

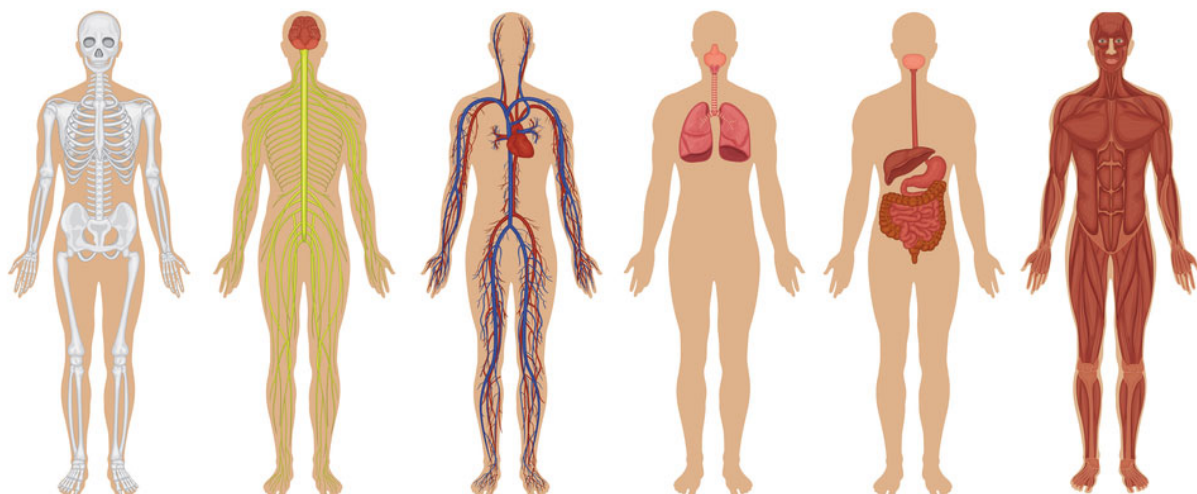
September 2017

MASTEROPPGAVE

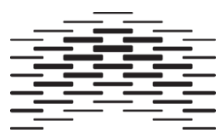
Masterstudium i helse og empowerment

EN NY VÆREN I VERDEN

Erfaringer med *BevissthetsTrening*



Kandidatnummer 2
Fakultetet for helsefag
Institutt for sykepleie og helsefremmende arbeid



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SAMMENDRAG

En ny væren i verden: erfaringer med *BevissthetsTrening*

Bakgrunn: Det er behov for studier som undersøker forholdet mellom kropp og sinn for bedre å forstå utvikling av helse og sykdom. *BevissthetsTrening* er et selvhjelpskurs som lærer teknikker i positiv visualisering som inkorporerer både kropp og sinn når de tas i bruk. Deltakere lærer raskt å oppnå en dyp meditativ tilstand. Dette kan brukes i hverdagen for å mestre stress.

Hensikt: Å intervjuere voksne om deres erfaringer med *BevissthetsTrening* og betydningen for mestring av stress og innvirkning på helseutvikling.

Teoretisk forankring: Det vektlegges en vitenskapsfilosofisk forankring innenfor fenomenologien. Det rettes et kritisk blikk mot den kartesianske kropp/sinn-splittelsen som et perspektiv for å studere og forstå mennesker. I refleksjonsoppgaven belyses, reflekteres over og drøftes dette gjennomgående, med Merleau-Ponty's 'embodiment' som analytisk begrep.

Metode: Kvalitativ metode med et eksplorativt, induktivt og deskriptivt design. Narrative intervjuer med 5 deltakere. Fenomenologisk-hermeneutisk analyse.

Resultater: Ett hovedtema framkom: En ny væren i verden. Fire undertemaer ble identifisert: (1) En reise innover i seg selv og bakover i egen livshistorie (2) En livsprosess, ingen mirakelpille (3) Finne tilbake til seg selv og slippe fasaden (4) En trygg hverdag med ro, flyt og balanse.

Konklusjon: Kropp og sinn ser ut til å henge sammen. Om-fortolkning av egen virkelighetsforståelse og frigjøring fra sosiale normer, påvirker kroppslig og sinn-lig væren i verden. Deltakerne erfarte en ny hverdag som er balansert og fredfull, med en betydelig symptomlindring- og/eller forsvinning. Dette viser til behovet for studier som forener kropp og sinn i sitt vitenskapsperspektiv og metodevalg.

Nøkkelbegreper: Bevissthet, kropp-sinn terapier, visualisering, stress, mestring, embodiment, Empowerment, helsefremmende arbeid

SUMMARY

A New way of being in the world: experiences with *ConsciousnessTraining*

Background: There is a need to research the relationship between mind and body to better understand health development. *ConsciousnessTraining* is a self-help course teaching techniques in positive imagery, incorporating mind and body when applied. Participants learn to easily achieve a deep meditative state. This can be applied to cope with stressors.

Purpose: To interview adults about their experiences with *ConsciousnessTraining*, and its significance for coping with personal stressors and impact on health development.

Theoretical perspective: A philosophy of science concerning phenomenology is emphasized. There is a critical stance regarding the Cartesian body/mind dualism as a perspective to study and understand humans. In the reflexive assignment this is illuminated, reflected upon and discusses consecutively, with Merleau-Ponty's embodiment as an analytical concept.

Methods: Qualitative methods. An explorative, inductive and descriptive design. Narrative interviews with 5 participants. A phenomenological-hermeneutic analysis.

Results: Main theme: A new way of being in the world. Sub-theme: (1) Travelling through life story (2) A life process, not a miracle pill (3) Reconnecting with and being true to self (4) A confident everyday life with balance, tranquility, and ease.

Conclusion: Body and mind seems to be intertwined. Re-interpretation of perceived reality and freeing oneself from societal norms, affects embodiment. The participants experienced a confident, balanced and tranquil everyday life, where bodily symptoms have been greatly alleviated or removed altogether. This accentuates the need for research uniting body and mind in its scientific, theoretical perspective and choice of methods.

Key words: Consciousness, mind-body therapies, imagery, stress, coping, embodiment, health promotion, Empowerment

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A new way of being in the world: experiences with *ConsciousnessTraining*. A qualitative study

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Keywords: Consciousness, mind-body therapies, imagery, stress, coping, embodiment, health promotion, Empowerment

Background: Coping with the stress that pervades daily life in western countries is a pressing matter. Stress is an individual experience, dependent on personal perception and appraisal. Our personal perception and appraisal is developed through previous experiences. Mind-body therapies are shown to act by alleviate the harmful biological effects of stress. There is a need for qualitative research on subjective experiences of mind-body therapies, to better understand the impact on health development. *ConsciousnessTraining* is a mind-body therapy which teaches techniques in self-guided positive imagery and apply brainwave entrainment during the guided training program. This is shown to positively affect health and well-being.

Purpose: To study adults' subjective experiences with *ConsciousnessTraining* for coping with personal stressors and how they perceive this to affect their everyday lives and health.

Methods: Narrative interviews were conducted of 5 adults who had repeated *ConsciousnessTraining* and consecutively applied the techniques to cope with personal stressors. A phenomenological-hermeneutic thematic analysis, inspired by Paul Ricour's philosophy was applied. Merleau-Ponty's embodiment-theory was used as an analytic concept to better understand the participants' experiences.

Results: One main-theme was revealed: A new way of being-in-the-world. Four sub-themes were identified: (1) Travelling through life story. (2) A life process, not a miracle pill. (3) Reconnecting with and being true to self. (4) A confident everyday life with balance, tranquility, and ease.

Conclusions: *ConsciousnessTraining* appears to affect mind and body. Through the techniques, the participants accessed unconscious perceptions and interpretations, rooted in past experiences. Incorporating both cognitive/affective and bodily/relaxation aspects, the participants were enabled to fully alter these perceptions and interpretations. This has positively affected their experiences with their social surroundings. Through this they have transformed their reality. Bodily symptoms and strains have been greatly alleviated or removed altogether.

1.0 Introduction

In health promotion, health is understood as a fundamental resource for the individual and seen as a process engaging physical, mental, social and spiritual well-being, lived and created by the individual in everyday life (1-6). Empowerment is central for public health promotion (4-8), defined as the individual having the knowledge, skills and confidence to make choices and behave in a way that positively influence matters concerning personal health (7). This includes having effective coping-mechanisms (4-11). The coping process is initiated in response to a stressor, and is critical for protecting the harmful effects of stress (12). A stressor meaning a cognitive appraisal of a situation as stressful in a way that tears on the individual's mental, social and physical functioning. This is an entirely individual process, where the subjective perception of the stimulus, type and timing, duration and frequency matters (12-13). Knowledge and ability to cope with the stress that pervades daily life is highly needed (12), especially seeing as there is an increasing prevalence of Functional Disorders (FDs) in the Western societies. FDs describe various somatic syndromes and disorders, with severe and disabling symptoms, with no explanatory organic cause. FDs are best understood as pathophysiological responses to prolonged or severe stress in genetically susceptible individuals. FDs challenges the dualistic model of mind and body, and medical professions in diagnosis and treatment. The consequences are high economic and societal costs, at the expense of the individuals' health, function and wellbeing (14-17).

ConsciousnessTraining is a self-help course teaching techniques in self-guided positive imagery, which incorporate cognitive and emotional aspects. This is believed to enhance the ability to cope with personal stressors, and promote health. The aim of this study is to approach the matter of adults who uses *ConsciousnessTraining* to cope with personal stressors in everyday life.

1.1 Background

Within the field of Psychoneuroimmunology, a growing body of evidence indicate how our experiences are of significance when it comes to physiological function, regulation and expression; there being an intercommunication between the physiological systems in accordance to what one experiences. This is a highly individual process (18-21). Our past experiences, our behavioral and personal development over the lifespan, seems to be of great significance in our current experience of stressors, in coping with stressors and in our physiological and psychological function, health and well-being (22-26). Stressors in childhood has been shown to affect neurological development, concluded to be adaptations to what one has experienced and interpreted to be an unsafe world, to survive and develop (27,28). There has been shown a dose-response-relationship between different strains in childhood and medical unexplainable symptoms (17, 29). Csordas (30) has researched the significance of experience and how our bodies are affected by our surroundings. Csordas enhances how the human science literature is full of constructions of the body not as solely matter, but as a "*kind of readable text upon which social reality is inscribed*" (30, p.12). In his phenomenological take, bodily symptoms are expressions of social experiences literally incorporated in the body, influenced by our past and our present, in expectation of a future.

Research on mind-body therapies (MBTs) (e.g. mindfulness, meditation, imagery, relaxation, yoga, Tai Chi), is of increasing interest in understanding the link between mind and matter, especially in understanding how emotions, cognition and psychosocial factors influence physiological processes, health and well-being (31). MBTs has been shown to act by removing or ameliorating the harmful effects of chronic stressors, allowing the body's innate healing responses to be fully expressed. MBTs affect brain networks involved in attention, learning, cognition and emotional regulation. Emotional, cognitive and psychosocial factors

can reciprocally influence central nervous system structure and function. These may be important mechanisms by which MBTs influence health development over the lifespan (31). The self-help course *ConsciousnessTraining* falls in under the nomenclature of MBTs, and has been shown via EEG-measurements to enhance morphological neurological changes (32). *ConsciousnessTraining* is based on the belief of how personal experiences and life stressors influence our individual development and behavior. This influence how we affect and are affected by our social surroundings, which is a potent factor for our overall health (26,30,33,35). The positive biological effects of MBTs are well documented (31). To better understand the practical usefulness and positive implications MBTs might have for health and well-being, there is a need to research the subjective experiences through qualitative interviews (31). Therefore, this study focuses on adults' subjective experiences with *ConsciousnessTraining* for coping with personal stressors, and how they perceive this to affect their everyday lives and health.

1.2 *ConsciousnessTraining* – The guided training program

ConsciousnessTraining has been developed in Norway, based upon 24 years of experience and research. It is part of the organization Unique Mind ESP. Unique Mind ESPs vision is to enable people to help themselves, believing this will strengthen the individual, which in turn will benefit society. The guided training program entails a 2-day seminar with a duration of 10 hours per day with guided group training. Each day consists of five sessions. Each session lasts 1,5 hours, containing a theoretical part and a part where the users are taught the techniques in positive imagery. Participants close their eyes and follows the instructions read by the instructor. Each imagery exercise begins with relaxation during a countdown from 7 to 1, while focusing on a specific area of the body, and inhaling and exhaling while counting. The relaxation is followed by imagery exercises thematically adapted to the current needs (Table 1). During the guided imagery exercises, brainwave entrainment is applied, using rhythmic stimuli through auditory pulsating tones, to alter brainwave frequency and thus brain state (34). This is meant to enable users to easily access a deep meditative state in their everyday lives. Long-term effects of brainwave entrainment include relieving acute and long-term stress, reduce pain and migraines, and improve behavior (34). At the end of the program, participants receive a pamphlet with instructions, as well as a phone number they can call once a week if they have questions. They are encouraged to repeat the course, seeing as there is a lot of information to absorb, and that repetition of the training enhance the morphological neurological changes (32).

The theoretical framework in this study concerns Maurice Merleau-Ponty's concept of embodiment (35). The concept of embodiment does not seek to see mind and body as two separate entities. Embodiment is used as an analytical concept to grasp how the participants apply the techniques, and how they experience this to affect their bodily being-in-the-world and in meeting their social surroundings.

Table 1. Self-guided positive imagery – the training program

The techniques are designed to specifically target the individual experience of the participant, and the personal meaning attributed to it. The participants are asked to adapt the visualization to their unique experience, including their feelings and bodily responses when visualizing. They are taught to imagine the positive outcome of their challenging experience, feeling positive and tranquil, and, should there be other people involved, empathy. The training consists of techniques for: processing and relieving psycho-traumatic experiences, for goal achievement, to improve social interactions and to enhance emotional balance in daily life:

Inner room: Participants visualize a room that is completely private, and a safe-place. At the end of counting down they visualize being in this inner room. From there they apply the different techniques adapted to their current needs. They also learn to inhale and exhale deeply, and focus on this inner room to instantaneously get in a state of calm and focus, should they need it throughout their day.

Psycho-traumatic experiences: Participants are to, first, imagine the circumstances of the psycho-traumatic events and then visualize an alternative positive story.

Goal-achievement: Participants are to, first, describe the goal in as much detail as possible and the steps to achieve it. Second, they are to visualize the steps for achievement, then the goal as if they already have achieved it.

Social interactions: Should there be any relations that had a negative impact on current emotional life, the participants are instructed to visualize their experience, then visualize friendship.

Emotional balance in daily life: Participants write down all current worries, releasing them emotionally, as well as current projects or issues they want fulfilled or solved. Then they write the next day as they want it to be, including positive outcomes of issues and projects. Then the participants visualize the next day: focusing on calmness and freshness while awakening and peace and satisfaction at the end of the day, as well as projects being fulfilled, and issues being resolved.

1.3 The unity of mind and body – being in the world as embodied

The tradition of phenomenology links subjectivity to the human body as a fundamental premise, thus exceeding the traditional separation of body and mind (25). Merleau-Ponty brought attention to the body as a seat for perception and experience. It is through the body we perceive and experience the world. It is through the body we absorb the world, and make sense of our experiences that occur within our social circumstances. As Merleau-Ponty makes explicit, to be a perceiving subject is identical to being in the world as embodied (35). Perception is not just sense-experience. Our self-knowledge contributes to our perception. Our self-knowledge is shaped by our experiences, which takes place in a social, cultural, inter-relational and historical context. We attempt to achieve self-knowledge through reason, to interpret our experiences and attribute meaning to them, based upon our purposes and needs. Yet bodily signals such as feelings, emotions, images, sensations and body language are equally important in making up our experience. They are part of and contribute to our interpretation and reasoning. One cannot defragment perception, nor defragment the body. Everything in the human organism, our sense-experience and our self-knowledge, works together and affects each other, responding to what we encounter in a single experience. This is how we make sense of and learn to be in the world, and our life-world develops (35-36).

A persons' life-world is developed through this lived experience, and is entirely subjective and unique. It is the world as we immediately perceive it without conscious reflection, to our taken-for granted experiences and personal truths, beliefs and habits (35). Our truths are not absolute, but subjective. Past experiences will affect and influence the way we respond in the present based on the meaning the experience had to us; to either avoid a similar experience, alter the experience or bring about the same experience. This can, and often is entirely automatic, instinctive reflexes that happens before we are consciously aware of what is happening. Merleau-Ponty describes this as the "*experience error*" (35, p.5). Thus, the challenge with being-in-the-world is that our life-world is limited and there is always something different to discover. Our personal truths and beliefs may be rigid and/or we may not be conscious of them, making us unaware of how to achieve a different experience of living and function (35).

Our life-world is never completely constituted; we are open to an infinity of possibilities (35). To unravel our experience errors, we would have to attain a different self-knowledge, which would alter our life-world and bodily being-in-the-world. Ultimately, change requires a willingness to challenge our life-world. This can happen unconsciously or consciously. Merleau-Ponty describes the first as equivalent to destiny and the latter as a conscious choice (35, p.463). Through consciousness we can transcend our experience. We can turn it into something other than what we immediately assume it to be, by being consciously aware of and reflect upon our present experience; our actions, habits, and bodily signals, our life-world and its limitations. Merleau-Ponty describes this as an '*ultimate consciousness*' (35, p. 448) and that something happens when this shift occurs, a greater self-knowledge and understanding arises. However, it is unlikely that we will succeed to change by choice if the choice is not truly our own. To succeed there must be a shift in our entire being, which again, will consequently affect our bodies.

2.0 Methods

This study used a qualitative methodology, based on a phenomenological-hermeneutical method (37). Phenomenological-hermeneutical research is described as appropriate for studying lived experience and the life-world. The aim is to gain a deeper understanding of our everyday experiences, and to uncover aspects of human existence and lived meaning that is relevant for understanding health (37-39). To acquire insight into the participants' experiences with *ConsciousnessTraining*, narrative interviews were chosen as an appropriate method. The current study focused on three research questions:

- 1) Why did the participants seek, complete and repeat *ConsciousnessTraining*?
- 2) How do the participants experience applying the techniques in coping with stressors?
- 3) How do the participants experience that *ConsciousnessTraining* and techniques affect their daily lives and overall health?

An interview-guide was structured around these research questions. Two pilot-interviews adjusted the interview-guide. Questions regarding the participants' sensory experience when applying the techniques were included. This was to understand how *ConsciousnessTraining* affects the participants; to be able to distinguish *ConsciousnessTraining* from other mind-body therapies. To expose the essential meaning of the participants' life-world and experiences with *ConsciousnessTraining*, the interviews were written down. The essential meaning was studied and revealed through hermeneutic interpretation of the interview-texts and appropriate theory (37). There is limited research on *ConsciousnessTraining*, and previously no qualitative studies conducted. Therefore, this study used an explorative, inductive and descriptive design, to grasp a hold of how *ConsciousnessTraining* affects subjective experience and life-world; coping, health and well-being.

2.1 Participants

A purposeful recruitment was chosen. Through e-mail, the founder of *ConsciousnessTraining* sent out information to every participant ever attended. The e-mail contained information about the study and the criteria for inclusion, being: 1) having repeated the training program at least once and regularly use the techniques to cope with personal stressors. 2) being at least 18 years old. The participants were asked to contact the researcher by mail or telephone, if interested. 20 participants volunteered during the first 24 hours. In total five participants were chosen. Two of them men, to get male representation. The remaining were chosen at random. Interviews were scheduled and the participants received an e-mail with the research questions, in addition to a consent form.

2.2 The narrative interview

There were conducted in-depth narrative interviews with open-ended questions. The interview varied in length, from 1h15m, to 2h45m, and were audio recorded. The participants were encouraged to tell and elaborate on their stories, without being interrupted or judged. Follow-up questions or questions to clarify parts of their stories, were applied consecutively. The interview guide was modified after the first two interviews, asking the final three participants to begin by telling their life story. This provided richer descriptions and seemed to set a more intimate and trusting tone throughout the interview. One of the participants mentioned how this question warmed him up, enabling and encouraging him to talk about being sexually abused in his adolescent years. The interviews were transcribed verbatim by the researcher who conducted the interviews. A list of symbols (table 2) was used to include variations in

intonation, mood, pauses, emotional sounds, and non-verbal expression. Transcriptions were supplemented with notes from the interviews, assembled immediately after each interview.

