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**Experiences of mindfulness practice in patients suffering from
mental fatigue after an acquired brain injury**

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Abstract. The current study contains a qualitative analysis of interviews examining the subjective experiences of mindfulness-based stress reduction (MBSR) as a clinical treatment for people suffering from mental fatigue after an acquired brain injury. 6 patients, subjected to the treatment, were interviewed in order to enable a thematic analysis of their experiences. The result provides a multidimensional understanding of how mental fatigue patients can both benefit and struggle in their mindfulness practice – a result that coheres with general knowledge from resembling inquiries. However, the analysis has exceeded previous quantitative knowledge by qualitatively explaining how MBSR reduce mental fatigue and increase neuropsychological function amongst mental fatigue patients. Additional particularly relevant benefits from MBSR for patients with mental fatigue have been identified.

Keywords: mindfulness, experiences, mental fatigue, interview, brain injury.

Mindfulness is generally understood as the ability to purposefully, inquisitively and non-judgmentally, witness internal and external experiences as they arise in the present moment (Bishop et al., 2004; Kabat-Zinn, 2001, 2003). Descending from ancient esoteric and religious traditions, mindfulness based interventions (MBIs) – concerned with cultivating mindful capabilities – have gained a promising role in contemporary medical and psychological practice (Kabat-Zinn, 2011). Indeed, meta-analytical studies and research overviews confirm the role of MBIs in treating and preventing unwanted physical and psychological conditions within modern health care (e.g. Alsubaie et al., 2017; Baer, 2003; Cullen, 2011; Gotink et al., 2015; Praissman, 2008).

The wish to further understand the effects and utility of MBIs and how to calibrate them to be more accurate and effective in application to specific medical conditions and health interventions, has resulted in a growing field of brain imaging research that aims at uncovering the neural mechanisms of mindfulness (e.g. Gallant, 2016; Gundel et al., 2018; Heeren, Van Broec, & Philippot, 2009; Marchand, 2014; Marusak et al., 2018; Malinowski, 2013; Tang & Leve, 2016; Wheeler, Arnkoff & Glass, 2017). These studies have further confirmed and explained the interventional efficacy of MBIs.

Amongst MBIs, mindfulness based stress reduction (MBSR) – a program based on body scans¹, yoga sequences, breath meditation and group discussions – and its adapted version for clinical depression – mindfulness based cognitive therapy (MBCT) – are arguably the most prominent and well researched programs (Chaskalson & Hadley, 2015; Hazlett-Stevens, Singer & Chong, 2018; Niraj, Wright & Powell, 2018). MBCT is recommended for the treatment of adults with major depressive disorder by the American Psychiatric Association (APA, 2010) and regarding MBSR, meta-analytical studies and overviews confirm the efficacy of it as a medical and psychological intervention for treating and preventing various conditions (e.g. Bohlmeijer, Prenger, Taal & Cuijpers, 2010; Gotink, Meijboom, Vernooij, Smits & Hunink, 2016; Grossman, Niemann, Schmidt & Walach, 2004; Guendelman, Medeiros & Rampes, 2017; Khoury, Sharma, Rush & Fournier, 2015). More specific meta-analytical research on MBSR treatment in relation to chronic pain (Veehof,

¹ Body scan is a mindfulness practice in which the participant is guided by voice instructions in order to introspectively *scan* the body with the purpose of detecting sensations that take place throughout the body (see Cullen, 2011).

Trompetter, Bohlmeijer & Schreurs 2016) and mental health amongst breast cancer patients (Zainal, Booth & Huppert, 2013) suggests that MBSR is a useful complement to contemporary medical treatments.

Another specific example of how MBSR has shown promising results in medical health care concerns the treatment of patients suffering from mental fatigue after an acquired brain injury (ABI) for whom MBSR has proven to reduce mental fatigue levels and improve neuropsychological functioning (Johansson, Bjuhr & Rönnbäck, 2012; Johansson, Bjuhr, Karlsson, Karlsson & Rönnbäck, 2015a). Further, two quantitative studies on advanced MBIs provided to mental fatigue patients have shown promising results (Johansson, Bjuhr & Rönnbäck, 2015b; Johansson & Bjuhr, 2018).

Mental fatigue typically implies that the patient suffering from it only can utilize cognitive resources for short periods of time and then require longer rest than normal to restore the exhausted mental capabilities – a condition that poses several challenges for day-to-day activities (Johansson et al., 2012). As patients suffering from mental fatigue experience mental exhaustion as a part of their condition (Johansson et al., 2015b), this could pose challenges when practicing mindfulness since such resources play a central role in specific mindfulness practices such as focused awareness and body scan. Therefore, it's intriguing that mental fatigue patients have proven to benefit substantially from MBSR, as shown by the quantitative studies mentioned above. To date there are seemingly no qualitative knowledge available to explain this.

A qualitative evaluation study on internet-delivered MBSR for mental fatigue patients investigated experiences amongst participants and identified previously known benefits of the program such as increased awareness, heightened energy-levels, increased calm and increased positive thoughts (Johansson & Bjuhr, 2016). However, the purpose of the study was to evaluate the learning potential of such an internet intervention and it did not qualitatively investigate the experiences of MBSR in relation to participants' experiences of mental fatigue or in relation to the quantitatively proven benefits of MBSR for mental fatigue shown by Johansson et al. (2012) and Johansson et al. (2015a). Addressing this research gap could shed light on how patients subjectively experience general and specific challenges and benefits of mindfulness practice in relation to their condition. Such insights could enable a qualitative understanding of *why* and *how* these patients benefit from MBSR, as shown by the previous quantitative studies mentioned above.

The aim of the current study is to create some understandings of subjective experiences of a MBSR intervention for patients suffering from mental fatigue after an ABI – a group of patients that to the best of the author's knowledge haven't been subjected to a qualitative inquiry as the one proposed here.

Two research questions were formulated in order to operationalize the purpose and guide the analysis: 1. *What experiences of mindfulness training can be found amongst patients with mental fatigue after an acquired brain injury who have taken part in a mindfulness-based stress reduction program?* 2. *How do the uncovered experiences relate to the patients' experiences of their medical conditions and everyday challenges?*

Previous research

Qualitative and subjectively informed studies have been argued to be important in developing MBIs and deepening the understanding of the existing body of research on mindfulness (Guendelman, Medeiros & Rampes, 2017). Despite the great interest in enclosing and describing the benefits of meditation and mindfulness training, there have been relatively few studies that have qualitatively explored the subjective experiences and first hand accounts

of MBIs. In 2017 there were nearly 7000 scientific articles published on the topic of meditation and mindfulness (Goleman & Davidson, 2017). When conducting a literature search in November 2018, 29 studies were found that used qualitative interview methodology, mixed methods or meta-analysis in order to explore patients' experiences of MBIs.² These studies will be presented below and will be used when discussing the results of the current study further below.

A meta-ethnographic study by Malpass et al. (2012) provides an overview and analysis of studies that have aimed at investigating patients' experiences of healthcare delivered MBCT and MBSR interventions. The study in question frames how the mindfulness process can aid patients in gaining a changed and deeper understanding of their illnesses and how they can use mindfulness in order to deal with their challenges. Visser, de Witte, Speckens, Prins & van Laarhoven (2015) investigated the experiences of breast cancer patients during and after a MBI by using interviews and showed results indicating both beneficial but also stressful outcomes. Another interview study on cancer patients' experiences of MBSR showed a number of positive outcomes such as perceived better sleep, increased calm and less physical pain (Kvillemo & Bränström, 2011). Thereto, the study noted that some patients felt no effect of the intervention and that there were both negative and positive experiences of specific parts of the program.

In a study investigating the experiences of a MBCT program for patients with medically unexplained symptoms, researchers concluded that the intervention was experienced as an initiator of change, leading to heightened moment-to-moment awareness as well as increased self-care and self-compassion (van Ravesteijn et al., 2014). Similar results were also found in a study examining the experiences of an MBI collected from patients suffering from diabetes and coronary heart disease (Keyworth et al., 2014). Additional studies using the same or similar qualitative approaches or mixed methods have also included patients with bipolar disease (Chadwick, Kaur, Swelam, Ross & Ellett, 2011), respiratory conditions with following symptoms of anxiety and depression (Malpass, Kessler, Sharp & Shaw, 2015), hypochondriasis (Williams, McManus, Muse & Williams, 2011), posttraumatic stress disorder (Müller-Engelmann, Wunsch, Volk & Steil, 2017), multiple sclerosis (Bogosian, Hughes, Norton, Silber & Moss-Morris, 2016), fibromyalgia syndrome (Van Gordon, Shonin & Griffiths, 2016), chronic pain (Moore & Martin, 2015; Morone, Lynch, Greco, Tindle & Weiner, 2008), cancer (Mackenzie, Carlson, Munoz & Speca, 2007), palliative conditions (Chadwick, Newell & Skinner, 2008), Parkinson's disease (Fitzpatrick, Simpson & Smith, 2010), cardiac conditions (Griffiths, Camic & Hutton, 2009), chronic fatigue syndrome (Surawy, Roberts & Silver, 2005), psychosis (Dennick, Fox & Walter-Brice, 2013) and depression (Finucane & Mercer, 2006; Lilja, Broberg, Norlander & Broberg, 2015; Mason & Hargreaves, 2001; Michalak, Burg & Heidenreich, 2012; Munshi, Eisendrath & Delucchi, 2012; Smith, Graham & Senthinathan, 2007).

