were intrinsically motivated to embrace this challenge to reflect beyond the 8 weeks of the course:

> "I also want to understand a lot of things and also, because of these questions I want to work on, [...] where I tell myself that I can really calmly and consciously look at it, and think about it." (59 yrs old, T_1)

Participants continued to reflect in this way, as is confirmed by their statements at T_2. Most of them stated that since taking part in the MBLM course they had become more aware not only of their own actions, but also those of the people around them, and would make decisions based on this, as one participant vividly expressed:

> "That wouldn't have occurred to me before, I used to go on holiday without thinking about it, but when I'm flying somewhere now, I wouldn't take this all-inclusive [last time we went] we sat there and said: 'We don't even know what you need it for. We don't want to go on vacation and just eat our fill all day, do we?' [...] I wouldn't have thought like that last year even IN A DREAM and sometimes I think: 'You've heard that here somehow'" (48 yrs old, T_2)

The only man and oldest participant in the sample pointed out that despite his advanced age, certain aspects of ethical living were new to him; these themes had helped him to sort things out and relate values better. At T_1, although they had taken up the challenge to reflect on their past, some participants doubted whether a fundamental lifestyle change at an advanced age really made sense and whether applying the virtues in Western culture was utopian.

> "I question a lot of things that now, that [...] actually I've lived through my whole life like this, it's sometimes not all that good [...] because, yes you question a lot, you've already gone a certain way and say [...] Is it worth starting over?" (59 yrs old, T_1)

In contrast, after 6 months, participants reported entirely positive effects of the reflection process.

1.2 Recognizing New Opportunities

The course topics not only encouraged people to come to terms with the past, but also led them to proactively reflect on their own behavior in everyday life.

> "Yeah, so this self-study, that's something, yeah, when I lie in bed at night and think: 'How could you have done it differently?'" (48 yrs old, T_2)

This reflection led to more inner clarity and also the courage to take appropriate opportunities for change.

> "It has changed that I [...] that everything has become much clearer to me. I have to say." (55 yrs old, T_2)

During the course, most participants became aware of intra- and interpersonal mechanisms that can promote a lifestyle with greater eudaimonic wellbeing.

> "the connection between gratitude and contentment, that's always the 'aha,' like a light going on in your head." (61 yrs old, T_1)
>
> "And I notice that if I am more responsive to him [life partner], which I can do well at the moment, we quickly find the connection to each other." (30 yrs old, T_1)

The overall picture that emerged from the interviews at T_2 was that participants' experiences had settled, deepened, and occupied a larger space in their own lives:

> "my way of life has completely changed." (55 yrs old, T_2)

1.3 New Values

In response to the opening question on perceived changes in daily life, interviewees reported a number of intentional and motivational changes regarding their values at both T_1 and T_2. Half of the respondents described a desire for more congruence between lived and felt realities in life:

> "Yes, this coming to terms with myself, being at peace with myself, that is a very important [...] life lesson for me. Being at peace with myself at last." (59 yrs old, T_1)

Some participants expressed gratitude for the opportunities and resources already available in their own lives:

> "You can be so grateful and, and, and sit down and smile and say 'You don't really have anything to do. Do everything you enjoy, everything.'" (61 yrs old, T_1)

Several participants mentioned satisfaction as a new value, noting in this context that material wealth no longer played such an important role in their hierarchy of values:

> "In the old days, that is, a few months ago, I would have been satisfied with a pile of money that meant I could afford anything. But that doesn't matter at all. And now, for the first time, this thinking has been stimulated" (30 yrs old, T_1)

Another common denominator that emerged was rediscovered value of interpersonal family relationships; coupled with this, domestic duties and media consumption were becoming less important.

> "Spending more time with the family, not just cleaning, or cooking all the time." (53 yrs old, T_2)

> "This togetherness, this listening, even if you just chat with each other for an hour, that's right, and not the other thing, this radio chatter all day or the TV that just drives you crazy, no, … and I always used to have something on somehow, even in the car." (59 yrs old, T_1)

Broader values, such as nonviolence, forgiveness, or truthfulness were emphasized by individual participants, especially at T_2. The overall impression was that the MBLM course turned participants' attention to new values:

> "This letting go and this forgiving. So now this, yes how can I put it, also this being more generous with each other, also the gratitude." (63 yrs old, T_2)

This interviewee was aware of this through changes in her lifestyle and generating hope for a better life, as she concludes:

> "I'll say this, it's my only lifeline. I'm relatively sure of that, only if I live that and the sense that I've always had inwardly anyway, which I've had confirmed here, if I live this serenity and calm, if I live this meditation, if I practice ethical living, I'll have a beautiful life." (37 yrs old, T_1)

2. Serenity

Engaging with the course content made all participants feel calmer. This was expressed through more balance and inner peace. Often, participants associated this greater composure with a higher level of acceptance on the one hand, and the ability to set boundaries on the other.