2.3 Analysis

All three authors contributed in the analysis-process, and validated the results. A thematic qualitative analysis was applied (37) (table 3). The analysis is inspired by Paul Riceour's philosophy. It consists of three steps:

(1) *Naïve reading*: The transcripts were read in its entirety several times to gain an immediate understanding, which was written down and set aside.

(2) *Systematic thematic analysis*: the transcripts were read again according to the research questions. Themes were noted, then condensed to their central meaning and abstracted to subthemes and main theme. This step was repeated until the themes coincided with the immediate understanding.

Because of the narrative quality of the interviews, the steps were applied to one interview at a time to preserve and be true to each participant's individual experiences and reveal each personal story. The stories were condensed to short-stories based on the themes to reveal the essence of the research questions and how they applied to each participant. Then, the stories and themes were compared. One main theme and four sub-themes remained.

After discussion, embodiment-theory was selected as appropriate to enlighten the results, as well as the results enlightening the theory (37,40).

(3) *Comprehensive understanding*: The transcripts were read once more in its entirety, in light of embodiment-theory. The first two steps were validated. To present the results, embodiment-terminology was used to interpret and explain the meaning of the participants' stories. Meaningful text parts were abstracted based upon the participants' perceptual and sensory quality of their experiences, and used to illustrate the results and theory.

2.4 Ethical research considerations

The participants have given written and verbal consent. The participants were promised anonymity, the interviewer being the only one to know their identity. They were given fictitious names in the transcripts, presentation and results. The participants were given the opportunity to read through the transcripts and correct them freely. One chose this, no corrections were given. The participants were encouraged to contact the interviewer if they had anything to supply, clarify, or withdraw from the study. They also consented to additional contact should the researcher find it necessary. No further contact has been issued.

This study is approved by the Norwegian Centre for Research Data (41). It is conducted in accordance with the ethical principles for medical research involving human subjects, as described by the Declaration of Helsinki (42), and in accordance with the recommendations of the guidelines of the international Committee of Medical Journal Editors (43).

3.0 Results

3.1 The participants

A specific life-situation triggered the seeking of techniques. Their life-world was described as “powerless”, “anxiety-ridden”, “exhausted”, “disconnected” “miserable”. Eventually it was perceived as so severe that a need for change was necessary.

Charlotte was bedridden for two years due to ME, then her brother died and a severe death-anxiety occurred.

Theresa experienced lots of illness, recurring infections, allergies, asthma, fatigue, and not being happy, eventually she suffered a severe concussion.

Maria had experienced anxiety and panic attacks since she was a child, was overly stressed and needed a new way of dealing with things in her work- and personal life. She repeatedly experienced close people she trusted ending their relationship with no verbal warning.

Christian experienced stressors in work, leading to burnout.

André had unresolved and unprocessed reactions to a continuous sexual abuse in his adolescent years and eventually experienced unmanageable anger.

From the participants’ stories, one main-theme emerged: A new way of being in the world. Their descriptions of this new way of being-in-the-world generated four subthemes

- (1) Travelling through life story
- (2) A life process, not a miracle pill
- (3) Reconnecting with and being true to self
- (4) A confident everyday life with balance, tranquility and ease.

In the following, the main- and subthemes will be elaborated on using embodiment-theory and terms. They will be exemplified with the participants’ descriptions of their experiences with applying the techniques; how they perceive this to affect their everyday lives and health development.

3.2 A new way of being in the world

The participants experienced a shift in perception, entailing both self-knowledge and sense-experience. In their self-knowledge, they acquired insight into the concept of the life-world and the significance of their subjective experiences. They understood how they were affected by and affected their social circumstances, and the opportunity for influencing own experience. In sense-experience, they described a different presence in their bodies, that their senses and bodily expressions had become more prominent. They had become more conscious of their sensations, thoughts, emotions and mental images. They construed these expressions as signs and personal symbols, that provided information of the personal meaning the current experience or life-situation had for them. This enhanced a greater self-knowledge. They became conscious of sensory signs, and familiar with their meaning. Through this their perception evolved, and their experiences became more manageable and fulfilling. In relation to others, they became aware of their options, and perceived an opportunity for making changes should this be desired. They described this shift occurring through completing and repeating *Consciousness Training*, and reinforced by continuously and successfully using the techniques to cope.

3.2.1 Travelling through life story

The shift in perception had provided the participants with a greater self-knowledge of their being. They had discovered how past experiences affected their current perception, beliefs

and interpretation, and how this affected their responses and behavior. They used to look for explanations out in the world, believing exterior factors were the reason for their issues. Applying the training made them shift their gaze inwards, and explore their life-world. They frequently described that a belief about the world and/or about themselves were the root cause of their issues. They discovered how these beliefs led to automatic behavior, and made them subconsciously behave in a way that affected their surroundings. They sought out aspects, people and objects that reinforced these beliefs. By taking a breath and turning their consciousness introspectively, they began seeing how their interpretation shaped their surroundings. They focused on these beliefs having developed through past experiences and through different relationships, especially in childhood and with their parents. They described travelling through their life story by applying the technique for dealing with psycho-traumatic events:

***Maria:** The first day after completing Consciousness Training, I got serious stomach-pains, it was just like being in labor... that night I dreamt I was scared my dad would die. When I woke up, it didn't make sense, because I'm not. But I couldn't shake the hysterical feeling, and suddenly I thought "Oh God, don't tell me that's why I've had stomach cramps since I was a little girl?" because when I was a child, my dad was a serious hypochondriac. I remember thinking it was really scary to be alone with him, thinking he could die any moment. I think that was the start of my panic-attacks. It was so weird that when I thought about it I couldn't remember it, but then it came to me. I had to call my mother to ask and she confirmed.*

When they experienced an issue, they tried to understand and make-sense of it. By applying the techniques, they revealed experience errors, described as “*parts of selves*” and “*an inner child*”, that perceived something to be scary and wanted to avoid it, or perceived themselves in a self-deprecating way; that something was impossible and that they were incapable of coping. It was a challenge to reveal those beliefs, and thus make that part feel safe or capable, through self-talk and through visualizing living their desired experience:

***Theresa:** I have a muscle knot that I want alleviated, so I count down and ask "What do you want to say?" and a part of me, myself as a child for example, appears and starts talking. If I feel there are some things the child needs to understand, that I consciously understand, but apparently, a part of me doesn't, then I explain it to the child so she feels safe and can relax. I've gotten memories where I felt my parents compete. They got divorced, and I felt they didn't see or love me, so I've used the techniques to visualize being seen and feel I received love... and you notice how you get taken back to a situation and see the image of it, recognizing it, sitting by the kitchen table, or feel the mood.*

In the case of symptoms, dependent on the severity and endurance, they described a complexity in the underlying beliefs, that were rooted in several life-experiences, and involved several parts of themselves:

***Charlotte:** I wasn't present in my children's lives, because I was too concerned with me. You get like that when your chronically ill. I had to use the techniques to forgive myself for that, which was very challenging to accomplish... A lot had to do with my childhood. My mom never learned how to hug. She worked three jobs, because my father was an alcoholic and unemployed. Once, I found him drunk on the floor. I remember having a lot of fear because I never knew what I came home to. I visualized my parents loving and understanding me. I visualized grandly, with flowers raining in the home, butterflies flying and love overflowing... I changed my childhood to being joyous. I spent years on that, that's not done in one sitting.*

And I feel comfortable with the childhood I had. I managed to accept that I've been the way I have as a mother because I transferred the negative that happened to me over on to my children. And then I'm capable of being a better mother now, in the present, instead of stuck in the past.

3.2.2 It's a life process, not a miracle pill

Christian, Theresa, André and Charlotte completed and repeated the training many years ago. They told how, through time and practice, the techniques had become integrated in them, eventually automatized. Maria varied from the others in the sense that she had only just completed and repeated the training. It came across in the interviews how the themes applied to all, but for Maria she was at the beginning of the process, and described being confused because she no longer coped in the same way: *"I don't feel like I've come out the other end a new person, and that life starts now. I kind of feel like "okay", this is when the work begins."* It seemed that she was in the process of shifting her perception, while the others were at the other end of the continuum. All described that trusting the process required *"just as much effort as actually doing it"*. They also explained how the training had given them the belief that they could cope. This was reinforced through using the techniques with repeated accomplishment. It became easier as they became more familiar with their sense-experience and symbolism; understood themselves better and how they worked:

***Christian:** It became very clear how bad it was and the level of energy I was at. So, I had to start from scratch, build the foundation brick by brick. I had to analyze everything, who am I? What's my values? How can I be different in five years from now from what I've been for the past five? It's one step at the time. And we humans don't really have the patience for that, we want to receive the miracle-pill, take it, snap our fingers and then everything is different, that's what we're constantly looking for. But if your being realistic, you kind of have to document, write statistics, look back, adjust the way you're going in accordance to the direction you want to take... And eventually it's become a state of being. I'm not sure how many times I've been in my inner room, consciously or subconsciously today. Maybe five, maybe fifteen... it's a matter of practice... At some point, it's become a way of being and you no longer think about it. It's just a part of your standard procedure on a day from you wake up 'til you go to bed, and at the end of the day you do the technique for enhancing emotional balance in daily life.*

The participants described it as a process that took time, practice and commitment. Maria, André, Charlotte and Theresa focused on the process as extremely challenging at times, and required self-discipline and effort. Especially when the contents of the challenge entailed multi-layered beliefs and habits, deeply ingrained in their beings. It could take time and repeated use of the techniques to specifically get a hold of the underlying belief(s), and dependent on the severity of the issue, time to emotionally process. Some beliefs seemed to be repetitive in the sense that there were new layers to it. Something they thought they had coped with, could become an issue again, when they encountered something that triggered the same belief. However, symptoms accompanied with the belief, would not necessarily present itself in the same way, and where no longer chronic, but alleviated when the layer was coped with:

***Charlotte:** I'm noticing that the heavier stuff, the more straining it is. It can take an uncommon amount of energy. In the beginning, I thought it would take a lot of time and effort. At that point I was exhausted, just lifting a pen was a lot of work. When you've been sick a long time or isolated from society, it takes a while to get back, it's not just snapping your*

fingers. And I'm not walking around believing I'll always be on cloud nine if I only use the techniques. I still feel scared to death if I'm doing unfamiliar things, get nauseous and the curtains are closing. But then I perceive that when I use the techniques, I find the cause of why the curtains are closing. Then I can work from there and get the curtains to open and feel the joy, again, of doing it. And it doesn't take long to visualize anymore. It's so infiltrated in me, it's a conscious part of my being. Suddenly, I feel something, a feeling or sensation in my body and I'm able to capture it.. inhale... deeply.. and ask what it is. And then the answer comes to me.

3.2.3 Reconnecting with and being true to self

Four of the participants elaborated on the importance of being in touch with their feelings and processing issues emotionally. This was emphasized as equally important as re-interpreting the issue through positive imagery. It was seen as especially important to emotionally react to- and process their own hurtful experiences in the case of deep-rooted, multi-layered issues. It was described as necessary to properly cope and evolve:

André: I've created some images inside my head to cope with this thing called life. I have this part of me to my right, who is angry and looks after me. I've given him medallions for long and loyal service, so he can be busy polishing his medallions. To my left, I have Mr. Happy-Go-Lucky. He was put on hold when I was twelve (when the sexual abuse started) and brought back in my forties... And, I didn't even feel I was in pain, or that I felt love, I was only connected from my neck up. So, I had to get in touch with and release my feelings, all the way down to my little toe and back up, and to be able achieve this... with the techniques. I wrote down goals, and then I imagined it like a movie. If I released a good feeling, a bad one also came, and the goal eventually became to try and say "I love you", and picture the settings I would say this. Then it happened, and I could relax and take a step further. I took very short steps at a time and used a long time on this process.

Even though it could be uncomfortable and challenging to experience heavy emotions, they knew that feelings and thoughts were passing reactions to the perception in question, and to past experiences that developed this perception. This perspective allowed and gave them courage and strength to be honest with themselves and acknowledge their underlying belief, react sincerely, and thus, as described, properly cope and move forward. Through this process, they gained a greater self-acceptance and self-confidence, and reconnected with who they truly were. The participants talked about being exposed to their life-world, and discovering who they were at their core, underneath their fear and self-deprecation. The change in sense-experience and the greater presence in their body, faced them with themselves, their experiences and their life-world. All participants described it to be important that they were honest with themselves about who they truly were, and dared to live a life that was right for them instead of keeping up appearances. This influenced what was important to them, what they wanted to achieve and how they wanted to live their lives and be in the world. They said that this revelation and shift in their being, was a major contributing factor to their well-being and perceived good health:

Maria: The cramps and anxiety came back after completing the training and I think it's because I've become so conscious of everything that's happening inside me. Before, I managed to remove the anxiety on one thing, I got fed up and just pushed it away. But then it moved onto something else and popped up when I least expected it. So, I didn't actually cope with it. I definitely didn't take a closer look at it because it was too uncomfortable. Now, at least I have the chance to actively cope. Instead of taking immediate action to change the

state I'm in, I dare to be in the uncomfortable feelings... that's what's challenging now. It's completely horrible actually. So it's been exhausting when things occur. But still, I feel I enjoy life more... I enjoy the processes more than I used to... I feel more content, calm and happy, maybe I feel that I'm becoming who I really am... and it makes me get closer to people, when I drop the facade... I used to be afraid of people distancing themselves from me, because I thought it confirmed my suspicion of being a horrible person. When I'm no longer scared of that happening, something else occurs. That's incredibly nice.

3.2.4 A confident everyday life with balance, tranquility and ease

The participants described that the process had generated a different way of being in the world, and gave them a shift in their perception that affected their perspective and behavior. They experienced that this shift gave them a greater empathy towards themselves and others, which positively affected their communication and relationships. The participants talked about seeing others as subjects, situated in their life-world. This enhanced an understanding and a tolerance for others being the way they were. They empathized with others being powerless to cope, or unaware of their experience errors and effect on others. This perspective made it easier to respectfully communicate and resolve conflicts. They discovered stressors in relationships as important contributing factors to their previous health challenges. When these relationships were improved, a lot of stress, worry and unhappiness was alleviated; and in Charlotte and Theresa, severe physical symptoms:

Theresa: I've worked a lot on issues in relationships, which of course has led to being less triggered. And I feel that the next time I'm in a similar experience, I react differently. That's the best when you discover that "wow, I would usually get really annoyed", but now... I don't. That's amazing. (...) I'm calmer and more content. I can feel that if I get sad, it's an easier way to get sad, it's not as deep-seated in my body. You can just feel in your body that tensions you've walked around with for years can change after using a technique, when you become aware of strong habits. I wasn't aware of walking around with, just like a knot in my stomach, like it was locked (...) The techniques, simply counting down... I feel my head getting better, my brain getting better, my memory getting better. If I've had swelling it's likely lessened. It's really that I feel calmer and can feel an increase in energy. I've had a fatigue syndrome, so if I'm in a situation where I must concentrate and feel low on energy, I count down to my inner room when I talk to people to get more energy. And I feel it in the head, actually, that I get energy, that it feels good, and that it can go to places in the body where I have pain. The pulse slows down. You can hear that.

Apart from Maria, they described an alleviation or riddance of various symptoms. Their health-related challenges, the life-situation that made them seek coping-tools, were no longer an actuality. Maria said she felt she was heading in that direction. It appeared that when life was challenging and they experienced stressors, it was in an entirely different manner. They no longer perceived a stressor as a confinement, but knew how they could cope with and free themselves of the stressor at hand. Thus, they prevented stressors from developing into a long-term issues with lasting strains on their health. They attributed this to the presence in their body, and that they quickly became aware of when there was something in their experience that needed attention. From there they used the techniques in various ways, individually adapted to their needs. This perceived self-confidence and control relieved a lot of worry. For the most part, their day-to-day lives were described as confident and easy. They managed to balance different tasks and completed their tasks with a sense of calm.

André: I've gotten a completely different presence in my body. If there is a pain somewhere, then I know that "okay, my body is trying to tell me something". If I can't figure it out as I go, I count down. This gives a confidence that there are no outer factors that does something to me, so I'm not as much on guard. The medallion-polisher can sit and polish medallions while Mr. Happy-Go-Lucky can jump around and see what life has to offer, which is an extremely liberating way of living... so, I've gotten a completely different tranquility in my life. At the same time I have the techniques to cope with balancing work, school and spare time, and the total stress of it all. If I want a change, then I need to be conscious of me being the one to bring that change about. It's completely possible, it's just breathing deeply and figure out what I actually want, and then it works. When it comes to my children, I feel that I love them when I tell them I do... So, in the daily life there's much more ease, more connection with my feelings. My mind is here, my intelligence is here. But my emotions are just as much in control, they speak together.

4.0 Discussion

The overall impressions of the results from this study is that applying *ConsciousnessTraining* in everyday living, enhances coping, and promotes well-being and perceived health. For the participants, this included alleviation or removal of various symptoms. Four of the participants had experienced childhood maltreatment, entailing emotional and/or physical abuse and/or neglect. In accordance with previous research (17,29), there was a dose-response relationship between the number of childhood stressors and physical symptoms. In the four participants where this was accounted for, the participants focused on this being a great part of why they experienced health challenges and reasons for seeking *ConsciousnessTraining* in the first place. This might show a connection between past experiences affecting both our mind and body. The participants talked about past experiences being situated in various symptoms, such as Maria's stomach cramps and panic anxiety that had originated when she was a child and scared her dad would die. Charlotte explained her symptoms as a way of hiding from the world and protecting herself. Through being bedridden and having ME she said she achieved this, as "*hiding under the covers*" became her reality. The participants also interpreted their symptoms as a means to get their own attention. Theresa elaborated on experiencing a muscle knot, making her turn her consciousness towards this issue. When she applied the techniques, she discovered previous traumas that needed resolving. One can argue that this is their interpretation of the symptoms, and that there is no actual connection. However, their symptoms were alleviated or removed altogether when they emotionally processed the previous experience they perceived as tied to it. Thus, we argue that there appears to be a connection – at least in the sense that emotional processing of previous traumas is important for coping with stressors and promote health, and that this may affect symptoms. We argue this as this was a common experience among the five participants.

The five participants were quite diverse in their stressors and in their symptoms. Yet, within themselves they found connections between the two. Through the techniques, they understood the underlying meaning of the stressor and thus, they could re-interpret and emotionally process it. As this process progressed, both the symptoms and the stressor dissolved. Christian described that he used to work for others, and tried to keep up appearances to receive approval. When he decided to "*start from scratch*" to build himself up "*brick by brick*", he described that living a life where he approved himself, was the key to go from being constantly drained to constantly energized. Through consecutively applying *ConsciousnessTraining*, the type, timing, frequency and duration of the stressors were lessened. We argue that this attests to that subjective experiences affect mind and matter.

Previous literature and research, construe experiences as inscribed in our bodies (17,24-26). This appears to happen in completely individual ways. Seeing as we are individual and no experience is the same, we find it logical that neither will the inscription, as shown by the participants. This is accentuated by embodiment-theory (30,33,35). Further, we find it to be illustrated by FDs, where symptoms present themselves in such individual ways, that setting a diagnosis is impossible (14-17). We further draw a parallel to research on childhood maltreatment altering brain-function, as well as on neurological development in general, that is understood as adaptations based upon experience (22,27,28). Because of this, it can appear as though our mind does not just affect our body, but that our body also affects our mind. Therefore, we argue that interventions like *ConsciousnessTraining*, that target both body and mind, might enable an opportunity for and streamline the ability to influence our experiences, and not as André said: “*just take the consequences of them*”.

The results illuminate qualitative and in-depth aspects of subjective experiences’ influence on mind and matter, for health and well-being. This may contribute in understanding the knowledge on stress and coping (12,13,22), within PNI (18-21), FDs (14-17) and on MBTs (31). This research emphasizes the question of individual perception and interpretation as a mediating factor for stress. As Merleau-Ponty greatly focuses on in his work, our perception is a key factor providing the opportunity to free ourselves from past experiences with consequences on our embodiment (35). The participants described this as affecting a bundle of responses in the mind and in the body, such as “*achieving a state of calm and peace and feeling good bodily processes beginning*”, “*feeling energy move towards areas in the body that hurt*”, and “*tensions dissolving after changing strong habits*”. Folkman (12) explains stress as a whole-body phenomenon that takes place in a social context. The participants emphasized that stressors occurred in relation to others. This is elaborated on in the results by Maria who continuously had experienced close people breaking off their relationship. This reinforced her interpretation of being a horrible person, and heightened her anxiety. She explained further: “*When I’m no longer scared of that happening, something else occurs (in the relationships). That’s incredibly nice.*” We argue that the results in this study attest to there being a bidirectional communication and mutual affection of body/mind in an embodiment/social-context, and that *ConsciousnessTraining* may provide the means to take control over this bidirectional communication. Charlotte described this by explaining how she had, through the techniques, re-interpreted her childhood into being joyous, and feeling she was loved and understood by her parents. This made her forgive herself for her own shortcomings as a mother, and enabled her to care for her son who struggled with anxiety and depression, and used to be suicidal. Previously it was the other way around, and her son had taken care of her when she was bed-ridden and could not walk.