Regarding patients suffering from acquired brain injuries, there are three notable studies that have examined the experiences of MBIs in such patients. Azulay, Smart, Mott &

² A literature search was conducted in November 2018, using the research tool PsycINFO, in order to identify qualitative research that incorporated the search-words "mindfulness", "experience" and "patient". The search was executed, only incorporating peer-reviewed articles concerning adults and interview methodology. The search generated 67 articles. An additional search including the search-words "mindfulness", "experience" and "brain-injury" generated 7 articles and one dissertation. After over-viewing the literature it appeared that 15 of the 74 studies found were relevant as they focused on and qualitatively investigated patients' experiences of participating in MBIs as a part of their treatment or rehabilitation, which the majority of the remaining 60 studies did not. An extended literature search including qualitative methodologies in general generated one additional study (Morone, Lynch, Greco, Tindle & Weiner, 2008). 13 additional studies were found by reference in the material from the initial literature search on PsycINFO. All 29 studies, selected from the literature search, are referred to in this section.

Cicerone (2013) studied the effects of a MBSR intervention for patients with symptoms of chronic mild traumatic brain injury or post-concussive syndrome. The study used self-assessment scales and concluded that the measured effects of the intervention indicated improved quality of life and heightened self-efficacy among patients. However, the study did not qualitatively assess the outcome of the intervention, thus potentially overseeing empirical fragments and details that can be captured in interviews but not by quantitative means. Such a qualitative exploration was the apparent aim of a recently published dissertation titled “A qualitative study exploring the experiences of mindfulness training in people with acquired brain injury” (Niraj, 2017). Using semi-structured interviews in focus groups, the study put forward a set of inducted themes that include topics such as group learning benefits, increased awareness, developmental learning and several other physical and psychological benefits of mindfulness training (Niraj, 2017: 77). Even though providing some first-hand insights on how patients experience the MBI in relation to their condition and following challenges (ibid: 96-97), the dissertation does not seem to in detail assess specific qualitative empirical data and how these can benefit the understanding of how MBIs work for patients with ABIs.

An article, seemingly drawing upon the same empirical material, methods and presenting the same or very similar results as the dissertation by Niraj (2017), provide more detailed qualitative accounts of ABI-patients experiences of a MBI (Niraj et al., 2018). Thereto, the article rightly concludes that the analysis seem to confirm that MBIs can work for patients with ABI. However, very little or no clarification is made on how the experiences of the MBI relates to the patients medical condition. This is only briefly mentioned in the discussion (ibid: 17-18). Instead, the experiences put forward mainly exemplify the general knowledge on how MBIs in healthcare are perceived by patients. Thus, improvements may have to do with creating more detailed couplings between ABI-patients experiences of MBIs in relation to their specific medical day-to-day challenges. The current study will answer the request by Niraj et al. (2018) to conduct further qualitative studies on MBIs for patients with ABI. The current study is the fourth study to date that qualitatively assesses this subject and the second study to date, alongside Johansson & Bjuhr (2016), which qualitatively examines MBIs for people with mental fatigue.

Materials and methodology

Participants and MBSR intervention

All participants had been diagnosed with mental fatigue after various ABIs; three patients had suffered from mild traumatic brain injury/concussion, two from stroke and one was recovering from surgery after a brain tumor. The time since falling ill ranged from eight to seventy-two months, mean twenty-nine months, and all participants had active symptoms of mental fatigue, severe enough to make them subjects to 100% sick leave. Participants age span ranged from twenty-five to sixty-two with a mean age of forty-four. The study included five female and one male participant. Two participants had high school education but no higher education whilst four had received university education.

The participation frequency could arguably be described as very high and was relatively evenly distributed between participants; five out of six participants missed one session each out of a total of nine sessions and one participant attended all sessions. Participant’s previous knowledge of mindfulness was overall to be considered as novice. One participant had however been practicing brief sessions of mindfulness almost daily for a couple of months prior to the intervention and another participant had tried mindfulness briefly through a digital mindfulness service. Several participants had tried yoga and one

participant had been attending body scan sessions at the neuro-rehabilitation center of Sahlgrenska university hospital, Högsbo, Gothenburg; the same location at which the MBSR program was given and the interviews were conducted. The MBSR program, led by the supervising researcher³, consisted of eight weekly group sessions with a duration of 2.5-hours, one day-long silent retreat that was given between session six and seven and an encouragement to practice at home for 45 minutes, 6 days a week. The 45-minute homework sessions were instructed through sound recordings and included different formal exercises that also constituted the group sessions such as meditation, yoga and body scans. In addition to practice formally, participants were encouraged to practice informally, that is, to be attentive and present in routine activities such as brushing ones teeth, getting dressed, preparing food etcetera. The program followed the formal MBSR practices as described by Cullen (2011) and that originates from the MBSR curriculum as formulated by Kabat-Zinn (2001). However, to better fit the needs of patients with mental fatigue, formal instructions were reduced to be more concise and were repeated in order for patients to better grasp them.

Interviews

Since the aim of the current study was to create a qualitative understanding of the subjective experience of mindfulness training amongst patients, a plausible method seemed to be semi-structured interviews. Such methodology constitutes a spontaneous and inductive process of letting the interviewees take part in guiding what topics to prioritize during the interview. This means that the interviewees can relatively freely express their experiences, which creates the opportunity to capture subjective first-hand empirical fragments and details. Such empirical data tend to be precluded in quantitative approaches such as self-assessment scales since they deductively frame the respondents' answer and thus limit the accommodation for subjectivity. However, it should be noted that a semi-structured interview also comes with an intrinsic deductive tendency since questions usually are informed by previous knowledge.

The interviews conducted for the current study, ranging between 36-60 minutes (mean = 50 minutes), were semi-structured with a thematic design including questions on the experiences of the MBSR program in itself, how it related to the patients challenges from their medical condition and how they viewed their potential future practice (see appendix). The general questions in the questionnaire were inspired by some of the open questions guiding the qualitative evaluation study, mentioned above, by Johansson & Bjuhr (2016). Interviews were recorded by sound and thereafter transcribed into text. All interviews included spontaneous questions that emerged in response to the interpretations and answers given by the interviewees.

The interviews took place in the neuro-rehabilitation center of Sahlgrenska university hospital, Högsbo, Gothenburg, Sweden. The interviewees had, as described above, prior to the interviews taken part in an eight-week MBSR program provided by the public healthcare system at the same location. The interviews were conducted in adjacent to the end of program – roughly within the same week the program ended in December 2018.

Excerpts from interview transcripts were translated from Swedish and slightly adapted to heighten readability. The pseudonyms allows the reader to follow each participants

³ The combined role of MBSR-teacher and supervising researcher is not preferable since the roles can compete due to research biases towards particular outcomes or that the teaching role influences interviewees responses because of relational factors. Therefore, the supervising researcher did not take part in neither the conduction of interviews or in the analysis of the empirical data. The participants were made anonymous to the teacher after the interviews and were informed of this before being interviewed in order to enable them to speak freely.

narrative and all narratives are represented as much as reasonable. However, continuous representation and coverage of all narratives have not been an aim. Rather, the excerpts presented throughout the result section are included because of their contribution to the understanding of what have appeared as general experiences and insights amongst participants. Regarding questions and cases where participants have put forward deviant perspectives, these have been presented and addressed in order to provide an upright and honest account of the empirical data as a whole.

Ethical concerns

All interview subjects were formally (in text) and informally (verbally) informed of the conditions of participation. Amongst the conditions were the unconditional permission to withdraw from participation at any time during the study, professional secrecy by the author of the thesis and the supervising researcher, secured treatment of data, anonymity and terms of data usage. All participants gave their informed consent to participate under the provided conditions.

In order to secure anonymity, no names were written down at any step in the study. Instead, coded names were used during the whole process. All interviews were transcribed from sound files to text within a day after the original recording. Thereafter the sound files were permanently deleted. As the group was relatively small, the demographical information had to be presented in a non-individual fashion. If such information had been presented for each participant, the anonymity would have been compromised. However, concerning the citations from interviews, pseudonyms were created in order to allow the reader to follow each individual narrative. Gender-neutral names were used to secure the male participant's anonymity. For purposes of convenience, feminine pronouns were used for all participants.

Thematic content analysis

A thematic content analysis⁴ was executed in order to process the material gathered from the interviews in relation to the two research questions. During the thematic analysis, no active use of a theoretical framework took place. Rather, the themes emerged inductively from the empirical data but should be regarded as tainted by the latent theoretical preunderstandings of the author.

The thematic content analysis, as applied in the current study, included the following steps: firstly, the raw transcripts (roughly 40 pages) from the interviews were read three times in order for the interviewer to get familiar with the material. Secondly, analytical coding was initiated and performed in several stages. What appeared to be the essence of each interviewee's answer in relation to each question in the interview guide were gathered in order to create an overview of all the answers (the original sum of 40 pages of interview transcripts were reduced to roughly 20 pages). Then the collected answers were read three times in order to identify and saturate reoccurring emergent patterns. Thirdly, when analytical saturation was considered to be achieved, relating patterns found in the texts were clustered into themes. Finally, the themes were categorized into a theme hierarchy that in turn came to constitute the headings throughout the results section below.