2.1 Experiencing Calm

Feeling calmer was mentioned by almost all interviewees at both interview times and was expressed individually in different experiences. One-third of the participants reported experiencing more calm, especially related to mantra mediation:

> "the meditation makes me calmer. Takes me from problems to other issues, to other thoughts, other content." (55 yrs old, T_2)

Another third reported feeling more balanced, more stable, and less agitated in everyday situations:

> "the last few weeks I've had a really intense feeling that I've become much calmer, [...] and that I also just don't get upset anymore" (30 yrs old, T_1)

Another comment on this topic concerned communication with other people; one interviewee noted being able to be more present and being less impulsive:

> "To just be present, stay calm [...] I also behave differently toward others" (59 yrs old, T_1)

2.2 Recognizing and Setting Boundaries

Two-thirds of the participants addressed an awareness of their own limits and the ability to assert this in different contexts; the latter was more important for interviewees at T_1:

> "But now I'm trying to set my boundaries a bit. ... because I notice my own limits" (64 yrs old, T_1)

Besides recognizing their own (physical) limits, participants mentioned setting boundaries related to circumstances that could not be changed like their own past, the expectations and opinions of other people, and past or harmful relationships:

> "I can say now that we also have confrontations at times, I've learned that too. To stand by my opinion and not tell anyone what to say anymore." (63 yrs old, T_2)

> "He's just like that, but it's his [ex-partner's] issue though. I'll leave that with him." (61 yrs old, T_1)

2.3 Acceptance

At T_2, more than half the interviewees expressed having achieved a higher level of acceptance. Some mentioned acceptance of the past, of the present, of the course of life and in general of things they could not change:

> "That's the way things are [...] you just have to be prepared to accept the way things are and make the best of it. And that's what I think I've learned a little bit" (48 yrs old, T_2)

Other statements referred to accepting one's own subjective shortcomings or wrong decisions:

> "Oh God, I could be 5 minutes late. Yes, then that's how it is. My God, we're all just people." (30 yrs old, T_1)

But reference was also made to allowing for other people's shortcomings:

> "I've been really very offended and hurt when sometimes he hasn't contacted me at all for weeks and months. In the end, now I see it in a different light, he has his job and he is self-employed" (63 yrs old, T_2)

3. Mindful Living

All participants reported greater mindfulness in the broader sense, which was expressed in self-awareness, being present in the moment, and conscious interactions.

3.1 Self-Awareness

The following citations range from a focus on their own person, to increased introspection, to regained perception of their own presence, including their physical presence:

> "that I can act from my center, according to my needs, which I first have to feel, the course also helped me with that" (61 yrs old, T_1)

> "I listen to myself even more now" (59 yrs old, T_1)

At T_2, the associated gratitude and self-esteem were also addressed:

> "And there's various gifts that I've rediscovered, that I can use them for myself, and that bring me joy and I wouldn't have got there without the study." (56 yrs old, T_2)

3.2 Being Present

Almost all participants stated that they were able to experience the present moment more consciously and be more present in it, especially at T_1. On this topic, one-third of respondents reported being more focused on the task in hand and multitasking less:

> "I do things more thoughtfully now, that is, no longer at the same time, but [...] I concentrate more on things and think about them" (53 yrs old, T_2)

For another third of the interviewees, conscious awareness of the present moment had become a source of pleasure:

> "well, you see nature quite differently when it awakens [...] spring with the birds and the flowers, well, I never experienced that before." (63 yrs old, T_2)

More physicality, associated with the yoga exercises and slowing down, was experienced as positive, although this appeared especially in the T_1 interviews:

> "these movements in yoga, that is such a physicality that I feel there. Where I used to just whizz over it." (61 yrs old, T_1)

3.3 Conscious Interactions

All participants expressed more conscious behavior in social interactions at both interview times. In particular, more open and honest interaction with life partners and other family members was cited as leading to deeper relationships:

> "then we also have deeper conversations, [...] that was not the case before, or very, very rarely, and now we take time out more often" (53 yrs old, T_2)

Almost all interviewees experienced taking a calmer, more respectful, and more considered approach. They said that communication was more attentive and receptive, so criticism and needs could also be heard, as the following examples illustrate, both in the context of the relationship and in their social circle:

> "And I notice that if I respond to him more, which I can do well at this moment, we can connect really quickly." (30 yrs old, T_1)

> "There are also situations [...] where I now say 'I'm listening, I'm listening to this.' Don't say so much, just give him a hug and then I've already helped" (61 yrs old, T_1)

Differences between the interview times

No themes emerged at T_2 that differed from those at T_1. However, the frequencies with which some themes or subthemes were mentioned changed with time. Reappraisal remained the most dominant

theme at T_2 and, unlike the other themes, was mentioned by all interviewees in all subthemes. The largest increase in individual mentions was recorded for the theme serenity, while 2 subthemes gained importance: acceptance and "recognizing and setting boundaries." The theme mindful living lost relevance in the subtheme "being present." A detailed overview of the changes is presented in Table 3.

Discussion

In this study, we analyzed semi-structured interviews to explore subjectively experienced intra- and interpersonal effects of MBLM practice on 12 outpatients with mild to moderate depression.

The most prominent theme that emerged from analysis of these interviews was reappraisal: reflection on past and present life, leading to new health-promoting opportunities and values. Virtue-based ethics (yoga *yamas* and *niyamas*) were explicitly mentioned as a key factor and an inspiring source of reorientation. Individuals sometimes described their insights as shocking and the ideal of life proposed by yoga was occasionally perceived as utopian. Nevertheless, overall, reappraisal led to individual empowerment and an appreciation of one's own strengths. These changes tended to become more manifest after 4 months (T_2) and can be interpreted as an antidepressant factor according to positive psychology.[28] The theme of empowerment (found in the subthemes "realizing new opportunities," "recognizing and setting boundaries," and "conscious interactions") has also been reported in qualitative studies of (primarily) body-oriented yoga for people with depression,[29,30] but was less prominent and referred to with less explicit cognitive and motivational statements.

As expected, due to its emphasis in MBLM, the participants explicitly highlighted values and virtues, and described them as a source of new vitality, inspiration, and orientation in their lives. This is consistent with Koenig's well-known model of spirituality and health, in which spiritual practice leads to the development of virtues, which in turn promote mental health.[31]

Reappraisal based on insights from virtue-based ethics also played an important role in interpersonal relationships and supported a more relaxed attitude in conflicts, a higher level of acceptance, and better ability to set boundaries and be more compassionate with others.

The centrality of ethical living in this study is in line with neurophysiological models of classical yoga[32,33] and supplements existing empirical models[9] with the explicitly cognitive components of MBLM's virtue-based ethics. Regarding the treatment of depression, developing healthier relationships has been shown to be effective and is one of the key factors in interpersonal psychotherapy.[34]

Furthermore, the subtheme "experiencing calm" expresses emotional stability and quieting of the mind as a mechanism of self-regulation, which is beneficial to symptoms of depression, like mood changes, anxiety, intrusive thoughts, and rumination. States of calm, a key element in meditative movement and a recurring theme reported in yoga studies,[4,35] were mentioned by participants in the present study with regard to body postures, but above all related to the practice of mantra meditation.

In the aforementioned synthesis of qualitative studies on body-oriented yoga practice for people with mental health conditions 6 of 11 studies were conducted with depressive patients.[4] Comparing the themes of these studies with the themes and subthemes identified in our study highlighted some differences. First, while the theme "healing as a process" (with the subthemes "overcoming obstacles" and "barriers to practicing") was prominent in the synthesis, it was less so for the participants of this study. One reason for this could be our participants' inspiration from virtue-based ethics, which may have made the daily routine of yoga and meditation practice more varied and attractive. Furthermore, although asked about it directly, our interviewees appeared less focused on their illness than is usually observed in patients with depression.[36] Instead of mere symptom relief, they commonly expressed a more global goal with phrases like "being at peace" or "finding inner peace." One possible explanation is that participants may have identified less as a "depressed person" after the MBLM program, which would be in line with its salutogenic and eudaimonic mechanisms of action and their effects on wellbeing.[37] Second, the key theme in the synthesis, "alleviation of suffering," overlaps considerably