ConsciousnessTraining is developed to target both mind and body, and change perceptions of social circumstances. Through alteration of personal perception and interpretation, the participants described this to affect their entire being. This in turn affected their self-knowledge, communication and thus their social experiences. André described that his mother had never taken seriously that he experienced a continuous sexual abuse in his adolescent years. He described it as important to emotionally forgive her. He said he was the only one hurting by holding onto resentment towards her, and that it was important for his children to have a relationship with their grandmother. Through the techniques, he managed to forgive his mother, by empathizing with her reasons for not supporting him. Since, social gatherings had become increasingly pleasant, explicated verbally by his mother. He attributed this to that he no longer attacked her with his energy. He said: “*then the stressor releases its grasp on*

me”, and he was capable of engaging in pleasantries. The results may be construed as effective for affecting perception, entailing processes in the mind and in the body. The participants had managed to bring about a change in their entire being. This may indicate that to truly change our perception and alter our reality, our entire being – mind and matter – needs to be involved; sub-conscious parts resisting the change, or changing to please others’ expectations might damper the shift. According to Merleau-Ponty, the choice must truly be our own (35). This might be potent for being able to take control over our development and experience a new reality, and thus affect our embodiment. Like André said: *“I must feel that it really comes from within for it to work”*.

It is important not to put all the responsibility on the individual, but take context into account. In trying to achieve and adapt to societal- and others’ expectations the participants said they used to feel incompetent and incapable. Maria described: *“I can be like iron, cold and hard. I kind of switch off my emotions to get tasks done. But it rarely turns out well.”* She further elaborated *“I was constantly banging my head against the wall and couldn’t seem to manage to move forward. I couldn’t make my business work, couldn’t make relationships work, I felt so lonely”*. Embodiment-theory argues that to be an embodied subject in a social context with societal norms, affects our perception (30,33,35). What we look like, how we act, our role in society, may generate reactions from our surroundings. Should we experience ourselves from a societal stance, this may affect our self-perception and enhance self-objectification, creating a distance to our subjective experiences and limit our self-knowledge. In our results the participants had managed to become empowered because they had become experts on themselves. Through their new way of being in the world, and applying the techniques, they had dived into and become familiar with their subjective experiences, self-knowledge and sense-experience. Like Charlotte said: *“I still get nauseous and petrified, but then I perceive that I understand why and I can work from there.”* This has enabled them to “re-enter” the society and maintain their subjectivity and individuality in their daily lives, and be true to their values and needs. As Christian explained: *“I’m no hit-man. My integrity comes first. I have the freedom to say no without being afraid of losing face or going bankrupt.”* This may show how subjective experience, perception and interpretation is important for our coping and health. We argue that it is likely that self-objectification and estrangement, might make it difficult to take control over own development. Knowledge of being in the world as embodied beings, of our subjective life-world and the opportunity for influence, may be of importance for our coping abilities and empowerment-process. This knowledge may be beneficial for the work within health promotion, seeing as it is a societal and structural responsibility to facilitate empowerment, and educate the population on matters that are potentially within our control to cope with (5-8).

ConsciousnessTraining may not be suitable for everyone, seeing as it is tailored to become self-guided and self-driven. The results show the severity and stamina sometimes required. It is important to acknowledge that this type of coping should not be forced upon anyone. However, should the knowledge be acknowledged in the health discourse, it is likely that more people would apply this in their coping. Health problems seem to occur when we do not cope with emotional strains, but rather suppress or avoid dealing emotionally with our stressors (12). This is explained by long-term stress in the body, gradually tearing on the organism’s physiological systems, making us vulnerable for disease (17,21,22,24,25). A competent health-professional, that supports the individual, motivates, and emphasizes the importance and significance of this process, will probably be potent for some individuals’ ability to believe in and endure the coping-process (44). Others might need to be part of a group to find the support needed (45).

4.1 Methodical considerations and limitations

Generalizing is usually not the goal of qualitative studies. However, they hold the potential to procure reliable knowledge that hold validity and transferability. The current study has several limitations. This is a small study, with only five participants. The explorative design constrains the opportunity to procure in-depth knowledge of the different sub-themes. The study operationalized health holistically and did not specify any disease, disorder, syndrome or illness. The inclusion entailed repeating the training and using the techniques to be included. By not handpicking people known to succeed, it was intended this would increase possibility to procure descriptions of ambivalence and/or possible negative experiences. However, it seems likely that people who have repeated the training and applies the techniques, are successful in coping and thus pleased and wants to participate. Consequently, this limits knowledge of how *ConsciousnessTraining* may affect people with a specific diagnosis, or how it may affect people if they do not succeed in applying the techniques. It is likely that some will not succeed on their own, or the processes of shifting takes too long. It is possible this puts an additional stressor on a person and becomes something of a hindrance rather than help. What this does to a person and how that affects coping, is not shown by this study.

4.2 Implications for future research and practice

Exploratory studies that approaches the problem of people who have completed the training, but does not apply the techniques, may procure valuable knowledge on areas for course-improvement. Longitudinal studies that seeks to unite mind and body in their methodology, is also of interest. This may enhance the understanding of the body/mind-link, individual variation in response to mind-body therapies, and how this affects individual health development over the lifespan. The results in this study hold the potential to provide information of what is potentially within one's control to cope with and improve health. This may help to improve the work within health promotion and empowerment, and supply conventional medicine and treatment with complementary interventions; that regards subjective experiences, targets life-story stressors, and facilitate coping.

5.0 Conclusion

This qualitative, exploratory study has sought to study adults' subjective experiences with *ConsciousnessTraining* for coping with personal stressors. *ConsciousnessTraining* provides techniques in self-guided positive imagery and is a mind-body therapy; a nomenclature describing various therapies which are shown to bridge the gap between mind and body. This is shown to alleviate the body's stress-responses with positive long-term impacts on health and wellbeing. Narratives was the chosen method to understand the participants' experiences with *ConsciousnessTraining*, and how it affected their health development. Embodiment-theory was applied as an analytic concept. The results attest to mind and body being connected, affected by social our circumstances. The participants construed their symptoms to have developed over time, based upon previous experiences in a social context. They discovered that previous experiences affected their current perception and interpretation in various social contexts. This was often unconscious processes. Through positive imagery, the participants got hold of unconscious interpretations and re-interpreted them. By changing their perception and interpretation, they could free themselves from past experiences and successfully move forward. Symptoms that were construed as being a part of the previous perception and interpretation, were alleviated or disappeared altogether. The change needed to be in their entire being for the perception to truly change, with consequences on their life-

world and embodiment. While there is a need for further research, the knowledge on the meaning of subjective experiences for health development, holds potential to enhance coping abilities that positively affect empowerment, health and well-being. Should this be acknowledged and implemented in the work within health promotion, this might lead to long-term effects on society that alleviates costs and resources.

Conflict of interests

The research was conducted in the absence of any commercial or financial relationships that can be construed as a potential conflict of interest. Neither the authors nor the institution received payments or services from a third party for any aspect of the submitted work.

Acknowledgements

The authors would like to thank the founder of *ConsciousnessTraining*, Deborah Borgen, in assisting with the recruitment of the participants. The results and conclusions in this study are those of the authors and do not necessarily represent the official position of Unique Mind ESP AS, the organization behind *ConsciousnessTraining*.

References

1. Breslow, L. From Disease Prevention to Health Promotion. *JAMA*. (1999) 281(11):1030-1033.
2. Green, L.W. Health Promotion. *Oxford University Press*. (2015) doi: 10.1093/OBO/9780199756797-0004.
3. Kickbush, I. (1989). Approaches to an ecological base for public health. *Health Promotion Internationa* 4, issue 4:265-268.
4. Labonté, R., Laverack, G. (2008). *Health Promotion in Action. From Local to Global Empowerment*. United Kingdom: PALGRAVE MACMILLAN (2008). p. 6-51.
5. World Health Organization. *Bangkok charter for health promotion*. (2005). Available from: http://www.who.int/healthpromotion/conferences/6gchp/hpr_050802_bangkok_charter_hp.pdf
6. World Health Organization. *Ottawa charteret om helsefremmende arbeid*. (1987). Available from: <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>
7. Kemm, J. *Health Promotion. Ideology, Dicipline, and specialism* (1.utg.). Oxford: Oxford University Press (2015). 230 p.
8. Mæland, J. G. *Forebyggende helsearbeid, Folkehelsearbeid i teori og praksis* (3. utg.). Oslo: Universitetsforlaget AS (2010). 234 p.
9. Askheim, O. *Empowerment i helse- og sosialfaglig arbeid : floskel, styringsverktøy, eller frigjøringsstrategi?* (1.utg.). Oslo: Gyldendal Akademisk (2015). 213 p.
10. Tveiten, S., Boge, T. *Empowerment i Helse, Ledelse og Pedagogikk - Nye perspektiver*. Oslo: Gyldendal Norsk Forlag AS (2014). 215 p.
11. TEngland, A. Empowerment: A goal or a means for health promotion? *Medicine, Health Care and Philosophy*. (2007) 10:197-207. doi: 10.1007/s11019-006-9027-1
12. Folkman, S. *The Handbook of Stress, Health and Coping*. New York: Oxford University Press, Inc (2011). 469 p.
13. Koolhaas, J.M., Bartolomucci, A., Buwalda, B., de Boer, S.F., Flügge, G., Korte, S.M., et al. Stress revisited: A critical evaluation of the stress concept. *Neuroscience & Biobehavioural Reviews* (2011) 1291-1301. doi: 10.1016/j.neurobiorev.2011.02.003

14. Budzt-Lilly, A., Schröder, A., Rask, M. T., Fink, P., Vestergaard, M. Bodily distress syndrome: A new diagnosis for functional disorders in primary care? *BMC Family Practice* (2015) 16:180. doi: 10.1186/s12875-015-0393-8
15. Price, J. R., Okai, D. Functional disorders and 'medically unexplained physical symptoms'. *Psychiatric aspects of general medicine* (2016) 44:12. doi: 10.1016/j.mpmed.2016.09.012
16. Mayou, R., Farmer, A. Functional somatic symptoms and syndromes. *ABC of psychological medicine* (2002) 325(7358):265-268.
17. Kirkengen, A-L., Næss, A.B. *Hvordan krenkede barn blir syke voksne* (3.edt.). Oslo: Universitetsforlaget (2016). 248 p.
18. Cohen, N. The uses and abuses of Psychoneuroimmunology: A global overview. *Brain, Behavior, and Immunity* (2006) 20:99-112. doi: 10.1016/j.bbi.2005.09.008
19. Irwin, M.R. Human psychoneuroimmunology: 20 years of discovery. *Brain, Behaviour, and Immunity* (2008). 22:129-139. doi: 10.1016/j.bbi.2007.07.013
20. Segerstrom, S.C., Miller, G.E. Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 years of Inquiry. *Psychol Bull* (2004)130(4):601-630.
21. Qing, Y. *Psychoneuroimmunology. Systems Biology Approaches to Mind-Body Medicine*. Switzerland: Springer International Publishing (2016). 136 p. doi: 10.10007/978-3-319-45111-4
22. Loveday, C. *The secret world of the brain*. London: André Deutsch (2016). 192 p.
23. Friedman, H.S. The multiple linkages of personality and disease. *Brain, Behavior, and Immunity* (2008) 22:668-675. doi: 10.1016/j.bbi.2007.09.004
24. Getz, L., Kirkengen., Ulvestad, E. Menneskets biologi – mettet med erfaring. *Tidsskrift for Den norske legeforening* (2011) 7;131:683-7.
25. Kirkengen, A.L., Thornquist, E. The lived body as a medical topic: an argument for an ethically informed epistemology. *Journal of Evaluation in Clinical Practice* (2012) 18:1095-1101. doi: 10.1111/j.1365-2753.2012.01925.x
26. Krieger, N. Embodiment: a conceptual glossary for epidemiology. *J Epidemiol Community Health* (2005) 59I:350-355. doi: 10.1136/jech.2004.024562
27. Teicher, M.H., Samson, J.A. Annual research review: enduring neurobiological effects of childhood abuse and neglect. *Journal of Child Psychology and Psychiatry* (2016) 57:3. 241-266. doi: 10.1111/jcpp.12507
28. Teicher, M.H., Samson, J.A., Anderson, C.M., Ohashi, K. The effects of childhood maltreatment on brain structure, function and connectivity. *Nature Reviews. Neuroscience* (2016) 17(10):652-666. doi: 10.1038/nrn.2016.111
29. Karatzias, T., Howard, R., Power, K., Socherel, F., Heath, C., Livingstone, A. Organic vs. functional neurological disorder: The role of childhood psychological trauma. *Child Abuse & Neglect* (2017) 63:1-6. doi: 10.1016/j.chiabu.2016.11.011
30. Csordas, T. *Embodiment and experience. The existential ground of culture and self*. New York: Cambridge University Press (1994). 294 p.
31. Muesham, D., Lutgendorf, S., Mills, P.J., Rickhi, B., Chevalier., Bat N., et al. The embodied mind: A review on functional genomic and neurological correlates of mind-body therapies. *Neuroscience and Biobehavioural Reviews* (2017) 73:165-181. doi:10.1016/j.neubiorev.2016.12.027
32. Velikova, S., Sjaheim., Nordtug, B. Can the Psycho-Emotional State be Optimized by Regular Use of Positive Imagery?, Psychological and Electroencephalographic Study of Self-Guided Training. *Frontiers in Human Neuroscience* (2017) 10:664. doi: 10.3389/fnhum.2016.00664
33. Slatman, J. Multiple dimensions of embodiment in medical practices. *Med Health Care and Philos* (2014) 17:549-557. doi: 10.1007/s11019-014-9544-2

34. Huang, T.L., Charyton, C. A comprehensive review of the psychological effects of brainwave entrainment. *Alternative Therapies in Health and Medicine* (2008) 14,5:38-50.
35. Merleau-Ponty, M. *Phenomenology of Perception*; translated by Donald A. Landes. United Kingdom: Routledge (2012). 606 p.
36. Matthews, E. *The Philosophy of Merleau-Ponty*. Taylor and Francis (2002). 193 p.
37. Lindseth, N., Norberg, A. A phenomenological hermeneutical method for researching lived experience. *Scan J Caring Sci* (2004) 18:145-153.
38. Kafle, N. P. Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal* (2011) 5:181-200.
39. Thornquist, E. *Vitenskapsfilosofi og vitenskapsteori for helsefag*. Bergen: Fagbokforlaget (2003). 244 p.
40. Malterud, K. Theory and interpretation in qualitative studies from general practice: Why and how? *Scandinavian Journal of Public Health* (2016) 44:120-129. doi: 10.1177/1403494815621181
41. NSD – Norwegian Senter for Research Data. (2017) Available from: <http://www.nsd.uib.no/nsd/english/index.html>
42. World Medical Association. World Medical Association Declaration of Helsinki Ethical Principles for Medical Research Involving Human Subjects. *The Journal of the American Medical Association* (2013) 310(20):2191-2194. doi: 10.1001/jama.2013.281053
43. International Committee of Medical Journal Editors. (2017). Available from: <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/protection-of-research-participants.html>
44. Bann, C.M., Sirois, F.M., Walsh, E.G. Provider support in complementary and alternative medicine: Exploring the role of patient empowerment. *The Journal of Alternative and Complementary Medicine* (2010) 16(7):745-752. doi:10.1089/acm.2009.0381
45. Armstrong, C., Wolever, R.Q., Manning, L., Elam, R., Moore, M., Frates, E.P., et al. Group Health Coaching: Strengths, Challenges, and Next Steps. *Glob Adv Health Med* (2013) 2(3):95-102. doi: 10.7453/gahmj.2013.019

Table 2. List of symbols for transcription

[word, [word] [vertical brackets]	Overlapping speech
-	interrupted word
(H)	inhalation
(Hx)	exhalation
<H word H>	Inhaling speech
< Hx word Hx>	Exhaling speech
(COUGH)	Non-verbal sounds
@	laughter (one sound for each “lauging-syllable”)
<@ word @>	Laughing when speaking
<EMF word EMF>	Emphatic speech
(Points)	Non-verbal action, interpretation of mood, or other comment for the transcription

Table 3. Analysis-process

1. Näive understanding	Confused. Does not approach issues like she used to. The issues are the same, but she copes differently.
2. Thematic analysis	I’m very good at controlling things in my life, but it’s not necessarily a good outcome. If I steer things in the direction I want, it’s rarely the best solution, even though I thought that’s what I wanted. So now... I don’t want to be result-oriented, I just want to be very open and see what happens if I’m 100% open, and I’ve felt very confused since, because I no longer approach issues like I used to.
<i>2.1 Meaning unit</i>	
<i>2.2 Condensed meaning</i>	
<i>2.3 Subtheme</i>	
<i>2.4 Main theme</i>	A new way of being in the world
3. Comprehensive whole/Embodiment-theory	New perception and interpretation gives a new experience.

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*Vitenskapsfilosofiske og metodologiske
refleksjoner av BevissthetsTrening*

REFLEKSJONSOPPGAVE I MASTERSTUDIET HELSE OG EMPOWERMENT

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1.0 INTRODUKSJON

I min masteroppgave har jeg fordypet meg i den personlige erfaringen med et selvhjelpskurs som heter *BevissthetsTrening*, som lærer kursdeltakere meditasjonsteknikker i positiv visualisering. *BevissthetsTrening* faller inn under samlebetegnelsen 'mind-body therapies' (MBTs). MBTs er en rekke ulike former for selv-behandling, som eksempelvis meditasjon, mindfulness, yoga, og positiv visualisering. MBTs er rettet mot å styrke enkeltindividet og har blitt vist over de siste år å være helsefremmende (Muesham et al., 2017). Det antydes å kunne virke som en effektiv supplering til konvensjonell medisinsk behandling. MBTs inkorporerer emosjonelle, kognitive og psykososiale faktorer, som har blitt vist å være viktige for helse. Jeg søker å undersøke hva en slik trening betyr for voksnes mestring av helseutfordringer, og i møte med sine sosiale omgivelser. Jeg har valgt å intervju voksne mennesker som har gjennomført *BevissthetsTrening*, og som bruker teknikkene i hverdagen. Det er mennesker som i sin barndom har erfart store utfordringer, som de i voksent liv fortsatt strever med. Erfaringer som kommer frem i denne undersøkelsen vil således bidra med å belyse hvilken betydning *BevissthetsTrening* har for voksne som står i slike utfordringer. Felles for dem som tar i bruk kurset er at de har erfart mangelfull hjelp i møte med det norske helsevesenet. Oppgaven gir innsikt i hvordan en ikke-medikamentell tilnærming i form av en 'mind-body-therapy' påvirker helse og velvære i hverdagen. Oppgaven er slik sett et bidrag til å undersøke effekten av alternative behandlingsformer eller teknikker. *BevissthetsTrening* kan ha betydning for menneskets utvikling og for mestring av utfordringer i livet. Vi kan lære oss å bli selvstendig i å drive vår helseutvikling i en ønsket retning. Dette er i tråd med Empowerment-tankegangen (Askheim, 2012). *BevissthetsTrening* er tilgjengelig for alle og koster lite. Jeg forstår det slik at det kan ha et potensiale for å bety mye for mange mennesker, og at det igjen vil kunne påvirke samfunnet som helhet ved at enkeltmennesker blir *Empowered*.

Jeg har skrevet en forskningsartikkel på engelsk som jeg har planer om å få publisert i *Frontiers Public Mental Health*, under forskningsemnet 'Somatic and Bodymind Approaches to Resilience' (*Frontiers in Public Health*). Forskningsartikkelen har et sentreringspunkt som omhandler enheten mellom kropp og sinn, og viser betydningen av å inkorporere begge aspekter i vår væren for å gi en helsefremmende utvikling. Jeg ønsker å bidra til å fremme denne innsikten. Det har vært motivasjonen min for å gjennomføre forskningsprosjektet og få

studien publisert. I denne refleksjonsoppgaven vil jeg gå nærmere inn på hva *BevissthetsTrening* innebærer. Deretter setter jeg kurset inn i en vitenskapsfilosofisk og vitenskapsteoretisk kontekst. Jeg vil redegjøre for min vitenskapsfilosofiske forankring som har vært styrende for valg av metodologi, metode og teori. Jeg vil reflektere over forskningsprosessen og det som funnene fra studien viser i lys av vitenskapsfilosofisk tradisjon og metodiske valg. På bakgrunn av dette omhandler problemstillingen vitenskapsfilosofiske og metodologiske refleksjoner av *BevissthetsTrening*.