⁴ The appliance of qualitative content analysis, as used in the current study, is theoretically derived from Drisko & Maschi (2015) and implies the addressing of both manifest and latent ideas and beliefs discovered in the empirical data.

Results

The results presented in this section provide a range of analytically framed insights and close accounts of the experiences of practicing mindfulness as part of a rehabilitation regime for patients with mental fatigue after an ABI. As shown in the questionnaire (see appendix), several of the questions posed were oriented towards understanding the interviewees experience of the MBSR program in relation to their medical condition. However, the questions were not aimed at in detail enclose the medical conditions in themselves as much as the experiences of the mindfulness training in relation to the former.

Table 1

Themes, theme hierarchy and type example quotes depicting experiences of MBSR practice in patients suffering from mental fatigue after an acquired brain injury

Superordinate themes	Subordinate themes	Type example quotes
1. Altered prospects	1.1. Noticing, understanding and accepting mental fatigue through mindfulness	<i>"A greater awareness, but above all, receptivity or acceptance that it [mental fatigue] is there and that it comes at any time and that, yes; not to put up a fight against it; to understand that it is there and what happens." (Winter)</i>
	1.2. Being kind to the brain and the self	<i>"I think the most important thing is that I've learned to be kind and cautious and responsive to myself; it have become clear that I've never been this before [laughter] and I believe this to be somewhat the core of it all." (Charlie)</i>
	1.3. A change of focus in the midst of challenge	<i>"I have gained so much more insight into things. I have actually become much calmer. I do not stress as much, so in that way it has been fantastic. It's been a bit crucial to me if you say so." (Ari)</i>
2. Altered approaches	2.1. A tool for managing energy resources	<i>"To learn about breathing and listening to my own breathing and using my breath as a protection mechanism or whatever to call it; this is something you learn here [...]." (Max)</i>
	2.2. Choosing and changing ones context and priorities	<i>"I make more active choices to abstain or maybe to, to not expose myself to the abject stimuli but also when I do so I do it consciously and rest; put in spaces for rest and meditation [...]." (Winter)</i>
3. Altered dispositions	3.1. Prioritizing a self-caring disposition	<i>"I have learned that it is important to take care of yourself which I have never thought of in that way before. I have thought it to be a bit selfish to put yourself in the first place but have learned now that there is a difference between egoism and taking care of yourself in a gentle way." (Taylor)</i>
	3.2. Enjoying everyday life – settling in the now	<i>"This thing with mindfulness, that you almost think like when you were a child. Such small things; that you become very happy when you see the small spring onions shooting up from the soil in the spring." (Emery)</i>

Table 1 provides an overview of themes, the hierarchy of themes and corresponding type example extracts from the interviews. The themes will be addressed and further exemplified under the following headings below. Table 1, and its explanations throughout the result section, aims at answering the research questions: 1. *What experiences of mindfulness training can be found amongst patients with mental fatigue after an acquired brain injury who have taken part in a mindfulness-based stress reduction program?* and 2. *How do the uncovered experiences relate to the patients' experiences of their medical conditions and everyday challenges?* The analysis presented here does not attempt to be exhaustive. Nor should the themes be viewed as clearly distinguishable or pure. Rather, the superordinate and subordinate themes are complementary to each other and hopefully constitute a dynamic suggestion of how the experiences of the participants can be made understandable.

Altered prospects – a change of outlook on mental fatigue and life

The first guiding superordinate theme, *altered prospects*, allows us to appreciate participants experiences of gaining new outlooks on – or insights to – their mental fatigue and accompanying life challenges through the practice of mindfulness. This first theme describes a shift in perspective or focus, as experienced by the participants. The three subordinate themes: *noticing, understanding and accepting mental fatigue through mindfulness, being kind to the brain and self* and *a change of focus in the midst of challenge*, signify components in the process of emergent altered prospects.

Noticing, understanding and accepting mental fatigue through mindfulness. The first subordinate theme of *altered prospects* frames the collective – inter-subjective – realization and acceptance of mental fatigue and its challenges amongst the participants. In the words of Max:

“Firstly, I’ve learned that what I experience in my brain is also experienced by other people in their brains.” (Max)

In the quote above, Max expresses a shared experience amongst participants; with the practice of mindfulness in combination with the educative components of the program, participants began to notice their own symptoms of mental fatigue more clearly and realized that they shared many of these symptoms and challenges with each other. The following reasoning by Winter eloquently expresses the arising awareness and the acceptance that can come from first-hand realization of the nature of mental fatigue:

“Yes, a greater awareness, but above all, receptivity or acceptance that it [mental fatigue] is there and that it comes at any time and that, yes, not to put up a fight against it. To understand that it’s there and what happens.” (Winter)

In the quote above, Winter witness of the impact of becoming aware of a condition that previously had a somewhat diffuse and undefined – but still highly prominent – existence in her life-world. The process of enclosing and gaining a deeper subjective understanding of what it means to live with mental fatigue is made possible by an inter-subjective, collective, realization that is shared and made understandable in the MBSR process. This process is latently described in the following words of Max:

“You meet people who have comments, thoughts or experiences that they share. And you discover: their experiences are also mine. So it makes you feel less lonely with

your own troubles if you say so. And that in itself makes you stronger I believe.”
(Max)

Becoming stronger arguably implies gaining the courage to address the challenges of mental fatigue that in turn can lead to new ways of leading ones life. The space in which the courage is made able to arise arguably comes with the inter-subjective sharing that is encouraged and cultivated in MBSR sessions. Charlie’s words gives expression to this shared experience:

”It’s also always very positive to meet people that are a bit like you, because otherwise it’s somewhat a rarity; I usually don’t meet people who are struggling with the same things as I. Most of the people in my life are healthy, so it becomes very lonely in a certain way. So gathering in a group and doing this together has been very, very good for me and I think it has been good for the others too.”
(Charlie)

Charlie’s words points towards a common thread in the social life of the participants; people, even close to the participants, are uneducated or seem to have trouble to sufficiently grasp the magnitude of the implications that follows from living with mental fatigue. As Charlie expresses, the impact of being able to share the “struggle” with other mental fatigue patients have an important function in reducing the feelings of loneliness.

In relation to noticing and accepting or coming to terms with mental fatigue, both Winter and Emery expressed the importance for them to differentiate acceptance and preference:

“Above all, to understand and accept or to note that this is the case. Before I’ve been told to accept things and it has been linked to liking – acceptance and liking. Now it’s more as if I do not need to like that I get tired and that the brain can’t take it” (Winter)

“It was a person on the mindfulness course who said that accepting that this has happened; accepting that you have to rest, she said that ‘I cannot use that word; it’s like you would have agreed to it’. So then it’s as if you say that you’re okay with it; but she said: ‘I’m not okay with it, but I’ve found out that this is so; I’ve noted [emphasized] that I have to rest, and I have to live with it’. I think that she was spot on. I’ve noted [emphasized] that this is the case and so I live with it.” (Emery)

Whilst Winter pointed out the common confusion that from accepting a certain condition follows a subjective preference of the condition one accepts, Emery seemed to stress that accepting is infused with preference or a “being okay with”-attitude. For Emery, *noting* or *observing* are verbs that accommodate, or at least does not negate, her feeling of dislike (not being okay) in relation to the mental fatigue. Despite the apparent difference in language use, the two excerpts points to a commonality amongst participants: they have realized and become more deeply aware of their shared condition but also of the fact that they do not have to like their challenges.

Amongst the accounts of altered prospects, the following words by Ari provide an example of what she experienced as an eye-opening realization that arose during the program:

“Yes, so one of these aha-experiences is also just to realize that I’ve lived a bit on my stress to keep going, if you say so, in order to not to be so tired. So it feels like I’ve managed to keep going on the cortisol and adrenaline. [...] So now I’m really tired, like I feel it’s pretty interesting to get it, shit: I’ve used my stress to keep me awake [laughter]. It’s still so new to me with mental fatigue so I haven’t really

grasped before that I'm actually tired in my brain, I've thought that there was something wrong with me when I took the tram and then got home and got so tired that I had to sleep." (Ari)

In order to uphold a relatively normal way of life, Ari had more or less unconsciously behaved in quite an opposite way of that being taught in mindfulness teachings; Ari had pushed on to raise and uphold high stress levels in order to cope with her mental fatigue. The realization of this implied a quite radical shift in her way of living from day-to-day and with lower levels of stress and new spaces for relaxation she described how her tiredness was overwhelming. The new understanding of her own needs and their causal explanation resulted in a more sustainable life stance. Similarly, Winter shared an experience of an emergent acceptance allowing her to alter the prospects on her medical challenges:

"The brain is getting carried away; the thoughts rush, that is, it's so hard to keep focus and stay there. And it became very clear. But before it has not been okay for me; then you have felt bad, as a failure. But now I understand that it's alright and that I can accept that the brain thinks of something other than what I'm doing and that's okay. And to meet this with some curiosity and de-dramatize it; it's okay and then come back. This hasn't been acceptable before." (Winter)

Winter, like Ari above, expressed a prospect quite different from her previously stress- or opposition-tainted way of facing and dealing with mental fatigue. The altered prospects exhibited by Winter and Ari, testifies of a shift towards a more self-compassionate or self-kind outlook on their challenges. This observation leads us to the next subordinate theme.