with a key theme in this study, serenity, centering around emotional and cognitive stability. While, a subtheme in the synthesis, “physical health” was not raised by MBLM participants, they did report on specific psychological mechanisms to reduce suffering (namely, “recognizing and setting boundaries” and “acceptance”). Third, in the synthesis, the key theme of “self as an agent of change” showed a partial overlap with the MBLM study subthemes “realizing new opportunities” and “conscious interactions.” The synthesis subthemes of connectedness and “appreciating a holistic approach” where not an explicit theme for the MBLM participants (although mentioned in some individual statements). Finally, our participants made only sparse explicit statements about any change in spiritual experience or attitude. One possible explanation for this is the brevity of the intervention. Spiritual growth is a long-term and complex process.[38] Furthermore, spirituality is a complex psychological construct,[39,40] to which limited reference was made in the interviewees. Conscious aspects of the human psyche were easier for the interviewees to access and changes could remain unconscious, but still visible in behavior. The theme of serenity, and the subthemes of acceptance and new values which we identified could be interpreted as spiritual components, as for example in acceptance and commitment therapy.[41] MBLM also works well in a secular, humanistic context, however, and participants could have preferred this interpretation.

The study is not without its limitations. Due to the design and the sample size, no statements can be made about the specific effects regarding diagnosis, duration of illness, number of episodes, severity of depression, age or gender, or existing comorbidities. Furthermore, the specific effects of the individual components of MBLM, as well as interactions with existing therapies (e.g. previous psychotherapy, which was highly variable in our sample) can hardly be distinguished. From a sociodemographic point of view, the sample shows a relatively realistic gender ratio, since women are significantly more likely to be affected by depression than men.[42] Future studies could focus more on male participants, especially at a younger age, to be more representative.

Although the sample size is appropriate for thematic analysis, future studies should replicate the results using a larger sample, ideally in a multi-center approach. Treatment-naive participants should also be examined to rule out any interactions with previous therapies.

Strengths of the study include the novelty of the program in the field of integrative treatment of depression and the in-depth insights we gained into participants' subjective theories on how (well) it worked.

Overall, the results of this qualitative study provide complementary evidence of the effects of MBLM in the treatment of mild to moderate depression examined in the MBLM-D study. In particular, the explicit therapeutic implementation of virtue-based ethics may offer a valuable addition to previous mind-body programs. Reflection on virtue ethics in one's life may lead to transient distress; hence, sensitive therapeutic support is required to respond appropriately to unfavorable psychopathological developments. Nonetheless, new resources could be activated in the therapeutic process, even for patients with a long history of therapy. This shows the power of an integrative approach, in which physical, cognitive-emotional, social, and spiritual aspects are combined in a setting of continuous practice.

References

1. Hemant B, Arasappa R, Inbaraj G, Udupa K, Varambally S. Yoga for Mental Health Disorders: Research and Practice. In: *Handbook of Research on Evidence-Based Perspectives on the Psychophysiology of Yoga and Its Applications*. IGI Global; :179-198.
2. Klatte R, Pabst S, Beelmann A, Rosendahl J. The efficacy of body-oriented yoga in mental disorders - a systematic review and meta-analysis. *Dtsch Arztebl Int*. 2016;113(12):195-202. doi:10.3238/arztebl.2016.0195
3. Cramer H, Anheyer D, Lauche R, Dobos G. A systematic review of yoga for major depressive disorder. *J Affect Disord*. 2017;213:70-77. doi:10.1016/j.jad.2017.02.006
4. Capon H, O'Shea M, McIver S. Yoga and mental health: A synthesis of qualitative findings. *Complement Ther Clin Pract*. 2019;37(July):122-132. doi:10.1016/j.ctcp.2019.101063
5. Cramer H, Lauche R, Dobos G. Characteristics of randomized controlled trials of yoga: A bibliometric analysis. *BMC Complement Altern Med*. 2014;14:328. doi:10.1186/1472-6882-14-328
6. Pascoe MC, Thompson DR, Ski CF. Yoga, mindfulness-based stress reduction and stress-related physiological measures: A meta-analysis. *Psychoneuroendocrinology*. 2017;86(1):152-168. doi:10.1016/j.psyneuen.2017.08.008
7. Kanherkar RR, Stair SE, Bhatia-Dey N, Mills PJ, Chopra D, Csoka AB. Epigenetic mechanisms of integrative medicine. *Evidence-based Complement Altern Med*. 2017;2017(1). doi:10.1155/2017/4365429
8. Caplan M, Portillo A, Seely L. Yoga psychotherapy: The integration of western psychological theory and ancient yogic wisdom. *J Transpers Psychol*. 2013;45(2):139-158.
9. Kishida M, Mama SK, Larkey LK, Elavsky S. "Yoga resets my inner peace barometer": A qualitative study illuminating the pathways of how yoga impacts one's relationship to oneself and to others. *Complement Ther Med*. 2018;40(7):215-221. doi:10.1016/j.ctim.2017.10.002

10. Telles S, Singh N. Science of the Mind. Ancient Yoga texts and Modern Studies. *Psychiatr Clin North Am*. 2013;36(1):93-108. doi:10.1016/j.psc.2013.01.010

11. Bryant EF. *The Yoga Sutras of Patañjali. A New Edition, Translation, and Commentary*. New York, New York, USA: North Point Press; 2009.