1.1 Oppgavens oppbygning

Det er få kriterier for Refleksjonsoppgaven. Slik den har blitt tolket i samråd med veiledere, var det stor frihet for hvordan jeg ønsket å løse den. I min motivasjon for å gjøre studien og i valgt problemstilling ligger det tunge vitenskapsfilosofiske perspektiver. Disse perspektivene har det ikke vært rom for i forskningsartikkelen. Derfor ønsker jeg å reflektere over, gå i dybden på, forstå, og utdype hvordan jeg situerer min problemstilling inn i de vitenskapsfilosofiske og metodologiske perspektivene. Dette handler om å vektlegge betydningen av subjektiv erfaring og fortolkning for å virkelig kunne forstå oss selv som mennesker og vår helseutvikling. Oppgaven har derfor en konsekvent refleksiv og argumenterende undertone. I siste del av oppgaven vil jeg drøfte betydningen av deltakernes subjektive erfaringer og fortolkninger i møte med deres sosiale omgivelser; hvordan det har påvirket deres helseutvikling og er kroppslig forankret. Jeg vil så drøfte bruken av narrativer og hvorfor det viste seg å være et spesielt egnet metodevalg for å kunne belyse problemstillingen. Avslutningsvis vil jeg argumentere for behovet for fenomenologiske studier og hvordan dette gjør seg gjeldende innenfor det helsefremmende arbeidet og Empowerment-prosessen. Jeg har brukt anerkjent litteratur og forskning og søkt i ulike databaser. Det ble ikke plass til, eller naturlig for meg å redegjøre for litteratursøk i denne oppgaven. Derfor finnes dette vedlagt masteroppgaven. Jeg eksemplifiserer med empiri underveis i oppgaven. Deltakernes fiktive navn brukes; henholdsvis André, Charlotte, Theresa, Christian og Maria.

1.2 Begrepsavklaring helse

I denne oppgaven brukes betegnelsen helseutfordringer fra et utvidet helsebegrep. Det tar utgangspunkt i et salutogent perspektiv, der helse ses på som et kontinuum og ikke som en

dikotomi (Antonovsky, 2005/1987, s.28). Sosiale, personlige, miljømessige og økonomiske forhold påvirker helsen vår og hvor vi befinner oss på kontinuumet. Det å være i stand til å styre over disse forholdene, og å utvikle personlige ferdigheter – også referert til som Empowerment-prosessen – ligger implisitt (Askheim, 2012, s.51). Helseutfordringer brukes for å betegne det vi møter som overskrider denne evnen, og som fører oss mot sykdomsenden av kontinuumet. Biomedisin brukes for å betegne et medisinsk fagfelt og klassifisering som i liten grad favner menneskets meningssøkende, målrettede, relasjonelle og selvbevisste natur (Getz, 2011, s.683). For å bruke et begrep som favner det engelske begrepet 'mind', brukes 'sinn' framfor 'sjel' da det også inkluderer bevisstheten og innebærer kognitiv virksomhet (Thornquist, 2003, s.29).

2.0 UTFORDRINGENE VED DEN KARTESIANSKE ARV

Den kartesianske dualistiske tankegangen om en splittelse mellom kropp og sinn har ført til det fragmenterte, organdelte mennesket, som et maskineri man søker å forstå og fikse ved hjelp av fysisk manipulasjon. Dette har i stor grad preget biomedisinsk forståelse og utvikling (Thornquist, 2003:76). Thornquist hevder at dette er et reduksjonistisk perspektiv som stripper kroppen for personlighet og bevissthet. Denne fragmenterte tenkningen fremmer en praksis der kroppen deles opp, studeres og vurderes uten å inkludere sammenhengen den befinner seg i, ens subjektive opplevelse og reaksjon på omgivelsene. Jeg situerer mitt eget kunnskapsgrunnlag fra min sykepleiepraksis. Sykepleiefaget har vokst fram fra pleien av syke, med fokus på helhetlig omsorg av både kropp og sinn. Den holistiske forståelsen av mennesket gjennomsyrrer fagutviklingen og omsorgsutøvelsen (Nortvedt, 2008, s.16). I min erfaring som sykepleier og som medmenneske, har jeg møtt, snakket med og fått innsikt i mange ulike menneskers erfaringer. Det har blitt tydelig for meg at nåværende helsediskurs og vårt helsevesen bærer med seg noen mangler hva gjelder forståelse av forhold som medierer helse og sykdom. Fremskrittene som er gjort innenfor tradisjonell biomedisin er imponerende og verdifulle, men utfordres når det kommer til den subjektive fortolkning og erfaring som påvirker samspillet mellom kropp og sinn (Kirkengen & Thornquist, 2012). Dette synliggjøres i en framvekst av funksjonelle lidelser (FDs), som er en samlebetegnelse for sammensatte og overlappende smertesyndromer og lidelser, som utfordrer klassifikasjon, diagnostisering og behandling (Kirkengen & Næss, 2016). Felles for FDs er at de påvirker flere organsystemer samtidig, men hvordan de opererer er så individuelt at å fastslå en bestemt diagnose med en bestemt behandling, blir umulig (Price & Okai, 2016; Budzt-Lilly et al., 2015; Mayou & Farmer, 2002). Det har vokst fram en etterspørsel i medisinsk forskning, forståelse og behandling, etter en integrasjon av betydningen av subjektiv fortolkning og erfaring for utvikling av helse og sykdom (Getz, 2011; Kirkengen & Næss, 2016; Krieger 2005).

2.1 *BevissthetsTrening*: kropp/sinn-enheten for å fremme Empowerment

Jeg argumenterer for å fortsette og studere erfaringens betydning for menneskets helsefremmende utvikling, mer presist betydningen av enheten mellom kropp og sinn, for fortolkning av erfaring. Dette kan bidra til å utvikle kunnskap og behandlingsformer som forholder seg til erfaringens kompleksitet. *BevissthetsTrening* er et selvhjelpskurs som lærer

kursdeltakere meditasjonsteknikker i positiv visualisering for å mestre utfordringer, som på ulike vis virker inn på opplevd helse. Teknikkene inkorporerer både kropp og sinn hos dem som utøver teknikkene. På kurset avspilles knapt hørbare pulsslager under innlæringen av meditasjonsteknikkene. Det skal stimulere hjernesvingningene og fremme en evne til raskt å komme i en dyp meditatív tilstand (Huang & Charyton, 2008). Nærmere forklaring av teknikkene finnes i vedlegg 1. Det finnes også i forskningsartikkelen.

Organisasjonen Unique Mind ESP AS står bak *BevissthetsTrening*. *BevissthetsTrening* er grunnlagt i Norge, og det finnes kurstilbud i Bergen, Bodø, Hamar, Kristiansand, Oslo, Stavanger, Tromsø og Trondheim, og Ålesund. *BevissthetsTrening* er etablert i England og Danmark. Det skal oppstartes i USA. Det finnes kurstilbud i barnekurs og ungdomskurs, for voksne og for bedrifter, tilpasset til de ulike målgruppene. Det er en veiledningstelefon som er tilgjengelig en gang i uken. Unique Mind ESP består av 9 instruktører og en pedagogisk veileder. Det er pågående forskning på kurset, og det er inngått samarbeid med Nord Universitet og Smart Brain Norge AS. En pedagogisk bok kommer for salg 31.10.17, og en studie er under publisering (D. Borgen, personlig kommunikasjon, 23. August, 2017).

BevissthetsTrening er et resultat av 24 år med utvikling og forskning (Unique Mind, ESP, 2017, nettside). Studien som er publisert viser at ved bruk av *BevissthetsTrening* kan hjernen skape nye forbindelser på tvers av hjernehalvdelenene, og fungere mer effektivt i hverdagen (Velikova et al., 2017). I følge Unique Mind ESP (2017) hjelper *BevissthetsTrening* oss med å bruke hjernens kapasitet til å utvide bevisstheten vår. Det betyr at vi kan endre vår oppfatning av hendelser og situasjoner som påvirker hverdagen vår negativt. En slik endring vil påvirke menneskene rundt oss. Dette kan hjelpe oss til å løse de utfordringer vi møter i livet og samfunnet. Vi vil fortsatt møte utfordringer, men forskjellen ligger i hvordan vi møter og håndterer disse. Dr. Svetla Velikova, som har gjennomført forskningen som er gjort på *BevissthetsTrening* sier:

Vi ser at deltakerne får reduserte depressive symptomer, tydelig økt tilfredshet med livet og økt mestringsfølelse i livet. Stressnivåer er byttet ut med helhetstankegang og økt tro på egne ressurser. Man opplever en indre ro og økt evne til å takle situasjoner, økt selvtillit, tilstedeværelse i livet og frihet fra indre kritiske røster (Unique Mind ESP, brosjyre).

Jeg anser at tenkning og ferdighetsutviklingen til *BevissthetsTrening* er relevant for Empowerment-prosessen. Tanken i Empowerment-prosessen er at for å oppnå optimal helse trenger mennesker å ha styring over forhold som påvirker deres helse, hvor utvikling av personlige ferdigheter og støttende miljøer vektlegges (Askheim, 2012, s.51). Askheim sier videre at Empowerment handler om å styrke den enkelte for å utvikle kraften og ressursene han/hun har i seg. På den måten kan enkeltindividet bli i stand til å realisere sitt potensiale, tilegne seg mer kontroll over livet sitt, og nå målene sine. Empowerment innebærer et sosialt og samfunnsmessig aspekt. Grunnlaget for denne tenkningen er at den enkeltes samfunnsposisjon og gruppetilhørighet er et resultat av menneskeskapte og historiske prosesser og bestemmende for hvilken grad av makt eller kontroll den enkelte har over livet. Det er viktig å skape bevissthet hos den enkelte om sammenhengen mellom samfunnsmessige forhold og deres livssituasjon. Således rettes bevisstheten mot grunnforhold som skaper undertrykkningen og ved å forstå dem, kan individet bli bevisst muligheter for å frigjøre seg. Bevisstgjøring er dermed et sentralt begrep (Askheim, 2012, s.21).

3.0 BEVISSTHETSTRENING I EN FENOMENOLOGISK VITENSKAPSFILOSOFISK TRADISJON

Når jeg ønsker å forske på *BevissthetsTrenings* betydning for menneskelig utvikling og helse, så er jeg opptatt av den subjektive erfaring og fortolkning. Vitenskapsfilosofisk er jeg som forsker derfor situert i en fenomenologisk tradisjon, og Merleau-Ponty's kroppsfenomenologi er spesielt relevant (Thornquist, 2003). Thornquist sier at en fenomenologisk vitenskapsfilosofi er en tradisjon som har vokst fram som en innvending mot kartesianismen og splittelsen mellom kropp og sinn (2003, s.89). Innvendingen går på at en kartesiansk tankegang preger biomedisinsk forskning den dag i dag. Den kritiseres for å neglisjere spørsmål om det individuelle, personlige og subjektive ved menneskets erfaring. Dette medfører at forskningen framskaffer en begrenset kunnskap, som forklarer mer enn den forstår (Thornquist, 2003). Fenomenologien vektlegger subjektiviteten som en forutsetning når det dreier seg om å forstå mennesker. Den fenomenologiske tradisjonen er opptatt av hvordan mennesker aktivt skaper sin verden gjennom oppfattelse og fortolkning. Synet er at et menneskets fortolkninger er bestemmende for handling, for hvordan det forholder seg til omgivelsene og andre mennesker. Det legges vekt på å innhente beskrivelser av menneskers erfarings- og fortolkningsverden for å forstå deres oppfattelse og opplevelse. På det grunnlag undersøker fenomenologisk inspirerte forskere verden slik den erfares, oppfattes og fortolkes av mennesket.

3.1 Det kroppsfenomenologiske perspektiv fra Maurice Merleau-Ponty

Maurice Merleau-Ponty (1907-1961) er kjent for å bringe kroppen inn i fenomenologien (Thornquist, 2003, s.14). Kroppen bringes inn i væren som et utgangspunkt for å undersøke erfaring, handling og aktivitet. Det er kroppen som møter omgivelsene og kroppen som gjør oss i stand til å oppfatte. Merleau-Ponty fremhever at mennesket oppfatter med hele sin væren og at dette er kroppslig forankret (2012/1945, s.53). Det er ved hjelp av kroppen at man både oppfatter og fortolker verden, og tillegger omgivelsene, opplevelsene og erfaringene mening. Posisjonen er at kroppen er erfarende materie. Kroppslig uttrykk og kunnskap er ikke et ytre resultat av indre bevissthet i sinnet. Bevisstheten og sinnet gjennomsyrrer kroppen og absorberer sine omgivelser *gjennom* kroppen. Det ene eksisterer og fungerer ikke uten den andre, og det er en samtidighet og enhet mellom kropp og sinn (Merleau-Ponty, 2012/1945,

s.395). Merleau-Ponty tillegger betydningen av både vår rasjonalitet og våre sanseropplevelser, og at subjektiviteten er nøkkelen for vitenskapelig kunnskap om menneskeorganismen. Merleau-Ponty persisterer videre at levd liv og levd erfaring setter seg i kroppen vår og er en kilde til kunnskap (2012/1945, s.187). Kroppen blir et møtested mellom fortid, nåtid og framtid. Den kroppslige fenomenologien innebærer altså et historisk perspektiv. Erfaringer sitter i kroppen og påvirker vår persepsjon og handling fordi dette medieres gjennom kroppslige prosesser. Slik sett er ikke fortiden forbi. Desto viktigere blir det å innhente subjektive fortolkninger og erfaringer for å forstå hvordan kroppslighet og bevissthet, påvirker oss i én total subjektiv opplevelse.

3.1.1 Kroppens dobbeltstatus i et sosialt samspill, og utfordringene ved et kartesiansk språk

I Merleau-Ponty's kroppsfenomenologi ligger det en dobbeltstatus; vi både er kroppen og vi har kroppen. Det er gjennom kroppen den enkelte har tilgang til verden. Samtidig er den enkeltes kropp en del av verden. Dette spenningsforholdet mellom å være en kropp og å ha en kropp er altså et grunntrekk ved mennesket. Kroppen eksisterer både som objekt og subjekt samtidig (Merleau-Ponty, 2012/1945). Kroppens objektsstatus i den kroppsfenomenologiske tradisjonen er kvalitativt annerledes enn den kartesianske kropp. Mens den kartesianske kropp er et subjektsløst objekt, er kroppen i et fenomenologisk perspektiv aldri et rent objekt, men alltid samtidig et fortolkende og erfarende subjekt (gjengitt i Thornquist, 2003, s.117-118). Jenny Slatman (2014) vektlegger det sosiale aspektet ved kroppens dobbeltstatus og hvordan levd kroppslig erfaring skapes i sosiale omgivelser i relasjon til andre. For å forstå mennesket trenger vi også å ta med i betraktning kroppens objekt-side; hvordan mennesket erfarer å bli erfart av andre, og hvordan denne erfaringen påvirker fortolkningen av handlingsrom og muligheter. Dette synliggjøres i Andrés fortelling om barne- og ungdomserfaringer som førte til hans helseutfordringer i voksen alder:

Omsorgsbiten, bekreftelsen, kjærligheten mangla i oppveksten, så jeg søkte det hos en dame som var litt yngre enn moren min, og betydelig eldre enn meg. Jeg fikk god omsorg og nærhet der. Men det utvikla seg til at hun ikke klarte å skille den nærheten mellom en voksen og et barn og det å ha en seksuell relasjon. Så fra jeg er tolv til jeg er nitten, så går ting ganske kjapt... det er et liv hvor jeg forstår at dette er feil... men allikevel, rent fysisk så er det spennende.

Betydningen av utfordringen kan ikke simpelt reduseres til et individs kroppslig eller ”sinnlig” problem, men er også relatert til sosial kontekst. Det er viktig å tydeliggjøre hva de rådende normene er, og å analysere hvordan personen, på bakgrunn av disse normene blir behandlet i samfunnet og i medisinen. Slatman sier at dette er høyst relevant innenfor feltet av helse og medisin, siden de fleste sykdommer og funksjonssvikter går sammen med forandringer i ens perseptuelle manifestasjon i verden (2014, s.550). Charlotte beskriver disse forholdene i sine tidligere helseutfordringer:

Jeg var ne're i ni og førti kilo. Jeg så ut som en guttunge. Jeg gikk i veldig store klær for jeg skjønnte at det her var no' problematisk. Jeg ble sengeliggende etter hvert, fordi jeg ikke hadde krefter til noen ting, klarte ikke gå, fikk store sår på kroppen, influensa, sykdom, alt som de sier ME er nå, men som de ikke skjønnte da. Tok masse prøver og fikk beskjed om å gå tur, også gikk jeg litt og så datt jeg, også måtte de bære meg inn. Men både legen og vi trodde at bevegelse var det beste, så jeg fortsatte. Til slutt var det ikke mer igjen... Jeg tror det var min måte å melde meg ut av livet på. Som når jeg var barn å gjemme meg under dyna for å slippe å ta konsekvensene av det som var rundt mæ'.. Assa jeg var redd for å leve.. som ikke jeg skjønnte da... men jeg ser i etterti' at jeg var redd for å leve ut mitt potensiale i mitt liv.

Scheper-Hughes og Lock sier at den individuelle kroppen burde anses som det mest umiddelbare, nære terrenget hvor sosiale sannheter og sosiale motsetninger spilles ut, og hvor personlig og sosial mostand, kreativitet og strev situeres (1987, s.31). De sier videre at sykdom ikke er en isolert hendelse eller et uheldig strøk av naturen, men en form for kommunikasjon; språket til organene, som naturen, samfunnet og kulturen snakker gjennom samtidig. Jean Jackson har forsket på kroniske smerter og på spenningen mellom kroppen som et subjekt og et objekt samtidig (referert til i Csordas, 1994, kap 9). Jackson fremhever at hverdagspråket er mangelfullt når det kommer til å beskrive den subjektive erfaringen. Hverdagspråket bærer preg av det kartesianske skillet mellom kropp og sinn. Vi intellektualiserer med hverdagspråket og det adskiller oss fra kroppen vår. Likevel brukes det fordi det gjør våre erfaringer konkrete, fysiske og dermed ”legitime”. I tillegg tillater språk avstand fra erfaring. Vi kan nyttiggjøre dette aspektet ved språk når vi forsøker å få kontroll

over motstridende erfaringer. Språket vi bruker forutsetter likevel ikke linken mellom erfaring og den ”jeg” som opplever erfaringen.

4.0 HERMENEUTISK-FENOMENOLOGISK

VITENSKAPSTEORI I VALG AV METODE

BevissthetsTrening er et kurs jeg mener gir tilgang til å kunne innhente beskrivelser om hvordan erfaringer og levd liv påvirker helse- og sykdomsutvikling. For å innhente kunnskap om *BevissthetsTrening*, var det nødvendig å få tak i betydningen av hva dette kurset bringer av forståelse og ferdigheter til mennesker; hva dette betyr for deres fortolkning og deres utvikling av både kropp og sinn. Jeg opplevde det nødvendig å innhente fenomenologiske beskrivelser fra mennesker som bruker *BevissthetsTrening* for personlig utvikling og for å mestre helseutfordringer. Jeg tok utgangspunkt i vitenskapsteori som omhandler hermeneutisk-fenomenologi. Hermeneutisk-fenomenologi er opptatt av menneskelig erfaring som den er levd, også det som ikke nødvendigvis er kjent for deltakeren selv (Kafle, 2011). Siden fenomenologien tar utgangspunkt i at bevisstheten alltid er vendt mot noe, vil den også være vendt vekk fra noe. Hensikten var at deltakerne ville fortelle rikt og variert fra livet sitt, og om hvordan *BevissthetsTrening* har hatt betydning for deres erfaringer, opplevelser, mestring, og utvikling.

4.1 Få inntak ved bruk av narrativer

For å lykkes med å innhente rike beskrivelser, innså jeg at å innhente narrativer og fortolke dem var mest hensiktsmessig. Spørsmålet bestemmer metoden (Johannesen, Tufte & Christoffersen, 2011, s.55). Spørsmålet mitt var:

Hvordan opplever og erfarer voksne som bruker BevissthetsTrening at kurset har betydning for deres mestring av egne helseutfordringer?