Being kind to the brain and the self. With the establishment and deepening of the awareness of ones challenges comes the possibility of a new outlook on ones struggle; the outlook of *being kind to the brain and the self*. Several participants render this *altered prospect* as a central component of change. This new outlook can be understood as made possible by the acknowledgment of that one has needs that can be more or less properly met by tuning in to oneself. That is, the new outlook implies a shift from seeking answers and solutions outward and instead looking inwards for answers. Winter expressed this as follows:

"Not to indulge in external stimuli and just keep chasing. But somewhat starting from myself instead." (Winter)

Starting from oneself does not imply that one holds an ego-driven stance; rather, this points to the possibility of exploring ones limitations and needs within. Nonetheless, this shift in outlook incorporates a greater focus on ones own needs, a way of being that several participants expressed alienation towards but at the same time seemed to adapt to:

"This love meditation was about that you should give yourself some love too, it's so easy that you only give to others all the time; that you give to everyone else but not yourself. [...] I've become more forgiving to myself, I don't whip myself as much, so it has affected me, well, I've become more tired, that I have, though it is so because I don't whip myself; that I don't reach the stress levels I needed to stay awake before." (Ari)

"I've never thought of just laying still to contemplate on maybe good things or saying nice thoughts about oneself [...] so I've learned that you can rest that way too [...] for example that everything you do doesn't have to result in the creation of something. [...] Daring to be kind to yourself – this have been a big challenge and I think that's what has, or what's going to help me most. Like, yes it's okay, today it

was hard but it's alright [laughter]. Or that yes, as said, just to be genuinely kind to yourself, to say that I deserve a break or I don't even have to deserve a break. I'm tired and then I just rest for a while.” (Emery)

Both Ari and Emery testifies on the new outlook of self-kindness. Such a self-relational stance has previously been non-existent or at least rather marginalized in their daily life. At the same time they express a clear understanding of what they perceive as a self-caring perspective. This becomes especially comprehensible when Emery corrects herself after implying that breaks have to be deserved and then clarifies that the *need* for rest rather than *deserving* such should guide her way of facing mental fatigue throughout her days.

As stressed by Charlie below, for her, cultivating self-kindness has been what she perceives as the most important learning outcome for her during the MBSR program:

“I think the most important thing is that I've learned to be kind and cautious and responsive to myself; it have become clear that I've never been this before [laughter] and I believe this to be somewhat the core of it all. [...] I think that when you see someone struggling with something that resembles your own struggle, then you feel extremely great respect for that person, and then it's a little easier to feel a little more respect for oneself. I've thought of this as a nice consequence of it all.” (Charlie)

As Charlie lucidly formulates, this process of learning to be *kind, cautious and responsive to oneself* can be put in relation to the possibility to see oneself in similar others. That is, one can gain self-respect through the witnessing and acknowledging of others who struggle as oneself. Again, the inter-subjective process of *altering prospects* becomes apparent. To further illustrate this analytical perception we can look at another experience by Charlie in which she expresses how important the leading example of the teacher had been to her during the program:

“If she [mindfulness teacher] says anything wrong or gets strange in some way she doesn't apologize for it but instead just says: 'so it goes, lets move on' [laughter]. And I think it's very nice to see this since most people usually beat themselves up for the smallest mistakes.” (Charlie)

When settling in to the prospect of *being kind to the brain and the self* a greater shift of focus in life is made possible. Being engaged in this new prospect implies that challenges can be met with new eyes; *a change of focus in the midst of challenge* is becoming more and more established.

A change of focus in the midst of challenge. The third subordinate theme of *altered prospects* aim at illustrating and capture the tendency amongst participants to testify that mindfulness – or for that matter a mindful way of living – came to constitute a central focus in their everyday life throughout the program. In Taylors words:

“In the beginning it felt hard to do this at home and do it every day. But after having been practicing for a while, the need to practice increases instead and then it's the opposite; that one wants to do it every day and that you long for the practice, or feel like: now I need to do it and now it will be nice to take a break and sit down.” (Taylor)

Taylor's reasoning was shared amongst all participants but the way of approaching practice differed. For some participants, both formal and informal practice was a part of their everyday life. For others, informal but not formal practice had become an emergent focus in their life.

That is, some participants followed an active schedule or plan for doing body scans, breath meditations and yoga, as in the case of Taylor above. Some combined this with informal practice of mindfulness through being more aware of and curious about the breath, sensory perceptions and every-day activities such as showering, eating and brushing ones teeth. Some participants almost only focused on this latter, informal, practice of mindfulness. For example, Ari shared some clear instances of such practice:

“Just to be attentive when you eat, trying to eat a little bit slower and feel the food and stuff like that. [...] I’ve gained so much more insight into things. I’ve actually become much calmer. I don’t stress as much, so in that way it has been fantastic. It’s been a bit crucial to me if you say so.” (Ari)

“I’m up and running fixing myself, having twenty minutes to catch the bus. Normally I would have panicked but, whatever, fuck it! I’ll just walk to her then instead [roaring laughter]; then I’ll just walk that distance, it’s not a big deal really. It’s a few miles but so what? It’s no worse than that. So I took my time, went off to catch the bus and arrived at the bus stop three minutes earlier than the departure [roaring laughter]. So instead of becoming really stressed out and all that, I took my time in an average slow pace and made it to the bus despite this.” (Ari)

For Ari, the program have implied a shift of focus from emphasizing and nourishing behaviors and thoughts that trigger her stress and anxiety, to a more calm and relaxed way of leading her daily life. This is exemplified both through her informal practice of eating slower and more attentive, both her way of dealing with the previously highly stressful situation of risking to miss a bus. The shift in focus comes with new prospects on failures and mistakes; many situations that trigger her stress can be met in a more calm and relaxed way. This is so because of her realization that the outcomes of many perceived stressful situations are simply not that important. Rather, it is not the outcome but the perspective of Ari that determines how she feels. And this insight has become a crucial point of departure in her outlook on daily life-challenges. Taylor, Max and Emery illustrated similar shifts of focus in the following words:

“In everyday activities, for example, when you eat slow and quiet and think about what you eat or that you, when you are taking a shower, are aware of and trying to be in the present in another way. You stop in order to do things a bit more slowly, it’s a wonderful experience.” (Taylor)

“I think the course helps a lot to learn how to let go, simply to let go of concern, drop trouble, [...] it does, it helps.” (Max)

“What one should focus on; working out in the gym every day may not be so important anymore. Being well end up higher on the list now.” (Emery)

What have been framed as a shift of focus in this subordinate theme to altered prospects does not come without challenges. Several participants experienced struggling, both cognitively and physically, with the newly accumulated possibility of changing their outlook on mental fatigue and following symptoms that can become prominent in demanding mindfulness exercises:

“Just this to not see it as an accomplishment [practicing mindfulness] that it should be without demands in some way. If it’s a day when I’ve hard to sort the thoughts or put them aside to just focus on myself and what’s going on right now. If I’ve had a hard time, it’s still going to be like – [sigh] – today it was a bad day.” (Emery)

“So the body scan, I may have had a bit of trouble with it and it seems like several other participants struggled with this. It can be hard to be still while at the same time trying to experience one’s body.” (Charlie)

“To set limits to the thoughts. In the beginning, when the thoughts just go wherever they want to, to be there and then – at first this was really difficult.” (Winter)

As Emery points out, it can be challenging to not get engaged with negative and judging thoughts when the experience is that one “fails” to accomplish or conduct a certain exercise. However, only the fact that Emery seems to have become able to witness this judgmental tendency plausibly shows a significant change in self-inquisitive capabilities. Along these lines, Charlie’s exemplification of how it can be troublesome to change focus from what appears to be a common human tendency of being more connected to one’s cognitive narrative and thoughts rather than to one’s body, also confirms that such a shift in awareness has been initiated. Such a shift of focus can be especially important for preventing and healing mental fatigue because it emancipates cognitive load and thus saves the brain’s energy for more important tasks than the compulsive and repetitive self-talk and worrying. As Winter pointed out, setting limits to the thoughts is demanding but again, realizing this is also the beginning of the shift of focus that arguably emerges in the midst of challenge.