12. Kamath Burde J, Honnedevasthana Shama Rao A. Self-actualization from an Eastern Perspective—A Preliminary Exploration. *Psychol Stud (Mysore)*. 2011;56(4):373-377. doi:10.1007/s12646-011-0097-7

13. Maslow A, Lewis KJ. Maslow's hierarchy of needs. *Salenger Inc*. 1987;14:987.

14. Rogers CR. *On Becoming a Person: A Therapist's View of Psychotherapy*. Constable London; 1967.

15. Koltko-Rivera ME. Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification. *Rev Gen Psychol*. 2006;10(4):302-317. doi:10.1037/1089-2680.10.4.302

16. Santos V, Paes F, Pereira V, et al. The Role of Positive Emotion and Contributions of Positive Psychology in Depression Treatment: Systematic Review. *Clin Pract Epidemiol Ment Heal*. 2013;9(1):221-237. doi:10.2174/1745017901309010221

17. Rose S, Zell E, Strickhouser JE. The Effect of Meditation on Health: a Metasynthesis of Randomized Controlled Trials. *Mindfulness (N Y)*. 2020;11(2):507-516. doi:10.1007/s12671-019-01277-6

18. Goldberg SB, Riordan KM, Sun S, Davidson RJ. The empirical status of mindfulness-based interventions: A systematic review of 44 meta-analyses of randomized controlled trials. *Perspect Psychol Sci*. 2020;43454:in press.

19. Bringmann HC, Bringmann N, Jeitler M, Brunnhuber S, Michalsen A, Sedlmeier P. Meditation-Based Lifestyle Modification (MBLM) – Development of an Integrative Mind-Body Program for Mental Health and Human Flourishing. *ResearchGate*.

2020;(https://doi.org/10.13140/RG.2.2.31824.74241/2).

20. Bringmann HC, Bringmann N, Jeitler M, Brunnhuber S, Michalsen A, Sedlmeier P. Meditation Based Lifestyle Modification (MBLM) in outpatients with mild to moderate depression: A mixed-methods feasibility study. *Complement Ther Med*. 2021;56:102598. doi:10.1016/j.ctim.2020.102598

21. Churchill R, Moore TH, Davies P, et al. Mindfulness-based "third wave" cognitive and behavioural therapies versus treatment as usual for depression. *Cochrane Database Syst Rev*. 2010;(7). doi:10.1002/14651858.cd008705

22. Van Gordon W, Shonin E. Second-Generation Mindfulness-Based Interventions: Toward More Authentic Mindfulness Practice and Teaching. *Mindfulness (N Y)*. 2020;11(1):1-4. doi:10.1007/s12671-019-01252-1

23. Verhoef MJ, Lewith G, Ritenbaugh C, Boon H, Fleishman S, Leis A. Complementary and alternative medicine whole systems research: Beyond identification of inadequacies of the RCT. *Complement Ther Med*. 2005;13(3):206-212. doi:10.1016/j.ctim.2005.05.001

24. Beck AT, Steer RA, Ball R, Ranieri WF. Comparison of Beck depression inventories -IA and -II in psychiatric outpatients. *J Pers Assess*. 1996;67(3):588-597. doi:10.1207/s15327752jpa6703_13

25. de Manincor M, Bensoussan A, Smith C, Fahey P, Bourchier S. Establishing key components of yoga interventions for reducing depression and anxiety, and improving well-being: a Delphi method study. *BMC Complement Altern Med*. 2015;15(1):1-10. doi:10.1186/s12906-015-0614-7

26. Tellhed U, Daukantaitė D, Maddux RE, Svensson T, Melander O. Yogic Breathing and Mindfulness as Stress Coping Mediate Positive Health Outcomes of Yoga. *Mindfulness (N Y)*. 2019;10(12):2703-2715. doi:10.1007/s12671-019-01225-4

27. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77-101. doi:10.1191/1478088706qp063oa

28. Sin NL, Lyubomirsky S. Enhancing well-being and alleviating depressive symptoms with positive

psychology interventions: a practice-friendly meta-analysis. *J Clin Psychol*. 2009;65(5):467-487. doi:10.1002/jclp.20593