Det var særlig viktig for meg å få tak i historielinjene for å kunne avdekke grunnforhold ved hvorfor de søkte kurset i utgangspunktet, hvorfor de bruker det, og hva det har gjort med deres erfaringer. Jeg hadde laget tre forskningsspørsmål for å få fram beskrivelser som kunne belyse problemstillingen:

- 1) Hvorfor har deltakerne valgt å ta kurset og repetere det?
- 2) Hvordan har deltakerne erfart å delta på kurset og å bruke teknikkene?

3) Hva opplever deltakerne at kurset og teknikkene betyr for deres dagligliv?

Rundt disse forskningsspørsmålene utformet jeg en intervjuguide (jf. Vedlegg). Jeg fokuserte på spørsmål som oppmuntret til fortelling av livsomstendigheter og livserfaringer. Jeg fokuserte videre på spørsmål som gikk på beskrivelser av teknikkbruk og kroppslig opplevelse, for å kunne få fram kroppslige aspekter ved *BevissthetsTrening*, og ikke bare ”sinn-lige” prosesser. Som Lindseth og Norberg (2004) sier, så vil narrativer hjelpe deltakerne med å komme fram til, og i kontakt med sine fortolkninger. De vil bli berørt av sine fortellinger. Ved å fortelle, vil de også avsløre betydningen av de kontekstuelle omstendigheter som har bidratt til deres livshistorier. Det var viktig å avdekke deres livsverden, væren i verden, erfaringer og fortolkninger, og hvordan dette har utviklet seg over tid; med et særlig henblikk på *BevissthetsTrenings* innflytelse.

Narrativer ble også valgt på bakgrunn av at jeg som forsker har personlig erfaring med kurset, og selv bruker teknikkene. Det ble viktig for meg å velge en metode som satte min personlige erfaring til siden. Jeg ville ikke fremstå som en ekspert eller kritisk vurdere deres teknikkbruk i forhold til hva som er ”korrekt”, eller sammenlikne med hvordan jeg selv gjør det. Jeg begynte derfor med å avklare min rolle, og fortalte dem at jeg var der som en uforstående, nysgjerrig forsker, som ønsket å få høre om deres erfaringer og opplevelser; at det var det som var viktig for studien. Jeg var en nysgjerrig lytter, som oppmuntret deltakerne til å dele sine erfaringer og fortelle fritt og uhemmet. Jeg opplevde at bruken av narrativ metode var et godt valg for å tilstrebe at forforståelsen min ble en fordel og ikke en ulempe. Det at jeg har personlig kunnskap om kurset, gjorde meg i stand til å innta en naturlig, ikke-dømmende holdning og virkelig lytte til hva deltakerne hadde å si, i tillegg til at vi delte noe felles. Det var som om fortroligheten allerede var tilstede da vi hilste. Dette bar intervjuene preg av. Deltakerne var ordrike og flere av dem poengterte at det var godt å snakke med noen som forstår. Ved å bruke denne metoden, ble jeg i stand til å slappe av og holde fokuset fullstendig på deltakerne. Jeg opplevde at jeg da var i stand til å fange opp deltakernes historier, ikke bare hva de sa, men også hvordan de sa det. Som med Maria, da hun fortalte om symptomforverring i etterkant av kurs, men gikk raskt videre. Jeg følte at det var noe der som var sårt, og som var viktig å utforske. Jeg stilte oppfølgingsspørsmål om hun ville fortelle mer om symptomforverringen. Da kom det fram at det var ganske voldsomt og vanskelig å stå i det, men at det allikevel var viktig for å virkelig bearbeide panikk-angsten, framfor å skyve

den vekk, slik hun gjorde før. Slik var jeg oppmerksom på og følsom for hvilke temaer som berørte deltakerne, for hvilke temaer som belyste problemstillingen og for hvilke temaer som krevde utdyping og oppfølgingsspørsmål. Med det hadde jeg forutsetning for å kunne tilpasse responsen min til den enkelte deltaker. Jeg kunne stille relevante og åpnende spørsmål underveis for å få tak i hvilke områder som var spesielt viktige for deres livshistorie, deres historie med *BevissthetsTrening*, og med hverdagen slik den var nå. Jeg gjorde ett grep etter de to første intervjuene, og det var at jeg valgte å åpne intervjuene med spørsmålet om de ville fortelle historien om livet sitt. Jeg opplevde at det skjedde mye med deltakerne når jeg åpnet med dette spørsmålet. De tre resterende deltakerne reagerte alle, slik jeg tolket dem, med positiv overraskelse, og jeg opplevde at disse intervjuene ble mer fortrolige og enda rikere i beskrivelsene. Jeg opplevde at spørsmålet varmet dem opp. André fortalte dette direkte mot slutten av intervjuet. Han sa at det at jeg tillot ham å åpne seg gradvis opp og snakke fritt, og få lov til å snakke seg inn i sitt eget liv, gjorde ham i stand til å dele misbruket han opplevde i tenårene. Han fremhevet at han med det opplevde intervjuet som noe verdifullt for ham personlig.

5.0 SKAPE AVSTAND MED DYBDEHERMENEUTIKK FOR Å FRAMSKAFFE FUNN OG FORTOLKNINGER

Min lojalitet har hele tiden vært å ivareta deltakernes integritet og studiens integritet. Videre å få fram det som er forskningsmessig verdifullt, og som kan bidra til utviklingen av helseforståelse. For å skape avstand til materialet, brukte jeg en fenomenologisk-hermeneutisk analysemetode, beskrevet av Lindseth og Norberg (2004). De har blitt inspirert av Paul Ricoeur's dybdehermeneutikk. Videre lente jeg meg på et hermeneutisk-fenomenologisk perspektiv som bygger på synet om at mennesker er fortolkende vesener, og at vi unngåelig vil fortolke (Kafle, 2011). Ved å nedfelle narrativene i transkripsjoner, var fortolkning allerede til stede utfra hva som ble sam-skapt i intervjuene, og fra hvordan jeg forsto fortellingene. Jeg brukte også analyse da jeg tolket non-verbale tegn, som ble skrevet ned ved hjelp av en tegnliste (jf. Vedlegg). Videre skrev jeg et refleksjonsnotat etter hvert intervju, for å få ned min umiddelbare forståelse av intervjuene. Det stimulerte også til analytisk tenkning (Maxwell, 2013). Da jeg transkriberte intervjuene, tilbrakte jeg ytterligere mange timer i deltakernes livsverden. Kafle henviser til Sharkey som sier at en hermeneutisk-fenomenologi utfordrer forskeren til å reflektere dypt over hva det er teksten av feltet har å si (2011, s.192). Målet er ikke å gjengi tekstene for leseren, men å invitere leseren til å tre inn i den verdenen som tekstene avslører og åpner opp. Ricoeur har utviklet en analysemetode som skal hjelpe forskeren med dette (gjengitt i Thornquist, 2003, s.175). Han er innenfor en tradisjon av såkalt dybdehermeneutikk som tror at det ligger meninger i teksten som kan være komplekse og skjulte. Fortolkeren har som oppgave å avdekke disse. Thornquist peker således på hvordan kontekstuelle forhold påvirker en deltaker, som alltid er i verden i forhold til sine omgivelser, intersubjektiv og historisk situert. For å forstå subjektet må altså tolkeren ta en omvei innom disse kontekstuelle faktorene.

Det jeg anså som fordelaktig med den aktuelle analysemetoden, var at det tekstlige materialet anses å overskride forskerens intensjoner, deltakerens intensjoner og intervjusituasjon (Thornquist, 2003). Jeg lot meg rive med av de ulike fortellingene, og finne ut av hva som var den underliggende betydningen. På den måten fant jeg fram til temaene. Det tekstene viste var hvordan *BevissthetsTrening* gjør noe med deltakernes væren i verden. Det var hovedtemaet som pekte seg ut etter å ha tilbragt mange timer i deltakernes livsverdener.

BevissthetsTreningen har bidratt til å endre deltakernes fortolkning av sine liv. De oppfattet og fortolket erfaringer på nye måter, ikke bare tidligere, men også det de møtte i hverdagen. Det har ført til at de oppfattet seg selv og sine omgivelser på en ny måte. De stilte spørsmålstegn ved sin umiddelbare forståelse når noe var utfordrende, og tilla ikke denne forrang over andres perspektiv. I stedet gikk de innover og erkjente forhold i dem selv som lå til grunn for egen oppfattelse og fortolkning. Som Charlotte beskrev: *”Jeg kjenner ennå en motgang i mø’ mot å akseptere de (stedøtrene) akkurat så’ de er, jeg prøver å lete etter feil hos de, sånn at jeg skal føle meg vel”*. Det interessante var hvordan deltakerne oppfattet at denne nye væren-i-verden påvirket omgivelsene; og hvor mye de beskrev å ha kontroll over ytre omstendigheter ved å gå introspektivt til verks og jobbe med sine fortolkninger. Ved å finne fram til minner og deler av seg selv som de hadde glemt, så de sammenhenger mellom utfordrende erfaringer og underbevisste årsaker. Det var også interessant å få innblikk i prosessen til hver enkelt, og hvordan de beskrev at det var viktig å ikke ta alt på en gang. Maria fortalte å oppleve en struktur som hadde skjedd helt av seg selv: *”Eg vett at det vente på at eg ska ta tak i det, men alt er’kje inni håvet på ein gang, de står bare i kø, også kommer de ein etter ein.”* Tekstene synliggjorde at deltakerne vektla en rikere kontakt med egen kropp. Ved at de trente bevisstheten og med det ble oppmerksom på ovenfor nevnte forhold, opplevde de at sykdom, symptomer og plager hang sammen med fortolkning og vonde erfaringer, og var et felles uttrykk for deres opplevelse og utfordring. De opplevde en kontroll og ro fordi de hadde erfart muligheten til å frigjøre seg fra disse forholdene, og dermed *”ikke bare ta konsekvensene av dem”*, som André sa. Jeg sammenfattet hver av historiene utfra disse temaene og sammenliknet så alle intervjuene. Jeg så at selv om historiene var unike i sine uttrykk og i sin handling, så var det allikevel ett felles tema som viste hva *BevissthetsTrening* betyr for deltakerne og fire undertemaer som viser aspekter ved dette hovedtemaet:

Hovedtema

En ny væren i verden

Undertema

- 1) En reise innover i seg selv og bakover i egen livshistorie
- 2) En livsprosess, ingen mirakelpille
- 3) Finne tilbake til seg selv og slippe fasaden

4) En trygg hverdag med ro, flyt og balanse

5.1 Embodiment for å løfte fram enheten mellom kropp og sinn

I valgt analysemetode består tredje trinn av å lese resultatene i lys av aktuell teori for bedre å forstå, beskrive og forklare dem (Lindseth og Norberg, 2004). For å skape en avstand til materialet ble det viktig for meg å velge en induktiv tilnærming. Gjennom intervjuene og analyseprosessen ønsket jeg å leve meg inn i deltakernes livsverden, uten å forme den utfra en bestemt teori. Det ble med andre ord viktig å utforske livsverdenen for så å se hvilken teori som passet. Etter samtale med veiledere ble Merleau-Ponty's teori om 'embodiment' valg ut. Jeg hadde begrenset kunnskap om denne teorien på forhånd. Jeg satte meg inn i teorien ved å lese primærkilder av Merleau-Ponty (2012/1945) og sekundærkilder (Matthews, 2002; Thornquist, 2003; Kirkengen & Thornquist, 2012). Det ble tydelig for meg at teorien var egnet for å få fram den samtidige påvirkningen av kropp og sinn. Deltakerne trakk frem hvordan de hadde kommet i kontakt med et indre som gjorde at de kjente det i kroppen. Gjennom denne indre kontakten var de kroppslig forankret i verden på nye måter. Deres nye fortolkninger hadde ført til en ny virkelighet, som gjorde at de kommuniserte og handlet annerledes i møte med omgivelsene. Som Theresa sa: *"Det er ganske fascinerende å se hvordan å gjøre endringer i sæ' sjøl, så.. skjer det endringer i andre personer, ja, sender ut noe annet."* Embodiment egnet seg for å synliggjøre hvordan det har skjedd en endring i hele deres væren, som også påvirket kroppen og kroppslige symptomer. Hos deltakerne forsvant eller minsket smerter som magekramper, muskelknuter, sår på kroppen, hjernerystelse og hyppige infeksjoner; opplevelse av å være syk, som undervekt, fatigue og utbrenthet; og av ikke å ha det bra, som ukontrollerbart sinne, angst, panikk, vedvarende sorg, depresjon.

Embodiment-teorien var egnet for å få fram de ulike temaene på en måte som jeg anså ga den beste og mest helhetlige forklaringen på problemstillingen. Som Ricoeur fremhever, ligger det flere meninger i teksten. Målet er å avdekke den som er mest sannsynlig og som forklarer flest mulige sider av det som studeres (Lindseth & Norberg, 2004, s.151). Fortolkeren er nødt til å overholde en streng fortolkningsprosess, og å ha en åpen, nysgjerrig og kritisk innstilling, også til egen fortolkning. Dette gjentas til den beste forklaringen vurderes avdekket. Den hermeneutiske spiral, der forståelse åpner teksten og teksten åpner forståelsen i en utvidende innsikt, gjør seg gjeldene. Embodiment handler om å knytte elementer til kroppen, sosialitet, verdier, normer, fortiden og fremtiden i nåtiden, og muligheten for å frigjøre seg fra egne

begrensninger (Merleau-Ponty, 2012/1945, jf. 3.1). Dette synliggjør særlig dialektikken mellom fortid og nåtid – hvordan deltakerne beskrev å ha beveget seg fra å føle seg begrenset og fastlåst i frykt for å ikke strekke til, til å selv ta kontroll over egen opplevelse og å skape sin egen fremtid. For Christian var det å finne fram til sin egen integritet og leve etter den, nøkkelen for å frigjøre seg fra utbrentheten: *”Du utvikler ditt eget kompass da, så du klarer å navigere uavhengig av hva alle de andre på kompasset skriker i hvilken retning du skal gå.”*

6.0 DRØFTING

Ut fra en vitenskapsfilosofisk forankring og valgt metode, har jeg innhentet fenomenologiske beskrivelser av voksne som bruker *BevissthetsTrening* for å mestre helseutfordringer. Jeg har brukt Merleau-Ponty's teori om embodiment for bedre å forstå, beskrive og forklare resultatene. Gjennom narrativer og det fenomenologiske perspektivet, framkom det at *BevissthetsTrening* gjorde noe med deltakernes fortolkninger. De så på seg selv, på verden og på omgivelsene på nye måter. Jeg vil i det følgende drøfte to sentrale aspekter ved dette. Det at fortolkningene oppsto i møte med sosiale omgivelser, og det at det skjedde et skifte i hele deres væren – valget var virkelig deres eget. Jeg vil så drøfte narrativer som egnet metode, og avslutningsvis trekke fram hvilken betydning det kan ha for det for Empowerment og det helsefremmende arbeidet.

6.1 De sosiale omgivers betydning – refortolkning er nøkkelen til frigjøring og Empowerment

Deltakernes historier var gjennomsyret av intersubjektivitet og sosiale forhold, både når det kom til nære relasjoner og til normer i samfunnet. De snakket alle om familieforhold og vonde erfaringer i oppveksten. Dette hadde ført til noen fortolkninger om dem selv, som bidro til utvikling av helseutfordringene: *"Jeg trodde jeg var lita, tynn, og svak", "var heilt aleinå og ensom", "trodde alt det gode sku' tas fra meg", "følte meg ikkje sett og elsket", "var mer opptatt av hva andre sku' synes om min egen suksess"*. I møte med samfunnets normer om status, mange og høye krav, og manglende opplæring i betydningen av følelseshåndtering, så *"smalt det"*. Fortolkningene som hadde vokst fram i løpet av oppveksten, ble trigget i møte med sosiale forventninger og det førte til at deltakerne ble *"meldt ut av livet"*, både "sinn"-lig og kroppslig. Deltakerne beskrev at: *"eg ville gjøemme meg", "jeg jobbet for andre enn meg selv", "jeg hadde ett sinne som måtte håndteres for å kunne fungere sånn noenlunde normalt", "eg fekk'kje te' familien, eg fek'kje te bedriften, eg sto og stanga håvet i veggen heile tidå"*. Merleau-Ponty fremhever at kroppen har en dobbelt-status, at vi både er et subjekt og et objekt samtidig i møte med sosiale omgivelser (2012/1945). Slatman (2014) sier at en person adopterer og kanskje til og med objektiverer synet på egen kropp, ut fra hvordan ens kropp oppfattes og tolkes ut fra samfunnets normer. Slik jeg forstår betydningen av deltakernes erfaringer – når jeg tolker dem i lys av teorien – er at vår posisjon i samfunnet og hvordan andre ser på oss kan påvirke vår embodiment. Våre symptomer kan således skapes i

møte med sosiale omgivelser. Slatman (2014) sier videre at sosiale normer kan være med på å opprettholde og/eller forsterke opplevelsen av å være syk fordi de bidrar til en fortolkning om at ens frihet er begrenset; enten i form av fysisk bevegelse eller ved å utsettes for andres reaksjoner. Jeg mener resultatene viser at vi kan frigjøre oss fra normene gjennom å omfortolke vår oppfattelse fra å se begrensninger til å se muligheter, og bedre den subjektive fortolkningen og erfaringen av oss selv. Ifølge Merleau-Ponty har vi alltid et valg i forhold til hvordan vi lar sosiale omgivelser og andres reaksjoner påvirke oss (Merleau-Ponty 2012, p.459). Deltakerne klarte det ved at de endret sine fortolkninger i møte med sosiale omgivelser. Med det frigjorde de seg fra at sosiale omgivelser hadde kontroll og makt over dem. Deltakerne *"kom tilbake samfunnet"* da de kom i kontakt med hva som var riktig for dem og trodde på seg selv, uavhengig av andres forventninger. Således beskrev de å frigjøre seg fra samfunnets normer. Dette var en prosess som tok tid. Dette påvirket også kroppen deres. De erfarte at symptomene forsvant, og å både ha lyst til, være motivert for, og å ha krefter til å engasjere seg. Dette mener jeg synliggjøres spesielt med Charlotte, som gikk fra å ha ME til å bli politisk engasjert og å jobbe fulltid. Videre har deltakerne erfart at symptomene de anså hadde vokst fram på bakgrunn av smertefulle sosiale erfaringer, ble reverserte. Dette mener jeg synliggjøres gjennom Therasas muskelknote. Gjennom teknikkene fikk hun tak i at den hadde oppstått fordi en del av henne hadde fortolket seg som å ikke bli elsket og sett av sine foreldre da hun var barn. Hun sa at muskelknuten *"rett og slett er innestengt sorg"*. Da hun fikk omfortolket til å bli sett og elsket, og virkelig følte dette med hele seg, forsvant muskelknuten. Det kom også fram at mange symptomer forsvant "av seg selv" etter hvert som deltakerne frigjorde seg fra samfunnets normer og levde et liv i tråd med sine innerste verdier. Eksempelvis gikk Christian fra å være utbrent og sykemeldt til å være i full jobb og ha en arbeidshverdag som leder, med internasjonalt samarbeid, mange møter, mye å organisere og mange mennesker å forholde seg til. Som han beskriver: *"Jeg har et veldig bra energi-nivå. Jeg har en arbeidskapasitet som folk ikke forstår. Det er ingen som skjønner helsa mi. Jeg er jo aldri sjuk, og jeg er imponert over hva kroppen tåler sjøl."* Deltakerne vektla sosiale og kroppslige endringer som spesielt betydningsfulle. Det forsterket troen på at *BevissthetsTrening* har noe for seg. Som Theresa sa at *"Det e det som gjør at eg brukar det, at eg kjennar at det e bra for meg"*, i relasjon til at spenninger i kroppen hennes forsvant, og at hun reagerte annerledes i møte med det sosiale.