Interestingly, reasoning by Max seems to imply that the struggles stemming from mental fatigue symptoms can be a springboard or starting point for cultivating a shift in focus. Her experience seems to be that mental fatigue forces one to become slower which in turn can constitute a great opportunity to ease into a more conscious and attentive way of living – a focus that inherently can be established and accumulated when slowing down:

“You are in such a reduced state so to say, in terms of energy and speed. It’s as though, although your legs can go fast, the brain doesn’t flow quickly and then you experience a lot of things, like sensations and senses of the mind and so, but you have to go slowly.” (Max)

Max expressed that her focus is challenged by her personality. She seems to experience the slowing down and focusing on becoming well as a competing or even undermining processes in relation to her values and commitments:

“Just taking care of yourself and caring for yourself and letting go of what is happening is very foreign; because I’m a committed person and my god, we don’t have a government; people starve and in the midst of this I’m supposed to just let go? It’s a little, or it’s very individualistic. Maybe I can allow myself to be focused on myself until I’m well again [laughter].” (Max)

Max’s expressed reluctance to just focusing on her own medical challenges highlights the dilemma when becoming more aware of the symptoms of mental fatigue and the consequences of not addressing these; on the one hand, people with mental fatigue can be highly cognitively functional but at the same time have very limited energy-resources to set these functions into action. They continuously have to balance their energy resources in order not to become exhausted due to cognitive overload. Establishing the change of focus necessary to deal with the mental fatigue as practiced in the MBSR program, implies that certain personality traits and values are forced aside. This can be further exemplified by another excerpt from the interview with Charlie:

“Yes, well I think that many are raised in that way [that one should push on and get things done without complaining or letting oneself to feel], that it’s how you build character; that it’s how you get good at something. But unfortunately, you cannot apply such logic to such a brain [laughter]. It’s not that good for you, but you can try for a few years.” (Charlie)

As Charlie imply, to *build character* is a normative value associated with pushing on and not getting soft or gentle about how it impacts ones well being. However, very eloquently formulated, she noted that such logic is not compatible with the state of an easily worn out brain. Arguably, patients with mental fatigue are bound to sooner or later make the change of focus as described above or otherwise, as Charlie points out, they will face the consequences of neglecting this as she did herself after pushing on a few years until reaching an unsustainable state of living.

When having gained new insights and being sufficiently capable of continuously retaining some of the sustainable focus argued for above, the *altered prospects* become realized and manifested in *altered approaches* – in new ways of arranging ones life and manage the challenges of mental fatigue.

Altered approaches – new ways of dealing with challenges

The second superordinate theme concerns the step in the process of change initiated by MBSR that implies the concretization of *altered prospects* – *prospects* becomes realized in the form of *altered approaches* in relation to mental fatigue. The first subordinate theme of *altered approaches* captures the tendency amongst participants to use the newly accumulated mindfulness skills as *tools* for finding balance in and sustaining their energy resources.

A tool for managing energy resources. The *altered prospects* from getting to know yourself and the implications of a diagnosis doesn’t inherently provide the answers to how one should put them into action. As Ari argues below, MBSR became the means for her to *deal* with the symptoms of her medical condition:

“So when you find out that you have a diagnosis, you suddenly have an explanation, then you have an explanation that ‘it’s no wonder that I’m as I’m’, but this doesn’t mean that you learn right away how to handle it just because you have a diagnosis. You just get an explanation and then you have to try to relate to the explanation. But here you can learn how to deal with the stress that you get when suddenly having a diagnosis.” (Ari)

Ari’s formulation – *dealing with* –arguably implies a new set of *approaches* or *tools* that one can employ to handle the new insights gained from being more attentive to ones feelings and needs. Surely, employing mindfulness in relation to ongoing challenges seems to have implied a quite transformative way of living for all participants. Charlie expressed this as follows:

“I absolutely think that it has changed [the handling of energy resources]. I used to be extremely tired, or I used to be very good at crossing my own boundaries. And, like, being bedridden for two days or so maybe, after I had burned myself out and I haven’t done that for more than two months now. But it has happened often before in the last few years. It has been quite impossible for me to put a leash on this before, so I think it has changed quite radically.” (Charlie)

For Charlie, mindfulness can be used to “put a leash” on behaviors and thoughts that drain energy resources and that previously have been managed poorly. Thus, mindfulness is a tool in the continuous balance act between leading a life as normal as possible but at the same time giving sufficient acknowledgment to – and space for – the need for rest and other restorative activities. This experience of Charlie’s becomes even more prominent in the following interview excerpt:

“I have learned how to re-arrange the handling of myself and how I handle life, with quite simple means really. Yes, learned that it’s possible to do something different, and what it may mean, especially in the form of stress management and anxiety management, fatigue management – that one feels that you; that you actually have some tools. It’s not just a free fall all the time [laughter]. [...] I think that I also experience for the first time in about six years that I actually have something to take from; that I have some energy. Before I just felt completely empty; that I had nothing to take from; that I were always at rock-bottom. Now I feel that I have something to take from, it’s a new, nice, feeling.” (Charlie)

If Charlie’s testimony signify a general shift in approach that seem to be descriptive of all participants experiences in this matter, more specific tools and approaches have been pointed out during interviews:

“I’ve learned of this breath anchor exercise; I think has been very good to do several times a day and just coming to a pause and take a break and long deep breaths. And then I’ve also noticed the importance sometimes of doing longer exercises, so sometimes I feel that I might just be able to do 20 minutes but sometimes when you do a longer session you get even better effect. [...] After doing an exercise or so I feel that the energy is increasing.” (Taylor)

“Now I understand the mechanism and how to find an attitude to manage that, to breathe and how important it is to rest. So I have, instead of defending, explaining and fighting the mind, I have now learned to meet the thoughts with curiosity and to dare to dodge or play them down; that it’s not so dangerous if the thoughts get carried away. But also to be here and now and to be calm in that – that there are sounds and things happening around me but that; to shut down a little and start with myself.” (Winter)

“To learn about breathing and listening to my own breathing and using my breath as a protection mechanism or whatever to call it; this is something you learn here and to do it for longer sessions, and that’s good.” (Max)

“Mindfulness has helped me very much in the sense, to be able to more, what to say, by sorting your mind in a kind of way when it comes to worrying or fearing something. Say that you get a symptom that makes you get a little bit shaky, then it’s helping you to think: sit down, calm down, breathe a little bit and maybe think about how it feels.” (Emery)

The excerpts above encapsulate the importance of the breath in the mindfulness toolbox of participants. Taylor, Winter, Max and Emery all refer to how breathing can be actively used to regain control or just getting more focused on the present moment. Taylor refers to a breathing exercise called breath anchor which purpose is to *anchor* oneself in the present by focusing on the breath. As Max expresses, breathing can in this way be a protection mechanism since it creates cognitive relief for the brain through its effect of reducing habitual thinking. However, the breath is not only protective but can also be used directly when facing

a challenge as put forward by Emery. Emery let us understand how her anxiety can be met with breathing and a focus on *how it feels* rather than creating a narrative of catastrophe. Similarly, Winter formulates how her previous *defending, explaining* and *fighting* with the mind have been transformed into a curiosity and relaxation in relation to the emergent patterns of thoughts that fluctuates throughout daily life. All these examples point to a general tendency amongst participants – they use mindfulness as a tool both to prevent and intervene with the challenges of mental fatigue. Another example of the preventive use of mindfulness can be read out in the following words by Charlie, Emery and Taylor:

“It [mental fatigue] is less extreme, so I feel the effects and I feel that I, of course, get tired but it is less intense, I can interrupt things in time because I perceive, yes, as mentioned, the early signals on that [mental fatigue] now. Instead of completely ignore them and think of something else I acknowledge them and then I can do something about the issue, and I think so, yes, that’s the mindfulness that makes this possible, absolutely. Now I have strategies and tools to handle different types of challenges and make a few more stops while I do something challenging, before and after. As well as evaluate my condition a little bit.” (Charlie)

“You are a bit more, what to say?; knowing how much energy you have to play with, if you say so, with the body. You become more aware that I have three days of intensive things but then I’ll have to rest a day and I must have such a recovery space.” (Emery)

“If I apply it a little bit preventative or try to stop a little earlier and think about it then, then I can manage it faster than if I get too tired.” (Taylor)

Further examples of the appliance of mindfulness frame its use as instrumental in the sense that it can become a detecting-tool. Both Charlie and Emery described how mindfulness had helped them to learn how to tune in to their bodies and use the newly learnt techniques as a kind of instrument or introspective, bodily-state, barometer. In their own words:

“I think that the mental fatigue has become much more lenient and I think I’m less stress sensitive and that I can detect early signals of both of them earlier than I could before. I’m more aware of what’s happening in the body. So, I get it into everyday life, I’m really just trying to use it all the time.” (Charlie)

“If you sat and played with jigsaw puzzles for two hours, well, you can get tired from doing such things. So it feels like you, you find a way to listen to your body in some way. [...] In my case, it [mental fatigue] is a restless tiredness type more than a heavy sleep fatigue and such, so it felt like you, yes, go through the body step by step so that you can sort out more; where does it come from?, where does it originate?” (Emery)

For Taylor, the tool of mindfulness was used as a means for restorative purposes, allowing her to *shut down* and thus restore energy:

“I think I’ve got some tools and some help how I can cope when it’s, when I’m way too tired or when I feel that I need to replenish some energy and that I can try to shut down and be for myself, and it’s helpful.” (Taylor)

Despite the general tendency amongst participant of experiencing mindfulness as a multi-faceted tool for acknowledging and dealing with mental fatigue, a few deviant or

altering testimonies arose during the interviews. Firstly, Winter pointed out that the tools are not always there:

“In general, the level of awareness has become higher. However, I do not always have the tools, but in general, awareness has increased.” (Winter)

The learning process of becoming more mindful is a dynamic and continuous process. Being aware that one doesn't always have the tools is a very important step towards being able to accumulate the very same. But beginning to practice in order to establish and control the tools of mindfulness is not always easy as expressed by Taylor:

“I felt that it [practicing mindfulness] was hard at the beginning but then after doing it for a few days in a row, I feel the need to do it; I want to do it. I need to sit down; how nice if I take some space for breathing and slow down a little so that I can get some energy. Yes, when it's too much it's very helpful.” (Taylor)

Despite the challenge of learning mindfulness, the general impression from the excerpts presented in this section is that all participants have made mindfulness a tool for identifying and preventing symptoms of mental fatigue. But also, mindfulness has become a way of intervening or dealing with acute symptoms related to mental fatigue. These new ways of handling medical challenges are all examples of *altered approaches* accumulated from the MBSR intervention. Despite being tools, such approaches can also be expressed as new ways of arranging ones life and ways of *choosing and changing ones context and priorities*.