29. Kinser PA, Bourguignon C, Taylor AG, Steeves R. "A feeling of connectedness": Perspectives on a gentle yoga intervention for women with major depression. *Issues Ment Health Nurs*. 2013;34(6):402-411. doi:10.3109/01612840.2012.762959
30. Kinser PA, Elswick RK, Kornstein S. Potential Long-Term Effects of a Mind-Body Intervention for Women With Major Depressive Disorder: Sustained Mental Health Improvements With a Pilot Yoga Intervention. *Arch Psychiatr Nurs*. 2014;28(6):377-383. doi:10.1016/j.apnu.2014.08.014
31. Koenig HG. Religion, Spirituality, and Health: The Research and Clinical Implications. *ISRN Psychiatry*. 2012;2012:1-33. doi:10.5402/2012/278730
32. Gard T, Noggle JJ, Park CL, Vago DR, Wilson A. Potential self-regulatory mechanisms of yoga for psychological health. *Front Hum Neurosci*. 2014;8(9):1-20. doi:10.3389/fnhum.2014.00770
33. Sullivan MB, Erb M, Schmalzl L, Moonaz S, Taylor JN, Porges SW. Yoga therapy and polyvagal theory: The convergence of traditional wisdom and contemporary neuroscience for self-regulation and resilience. *Front Hum Neurosci*. 2018;12(2):1-15. doi:10.3389/fnhum.2018.00067
34. Cuijpers P, Geraedts AS, van Oppen P, Andersson G, Markowitz JC, van Straten A. Interpersonal Psychotherapy for Depression: A Meta-Analysis. *Am J Psychiatry*. 2011;168(6):581-592. doi:10.1176/appi.ajp.2010.10101411
35. Payne P, Crane-Godreau MA. Meditative movement for depression and anxiety. *Front Psychiatry*. 2013;4(JUL):1-15. doi:10.3389/fpsyt.2013.00071
36. Kadam UT, Croft P, McLeod J, Hutchinson M. A qualitative study of patients' views on anxiety and depression. *Br J Gen Pract*. 2001;51(466):375-380.
37. Ruini C, Cesetti G. Spotlight on eudaimonia and depression. A systematic review of the literature over the past 5 years. *Psychol Res Behav Manag*. 2019;12:767-792. doi:10.2147/PRBM.S178255
38. Wink P, Dillon M. Spiritual development across the adult life course: Findings from a longitudinal

study. *J Adult Dev*. 2002;9(1):79-94. doi:10.1023/A:1013833419122

39. Walach H, Schmidt S, Jonas WB. *Neuroscience, Consciousness and Spirituality*. Vol 1. Springer; 2011.

40. Koenig HG. Research on religion, spirituality, and mental health: a review. *ISRN Psychiatry*. 2012;2013:1-33. doi:10.5402/2012/278730

41. Santiago PN, Gall TL. Acceptance and Commitment Therapy as a Spiritually Integrated Psychotherapy. *Couns Values*. 2016;61(2):239-254. doi:10.1002/cvj.12040

42. Demyttenaere K, Bruffaerts R, Posada-Villa J, et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *J Am Med Assoc*. 2004;291(21):2581-2590.

43. Keyes CLM. Promoting and Protecting Positive Mental Health: Early and Often Throughout the Lifespan. In: *Mental Well-Being*. Dordrecht: Springer Netherlands; 2013:3-28. doi:10.1007/978-94-007-5195-8_1

Table 1

Interview Guidelines

	Topics addressed, outlined by example opening questions
1.	How did you experience and evaluate the intervention in general?
2.	What was your experience with the different parts of the program?
3.	What, if any, changes do you perceive in everyday life?
4.	What, if any, new skills have you gained (intra- and interpersonal)?
5.	How did the intervention affect your depressive symptoms?
6.	What did you suffer most from? Do you perceive a change in this regard?
7.	Would you say your perspective on life has changed since then?
8.	Do you believe in a higher power in life? Do you perceive a change in this regard?

Note: The opening questions were not necessarily asked verbatim or in that particular order. It was more important to address the topic of each question in general, following the natural flow of conversation as directed by the interviewees.