6.1.1 *Det kreves et skifte i hele ens væren, og valget må virkelig være ens eget*

Resultatene tyder på at det er mulig å frigjøre seg fra sosiale omgivelser. Det handler slik jeg ser det om de fortolkningene som ligger til grunn for, og påvirker ens væren i verden. Erkjennelsen av egen fortolkning som Merleau-Ponty beskriver som 'experience errors' og personlige sannheter (2012/1945, s.5), gir muligheten til å frigjøre seg. Jeg mener deltakerne synliggjør dette ved å fortelle om teknikken omskapelse. De beskriver at ved å bruke teknikken for omskapelse ble de i stand til å om-fortolke de tidligere erfaringene, ikke bare intellektuelt, men også følelsesmessig. De beskrev at om-fortolkningen skjedde i hele dem, slik at når de møtte det de vanligvis ville ha erfart som begrensende, så reagerte de ikke lenger på samme måte, og utfordringen var ikke lenger aktuell. Ifølge Jackson (gjengitt i Csordas, 1994, kap. 9), er hverdagsspråket preget av det kartesianske skillet mellom kropp og sinn. Jackson sier at dette er med på å begrense forståelsen av at vår levde kropp erfarer og uttrykker seg utover rasjonell og intellektuell forståelse. Det var interessant å legge merke til at deltakerne hadde ervervet seg et felles språk som gjorde dem i stand til å beskrive og forstå sin kroppslige kommunikasjon: *"isfjell", "indre barn/del av meg", "fornemmelse", følelse", "kjenner at det er noe" "får opp et bilde", "noe som sier meg, en stemme, et eller annet"*. Det virket unektelig som at rasjonell forståelse var viktig for dem, men at det ikke bare var tankene som bidro til rasjonalisering. Deltakerne rasjonaliserte ved å ta kroppslige uttrykk, symptomer og sanseopplevelser med i betraktning. Gjennom dette innhentet de kunnskap om sin embodiment. Dette forsterket forståelsen og fortolkningen av kroppens mange uttrykk, og reduserte ikke fortolkningen til tankene og intellektet. Merleau-Ponty trekker fram at det rasjonelle i oss egentlig ikke er et semantisk innhold, men heller den intuitive sammenhengen ting har for oss når vi finner dem og mestrer dem i våre praktiske omstendigheter (2012/1945, s.422). Språket fordyper og transformerer vår erfaring, men vi kan bare snakke om det vi allerede har erfart i situasjoner og hendelser, før vi finner det i setninger, språk, slutninger, konsepter og samtaler. Embodiment-begrepet innebærer at kroppen er ankepunktet i verden og at kroppen absorberer omgivelsene sine. Merleau-Ponty's (2012/1945) anliggende er at den levde erfaringen setter seg i kroppen som visdom, og er en kilde til kunnskap. Med tanke på det teoretiske perspektivet og deltakernes erfaringer, får dette meg til å reflektere over hvorvidt vi mennesker besitter en dypere forståelse som påvirker erfaringene og fortolkningene våre, enn vi bevisst er klar over. Videre undrer jeg om vi kan utvide vår bevissthet og øke vår forståelse og fortolkning, ved å inkorporere hele kroppen som informasjon og kunnskap i vår intellektuelle virksomhet.

Merleau-Ponty (2012/1945) hevder at kroppen er et møtested mellom fortid, nåtid og framtid. I øyeblikket ligger det mye informasjon om våre erfaringer og fortolkninger. Gjennom refleksjon kan vi få tak i hvor fortolkningene kommer fra. I følge deltakerne gir *BevissthetsTrening* verktøy som fremmer dette. Det kan også tydes som at det fremmer en kontakt med kropp og sinn, og gjør at vi kan forstå hva sanseopplevelser handler om, og fra hvor de oppstår. Resultatene vitner om at det ikke er nok å forstå dette på et intellektuelt nivå alene, men at en er nødt til å få med "hele seg" for at fortolkningen virkelig skal endres: "*Jeg må kjenne at det virkelig kommer innenfra*". Deltakerne beskrev at de fikk tak i deler av seg selv som de fant situert i den aktuelle fortolkningen. De snakket med denne delen i sitt indre rom for å forklare hvorfor fortolkningen ikke var hensiktsmessig. I denne prosessen brukte de hele kroppen ved hjelp av mentale bilder, tanker, følelser og fornemmelser. De beskrev å måtte *føle* at denne delen forsto forklaringen og endret fortolkning, for at omskapelsen skulle være effektiv. Dette mener jeg er i tråd med det Merleau-Ponty sier om at valget om å endre seg virkelig må være ens eget, og det må skje ett skifte i hele ens væren for at en skal lykkes (2012/1945, s.482). Jeg mener også at det underbygger fenomenologien som en bevissthetsfilosofi og konstitusjonsfilosofi, der fortolkningen sitter i både sansene og i sinnet vårt og konstituerer virkeligheten vår (Thornquist, 2003, s.14). På bakgrunn av dette kan det se ut til at å endre fortolkning i "hele seg", i hele ens væren, og ikke bare intellektuelt, blir viktig for å kunne frigjøre seg fra egne fortolkninger, endre sin virkelighet, og med det også de kroppslige uttrykk som fulgte med den virkeligheten.

6.2. Narrativer i lys av kroppsfilosofi

Jeg vil i det følgende argumentere for at narrativer var et konstruktivt valg for å kunne få fram levde erfaringer, utvikling over tid, og påvirkning på kroppen. Jeg mener at narrativer var et nødvendig valg av intervjuform for å kunne belyse fenomenologiens anliggende om betydningen av, og behovet for subjektive erfaringer. Det ble særlig viktig å benytte seg av denne metoden for å få kunne se hvordan *BevissthetsTrening* influerte den subjektive og kroppslige utviklingen over tid. Jeg trengte å få fram historielinjer for å kunne få et materiale som belyste disse aspektene. Som jeg har gjort rede for i kap. 4.1, skjedde det noe når jeg spurte om de ville fortelle historien om livet sitt. Deltakerne snakket seg enda dypere inn i sine egne fortolkninger og erfaringer, og det kom fram sterkere kontraster mellom før og etter *BevissthetsTrening*. Det synliggjorde de sosiale omgivelsene som bidro til helseutfordringene

i utgangspunktet, og hvordan endring av egne fortolkninger skapte en ny virkelighet for dem. Da jeg brukte det narrative spørsmålet, som åpnet for hele deres livsverden, ble intervjuene mer åpne i beskrivelsene. Fortellinger som belyste erfaringen og fortolkningens betydning for helsefremmende/hemmende utvikling kunne komme sterkere og rikere fram. På denne måten hang narrativer og analyse sammen. Jeg ville ikke kunnet ha analysert og fortolket levd kroppslig erfaring og utvikling over tid, eller *BevissthetsTrenings* betydning, hvis jeg ikke hadde brukt narrativer for å få fram deltakernes historielinjer. Ved bruk av narrativer fikk jeg mulighet til å lede dem inn på sensoriske opplevelser og få fram rike beskrivelser av kroppslige, ”sinn-lige”, og sosiale-forhold, erfaringer og fortolkninger. Dette var viktig for å få fram hvordan *BevissthetsTrening* påvirker hele kroppen, ikke bare sinnet, men også den kroppslige materien. Jeg mener dette understreker det fenomenologiske perspektivet om at oppfattelse, fortolkning og erfaring skjer gjennom kroppen og at det er en gjensidighet mellom kropp og sinn.

7.0 AVSLUTTENDE REFLEKSJONER

Gjennom kroppsfenomenologisk perspektiv og deltakernes beskrivelser viser resultatene at deltakernes måte å være i verden på og å tilnærme seg sine utfordringer på, kan gjøre mye med en person. Resultatene er en tankevekker. De kan vise at et kroppsfenomenologisk perspektiv er aktuelt når ønsket er å forstå mennesket og bidra til en helsefremmende utvikling. Kunnskapen kan bidra til å forklare og fylle utfordringene i nåværende biomedisinsk forståelse og behandling. Den belyser betydningen av den subjektive fortolkningen og erfaringen, som vokser fram i sosiale omgivelser, for kropp og sinn. Resultatene viser at det er mulig å påvirke egen subjektiv erfaring ved å endre sin fortolkning, og at dette igjen påvirker kroppen. Således kan perspektivet som kommer fram fra studien være et verdifullt bidrag til å komplementere medisinsk behandling, slik at sinnet inkluderes når det er snakk om å behandle mennesket og kroppslige prosesser; både i forhold til helsediskurs og i møte med pasienter. Endres de sosiale normene vil dette i seg selv kunne gjøre mye med menneskers fortolkning (Slatman, 2014). Jeg argumenterer for at vi trenger flere studier som søker å få tak i den subjektive fortolknings- og erfarings betydning for menneskelig væren og utvikling i et helseperspektiv. For å søke og forstå menneskets helse og utvikling bedre, og for å forbedre praksis og helsediskurs, trenger vi forskning som forener kropp og sinn i sitt vitenskapsperspektiv.

7.1 Implikasjoner for Empowerment

På bakgrunn av resultatene og det kroppsfenomenologiske perspektivet, vil jeg argumentere for at for å lykkes med Empowerment-prosessen, blir det viktig å få tak i fortolkninger som bidrar til selv-undertrykkelse. I dette ligger også det å bli bevisst på sosiale omgivelser som fortolkningene har vokst fram i. Videre bør endringen i fortolkningen stikke dypere enn på et rent intellektuelt plan. For å klare og faktisk handle annerledes, ser det ut til at hele væren må være samstemt. Jeg tenker at dette er viktig kunnskap for alle typer endringsarbeid, særlig innenfor et Empowerment-perspektiv som stiller krav til enkeltindividet, og har som mål at mennesker skal få kontroll og innflytelse over egne helseforhold. *BevissthetsTrening* er lite kostbart og tilgjengelig for alle. Det kan være velegnet for det helsefremmende arbeidet, som et tilbud til mennesker som ønsker Empowerment-fremmende verktøy. Det er behov for mer forskning for bedre å forstå omfanget og nytteverdien av *BevissthetsTrening* for praksis. Dersom resultatene vises å være overførbare, kan *BevissthetsTrening* være helsefremmende

for mange. Det kan fremme funksjon og livskvalitet. Det kan hjelpe mennesker tilbake i jobb, eller til å fortsette å bli i arbeidslivet. I så tilfelle har *BevissthetsTrening* et potensiale til å lette nåtidens og framtidens samfunnsutfordringer, som krever store økonomiske kostnader i form av helse- og sosialtjenester.

LITTERATURLISTE

- Antonovsky, A. (2005). *Hälsans mysterium*. (2.utg.). Stockholm: Bokförlaget Natur och Kultur. (1. Utgivelse 1987).
- Askheim, O. (2012). Empowerment i helse- og sosialfaglig arbeid : floskel, styringsverktøy, eller frigjøringsstrategi? (1.utg.). Oslo: Gyldendal Akademisk.
- Budzt-Lilly, A., Schröder, A., Rask, M. T., Fink, P., Vestergaard, M. (2015). Bodily distress syndrome: A new diagnosis for functional disorders in primary care? *BMC Family Practice*, 16:180. Doi: 10.1186/s12875-015-0393-8
- Csordas, T. (1994). *Embodiment and experience. The existential ground of culture and self*. New York: Cambridge University Press
- Desjarlais, R., Throop, J.C. (2011). Phenomenological Approaches in Anthropology. *Annual Review of Anthropology*. Vol 40,p.87-102.
<http://www.annualreviews.org/doi/pdf/10.1146/annurev-anthro-092010-153345>
- Frontiers in Public Health. (2017, 04. September). Somatic and Bodymind Approaches to Resilience. Hentet fra <http://journal.frontiersin.org/researchtopic/5156/somatic-and-bodymind-approaches-to-resilience>
- Getz, L., Kirkengen., Ulvestad, E. (2011). Menneskets biologi – mettet med erfaring. *Tidsskrift for Den norske legeforening*.7; 131: 683-7. Doi?
- Huang, T.L., Charyton, C. (2008). A comprehensive review of the psychological effects of brainwave entrainment. *Alternative Therapies in Health and Medicine* 14(5), 38-50.
- Johannesen, A., Tufte, P. A., Christoffersen, L. (2011). *Introduksjon til samfunnsvitenskapelig metode*. (4.utg.). Oslo: Abstrakt forlag AS

- Kafle, N. P. (2011). Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*, 5. pp. 181-200.
http://kucc.ku.edu.np/bodhi/vol5_no1/11.%20Narayan%20Kafle.%20Hermeneutic%20Phenomenological%20Research%20Method.pdf
- Kirkengen, A-L., Næss, A.B. (2016). *Hvordan krenkede barn blir syke voksne*. (3.utg.). Oslo: Universitetsforlaget
- Kirkengen, A.L., Thronquist, E. (2012). The lived body as a medical topic: an argument for an ethically informed epistemology. *Journal of Evaluation in Clinical Practice* 18, 1095-1101. Doi: 10.1111/j.1365-2753.2012.01925.x
- Krieger, N. (2005). Embodiment: a conceptual glossary for epidemiology. *J Epidemiol Community Health*, 59I. p.350-355. Doi: 10.11.36/jech.2004.024562
- Lindseth, N., Norberg, A. (2004). A phenomenological hermeneutical method for researching lived experience. *Scan J Caring Sci*; 18, p.145-153.
- Matthews, E. (2002). *The Philosophy of Merleau-Ponty*. Taylor and Francis. Doi: 10.1017/UPO9781844653362
- Maxwell, J. A. (2013). *Qualitative research design: an interactive approach* (3.utg.). Los Angeles: Sage.
- Mayou, R., Farmer, A. (2002). Functional somatic symptoms and syndromes. *ABC of psychological medicine Vol 325(7358)*. pp. 265-268.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1123778/>
- Merleau-Ponty, M. (2012). *Phenomenology of Perception*; translated by Donald A. Landes. United Kingdom: Routledge. (1. Utgivelse 1945).
- Muesham, D., Lutgendorf, S., Mills, P.J., Rickhi, B., Chevalier., Bat N., Chopra, D., Gurfein, B. (2017). The embodied mind: A review on functional genomic and neurological

- correlates of mind-body therapies. *Neuroscience and Biobehavioural Reviews* 73, p.165-181. Doi: 10.1016/j.neubiorev.2016.12.027
- Nortvedt, P. (2008). *Sykepleiens grunnlag. Historie, fag og etikk*. Oslo: Universitetsforlaget.
- Price, J. R., Okai, D. (2016). Functional disorders and ‘medically unexplained physical symptoms’. *Psychiatric aspects of general medicine*. Vol 44(12). pp. 706-710. Doi: 10.1016/j.mpmed.2016.09.012
- Thornquist, E. (2003). *Vitenskapsfilosofi og vitenskapsteori for helsefag*. Bergen: Fagbokforlaget
- Slatman, J. (2014). Multiple dimensions of embodiment in medical practices. *Med Health Care and Philos*, 17. Pp 549-557. Doi: 10.1007/s11019-014-9544-2
- Scheper-hughes, N., Lock, M.M. (1987). A Prolegomenon to Future Work in Medical Anthropology. *Medical Anthropology Quarterly, New series*, Vol. 1(1), pp. 6-41. Doi: 10.1525/maq.1987.1.1.02a00020
- Unique Mind ESP (2017, 07. september). Brosjyre: *BevissthetsTrening*. Når hjernen blir mer effektiv – ser du helt nye løsninger. <http://uniquemindesp.com/wp-content/uploads/2017/01/brosjyre.pdf>
- Unique Mind ESP (2017, 07. September). Unique Mind ESP. Nøkkelen til indre visdom. <http://uniquemindesp.com/>
- Velikova, S., Sjaheim., Nordtug, B. (2017). Can the Psycho-Emotional State be Optimized by Regular Use of Positive Imagery? Psychological and Electroencephalographic Study of Self-Guided Training. *Frontiers in Human Neuroscience*. Vol.10(664). Doi: 10.3389/fnhum.2016.00664

Vedlegg 1. BevissthetsTreningen

BevissthetsTrening går over to dager med ti timer hver dag, og består av til sammen ti bolker. I hver av disse bolkene er det ulike temaer som først forklares, så gjøres meditasjonsteknikker med fokus på mental trening og positiv visualisering. De ulike temaene handler om den ovenfor nevnte forståelsen. Isfjellet brukes som en metafor for å forklare det som ligger i vårt ubevisste, der vårt bevisste sinn er 10 prosent over overflaten, og de resterende 90 prosentene ligger under overflaten og er det som styrer oss. Der ligger tidligere erfaringer som styrer vår oppfattelse og valg. Videre handler bolkene om spesifikke temaer, som:

Omskapelse av tidligere erfaringer, hendelser og fortolkninger

Mål for måloppnåelse

Tilgivelse av selv og andre

Nattfilm for flyt i hverdagen, som handler om å legge fra seg dagen i dag og å forberede dagen i morgen. Her er det først en fysisk del, hvor en ”skriver av seg” alle bekymringer inklusive kroppslige reaksjoner, så gjør man en mentale trening rett før man legger seg.

Indre rom: Ved hjelp av indre bilder, tanker, følelser og sanser lærer en å skape et indre, ikke-fysisk rom, som ikke finnes fra før av og som er helt privat og trygt. Fra det indre rommet utføres alle teknikkene.

På slutten av hver bolke gjøres det mental trening tilpasset de ulike temaene. Den mentale treningen består av en nedtelling og avslappingssekvens for å komme til sitt indre rom, knapt hørbare pulsslått avspilles for å stimulere hjernefrekvensene og fremme en dyp meditativ tilstand (Huang & Charyton, 2008). Videre leser instruktøren opp instruksjoner, som kursdeltakerne skal følge ved å forestille seg ulike scenarioer. Disse inkorporerer tanker, indre hørsel, indre bilder, lukt, smak, og taktile fornemmelser. Eksempelvis å plukke ett jordbær, lukte på det, smake på det, kjenne tyngden, overflaten, om det er kaldt eller varmt og så videre. I teknikkene en lærer, som en skal bruke på egen hånd, så er det fire trinn:

Trinn 1 er nåsituasjon

Trinn 2 er å få tak i grunnen til utfordringen man opplever

Trinn 3 er å endre oppfattelse

Trinn 4 er å leve seg inn i ønsket resultat med hele seg, følelser, tanker, bilder, lukt. Jo mer jo bedre, det oppfordres til overdrivelse.

I teknikkene fokuseres det på å bruke intensjonen for å slippe utfordringene og å la ting gå, for så å fullt fokusere på ønsket om endelig resultat.

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Vedlegg 1. NSD: Tilbakemelding på melding om behandling av personvernopplysninger



Kristin Halvorsen
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Vår dato: 17.10.2016

Vår ref: 49950 / 3 / AGH

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 13.09.2016. Meldingen gjelder prosjektet:

49950	<i>Hva gjør BevissthetsTrening? Et studie om erfaring med hvordan voksne mennesker bruker BevissthetsTrening for å mestre egne helseutfordringer.</i>
Behandlingsansvarlig	Høgskolen i Oslo og Akershus, ved institusjonens øverste leder
Daglig ansvarlig	Kristin Halvorsen
Student	Helene Notland

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 14.05.2017, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Agnete Hessevik

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

1.1 Bekreftelse på endring av dato for prosjektslutt

Outlook E-post

Ny | Svar | Slett | Arkiver | Søppelpost | Opprydding | Flytt til | ... | Angre

Prosjektnr: 49950. Hva gjør BevissthetsTrening? Et studie om erfaring med hvordan voksne mennesker bruker BevissthetsTrening for å mestre egne helseutfordringer.

AH Agnete Hessevik <agnete.hessevik@nsd.no>
ma 07.11.2016, 13:47
Du; kristin.halvorsen@hioa.no

Svar

BEKREFTELSE PÅ ENDRING

Hei, viser til endringskjema registrert hos personvernombudet 2.11.2016.

Vi har nå registrert at prosjektslutt endres fra 14.5.2017 til 15.12.2018. Vi forstår det slik at deltakere ikke har samtykket enda, og at ny dato for prosjektslutt framkommer av informasjonsskrivet.

Vi legger til grunn at datamateriale med personopplysninger behandles etter Høgskolen i Oslo og Akershus sine retningslinjer for datasikkerhet. Dette gjelder også dersom studenten avslutter sitt studie før prosjektslutt.

Personvernombudet forutsetter at prosjektopplegget for øvrig gjennomføres i tråd med det som tidligere er innmeldt, og personvernombudets tilbakemeldinger. Vi vil ta ny kontakt ved prosjektslutt.

Med vennlig hilsen
--
Agnete Hessevik
Rådgiver | Adviser
Seksjon for personverntjenester | Data Protection Services
T: (+47) 55 58 27 97

NSD – Norsk senter for forskningsdata AS | NSD – Norwegian Centre for Research Data
Harald Hårfagres gate 29, NO-5007 Bergen
T: (+47) 55 58 21 17
postmottak@nsd.no www.nsd.no

Vedlegg 2. Rekrutteringsmail

Oktober 2016

Er du over 18 år og har repetert BevissthetsTrening 1? Bruker du aktivt teknikkene i din hverdag og i møte med utfordringer? Vil du være med i et forskningsprosjekt?