Choosing and changing ones context and priorities. The second subordinate theme of *altered approaches* frames the shared experience amongst participant of coming to choosing to be in peaceful environments or changing ones context and priorities in order to heal and practice. Spaces for peace, quietness, darkness and stillness have apparently been found as important sources for retreat. Max expressed this as follows:

“To get a room for silence with people who gets it; that this is a room for silence, because that's what's good for us. [...] So that people understand the meaning of silence and what it is. Yes, for me it is; silence is curative almost, so to speak. Both silence and darkness, because straining oneself and talking and hearing and light are problematic factors, so to speak. Silence and darkness are non-problematic situations.” (Max)

For Max, non-problematic situations are created with spaces of silence and darkness, which allows her to rest and to be cured by the peace that constitutes such spaces. Drawing back from the high pace and stream of impressions that most humans are exposed to continuously and that become even more prominent when living with mental fatigue becomes a way of retreating; a way of setting limits to what stimuli one gets exposed to. All participants expressed this need to various extent and all participants seemed to perceive the silent one-day retreat in the end of the program as both challenging but also specifically important in terms of its restorative effect. The retreat-day forced every one to slow down, something several participants perceived as unpleasant but at the same time needed. Realizing this need of retreating outside the MBSR sessions is described by Winter in the following words:

“I make more active choices to abstain or maybe to, to not expose myself to the abject stimuli but also when I do so I do it consciously and rest; put in spaces for rest and meditation but above all I understand that I'm not all the way when it comes to setting limits for myself. [...] The impressions and such are there, but what do I

need now? I've become better at asking myself this question and managing, if I need to leave or rest or to tell that I cannot bear a situation." (Winter)

Changing ones context and priorities can also be related to concrete, day-to-day routines such as sleeping and cleaning as expressed by Ari:

"Since I've realized that I'm actually very stressed and easily get triggered, I've tried to relax more, which has meant that I've slept quite a lot, so I've released a lot of self-demands, not the most important things but a lot. Maybe it's not that important to vacuum-clean the apartment." (Ari)

Apparently, *altered approaches* as theorized and exemplified here, can have many implications on how one relates to everyday commitments and interactions. For Max, the altered approaches have manifested in a new way of social interaction:

"I have adapted a lot of my life. I'm not talking so much anymore, I don't get engaged in discussions. I'm not going to annoy myself about it. Discussions are mostly just nonsense, aren't they? It [discussing] keeps one busy but it doesn't change anything, does it?" (Max)

Whilst, as in the examples of Winter and Max above, the altered approaches can imply new ways of managing mental fatigue in specific social contexts, altered approaches can also have to do with planning and choosing how to dispose ones energy in order to uphold an active lifestyle; in Emery's words:

"I didn't really think about this [mindfulness] for preventative purposes, most often I just dealt with the fatigue when it came [laughter] which is usually to late, but sometimes I've thought of that, such things as: tomorrow I might meet a friend and tomorrow I'll also work, I work a while and meet a friend and then maybe I'll have to take it easy today – the day before a full day." (Emery)

Similarly, Max explained how she had come to learn how to plan and prioritize rest in order to manage an active lifestyle:

"Here [at the MBSR program] I was handed the task to, say that if I'm doing an activity, then I'll plan an activity and a following resting session or after this conversation with you I've planed a resting period. So then I try to squeeze the exercises into the resting periods; my rest periods usually is about lying and doing a body scan or just breathing." (Max)

For Max, the formal practice of mindfulness have become a way of resting – a qualitative or active rest in which she can sense a direction and agency despite that she have to rest due to her mental fatigue. This sense of direction is important to her due to the fact that she seems to miss the highly active lifestyle she led before falling ill. With help of mindfulness, at least parts of her previous lifestyle can be upheld despite the illness.

When the *altered prospects* have been realized and made applicable as *altered approaches*, a deepening of the practice can emerge. The continuous practicing and nourishing of the *altered prospects* and *approaches* makes an impact on ones frame of mind – an *altering of dispositions* is manifested.

Altered dispositions – deepening and internalizing a mindful way

The third guiding superordinate theme – *altered dispositions* – refers to the tendency amongst participants to describe how their frame of mind have been altered or developed due to mindfulness training. This new or changed frame of mind comes with altered inclinations, predispositions and habits in their day-to-day living. Providing an understanding of this new mindset is what the following subordinate themes aim at depicting.

Prioritizing a self-caring disposition. As the altered prospects establishes as a self-caring relationship to oneself and are practiced in the form of altered approaches, they more and more get engraved as predispositions to the habitual patterns that guide the participants behaviors. In Taylors words:

“I’ve got this [mindfulness] into my everyday life in a way that I didn’t have before, because then I had a hard time get it done at home; to do it, had a hard time finding the calm and peace. Yes, I didn’t take the time. But now I’ve felt that now I’ve got to do this now; I’m on this course and that is what is most important and then I’ve felt that it has become so positive and good that then I need it as much as possible.”
(Taylor)

As Taylor describes, mindfulness has become a dominant part of her life; there is a propensity towards mindfulness practice in her way of living and the consequences of this propensity are so positive that she feels the inclination to get as much as possible out of it. Arguably, this is the result of her realization that mindfulness is doing her well and thus, the act of prioritizing practice is an act of self-care.

Charlie called her new way of dealing with life as a “regime”. This can be understood as a system of management that becomes embodied in self-caring dispositions:

“I’ve become better at, to not, or that I’ve got to hold back. I’ve known it in theory but have never really done it. So it can be anything from when I’m out running or cycling or when I work; that I, before probably always just ran on [laughter], and now I stop even before I even feel that I’m getting tired. So I have a little more of a regime in place now.” (Charlie)

Taylor and Emery also witnessed of a similar shift in predispositions – from a more rigid ‘push on’-mentality to a more gentle way of leading ones life:

“I’ve learned that it is important to take care of yourself which I’ve never thought of in that way before. I’ve thought it to be a bit selfish to put yourself in the first place but have learned now that there is a difference between egoism and taking care of yourself in a gentle way. [...] In first hand to listen to the body and think of myself a little more; what do I need? Before I would have, I have not stopped, I haven’t asked myself at all and [...], and now I feel I must make a change, have to rest.” (Taylor)

“Just tuning into the feeling and maybe more divide the effort and something like that. I’ve probably become better at it and it has helped me too, because in the past, I’m basically such a person who just run on, who do not stop to think. So, yes, it has helped a lot in such a way, even though I think many don’t notice the difference in me, but I notice the difference.” (Emery)

The impulse of pushing on have been transformed into an inclination towards pulling the breaks or even slowing down even before they have to be pulled. Winter gave a similar

account to that of Taylor's and Emery's, describing her experience of before and after having established a mindfulness practice:

"To let go, to save energy in order to be able to cope more. Before I tried more to do first in order to then get rest afterwards. [...] Breathe and drop shoulders, take it easy to cope. [Question: 'That you tried to get rid of things and then be able to rest?'] Yes, and then I got drained and then I couldn't do anything, not even rest, I was knocked out. Now I have more understanding for the need to rest and recover and shut down and then I can bare a little longer and it gets smoother during the day and the importance of rest." (Winter)

The possibility of getting a "smoother" distribution of energy during the day due to a continuous mindfulness practice is another particularly interesting outcome of the intervention in relation to mental fatigue. Winter's experience was shared amongst several participants and witness of a particularly desirable experience of MBSR in relation to their condition since managing energy levels is one of the central challenges when living with mental fatigue.

The following excerpt from the interview with Emery eloquently depicts how becoming self-kind doesn't necessarily imply that all of one's dispositions or personality gets changed; rather, one can find new ways of reaching one's goals without losing a stubborn mindset:

"Yes, I notice that I'm kinder to myself though I think it's very few who see that I've become kinder to myself when it comes to my challenges. I'm still such a person that gets really stubborn about getting things done, I think it is my greatest driving force to be better, that I say that now, now I'm going to get this fucking thing done whatever it takes [laughter]. But I might be stubborn in a little better way than I was before, so I think I'm still as stubborn in that I'm going to reach this or that, but I might choose a different path than what I did before. So it's a bit winding, but it's a kinder way now than before when I just pierced straight through it all." (Emery)

With the *altered dispositions* that nurture a more calm and self-caring way of leading one's life comes the inherent tendency to be more attentive to the possibilities of enjoying the small things and routines of daily life. This can be particularly helpful to people that are restrained by the demands of mental fatigue, which implies that one has to slow down in order to cope. With slowing down comes the opportunity to be more aware of enjoyable things in life that mostly have been overlooked by the participants prior to their illness.