Table 2

Example Statements

Theme	Subtheme	Examples
Reappraisal	Realizing past way of life	"I separated from my husband 5 years ago now and I think, only now, [...] then I first thought about it in a different way" (48 yrs old, T_2)
		"I have become aware of so many things about ethical living, I never paid attention to how important it is before" (56 yrs old, T_2)
		"I always functioned until I couldn't go on. First of all, THINKING ABOUT the fact that you did it totally wrong, that did hurt a bit" (53 yrs old, T_2)
		"before I was the type to just start yelling if something didn't suit me. I went from zero to 100 instantly freaking out" (30 yrs old, T_1)
		"I was so stuffy before. I had to really have everything go according to plan." (30 yrs old, T_1)
	Realizing new opportunities	"these thoughts keep coming back: How is it right? How do I do it right? And why don't I do it that way if I did it wrong once?" (56 yrs old, T_2)
		"Not stealing is really just thinking about someone taking something from you, but not the whole emotional thing. That, again, made quite a deep impression on me." (64 yrs old,T_1)
		"now it's a new experience again. Well, to get up and look out over my hill, like, I call it a molehill (laughs), to look outside it again." (55 yrs old, T_2)
		"I'm a new person again. Or an old one, like I was. I mean, I'm setting my limits. I am someone, too, and I would like to see my wishes put first, too" (63 yrs old, T_2)
	New values	"I'm so very grateful that my children are healthy and that they're there and [...] yes [...] that's certainly been reinforced, that's certainly changed or been reinforced again" (37 yrs old, T_1)
		"Well, I would be lying if I said now that I [...] have absolutely no interest in any material things. But [...] I didn't have to [...] ALWAYS [...] wear the latest fashion, or anything" (48 yrs old, T_2)
		"The desire to set myself free. And to keep going and not stop. And, um, very simply, yes. To act from my center, autonomously, and not to let myself go, but to decide for myself" (61 yrs old, T_1)
		"After all, these mantras all point to this, this nonviolence. And if everybody would do something like that, would live nonviolently, there would be no more wars" (55 yrs old, T_2)
Serenity	Experiencing calm	"[I'm] not quite as agitated about everything anymore" (48 yrs old, T_2)
		"Yes, I have become more stable again. More balanced, more stable." (64 yrs old, T_1)
		"through meditation also sometimes to take your mind off things and calm down. Well, I must say [...] that is something that has done me good" (55 yrs old, T_2)
	Recognizing and setting boundaries	"well, this is what I learned here. Not looking [and thinking] 'that has to be done and that has to be done,' nah, that only goes so far today. Well, I definitely learned that especially here." (37 yrs old, T_1)
		"I don't have to please everyone anymore" (48 yrs old, T_2)
		"every subject [...] where someone else, a work colleague gets involved, you don't have to participate, that's not you, that's not your opinion" (56 yrs old, T_2)

Theme	Subtheme	Examples
	Acceptance	"my mother has died now, but nevertheless I could forgive then, so that also makes me much calmer, so no more 'At that time there was this and that and why did she do that?'" (53 yrs old, T_2)
		"that I have to take a step back on that and let my adult children make their mistakes too." (61 yrs old, T_1)
		"I can see past it. This would never have happened to me before. If the doily hadn't been lying straight I would have been / that would have driven me crazy having to straighten it. It had to be perfect." (63 yrs old, T_2)
Mindful Living	Self-awareness	"I was just basically reinforced in what I believe, what is right for me. [...] that I'm living this permanently." (37 yrs old, T_1)
		"if I look inside myself a bit honestly, I find a lot of things that are beautiful now" (48 yrs old, T_2)
		"well, you notice the body better. You simply notice yourself more" (55 yrs old, T_2)
	Being present	"One does a lot of things in passing, even eating, so many things in passing, without being more and more aware, this perception, well, I have become more aware of that in these last weeks." (59 yrs old, T_1)
		"Well, I look up more often, sometimes, and then see these little things that just, I mean, bring a bit of happiness." (69 yrs old, male, T_1)
		"you pay much more attention to yourself and the environment, nature. You perceive everything totally differently." (30 yrs old, T_1)
	Conscious interactions	"where before a lot was dulled, just on the side. You approach each other more consciously." (59 yrs old, T_1)
		"not to overshoot the mark emotionally, but to react to certain situations or persons in such a way that one tries / that I try to take a step back" (69 yrs old, male, T_1)
		"You can, when you change your view, also give a lot more because you understand a lot more. And not judging or condemning, but doing it with kindness and with understanding and with a change of perspective" (61 yrs old, T_1)
		"this would never have happened to me before: I talk to my father, I tell him about a good thing that happened to me or something, or what I sometimes worry about or what's on my mind" (63 yrs old, T_2)

