Vitality training—A mindfulness- and acceptance-based intervention for chronic pain
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ABSTRACT

Chronic non-malign pain has a substantial impact on all parts of an individual’s life. Mindfulness- and acceptance-based interventions are increasingly offered to help people manage their pain and strengthening their health promoting resources. In this paper, we present a mindfulness- and acceptance-based intervention, the Vitality Training Programme (VTP), to mitigating pain and accompanying symptoms and increasing pain coping abilities. Based on a clinical case presentation, we discuss how the VTP can help individuals to live a better life with pain. The VTP has been evaluated in two randomised controlled trials and two qualitative studies. Existing evidence is presented. Finally, based on a recently published theoretical model, we present some possible common explanatory mechanisms across various mindfulness- and acceptance-based interventions that might also apply to the VTP.

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1. Introduction

Christina is fifty-two years old, married with two grown-up children. She is a secondary school teacher, and has always been working fulltime. From her mid-thirties Christina has been suffering from fluctuating widespread musculoskeletal pain, especially in her back, neck and knees. Even though she has had a busy life, Christina has tried to exercising regularly. During the last two years Christina’s pain has increased and she has become more fatigued. With grown up children Christina has got more time for herself. She had been looking forward to having time for outdoor physical activities and a more active social life with her friends. However, she has not got the energy to being active as she had expected and eventually she has also started to feel depressed. One year ago she realised that she had to ask her GP for sick leave, which felt like a great defeat.

Chronic non-malign pain constitutes great health burdens for individuals and health care systems. People suffering from chronic pain often experience accompanying symptoms, such as fatigue, emotional distress, depression and anxiety. Furthermore, pain often restrains peoples’ social life and their ability to work. The experience of pain involves a complexity of cortical activity, cognitive, emotional and social mechanisms [1,2]. In line with this understanding of pain a large number of psychosocial interventions have been developed to help individuals cope with pain and its consequences. These interventions can be categorised into two main approaches; cognitive behaviour therapy (CBT) and mindfulness- and acceptance-based interventions. An essential difference between these two approaches is that CBT seek to change maladaptive thoughts and behaviours by maximising adaptive thoughts, whereas mindfulness-based interventions have a stronger focus on acceptance with no direct focus on change [2,3]. In this paper we present a mindfulness- and acceptance-based intervention, the Vitality Training Programme (VTP).

2. Mindfulness- and acceptance-based interventions

Over the past two decades mindfulness-based interventions (MBIs) have received increasing attention, both as treatment across an array of health conditions, and in research [3]. Mindfulness is rooted in ancient Buddhist philosophy and practices of meditation and yoga. It has been adapted within western psychology and medicine by dr. Jon Kabat-Zinn, who defines mindfulness as “the awareness that emerges through paying attention, on purpose, in the present moment, and non-judgementally to the unfolding experience, moment by moment” [4]. It includes both a state of awareness, and a systematic training of the mind to intentionally attend to internal and external experiences as they arise. A core aspect of mindfulness training is to cultivate an attitude of openness, curiosity, kindness, patience, acceptance, non-
evaluation and non-striving towards own experiences that will eventually cultivate self-care and compassion.

In mindfulness practices, thoughts, emotions and sensations are not judged as good or bad, positive or negative, but as experiences and objects of awareness that we can relate to. It is argued that as acceptance increases, there is a decrease in the struggle to control what might not be controllable [2]. Acceptance-based theory emphasizes one's relation to pain experiences rather than the content of the pain (i.e. sensations and thoughts) [3].

There are two main groups of mindfulness- and acceptance-based interventions that have been implemented and evaluated for chronic pain patients:

- **Mindfulness-based stress reduction (MBSR)** is the original programme that was developed by Kabat-Zinn. It teaches mindfulness meditation training through intensive meditative practice comprising body scan, sitting and walking meditation, yoga exercises and training of awareness in everyday life. Research has supported the efficacy of MBSR in the treatment of chronic pain [5,6].

- **Acceptance- and Commitment Therapy (ACT)** targets experiential avoidance. People learn to stay in contact with unpleasant emotions, sensations and thoughts. Negative thoughts associated with pain are used as “targets” for exposure rather than attempting to change their irrational content [6]. Developing mindfulness is one of the strategies in ACT. Further, participants are encouraged to base their actions on their most important values as opposed to their immediate feelings, thoughts and pain [3]. There is yet not a strong evidence basis for ACT on chronic pain, but preliminary findings are promising [6,7].

3. The Vitality Training Programme (VTP)

The VTP is a mindfulness- and acceptance-based group intervention that aims at enhancing people’s health promoting resources, their capacity to engage in everyday life and ability to live a meaningful and valuable life [8]. It was developed in Norway in the 1990s in close collaboration with people who suffered from chronic musculoskeletal pain and health professionals working with these patients. The development was based on the assumption that individuals interpret situations and symptoms in multifaceted ways, construct their own meanings and have the capacity to construct new meanings when needed. Any intervention should therefore provide opportunities for participants to find their own meaningful way of coping [9]. Like other mindfulness- and acceptance-based interventions, the VTP is based on the assumption that increased awareness of the present moment can enable people to reduce their automatic behaviour responses and strengthen their ability to make more conscious choices about how they respond to their internal and external experiences, such as pain.

The VTP comprises ten weekly four-hour group sessions plus a booster session after six months. Each group have between eight and twelve participants. All groups have two facilitators who are certified through a one-year university training programme (30 crd).