Enjoying everyday life – settling in the now. For Max, the opportunity to become more focused on the present moment seem to have come due to a heightened awareness of her mortality:

"The notion of death is also something that one adapts to, as well as being mortal. Yes, I was immortal, I've always been [laughter] and to understand that you can go anytime, then somehow the main thing is to do things slowly, I rake slower, I do everything slower, I walk slower, I sit down slower, everything I do slower. And some things can be nice; I shower slower, stand longer in the shower and enjoy the water. Thus, in some ways you can also use this for something positive." (Max)

For Max, the illness implied a great shift in her way of leading life. From having a highly stressful everyday routine, the illness had forced her to almost entirely stop. This became an opportunity in which she could discover her own stress and how it had consumed her life and obstructed her from experiencing all the things that in the end make up a great part of life – namely, everyday activities such as eating, showering, walking between places and so forth.

When being forced to restrain herself to mainly such activities, she could see the benefit of slowing down and the unsustainability of her previous hectic lifestyle. This change of disposition becomes even more lucid in the following words:

“I think it has to do with consciousness. This thing; to enjoy every minute; and I’m not the kind of person who has looked at flowers or smelled flowers and that. Maybe I’m becoming [laughter] a little bit like Ferdinand [the peaceful bull]. So for sure, it has definitely helped and I really need it, I’m a kind of person who has gone through life in 150 speed so to speak.” (Max)

Similarly, Winter described how the previous forced way of living had been turned over to greater attentiveness and curiosity in the confrontation with the day-to-day challenges:

“It’s above all calmer, calmer in the way that I do not struggle and fight as much, instead I can also handle situations when they don’t turn out as I had imagined. And in such cases rather try to notice and be a little more curious instead of trying to force acceptance and struggle against what is. Yes, there are big differences.” (Winter)

Charlie, like Winter above, described what appears to be an experience of easiness or lightness – a calmer and softer disposition – that had become emergent during the program:

“Overall, I would say that everyday life have become much easier. Yes, basically all elements of everyday life have become easier during this time, so it feels shocking to me. I didn’t know that something could be done about me [laughter]” (Charlie)

Being *fixed* or *repaired* is what Charlie is referring to when saying that she didn’t know that anything could be done about her. Using the word “shocked” seems to imply that the experienced difference has had a profound impact on her life. More specifically, she gave an example of a situation that would previously had been highly challenging and draining, but that now could instead be handled with ease and efficiency:

“I felt that I handled it and walked around there and made body scans and felt what I was doing with my feet and tried to center myself and settle down in it all. Otherwise it’s very easy for me to forget that I have a body and just become a consciousness that floats away. So I tried to be body conscious and hear my signals and it went well; it was such a radical difference from before.” (Charlie)

Being more focused on the present moment and having anchors for getting rooted in it made a big difference on how Charlie handled the situation in question. Previously she had depicted the very same situations as “nightmares”. Now she could settle into the context and manage to even enjoy it.

Ari shared a seemingly substantial experience, which described the implications of her newly gained insight of how she had previously unconsciously used stress in order to deal with her mental fatigue, which in turn had led to her being very tired after reducing her stress levels during the MBSR program:

“I do feel that I don’t have the energy to do much, but at the same time it is nice that, you know, not have the strength to do things.” (Ari)

Interestingly, Ari seemed to be able to enjoy that she had to slow down and not do things. This enjoyment of resting is arguably made possible by her predisposition to be more

attentive to the present moment. Such attentiveness comes with a great opportunity to enjoy things in a more curious and explorative manner. This notion is vividly mediated in the following words by Emery:

“This thing with mindfulness, that you almost think like when you were a child. Such small things, that you become very happy when you see the spring onions shooting up from the soil in the spring.” (Emery)

Not all participants said explicitly that they became happier during the course. But the essence in Emery’s experience above is not so much the childlike happiness in itself as the mechanism behind it, which plausibly involves the dispositions of curiosity and non-judging that all participants seem to have accumulated to various extent during the program. With these *altered dispositions* comes the possibility of being more content, calm and feeling greater enjoyment despite continuous challenges due to mental fatigue.

Discussion

The current study is an answer to the call for broadening the knowledge on how mindfulness based interventions provided in healthcare are experienced by patients. In this case the focus has been MBSR as experienced by patients with mental fatigue after an ABI. Further, the study has been oriented towards making the experiences of the participants understandable in relation to their specific medical condition – mental fatigue – and its following challenges. Conducting, and thematically analyzing, interviews with mental fatigue patients that participated in a MBSR intervention made possible an understanding of their experienced process of change.⁵

The analysis of the conducted interviews rendered three superordinate themes – *altered prospects*, *altered approaches* and *altered dispositions* with following subordinate themes that aimed at answering the research questions: 1. *What experiences of mindfulness training can be found amongst patients with mental fatigue after an acquired brain injury who have taken part in a mindfulness-based stress reduction program?* and 2. *How do the uncovered experiences relate to the patients’ experiences of their medical conditions and everyday challenges?* The concise answer to these questions is that the experiences of mindfulness training amongst participants are witnessing of a process of change in which altered prospects, approaches and dispositions, emerging from MBSR, come to imply new ways for the participants to understand, relate to and manage their mental fatigue symptoms. This analytically described process of change, and the experiences exemplifying it, enable us to understand *how* the previous quantitative knowledge on MBSR for mental fatigue can be apprehended. That is, the current study has qualitatively explained – or made possible to understand – why and how MBSR can reduce mental fatigue levels and improve

⁵ When presenting the themes throughout the result section and discussion, a linear account of the process of change has been put forward but it could also be understood as dynamic and interworking. That is, participants experiences can both be understood as linear in the sense that the witnessed mindfulness induced change constitutes a chain reaction in which the initiation of *altered prospects* make possible *altered approaches* which in turn is the prerequisite for *altered dispositions*. However, the experiences of change can also be understood as dynamic in the sense that all these three processes intertwine – that participants continuously move back and forth between these various processes. The reason for suggesting this dual analytical understanding is simply because of that neither the linear nor the dynamic perspective in themselves seem to encapsulate a reasonable account of the complexity of mindfulness induced change. That being said, a linear narrative was used in order to present the material.

neuropsychological functioning amongst patients with mental fatigue as previously quantitatively shown by Johansson et al. (2012) and Johansson et al. (2015a). Below follows a development of this concise answer in relation to each theme.

Analytical implications of the depicted process of change

Altered prospects. The first superordinate theme from the analysis, *altered prospects*, lets us understand how MBSR allowed participants to experience an increased awareness of their medical condition and how this in turn implied new outlooks or perspectives on how to relate to and address these. This has been presented as a complex process in which the intersubjective emergence of shared insights intertwines with subjective deviances. Similar outcomes of group-learning and new or altered insights into medical conditions have been shown in several previous qualitative studies on experiences of MBIs (e.g. Johansson & Bjuhr, 2016; Malpass et al., 2012; Visser et al., 2015; Kvillemo & Bränström, 2011). In addition of confirming such previous findings, the overall account of *altered prospects* highlighted several specifically relevant outcomes of MBSR in relation to mental fatigue. Namely, the experiences framed as *altered prospects* show how mindfulness can be utilized in order to raise awareness of behaviors and cognitive patterns that are particularly negative when trying to recover from mental fatigue. The subordinate theme *being kind to the self and the brain* framed what appears to be such a particularly relevant *altered prospect*. By mindfulness practice, mental fatigue patients can gain awareness of their energy-exhaustive, repetitive, cognitive patterns and thereby lay the foundation of changing and managing such patterns. Creating such a shift can be especially important for preventing and treating mental fatigue because it emancipates cognitive load from unconstructive mind activity, such as habitual, repetitive and negative thinking and “self-talk”.

The theme *altered prospects* allowed us to appreciate the experiences of how mental fatigue forces one to lead a slower life, which in turn, through mindfulness, can lead to a more conscious and rich moment-to-moment experience. Similar mindfulness induced heightened awareness experiences are commonly shown in related qualitative studies (e.g. van Ravesteijn et al., 2014; Keyworth et al., 2014; Chadwick et al., 2011). As have been argued, such heightened present moment awareness can help people with mental fatigue to face one of their many pressing medical challenges, namely, to manage the fact that they both can be highly cognitively functional but at the same time have very limited energy resources for utilization of these functions. As several participants noted – and analytically framed as altered prospects – new insights induced by mindfulness can allow them to not be in conflict with their limitations but rather focus on the sentient experiences in the present and thus let go of the habitual narratives that drain their already limited energy resources. Such functional expressions of heightened awareness and introspection witnesses of a strengthening of neuropsychological functions, such as executive emotion- and cognition regulation, which MBSR has previously been shown to improve (e.g. Gotink et al., 2016).