Table 3

Differences in Frequency of (Sub-)Themes between T_1 and T_2

		T_1		T_2			
Theme	Subtheme	*n*	s	*n*	s	Δ*n*	Δs
Reappraisal		6	114	6	123	0	9
	Realizing past patterns	5	15	6	25	1	10
	Realizing new opportunities	6	39	6	41	0	2
	New values	5	60	6	67	1	7
Serenity		6	53	6	100	0	47
	Experiencing calm	5	12	5	17	0	5
	Recognizing and setting boundaries	5	31	5	43	0	12
	Acceptance	3	9	4	39	1	30
Mindful living		6	78	6	71	0	-7
	Self-awareness	4	26	4	29	0	3
	Being Present	6	21	5	7	-1	-14
	Conscious interactions	6	22	6	29	0	7

Note: Number of participants mentioning a theme (*n*) and total number of statements that have been assigned to that particular (sub)theme (s) – directly after 8 weeks on the MBLM program (T_1) and 4 months later (T_2). The last 2 columns on the right show the difference between T_2 and T_1 in number of participants (Δn) and statements (Δs).

Participant flow

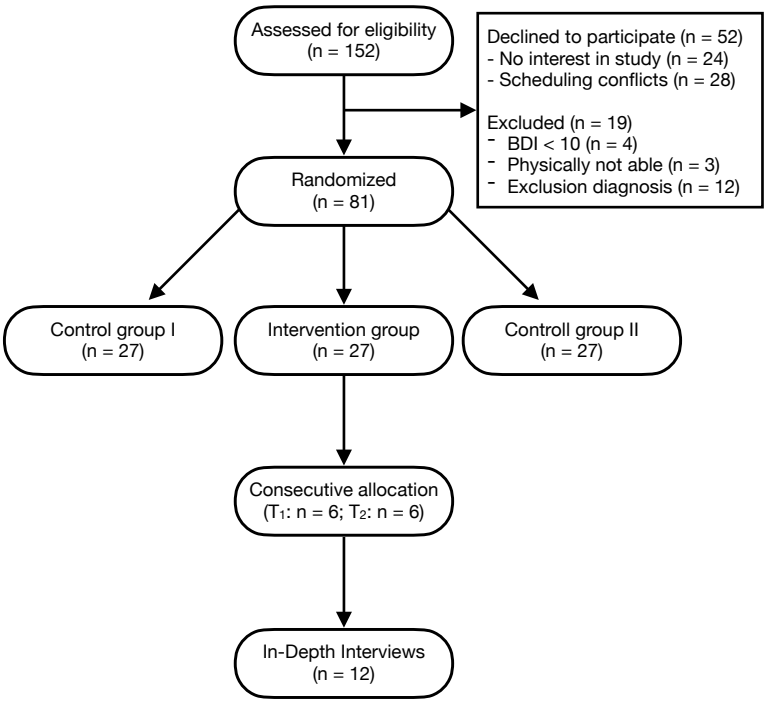

Figure 1. Participant flow. BDI; Beck Depression Inventory.

Themes and subthemes

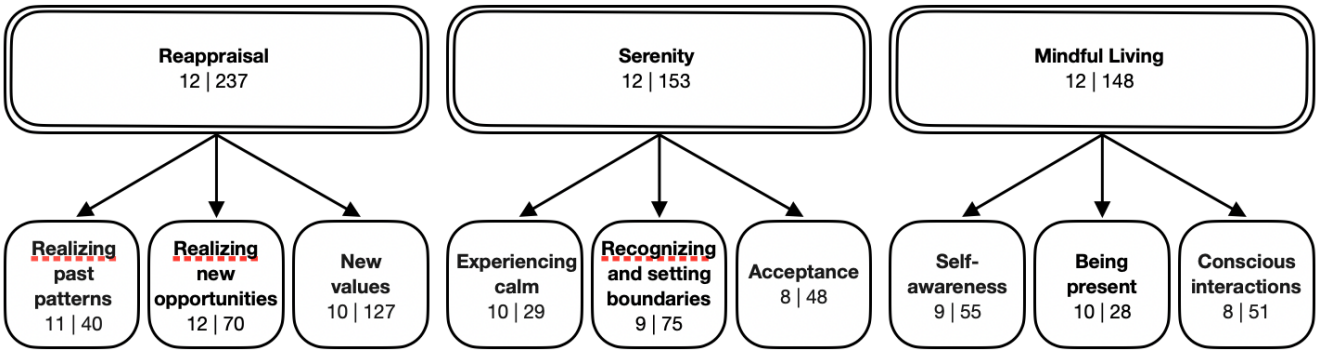

Figure 2. Themes (upper row) and corresponding subthemes (lower row). For each entry, 2 numbers *n* | *s* are given: *n* denotes the number of participants talking about that theme, and *s* denotes the total number of statements that have been assigned to that particular (sub)theme.