Evnen til å mestre hverdagslivets krav og utfordringer har stor betydning for hvordan vi har det. I dette forskningsprosjektet ønsker jeg å undersøke hvordan voksne som har repetert BevissthetsTrening 1 og bruker teknikkene, erfarer hva kurset og bruk av teknikkene har av betydning for deres hverdag og mestring av egne utfordringer.

Jeg ber om et intervju

Jeg ber om å få intervju deg, som har fullført og repetert kurset BevissthetsTrening-I (tidligere ESP-I) og som aktivt bruker teknikkene i din hverdag og i møte med utfordringer.

I intervjuet vil jeg be deg om å fortelle fra din erfaring med kurset og bruken av teknikkene. Jeg vil ha et særlig fokus på bruk av teknikkene for å mestre egne utfordringer og hvordan du opplever at dette har virket inn på hverdagen din. Jeg vil deretter stille noen oppfølgingsspørsmål om det blir nødvendig. Jeg vil gjøre lydopptak av intervjuet, slik at jeg får med meg alt som blir sagt. Ingen andre enn meg skal lytte på lydopptaket. Senere skriver jeg av intervjuet som anonymisert tekst og sletter lydbåndet når prosjektet avsluttes. Det hele er konfidensielt. Ingenting skal kunne gjenkjennes eller bli gjengitt slik at informasjonen kan føres tilbake til deg. Intervjuet vil sannsynligvis vare en time.

Jeg skal skrive en forskningsartikkel og tar sikte på å få den publisert i et vitenskapelig tidsskrift. Jeg har fortalt om studien til en av fagdirektørene i Helse- og omsorgsdepartementet, og hun ønsket at jeg skal sende dem artikkelen så fort den er publisert. Fagdirektøren sa at dette er en studie de er interesserte i da den kan fremskaffe kunnskap som kan være av betydning for det helsefremmende arbeidet.

Dersom du svarer ja, avtaler vi tid og sted som passer for deg. Du kan når som helst trekke deg fra samtalen eller studien, uten å oppgi grunn. Hele undersøkelsen er anonym, og prosjektet er godkjent av Personvernombudet for forskning ved NSD (Norsk samfunnsvitenskapelig datatjeneste).

Finner du ut at du vil være med på undersøkelsen, ber jeg deg ta kontakt på e-post: helene.notland@live.no. Send da navn, telefonnummer og adresse. Du kan også ringe meg på telefon: 483 53 739. Ta gjerne kontakt dersom du nå eller senere har spørsmål i forbindelse med intervjuet.

Prosjektet utgår fra Høgskolen i Oslo og Akershus og er et mastergradsprosjekt ved studiet Master i helse og empowerment. Prosjektansvarlig er Kristin Halvorsen, førsteamanuensis ved Høgskolen i Oslo og Akershus. Den som utfører intervjuene er Helene Notland, sykepleier og masterstudent.

Med vennlig hilsen

Helene Notland.

helene.notland@live.no.

483 53 739

Vedlegg 3. Samtykkeskjema

Forespørsel om deltakelse i forskningsprosjektet

”Hva gjør BevissthetsTrening? Et studie om erfaring med hvordan voksne mennesker bruker BevissthetsTrening for å mestre egne helseutfordringer.”

Dette er et spørsmål til deg om å delta i et forskningsprosjekt for å fremskaffe kunnskap om hvordan du opplever at BevissthetsTrening og teknikkene påvirker din evne til mestring av egne utfordringer.

Hva innebærer prosjektet?

Prosjektet innebærer at jeg skal intervjuet 4-6 personer som har repetert BevissthetsTrening og som aktivt bruker teknikkene. Din deltakelse innebærer at du og jeg møtes for et intervju. Det settes av 1 time til intervjuet, med mulighet for forkortelse eller forlengelse. I intervjuet vil jeg stille noen åpne spørsmål, som omhandler erfaringer med kurset, bruk av teknikkene og mestring av det du har ønsket eller ønsker å mestre. Det er ingen riktige eller gale svar. Det som er dine personlige opplevelser og erfaringer og det som er viktig for deg, er det som viktig for studien. Intervjuet tas opp på lydopptak og oppbevares i tråd med retningslinjene til Høgskolen i Oslo og Akershus for oppbevaring av forskningsdata. Det destrueres etter at studien er ferdig og ingen andre enn jeg skal lytte til det. Jeg kommer til å skrive ned intervjuet ordrett, den nedskrevne teksten vil være avidentifisert. Du får muligheten til å lese igjennom den nedskrevne teksten av intervjuet, og korrigere fritt dersom du skulle ønske det. Studien skal skrives som en forskningsartikkel, og jeg tar sikte på å få den publisert.

Mulige fordeler og ulemper

Deltakelse kan medbringe følelsesmessige reaksjoner under eller i etterkant av intervjuet, som kan være utfordrende. Det er lov å slå av lydopptakeren på et hvilket som helst tidspunkt, dersom det skulle være ønskelig. Det vil være mulighet for å ta kontakt med forskeren, Helene Notland, ved spørsmål i etterkant av intervjuet. Mulige fordeler kan være at du bidrar med verdifull informasjon, som kan være med på å sette fokus på betydningen av egne ressurser og mulighet for å mestre utfordringer ved hjelp av teknikkene.

Frivillig deltakelse og mulighet for å trekke sitt samtykke

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke. Dersom du trekker deg fra prosjektet, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner. Dersom du senere ønsker å trekke deg eller har spørsmål til prosjektet, kan du kontakte Helene Notland på +47 483 53 739 eller helene.notland@live.no Du kan evt. også kontakte prosjektleder / veileder Kristin Halvorsen, kristin.halvorsen@hioa.no.

Hva skjer med informasjonen om deg?

Informasjonen som registreres om deg skal kun brukes slik som beskrevet i andre avsnitt: Hva innebærer prosjektet? Du har rett til innsyn i hvilke opplysninger som er registrert om deg og rett til å få korrigert eventuelle feil i de opplysningene som er registrert.

Alle opplysningene om deg vil bli behandlet konfidensielt. Intervjuet skrives ned avidentifisert, det vil si at det ikke innehar noen identifiserbare opplysninger. En kode knytter deg til dine opplysninger gjennom en navneliste. Denne kodelisten oppbevares separat fra intervjuet. All lagring av data er i henhold til retningslinjer for oppbevaring av forskningsdata ved Høgskolen i Oslo og Akershus.

Prosjektleder har ansvar for den daglige driften av forskningsprosjektet og at opplysninger om deg blir behandlet på en sikker måte. Informasjon om deg vil bli anonymisert eller slettet ved prosjektslutt, som er satt til 15. Desember 2018.

Samtykke til deltakelse i prosjektet

Sted og dato

Deltakers signatur

Deltakers navn med trykte bokstaver

Jeg bekrefter å ha gitt informasjon om prosjektet

Sted og dato

Signatur

Rolle i prosjektet

Vedlegg 4. Intervjuguide

Felles innledning:

Takk for at du vil delta i dette forskningsprosjektet. jeg er interessert i dette fordi det er et viktig kurs og det kan fremskaffe ny kunnskap om *BevissthetsTrening* og forske på erfaringene med det.

Jeg ønsker å finne ut av hvordan *BevissthetsTrening* og bruken av teknikkene har hjulpet deg med det som har vært utfordrende for deg, og hvordan du bruker det for å mestre det du ønsker å mestre. Det jeg er interessert i er hvordan du opplever og erfarer kurset, hvordan du bruker teknikkene og hvordan du opplever at det fungerer. Det er viktig for meg at du føler deg komfortabel og at du deler det du har lyst til å dele. Hvis du har behov for å skru av lydopptaket, eller det er noe du ønsker å trekke tilbake, så er det bare å si ifra, så gjør vi det. Hvis det er noe du lurer på underveis i intervjuet, eller noe du vil si ifra om, så er det bare å stoppe meg og gjøre det. Du vil som nevnt være helt anonym og du får mulighet til å lese igjennom intervjuet når det er skrevet ned ordrett, hvis du vil det. Er det noe du ikke vil at skal være med, eller at det er noe som ble utydelig, så kan vi endre på det eller fjerne det, alt ettersom. Her er samtykkeskjema som du fikk på mail, hvis du vil lese igjennom og skrive under på det. Også lurer jeg på om du har noen spørsmål, eller om det er noe du har lyst til å si før vi begynner?

Hvorfor har deltakerne valgt å ta kurset og repetere det?

Først litt bakgrunnsinformasjon. Hvor gammel er du? Hvor bor du? Hvordan er arbeidssituasjonen din? Hvilken inntekt har du? Hva slags familie kommer du fra? (demografiske data)

Vil du fortelle litt om deg selv? -> Vil du fortelle historien om livet ditt?

Vil du fortelle litt om hva som gjorde at du tok BevissthetsTrening?

Hvordan har deltakerne erfart å delta på kurset, og å bruke teknikkene?

Hvordan har veien vært fra før første kurs til i dag?

Har du brukt teknikkene for å mestre (plukke opp utfordringer/årsaker til å ha tatt BT) og hvordan?

Vil du fortelle litt om/beskrive hvordan du bruker teknikkene?

Hvordan oppleves det å bruke teknikkene når du gjør dem?

Hvordan oppleves det i etterkant? (kroppslige sensasjoner, følelsesmessig påvirkning, kognitiv prosessering: tolkning, bedømmelse, motivasjon, opplevelse av endring).

Hva opplever deltakerne at kurset og teknikkene betyr for deres dagligliv?

Vil du beskrive/fortelle om hvordan hverdagen er?

Har noe endret seg og i så fall på hvilken måte?

Hvordan oppleves du av de rundt deg? Har de gitt uttrykk for at de merker en endring og i så fall hvordan?

Vedlegg 5. Transkripsjonsliste inspirert av De Bois systemet

Tegn	Betydning
.	fallende intonasjonskontur (såkalt «hevdende» intonasjonskontur)
?	stigende intonasjonskontur («spørrende»)
,	svakt stigende, svakt fallende eller flat kontur («fortsettelse»)
..	kort pause (0,3-0,6 sekund)
...	mellomlang pause (0,6 – 1 sekund)
...(1) ...(2) osv	lengre pause (målt i sekunder)
*1, *2, *3 osv	Tallkode for navn
ord eller < setning >	Fjernet av identifiseringsårsaker
=	forlenging av lyd
'	Manglende bokstaver, ord som settes sammen - dialekt
lord	emfatisk trykk (når noe fremheves ekstra)
[ord], [ord] [vertikalt parallelle klammer]	overlappende tale
-	avbrutt ord
(H)	innpust
(Hx)	utpust
<H ord H>	tale på innpust
< Hx ord Hx>	Tale på utpust
(HOST)	ikke-språklige lyder fra taleapparatet
@	latter (ett tegn for hver «latterstivelse»)
<@ ord @>	latterkvalitet på stemmen (leende eller lattermild tale)
<EMF ord EMF>	emfatisk uttale
" ord "	sitatstemme, som når man etterligner noen, eller «og da sa han ...»)
<F ord F>	høy stemmestyrke («forte»)
<P ord P>	lav stemmestyrke («piano»)
<A ord A>	høyt tempo («allegro»)
<L ord L>	lavt tempo («lento»)
<HI ord HI>	høyt toneleie (i betydningen <i>lyst</i>)
<LO ord LO>	lavt toneleie (i betydningen <i>mørkt</i>)
X	uhørbar stivelse
<X ord X>	usikker transkripsjon
(PEKER)	ikkespråklig handling, tolkning av stemningsleie, eller annen kommentar til transkripsjonen,

Vedlegg 6. Litteratursøk

Frihåndssøk, fritekstsøk, systematiske litteratursøk.

Databaser:

Cochrane Library
Biomed Central
BMJ Best Practice
EBSCO Host
Elsevier (ScienceDirect)
Guidelines International Network
Helsebiblioteket.no
Kunnskapsenteret
National Guidelines Clearinghouse
Orias
Oxfordbibliographys.com
PsychINFO
Sage
ScienceDirect
Springer
Taylor & Francis
UptoDate
Wiley InterScience

Søkeord:

Behavioral develop*
OR
Lifespan develop*
Experiences
Brainwave entrainment
OR
Audiovisual entrainment
Audiovisual stimulation
Auditory entrainment
Photic stimulation
Coping
OR
Resilience
Self-efficacy
Endur*
Childhood adversity
OR
Childhood maltreat*
Childhood neglect
Embodi*
OR
Embodiment theor*
Embodied mind

Embodied cogni*
Neurophenomenol*
Lived experience*
Lifeworld
Phenomenolog*
Percept*
Merleau-Ponty
Empower*
Functional disorders
OR
Somatization
Overlapping pain syndrome
psychosomatic
Health
Health Promot*
OR
Mental Health Promot*
Salutogen*
Sense of coherence
Well-being
Mental health
OR
Mental disorders
Mind-body therap*
OR
Alternative medicine
Alternative treatment
Breathing exercises
Complementary medicine
Complementary treatment
Holistic medicine
Holistic treatment
Imagery
Meditat*
Meditative movement
Mindfulness
Positive imagery
Relaxation
Psychoneuroimmunology
OR
Psychoneuroenocrinology
Psychoneuroendocrinoimmunology
Public health OR
Public health interven*
Public mental health interven*
Stress
OR
Strain
Trauma* experience

Eksempel systematisk litteratursøk:

Search for: limit 11 to ("young adult and adult (19-24 and 19-44)" or "middle age (45 to 64 years)" or "middle aged (45 plus years)" or "all aged (65 and over)" or "aged (80 and over)")

Results: 187

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

-
- 1 exp Mental Disorders/ (1097717)
 - 2 Mental Health/ (28805)
 - 3 mental health*.mp. (150873)
 - 4 mental disorder*.mp. (180413)
 - 5 1 or 2 or 3 or 4 (1186469)
 - 6 salutogen*.mp. (574)
 - 7 "Sense of Coherence"/ (517)
 - 8 mind-body therapies/ or "imagery (psychotherapy)"/ or meditation/ (4256)
 - 9 "mind-body therap* ".mp. (976)
 - 10 6 or 7 (1017)
 - 11 5 and 10 (271)
 - 12 8 or 9 (4415)
 - 13 5 and 12 (1131)
 - 14 limit 13 to last 5 years (515)
 - 15 limit 14 to ("young adult and adult (19-24 and 19-44)" or "middle age (45 to 64 years)" or "middle aged (45 plus years)" or "all aged (65 and over)" or "aged (80 and over)") (336)
 - 16 limit 11 to ("young adult and adult (19-24 and 19-44)" or "middle age (45 to 64 years)" or "middle aged (45 plus years)" or "all aged (65 and over)" or "aged (80 and over)") (187)

Vedlegg 7. Scope tidsskrift:

Somatic and Bodymind Approaches to Resilience – research topic in under *Frontiers in Public Mental Health* - specialty section in under *Frontiers in Public Health*.

Somatic and Bodymind Approaches to Resilience

About this Research Topic

Prior to the modern era, somatic and bodymind practices were an integral part of the culture in most areas of the world. Methods evolved to address and meet the needs of local populations for developing resilience in the face of challenge, including practices focusing on physical, mental, and social health, physical skill, artistic expression, and spiritual development. Some remained relatively local and some have spread worldwide, taking different forms and giving rise to many of the contemporary somatic based therapeutic methods. In recent years, evidence has begun to accumulate as to the neurological, endocrine, immune, and psychological impact of these practices, their clinical efficacy, and in some cases their underlying mechanisms. This Research Topic focuses broadly on the category of somatic and bodymind practices that involve movement or awareness of sensation, whether for therapeutic purposes or for self-development. We are interested in studies that apply advances in neuroscience, cognitive science, and consciousness studies, as well as neuroimmunology and neuroendocrinology, to the development of frameworks not based on the Cartesian divide between body and mind, and which address scientifically important questions about the role of somatic and bodymind practices in human health.

The Topic Editors welcome submissions dealing with efficacy and/or mechanism of these forms of practice, including (but not limited to) traditional Asian systems (such as qigong, taijiquan, aikido and some forms of yoga); western somatic methods (such as the Alexander Technique, the Feldenkrais Method and Continuum); body-oriented psychotherapy (such as Somatic Experiencing and Bioenergetics); and bodily techniques and practices associated with indigenous cultures and shamanism (such as the healing dances of the !Kung Bushmen). We also encourage submissions concerning the effects of physical disciplines associated with spiritual formation in major religions, such as Sufi movement practices or Christian labyrinth walking.

We welcome work across a range of methodologies, including reports of clinical trials, theory and hypothesis, and research studies concerning mechanism, as well as proposals for ways of re-conceptualizing these practices in terms that retain the sophistication and complexity of their original transmission but are grounded in a scientific perspective. We are also interested in work reflecting on the problems and limitations of linguistic, cultural, and epistemic translation our project entails, and on the challenges presented to established scientific paradigms by this material. Qualified researchers are also encouraged to submit controlled clinical studies or mechanistic studies that would compare objective outcomes from more than one of these practices within the same study.

Specifically excluded from our Topic are forms of largely cognitive practice that do not involve a primary focus on bodily movement or sensation (such as cognitive psychotherapy and some forms of seated meditation). Also excluded are physical practices without an intrinsic emphasis on changes in consciousness (such as conventional aerobic, strength, or

flexibility exercise).

The innovative and unusual nature of this topic necessitates rigorous adherence to the principles of the scientific method. Articles or reviews that present ungrounded speculative opinion or lack an evidence base will not be considered. Hypotheses should be testable, research studies must be rigorously designed using accepted procedures, and the roots of novel hypotheses in past literature in the field must be thoroughly demonstrated. Paradigms may be challenged, but the fundamentals of good science may not.

Keywords: Resilience, Somatic, Bodymind, Stress, Meditative Movement

<http://journal.frontiersin.org/researchtopic/5156/somatic-and-bodymind-approaches-to-resilience>

Frontiers in Public Mental Health - scope

Good mental health enables individuals to work, to learn, to engage with other people and to participate in society. Conversely, mental disorders cause significant suffering for individuals, their families and society as a whole. Mental disorders arise early in life's course and may last for long periods of time. There is a high co-morbidity between mental disorders and physical illness. Persons suffering from mental disorders, have a significantly reduced life expectancy. Public mental health aims to improve the mental health of the population by providing information about levels of mental disorders across populations and also by preventing mental disorders and promoting mental health. Public mental health also takes responsibility for the provision of mental health services. These in turn support the collaboration of psycho-social organisations and agencies which aim to promote mental health, prevent mental disorders and reduce their burden (including cost containment). As such, the Public Mental Health section aims to publish major insights into the promotion of mental health, the prevention of mental disorders, as well as the provision of care. Our section also welcomes papers concerned with the social epidemiology of mental disorders at all levels, i.e. from study design to methodology, assessment tools, assessment of risk and protective factors to outcome studies. Studies may address populations as well as vulnerable/risk groups or health systems e.g. related to early recognition and treatment of mental disorders or the interplay between physical and mental illnesses. We welcome papers from developed as well as from economically developing countries. This section further welcomes papers concerned with social inclusion/exclusion, stigma and discrimination, social inequalities, adversity, violence and (substance) abuse, labor market problems (unemployment, sickness absence, early retirement, disability sickness schemes), services research and health policy topics all related to mental health. Our ultimate goal is to accelerate the progress in all these research areas.

<http://journal.frontiersin.org/journal/public-health/section/public-mental-health>

Frontiers in Public Health - Scope and mission

Frontiers in Public Health publishes rigorously peer-reviewed research on key issues in the field including occupational, mental and reproductive health, medicine and social policy, epidemiology, rehabilitation, obesity, family and social issues, quality of life and public health education and promotion. Field Chief Editor Joav Merrick at the Division for

Intellectual and Developmental Disabilities, Ministry of Social Affairs, Jerusalem, is supported by an outstanding Editorial Board of international researchers. This multidisciplinary open-access journal is at the forefront of disseminating and communicating scientific knowledge and impactful discoveries to researchers, academics, clinicians, policy makers and the public worldwide.

Frontiers in Public Health covers all aspects of public health and human development in the form of review articles, original articles, case reports, short communications, letters to the editor and book reviews. Manuscripts will be reviewed from disciplines all over the world. The International Editorial Board is dedicated to producing a high quality scientific journal of interest to researchers and practitioners from many disciplines. *Frontiers in Public Health* publishes high-quality articles encompassing the entire field of public health. Articles are peer-reviewed according to the Frontiers review guidelines, which evaluate manuscripts on objective editorial criteria. The journal will make use of the unique Frontiers platform for open-access publishing and research networking for scientists, which provides an equal opportunity to seek, share and create knowledge.