In every session participants are invited to attend to mindfulness meditation exercises derived from MBSR. They are also encouraged to practice these exercises in their everyday life and to train awareness in daily activities. Furthermore, each session addresses a specific “life topic” (Table 1) related to living with long-lasting health challenges, such as chronic illnesses and pain conditions. The participants are invited to explore these topics by using various creative methods, such as guided imagery, music, drawing, poetry and metaphors. The purpose is to provide opportunities for personal discoveries by intentionally attending to emotional, cognitive and bodily experiences. Participants are also invited to write logs from all exercises and to share their experiences and discoveries with other group participants.

Christina's GP referred her to a VTP course. Early in the course Christina became aware of feelings that she had not recognized before. She became aware that she missed her body as it used to be – strong and fit, which made her both sad and angry. She discovered that these feelings had directed many of her choices. There were so many things she thought she ought to do. She had to prove to herself that she was good enough and could cope with her situation. Having to go on sick leave had made her feel sorry and she blamed herself for not exercising anymore and not being able to invite friends. She became aware that she felt lonely because she had not told anyone how she really felt. During the course, Christina obtained a deeper understanding of how her thoughts, feelings and physical symptoms were related. She started to acknowledge her own feelings as rational reactions to her life situation. She also discovered that her “autopilot” caused her to carry on with activities even if her body was painful and she felt exhausted. Through the training Christina was able to observe and reflect upon her immediate thoughts, feelings and sensations rather than reflexively react from them. She discovered that when she allowed herself to say “no” to things that drained her energy, she could also respond more wholeheartedly “yes” to things she valued. Eventually, she experienced that she became more compassionate with herself and that this helped her to be more generous with others.

4. Effects of the VTP

The VTP has been evaluated in two randomised controlled trials (RCTs). Haugli et al. evaluated effects of the VTP in people on sick leave due to chronic musculoskeletal pain [10] and Zangi et al. evaluated effects in people with inflammatory rheumatic diseases (IA) [11]. In both studies improvements were found in emotional distress and pain coping in favour of the VTP group after intervention. Effects were sustained at one-year follow-up. Haugli et al. also found that more people in the VTP-group returned to work. Zangi et al. found improvements in fatigue and self-efficacy for pain and other symptoms in the VTP-group compared to the control group. These effects increased at one-year follow-up.

A qualitative study in people with IA and fibromyalgia, who had completed the VTP revealed five main topics [12]. The participants had recognized themselves as being both ill and healthy: “I am not only a disease, I am so much more”. They had also obtained a deeper understanding and recognition of their emotions: “It has been very important for me to acknowledge my sorrow over no longer being healthy . . . ”. They had increased their awareness of own needs: “I usually only say ‘yes’, but now I have become better at thinking of myself”. It had been important to meet other people with a similar condition: “I felt very much on my own . . . I don't

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Topics addressed in the VTP sessions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>If my body could talk . . .</td>
</tr>
<tr>
<td>Session 2</td>
<td>Who am I? My personal resources</td>
</tr>
<tr>
<td>Session 3</td>
<td>Values – What is important for me?</td>
</tr>
<tr>
<td>Session 4</td>
<td>What do I need? Knowing one’s strengths and limitations</td>
</tr>
<tr>
<td>Session 5</td>
<td>Bad conscience</td>
</tr>
<tr>
<td>Session 6</td>
<td>Anger</td>
</tr>
<tr>
<td>Session 7</td>
<td>Sorrow</td>
</tr>
<tr>
<td>Session 8</td>
<td>Joy</td>
</tr>
<tr>
<td>Session 9</td>
<td>Individual resources, possibilities and choices</td>
</tr>
<tr>
<td>Session 10</td>
<td>Anchoring of discoveries and the way ahead</td>
</tr>
</tbody>
</table>

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feel so alone anymore”. And finally, for people with fibromyalgia it had been important to be recognized as a credible patient: “Now that I know what it is, I have completely different resources, masses of energy has been released”.

Taken together, the lasting improvements that were found in the RCTs and the topics from the qualitative studies indicate that the participants had incorporated some new coping strategies in their daily lives. These strategies seemed to have strengthened their abilities to respond to stressful experiences in a more flexible way and make more conscious choices consistent with their personal values. The results of the studies on the VTP are consistent with findings from studies on other mindfulness- and acceptance-based interventions [6].

5. Possible mechanisms in mindfulness- and acceptance-based interventions


First, social factors, such as group cohesion and therapeutic alliance with the group facilitators, are critical for successful interventions. This is particularly emphasized in the training of VTP group facilitators that aims at developing the facilitators’ abilities to form relationships built on mutual respect, trust and acceptance [8]. Second, there is a growing body of evidence showing that mindfulness-based interventions engender brain changes in cortical structures that may modulate pain and improve emotion regulation by increasing positive affect [1]. Third, a consistent finding across studies is that mindfulness- and acceptance-based interventions significantly improve participants’ self-efficacy, i.e. the belief that one can manage pain, reduce their belief that pain represents a threat and stimulate their expectations that treatment will help [3]. Fourth, the element of pain acceptance (rather than struggling against) seems to be associated with better treatment outcomes [3]. Fifth, studies indicate that training mindfulness lead to increased approach-oriented coping which is associated with better health outcomes. And finally, mindfulness training has been associated with improved emotion regulation and increased positive affect [3]. These six domains may help identifying core elements that should be present across various MBIs for chronic pain and serve as a framework for identifying further research questions.

References