Altered approaches. The second superordinate theme, *altered approaches*, and its first subordinate theme – *a tool for managing energy resources* – framed the tendency amongst participants to experience mindfulness practices as *tools* to be applied in relation to mental fatigue for both preventive and intervening purposes. The appliance of mindfulness as a tool or intervening measure has previously been described as experienced by patients in several qualitative studies (e.g. Bogosian et al., 2016; Malpass et al., 2015; Müller-Engelmann et al., 2017) and is thus further confirmed by the current study. In the process of change argued for here, the *altered prospects* put forward above could be described as realized in the form of *altered approaches* – depicting a movement from insight to action. The accumulated

tools and strategies of mindfulness allowed patients to gain a sense of agency, control and self-efficacy in relation to their mental fatigue. This can explain why MBIs have shown to increase life satisfaction amongst mental fatigue patients (Johansson & Bjuhr, 2016, 2018) since self-efficacy is strongly intercorrelated with life-satisfaction (Azizli, Atkinson, Baughman & Giammarco, 2015). Expressions of manifested self-efficacy amongst participants described how breathing and body scan exercises allowed them to become anchored in the present moment in order to gain control and were actively used as protection mechanisms. Protective in the sense that they create cognitive relief for the brain through their effect of reducing habitual thinking and thereby allow the brain to rest.

A mindful approach was also utilized as a general strategy on how to organize ones life and how to cope with challenging contexts. This general tendency was described in the second subordinate theme of altered approaches as *choosing and changing ones context and priorities* and aimed at encapsulating how participants made use of mindfulness in a more strategic sense than as a specific tool. Such experiences of strategic use of mindfulness cohere with findings of previous studies (e.g. Lilja et al., 2015; Malpass et al., 2012). Amongst the most notable findings in relation to this theme was the collectively expressed appreciation amongst participants of the silent retreat day – a space for quietness, darkness and contemplation that was generally experienced as challenging but at the same time specifically rewarding.

Altered dispositions. The third superordinate theme – *altered dispositions* – frames the concretization of the other two superordinate themes. When the *altered prospects* and *approaches* become habitual in their nature, they manifest as new or *altered dispositions* that in turn become guidelines for how participants can lead their lives in a more sustainable manner. Within the frame of the first subordinate theme of altered dispositions, *prioritizing a self-caring disposition*, it became apparent that mindfulness practice implied the possibility for mental fatigue patients to establish a “smoother” distribution of energy during the day. This is arguably another specifically interesting outcome of the analysis in relation to mental fatigue since managing energy levels is one of the central challenges when living with the condition in question. The generally experienced benefit of bodily and mentally manifested self-compassion has also previously been confirmed by several other qualitative studies on MBIs (e.g. Malpass et al., 2012; Michalak et al., 2012; Smith et al., 2007).

The second subordinate theme of altered dispositions, *enjoying everyday life – settling in the now*, encapsulate how mindfulness can be specifically helpful to people that are restrained by mental fatigue, a condition which implies that one has to slow down in order to cope even if one does not have any apparently physical restraints and can feel more energetically capable than one is. With slowing down comes the opportunity to be more aware of daily routines that were often overviewed in the previous daily lives of the participants but that they came to describe as highly enjoyable after the MBSR program. This is an additional qualitative finding that allows an understanding of why mental fatigue patients experience increased life satisfaction after mindfulness training. This could be the case since such routines constitute a large part of a human lifespan, namely, activities such as eating, preparing food, resting, taking care of personal hygiene, transporting oneself to different places etcetera. Such activities were previously routinely assessed by participants but had been transformed into more enjoyable or interesting activities during the course of the program. Similar experiences of mindfulness, as incorporated in everyday life, have been put forward in several previous qualitative studies concerning other patient groups (e.g. Mason & Hargreaves, 2001; Matthew et al., 2011).

Limitations and suggestions for future research

The current study is limited to the specific population it examines and the time span of eight weeks in which the process of change described have been argued to emerge. Other studies with follow-up interviews conducted later than in direct adjacent to the MBSR program could find altering results with regards to population variances, frequency of continuous practice and factors due to time elapse. One could therefore question the use of the description – *altered dispositions* – due to the limited time-span of the process of change depicted here. That is: is it reasonable to suggest that dispositions can be altered within eight weeks? As have been argued, such a tendency have been prominent in the empirical data, but that being said, this study hasn't tried to confirm whether the establishment of such dispositions have occurred in the participants and thus no empirical claims of this matter can be done. However, using the description *dispositions* seem reasonable from a theoretical perspective since previous research have confirmed that trait-like changes in human cognition can be induced by short term MBSR training (e.g. Goleman & Davidson, 2017; Gotink et al., 2016).

The interviews were made in adjacent to the program as to avoid memory difficulties, which are common amongst ABI patients. This measure of precaution was informed by a previous interview study on patients suffering from ABIs (Niraj et al., 2018). However, as argued by Niraj et al. (2018), it would have been even more advisable to find methods of capturing the direct experiences of mindfulness amongst patients with ABIs. Such methods could involve participant diaries (sound-memo's or text), shadowing and observations in combination with continuous interviews throughout and in the end of the course. Future studies can be advised of developing and utilizing such combined qualitative methods in order to establish closer accounts of the experiences of participants.

Interviews imply several reliability concerns such as confirmation and social desirability bias towards the interviewer, the group and the expected outcomes. Such reliability concerns get even more prominent due to the fact that all interviewees in the current study were part of the same MBSR group and their subjective reports could thus reflect a group specific dynamic and jargon. The author has therefore been attentive towards such biases and tendencies amongst interviewees. Overall, the impression has been that interviewees did not provide obviously biased answers and that they used quite varied terminology to describe their experiences. However, this is not to suggest that such biases can be ruled out.

A relatively low number of participants have been involved in the current study. This implies that the analysis presented here could have been altered and made more divergent if more experiences from additional interviews were to be included. That being said, as pointed out by van Ravesteijn et al. (2014), the attempt to extract deep and rich empirical data can be precarious when sample sizes are to small or to large. Arguably, the sample size in the current study was large enough to provide a width but at the same time low enough to allow the author to thoroughly work with the material and put forward a reasonably deep analysis within the time frame. Future qualitative research on MBIs for mental fatigue and ABI patients, with the sufficient time and resources, can be advised to include a greater number of participants and study several parallel MBSR groups in order to record further experiences and detect the potential occurrence of group variances and related biases.

The silent retreat day seemed important in order for patients to realize and appreciate the importance of retreating from the stressful and stimuli-saturated everyday living; a retreat which can allow them to restore energy resources and deepening the understanding of subjective challenges and related needs. It would therefore be advisable to further investigate

the influence of the silent-day retreat in the outcome of MBIs. This is an especially relevant enquiry since it is not uncommon to cut out the silent retreat in MBIs.

Concluding remarks

Research on the neural correlates and functional expressions of mental fatigue have shown that patients suffering from it require more cognitive resources and show higher neural activity during the performance of mental activities than controls (Azouvi et al., 2004; Kohl, Wylie, Genova, Hillary & Deluca, 2009). As argued in the current study, MBSR seemingly allows patients with mental fatigue to restructure their neural responses by learning how to reduce their exposure to stressful stimuli and be more efficient in their use of mental energy (compare with Johansson et al., 2012). The experiences of patients, framed as altered prospects, approaches and dispositions, have provided qualitative knowledge on how and why MBSR practice seems to allow a strengthening of executive control – a neuropsychological function that is arguably pivotal in the ability to restore, harbor and more efficiently use mental energy. Such general neuropsychological effects of MBSR is confirmed by previous neuroscientific and clinical research that have shown how mindfulness practice improves neuropsychological function by both increasing the ability to executively regulate cognition and emotion (e.g. Gotink et al., 2016) as well as intentionally collect internal information (Engen, Bernhardt, Skottnik, Ricard & Singer, 2018). Such profits from mindfulness could possibly aid patients with ABIs in general since similar symptoms of cognitive overload can affect them as well. These argued benefits from mindfulness training have seemingly not been made qualitatively understandable by the previous two qualitative studies on ABI-patients' experiences of MBIs by Niraj (2017) and Niraj et al. (2018) or by the previous qualitative study on MBSR for mental fatigue patients by Johansson and Bjuhr (2016). Accordingly, the current study has extended the existing qualitative knowledge on how MBIs can aid ABI-patients in general and mental fatigue patients in particular. To further develop the understanding of how MBSR can be more efficient in treating ABIs, to examine what parts of the program that are especially beneficial for such conditions and to create more couplings between ABI-patients experiences of MBSR and neuroscientific knowledge, are additional tasks for future research.

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For the record, the author took part in an 8 week MBSR-program during the autumn of 2017, one year prior to the conduction of the current study. Thus, the author has gone through similar training as the interviewees and therefore has first hand insights to experiences that can emerge from such training.

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Appendix

General questions on participation in the MBSR-program

- Have you practiced mindfulness or meditation before you started the program?
 - If yes, what kind of such practice and what did you think about it?
- What do you think of the mindfulness program?
- Have you learned anything by participating in the mindfulness program? And if so, can you describe it?
- Have mindfulness training had any impact in your daily life? And if so, can you describe how?
- Is there anything during the program that you experienced as particularly challenging?
- Is there anything during the program that you experienced as particularly positive?

Specific questions on the program in relation to mental fatigue/medical challenges

- Has your way of looking at your mental fatigue changed during the program? And if so, can you describe how?
- Has your training affected your ability to handle your energy resource and balance it with your mental fatigue? And if so, can you describe how?
- Has your ability to deal with yourself and your challenges/difficulties changed? And if so, can you describe how?

Questions on future practice

- Do you think you will continue to practice mindfulness in the future?
- What things can help you to use mindfulness training in the future?
- What kind of things can prevent you from practicing mindfulness in the future?