<http://journal.frontiersin.org/journal/public-health>

(https://blog.frontiersin.org/2017/06/28/frontiers-top-quality-journals-impact-factors-citations-analysis/?utm_source=Frontiers+reaches+6.4+on+Journal+Impact+Factors+EDP&utm_medium=WBAN&utm_campaign=CCO_CORPO_20170628_IM17-summary)

in Public Health (<http://journal.frontiersin.org/jou>:

This section appears in 3 journals ▾

Search in this section



Author Guidelines

1. Summary Table

Please view the table below for a summary on currently accepted article types and general manuscript style guidelines. Article types may vary depending on journal.

	Abstract (max. length)	Running title (5 words)	Figures and/or tables (combined)	Manuscript max. length	Peer review	Author fees	Submitted to PubMed Central or other indexing databases
Book Review	✘	✘	1	1'000 words	✓	✘	✓
Classification	250 words	✓	10	2'000 words	✓	✓	✓
Case Report	350 words	✓	4	3'000 words	✓	✓	✓
Clinical Trial	350 words	✓	15	12'000 words	✓	✓	✓
Code	250 words	✓	3	3'000 words	✓	✓	✓
Community Case Study	350 words	✓	5	5'000 words	✓	✓	✓
Conceptual Analysis	350 words	✓	10	8'000 words	✓	✓	✓
CPC	250 words	✓	6	2'500 words	✓	✓	✓
Curriculum, Instruction, and Pedagogy	350 words	✓	5	5'000 words	✓	✓	✓
Data Report	✘	✓	2	3'000 words	✓	✓	✓
Editorial	✘	✘	0	1'000 words*	✓	✘	✓
Empirical Study	350 words	✓	10	8'000 words	✓	✓	✓
Evaluation	350 words	✓	5	6'000 words	✓	✓	✓

Field Grand Challenge			1	2'000 words			
Focused Review ⁽¹⁾	350 words		5	5'000 words			
Frontiers Commentary ⁽¹⁾			1	1'000 words			
General Commentary			1	1'000 words			
Hypothesis and Theory	350 words		15	12'000 words			
Methods	350 words		15	12'000 words			
Mini Review	250 words		2	3'000 words			
Opinion			1	2'000 words			
Original Research	350 words		15	12'000 words			
Protocols	350 words		15	12'000 words			
Perspective	250 words		2	3'000 words			
Policy Brief	125 words		5	3'000 words			
Research Snapshot	50 words		1	500 words			
Review	350 words		15	12'000 words			
Specialty Grand Challenge			1	2'000 words			
Systematic Review	350 words		15	12'000 words			
Technology Report	350 words		15	12'000 words			

(1) Tier 2 article - field level article reserved to authors of selected Tier 1 articles.

* Editorials for Research Topics with 5 to 10 published articles have a maximum of 1'000 words, for Research Topics with more than 10 published articles the following applies: 1'100 words for 11 articles, 1'200 for 12 articles, 1'300 for 13 articles etc. up to maximum 5'000 words, for 50 or more papers.

Appendices and footnotes will be considered in the total length and word count of the article.

2. Manuscript Guidelines

Registration with Frontiers

Please note that the corresponding and all submitting authors **MUST register** (<https://www.frontiersin.org/Registration/Register.aspx>) with Frontiers before submitting an article. You must be logged in to your personal Frontiers Account to submit an article.

For any co-author who would like his/her name on the article abstract page and PDF to be linked to a Frontiers profile on the **Loop network** (<http://loop.frontiersin.org/about>), please ensure to **register** (<https://www.frontiersin.org/Registration/Register.aspx>) before the final publication of the paper.

Original Content

Frontiers publishes only original content. It therefore requires that all submissions must consist as far as possible of content that has not been published previously. In accordance with **COPE guidelines** (http://publicationethics.org/files/International_standards_authors_for_website_11_Nov_2011.pdf), we expect that "original wording taken directly from publications by other researchers should appear in quotation marks with the appropriate citations." This condition also applies to an author's own work, and to submissions adapted from conference abstracts and proceedings papers, please see the following sections for more information

- **Theses and Dissertations**

In submitted manuscripts, Frontiers allows the inclusion of content which first appeared in an author's thesis so long as this represents the only medium it has appeared in, is in line with the author's university policy, and can be accessed online. If the thesis is not archived online, it is considered as original, unpublished data and thus is subject to the unpublished data restrictions of some of our article-types. This inclusion should be noted in the Acknowledgements section of the manuscript and the thesis should be cited and referenced accordingly in the Reference list. For some examples, please check our **References section** (<http://home.frontiersin.org/about/author-guidelines#References>).

- **Conferences, Proceedings and Abstracts**

Manuscripts which first appeared as conference papers can be considered as original work if expanded upon. As a rule of thumb, at least 30% of content must be original. Authors submitting such work are required to:

1. Cite the conference in the Acknowledgements section, or the references section if applicable
2. Seek permission for reuse of the published conference paper if the author does not hold the copyright

- **Blogs**

Although permissible, extended manuscript content which has previously appeared online in non-academic media e.g. blogs, should be declared at the time of submission in a cover letter or in communication with the relevant editorial office for consideration.

Article Type

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Funding

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Acknowledgments

This is a short text to acknowledge the contributions of specific colleagues, institutions, or agencies that aided the efforts of the authors.

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Abstract:

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Patent:

Marshall, S. P. (2000). *Method and apparatus for eye tracking and monitoring pupil dilation to evaluate cognitive activity*. U.S. Patent No 6,090,051. Washington, DC: U.S. Patent and Trademark Office.

Data:

[Dataset] Perdiguero P, Venturas M, Cervera MT, Gil L, Collada C. (2015) Data from: Massive sequencing of *Ulms minor*'s transcriptome provides new molecular tools for a genus under the

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Cowan WM, Jessell TM, Zipursky SL. *Molecular and Cellular Approaches to Neural Development*. New York: Oxford University Press (1997). 345 p.

Abstract:

Christensen S, Oppacher F. An analysis of Koza's computational effort statistic for genetic programming. In: Foster JA, editor. *Genetic Programming. EuroGP 2002: Proceedings of the 5th European Conference on Genetic Programming; 2002 Apr 3–5; Kinsdale, Ireland*. Berlin: Springer (2002). p. 182–91.

Patent:

Pagedas AC, inventor; Ancel Surgical R&D Inc., assignee. *Flexible Endoscopic Grasping and Cutting Device and Positioning Tool Assembly*. United States patent US 20020103498 (2002).

Data:

[Dataset] Perdiguero P, Venturas M, Cervera MT, Gil L, Collada C. Data from: Massive sequencing of Ulms minor's transcriptome provides new molecular tools for a genus under the constant threat of Dutch elm disease. Dryad Digital Repository. (2015) <http://dx.doi.org/10.5061/dryad.ps837>

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manuscript fits within the scope of a specialty as defined in its mission statement; a detailed cover letter will also facilitate the identification of the Editors and Reviewers most appropriate to evaluate your work, ultimately expediting your manuscript's initial consideration.

Studies involving human subjects

Frontiers endorses the [Helsinki declaration](http://www.wma.net/en/30publications/10policies/b3/) (<http://www.wma.net/en/30publications/10policies/b3/>) and the [guidelines](http://www.icmje.org/recommendations/browse/roles-and-responsibilities/protection-of-research-participants.html) (<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/protection-of-research-participants.html>) of the International Committee of Medical Journal Editors. Studies involving human participants must be performed in accordance with relevant institutional and national guidelines, with the appropriate institutional ethics committee's approval and informed written consent from all human subjects involved in the study. For manuscripts reporting studies involving human subjects, authors must clearly state the relevant ethics committee approving the study and confirm that study subjects have granted their written informed consent. Manuscripts reporting clinical trial data need to include the name of the public registry under which the clinical trial has been registered, and the number of the trial. For most article types, the information should appear in the Materials and Methods section.

For example: *This study was carried out in accordance with the recommendations of 'name of guidelines, name of committee' with written informed consent from all subjects. All subjects gave written informed consent in accordance with the Declaration of Helsinki.*

Should the study be exempt from this requirement, authors need to clearly state the reasons in the cover letter and manuscript. For incompetent patients (e.g. young children, unconscious patients) some form of consent, such as from family members, is needed.

Studies involving animal research

All experiments reporting results on animal research must be performed in accordance with relevant institutional and national guidelines and regulations. In the manuscript, authors must identify the full name of the ethics committee that approved the work. For most article types, this statement should appear in the Materials and Methods section.

For example: *This study was carried out in accordance with the recommendations of 'name of guidelines, name of committee'. The protocol was approved by the 'name of committee'.*

Should the study be exempt from this requirement, authors need to clearly state the reasons in the cover letter and manuscript.

Studies involving privately owned animals should demonstrate the best practice veterinary care and confirm that informed consent has been granted by the owner/s, or the legal representative of the owner/s.

Clinical Trial Registration

The [World Health Organization](http://www.who.int/ictrp/en) (<http://www.who.int/ictrp/en>) defines clinical trial as "any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes." In accordance with the Clinical Trial Registration Statement from the [International Committee of Medical Journal Editors \(ICMEJ\)](http://www.icmje.org) (<http://www.icmje.org>), all clinical trials must be registered in a public trials registry at or before the onset of participant enrollment. This requirement applies to all clinical trials that begin

enrollment after July 1, 2005. To meet the requirements of the ICMJE, clinical trials can be registered with any **Primary Registry in the WHO Registry Network** (<http://www.who.int/ictrp/network/primary/en/index.html>) or an **ICMJE approved registry** (<http://www.icmje.org/about-icmje/faqs/clinical-trials-registration/>).

Clinical trial reports should be compliant with the **Consolidated Standards of Reporting Trials (CONSORT)** (<http://www.consort-statement.org/?o=1011>) both in terms of including a flow diagram presenting the enrollment, intervention allocation, follow-up, and data analysis with number of subjects for each and taking into account the CONSORT Checklist of items to include when reporting a randomized clinical trial.

The information on the clinical trial registration (Unique Identifier and URL) must be included in the **abstract**.

Materials and Data policies

Frontiers supports the **Transparency and Openness Promotion (TOP) guidelines** (<https://osf.io/9f6gx/>), which state that materials, data, and code described in published works should be made available, without undue reservation, to any qualified researcher, to expedite work that builds on previous findings and enhance the reproducibility of the scientific record.

To comply with these guidelines and encourage best practice in methods reporting, Frontiers requires that all research materials be clearly indicated in Materials and Methods sections with sufficient detail to the reader to enable the reproduction of an experiment. Authors wishing to participate in the **Resource Identification Initiative** (<https://www.force11.org/group/resource-identification-initiative>) should cite antibodies, genetically modified organisms, software tools, data, databases, and services using the corresponding catalog number and RRID in your current manuscript. For more information about the project and for steps on how to search for an RRID, please click **here** (http://www.frontiersin.org/files/pdf/letter_to_author.pdf).

Frontiers also asks that authors make their data available to editor and reviewers during peer-review to enable complete and objective evaluation of the work described. To comply with best practice in their field of research, authors must also make certain types of data available to readers at time of publication in stable, community-supported repositories such as those listed below, unless in case of serious confidentiality concerns (for example, research involving human subjects). Although not mandatory, authors may also consider the deposition of additional data-types (see below). Authors are encouraged to contact their respective journal's editorial office prior to submission with any queries concerning data reporting.

Authors are required to deposit the following data-types in public, community-supported repositories, such as those listed below, prior to publication of an associated Frontiers manuscript:

Data-type	Recommended Repositories	Metadata Standard
Genetic and genomic sequence (DNA/ RNA) [^]	GenBank DNA Data Bank of Japan (DDBJ) European Nucleotide Archive (ENA)	MiXS
Metagenomic sequence	EBI Metagenomics	MiXS
DNA and RNA trace or short-read sequencing data	NCBI Trace Archive NCBI Sequence Read Archive	MiXS

Genetic polymorphism data, including SNP and CNV data	dbSNP dbVar European Variation Archive DGVa	MiXS
Gene expression data; chromatin immunoprecipitation data (deep-sequencing or microarray)	ArrayExpress Gene Expression Omnibus (GEO)	MIAME / MINSEQE
Data linking genotype to phenotype	dbGaP	
Protein sequence data	UniProt	
Proteome profiling data	PRIDE PeptideAtlas ProteomeXchange	MIAPE
Small molecule, protein, protein complex data structural data	Crystallography Open Database Cambridge Structural Database wwPDB (Protein DataBank) Electron Microscopy Databank	CIF
Taxonomy data	Zoobank	

^ Genetic sequence variants should be annotated according to the guidelines established by the **Human Variome Project** (<http://www.humanvariomeproject.org/resources/genetics-and-genomics-journals.html>).

Authors are encouraged to consider deposition in public, community-supported repositories of the data-types listed below:

Data-type	Recommended Repositories	Metadata Standard
Protein-protein interaction data	Database of Interacting Proteins (DIP)	MIMIx
Metabolite and metabolome profiling data	MetaboLights Human Metabolome Database	MSI
Small-molecule screening data, chemical compound data	PubChem	CIF
Flow cytometry data	Flow Repository	
Brain Imaging data / Neuroimaging data	OpenfMRI INDI NITRC NeuroVault [Statistical maps]	
Trait data	TRY database	
Phenology data	National Phenology Network	
Any data	FigShare Dryad Digital Repository	None

Inclusion of Zoological Nomenclature

The International Code of Zoological Nomenclature, in a recent 2012 amendment to the **1999 Zoological Code** (<http://iczn.org/content/electronic-publication-made-available-amendment-code>), allows all electronic-only papers, such as those published by the Frontiers journals, to have valid new taxon names and nomenclatural acts. However, these new names or nomenclatural acts must be registered in **ZOOBANK** (<http://zoobank.org/>) and have associated Life Science Identifiers (LSIDs). Registration must be done by the authors before publication. Should your manuscript include any zoological new taxon names and/or nomenclatural acts, please ensure that they are registered prior to final publication.

>Inclusion of RNAseq Data

Studies employing RNASeq for comparative transcriptomic analyses must contain at least 3 biological replicates (unless otherwise justified). Each biological replicate should be represented in an independent library, each with a unique barcode if libraries are multiplexed for sequencing. Validation on a number of key transcripts highlighted in the study is also highly recommended.

Full data accompanying these experiments must be made available to reviewers at the time of submission in a freely accessible resource e.g the [sequence read archive \(SRA\)](https://www.ncbi.nlm.nih.gov/sra) (<https://www.ncbi.nlm.nih.gov/sra>) or [European Nucleotide Archive \(ENA\)](http://www.ebi.ac.uk/ena) (<http://www.ebi.ac.uk/ena>). Depending on the question addressed in a manuscript, de novo assemblies of transcriptomes may also require multiple replicates and assembled sequences together with sequence annotation must be made freely available e.g [figshare](https://figshare.com) (<https://figshare.com>) or [dryad](http://datadryad.org/) (<http://datadryad.org/>).

Inclusion of Proteomics Data

Authors should provide relevant information relating to how peptide/protein matches were undertaken, including methods used to process and analyze data, false discovery rates (FDR) for large-scale studies, and threshold or cut-off rates for peptide and protein matches. Further information should include software used, mass spectrometer type, sequence database and version, number of sequences in database, processing methods, mass tolerances used for matching, variable/fixed modifications, allowable missed cleavages, etc.

Authors should provide as supplementary material information used to identify proteins and/or peptides. This should include information such as accession numbers, observed mass (m/z), charge, delta mass, matched mass, peptide/protein scores, peptide modification, miscleavages, peptide sequence, match rank, matched species (for cross-species matching), number of peptide matches, etc. Ambiguous protein/peptide matches should be indicated.

For quantitative proteomics analyses, authors should provide information to justify the statistical significance, including biological replicates, statistical methods, estimates of uncertainty, and the methods used for calculating error.

For peptide matches with biologically relevant post-translational modifications (PTMs) and for any protein match that has occurred using a single mass spectrum, authors should include this information as raw data or annotated spectra, or submit data to an online repository (recommended option; see table below).

Raw or matched data and 2-DE images should be submitted to public proteomics repositories such as those participating in ProteomeXchange. Submission codes and/or links to data should be provided within the manuscript.

4. Figure and Table Guidelines

General Style Guidelines for Figures

The maximum number of figures and tables for all article types are shown in the [Summary Table](#). Frontiers requires figures to be submitted individually, in the same order as they are referred to in the manuscript, the figures will then be automatically embedded at the end of the submitted manuscript. Kindly ensure that each table and figure is mentioned in the text and in numerical order.

For graphs, there must be a self-explanatory label (including units) along each axis. For figures with more than one panel, panels should be clearly indicated using labels (A), (B), (C), (D), etc. However, do not embed the part labels over any part of the image, these labels will be added during typesetting according to Frontiers journal style. Please note that figures which are not according to the guidelines will cause substantial delay during the production process.

Permission must be obtained for use of copyrighted material from other sources (including re-published/adapted/modified/partial figures and images from the internet). It is the responsibility of the authors to acquire the licenses, to follow any citation instructions requested by third-party rights holders, and cover any supplementary charges.

Frontiers takes concerns regarding image manipulation seriously. We request that no individual features within an image are modified (eg. enhanced, obscured, moved, removed or added). Where images are grouped together, for example, parts of gels are lined up, this must be clearly explained in the figure or in the figure text, and the original entire gel should be submitted as supplementary material. Any change in brightness, contrast or color balance must be applied to every pixel in the image and the changes should not alter the information illustrated in the figure. Any concerns raised will be investigated and the authors will be asked to provide the original images.

General Style Guidelines for Tables

Tables should be inserted at the end of the manuscript. If you use a word processor, build your table in word. If you use a LaTeX processor, build your table in LaTeX. An empty line should be left before and after the table.

Please note that large tables covering several pages cannot be included in the final PDF for formatting reasons. These tables will be published as supplementary material on the online article abstract page at the time of acceptance. The author will be notified during the typesetting of the final article if this is the case. A link in the final PDF will direct to the online material.

Figure and Table Legends

Figure and table legends are required to have the same font as the main text (12 point normal Times New Roman, single spaced). Legends should be preceded by the appropriate label, for example "Figure 1" or "Table 4". Figure legends should be placed at the end of the manuscript (for supplementary images you must include the caption with the figure, uploaded as a separate file). Table legends must be placed immediately before the table. Please use only a single paragraph for the legend. Figure panels are referred to by bold capital letters in brackets: (A), (B), (C), (D), etc.

Image Size

Figure images should be prepared with the PDF layout in mind, individual figures should not be longer than one page and with a width that corresponds to 1 column or 2 columns.

- **All articles are prepared using the 2 column layout:** 2 column articles can contain images 85 mm or 180 mm wide.

Format

The following formats are accepted:

TIFF (.tif) TIFF files should be saved using LZW compression or any other non-lossy compression method.

JPEG (.jpg)

EPS (.eps) EPS files can be uploaded upon acceptance

Color Image Mode

Images must be submitted in the color mode RGB.

Resolution Requirements

All images must be uploaded separately in the submission procedure and have a resolution of **300 dpi at final size**. Check the resolution of your figure by enlarging it to 150%. If the resolution is too low, the image will appear blurry, jagged or have a stair-stepped effect.

Please note saving a figure directly as an image file (JPEG, TIF) can greatly affect the resolution of your image. To avoid this, one option is to export the file as PDF, then convert into TIFF or EPS using a graphics software. EPS files can be uploaded upon acceptance.

Chemical Structures

Chemical structures should be prepared using ChemDraw or a similar program according to the guidelines given below:

Drawing settings: chain angle, 120° bond spacing, 18% of width; fixed length, 14.4 pt; bold width, 2.0 pt; line width, 0.6 pt; margin width 1.6 pt; hash spacing 2.5 pt. Scale 100% Atom Label settings: font, Arial; size, 8 pt.

Assign all chemical compounds a bold, Arabic numeral in the order in which the compounds are presented in the manuscript text. Figures containing chemical structures should be submitted in a size appropriate for incorporation into the manuscript.

Legibility

Figures must be legible. Check the following:

- The smallest visible text is no less than 8 points in height, when viewed at actual size.
- Solid lines are not broken up.
- Image areas are not pixilated or stair stepped.
- Text is legible and of high quality.
- Any lines in the graphic are no smaller than 2 points width.

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