

Experiences of stressful situations and mindfulness training for persons with visual impairment

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journals.sagepub.com/home/jvi**May Britt Frøysa Lyngroth** 

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Abstract

The aim of this study was to explore what persons with visual impairment (VI) experienced as stressful in their daily lives and their experiences with using mindfulness training (MT) to cope with stressful situations. In order to explore this we conducted semi-structured interviews with six persons with VI after finishing an 8-week MT course. Systematic text condensation was used to analyze the interviews. This qualitative study found that the participants described three main areas of stress: (1) lack of access to information, (2) social expectations, and (3) navigating the body through one's surroundings. The participants' experiences with using MT to cope with stressful situations resulted in emotion-based and problem-based strategies: (1) breathing anchor, (2) awareness of and reflection upon thoughts and feelings, (3) most things are doable, (4) tackling the situation in a new way, and (5) haste makes waste. Our respondents described using MT for coping with stressful situations in all the three main areas of stress. Based upon this study we propose that there is good reason to offer MT as stress management for persons with VI, but further study is required to confirm the health-promoting benefits of MT for this group.

Keywords

Coping, health promotion, mindfulness training, stress, stress-management, visual impairment

Introduction

When asked whether persons with visual impairment (VI) are more prone to experience stress than others, one respondent replied:

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I think, we often find ourselves in a situation where we lack an overview: Where am I? What is happening? How am I supposed to behave or respond in this situation? We lack a lot of basic information that a person with normal sight easily can get to help him analyze the situation. Therefore, you need more time to figure out all this information on your own, or you have to ask someone for help, and this can cause stress if you don't have enough time. You are not in command of the situation, you get insecure, and then easily stressed.

Persons with VI face the challenges of accomplishing daily activities without, or only partially, relying upon vision. It is therefore not surprising that stress is a major issue for persons with VI, both congenital and acquired (Bittner et al., 2010; Brennan et al., 2001; Lee & Brennan, 2006; Nyman et al., 2012; Scott et al., 2001). To experience vision loss can by itself be a great source of stress (Brunes & Heir, 2020; Garcia et al., 2017; Senra et al., 2015). VI is defined as significant loss of vision that cannot be corrected to normal vision by glasses or treatment (World Health Organization [WHO], 1992).

We shall follow Lazarus and Folkman's transactional definition of stress as experiencing one's circumstances as threatening and one's capacities to cope as insufficient (Lazarus & Folkman, 1984, p. 21). Following Antonovsky's salutogenetic model, managing stressors can lead to health promotion, moving us toward the salutogenetic pole of the health ("the ease/dis-ease") continuum (Antonovsky, 1985, p. 57). Conversely, stressors that are not managed well can move us toward the pathogenetic pole on the health continuum (Antonovsky, 1985, p. 96).

Mindfulness is, as defined by Kabat-Zinn (2005, pp. 145–146), "the awareness that emerges through paying attention in a particular way: on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment." Cultivating attitudes such as loving kindness, curiosity, and acceptance are ways of practicing nonjudgmental awareness of the moment as it is happening (Kabat-Zinn, 2004, p. 24; Siegel, 2007). Acceptance is simply to recognize and allow things to be as they are right now, independently of whether you like it (Roemer & Orsillo, 2009, p. 115). According to Kabat-Zinn (2004, p. 56), paying attention to the breathing itself helps calm down the body and mind. Kabat-Zinn (2004) developed an 8-week mindfulness-based stress reduction program (MBSR) consisting of weekly 2.5-hr meetings where one practices awareness and acceptance of the present moment, including thoughts and feelings, for instance, by mindfulness of the breath, body scanning, yoga, and mindful walking plus one day silent retreat.

Empirical research shows that mindfulness training (MT) reduces stress (Davidson et al., 2003; Grossman et al., 2004; Vibe et al., 2017). MT has been found to improve emotion regulation by reducing negative emotion (Keng et al., 2021), by increasing positive emotion (Garland et al., 2011), and via self-compassion (Robins et al., 2012). Self-compassion is to meet one's own inadequacies with kindness and non-judgment (Neff & Dahm, 2015). Self-compassion is practiced in MT by meeting present experience with curiosity, openness, accept, and love (Siegel, 2007, p. 15). It has also been proposed that MT improves emotion regulation via reappraisal (Garland et al., 2009). In addition to emotion-based coping (by emotion regulation), MT has also been found to contribute to problem-focused coping (De la Fuente et al., 2018; Halland et al., 2015).

Meta-analyses of MBSR interventions have shown beneficial effects on coping in a broad specter of health conditions, such as pain, cancer, heart disease, musculoskeletal disorders, depression, and anxiety (Grossman et al., 2004; Hofmann et al., 2010; Vibe et al., 2017). We assumed that MT would be beneficial for persons with VI as well.

To our knowledge, there are only a few studies that have investigated mindfulness in relation to VI (Jeter et al., 2012; Marquès-Brocksopp, 2014). Jeter et al. (2012) conducted a feasibility study on the use of Ashtanga-based yoga therapy (AYT) as a stress-reducing tool in persons with VI. AYT is explained as "movement with the breath" and "combines all elements of a mindfulness

practice through breath, postures and movement” (Jeter et al., 2012, p. 19). The study showed improved levels of stress, anxiety, and depression for the first cohort, and improved awareness, balance, and respiration rate for the second cohort (Jeter et al., 2012). The study, however, is limited to yoga and neither explores the participants’ experiences nor how they used mindfulness to cope with stress in their daily lives.

Another study investigated mindfulness in relation to spiritual health (Marquès-Brocksopp, 2014). The author interviewed eight persons with VI, who regularly practiced mindfulness to explore “the utility of mindfulness as a form of spiritual support for blind and partially sighted individuals” (Marquès-Brocksopp, 2014, p. 109). The participants described that MT had improved their spiritual, emotional, social, and physical well-being. The participants described that MT had empowered them to cope with difficult situations, by increased hope and optimism, and that increased awareness of reactions had reduced their physical symptoms of stress (Marquès-Brocksopp, 2014, p. 114). However, the study did not explore how MT can be deliberately used as a strategy for persons with VI to cope with stressful situations.

There is a substantive amount of research that shows that transportation, stigma, reading written information, and various activities of daily living are sources of stress for persons with VI (Bittner et al., 2010; Brennan et al., 2001; Crudden et al., 2017; Lee & Brennan, 2006; Nyman et al., 2012; Saur et al., 2017). With the exception of Crudden et al.’s (2017) detailed investigation into how persons with VI experience transportation-related stress, we have not found the existing literature equally informative as to how other activities are experienced as stressful.

The aim for this qualitative study was to explore what persons with VI experienced as stressful situations in their daily lives and their experiences of using MT to cope with stress. The motivation was to empower persons with VI to “increase control over, and to improve their health” described as the process of health promotion (WHO, 1986).

Method

The MT course

We developed an 8-week MT course based upon MBSR (Kabat-Zinn, 2004). The course consisted of weekly 2-hr meetings where we practiced mindfulness of the breath, body scanning, yoga, mindful walking, and “SOAL” (Stop, Observe, Accept, Let go; Kroese, 2005, p. 172). Each week we focused on a particular theme related to stress and MT, such as awareness of the breath in situations of daily living. The participants received weekly homework assignments related to these themes and shared their experiences with the group. The respondents received a CD developed by Dr Andries Kroese with various MT exercises and were encouraged to practice daily.

Participants, procedure, and ethical issues

The MT course was announced in magazines published by The Norwegian Association of the Blind and Partially Sighted (NABP). Nine persons attended the course, which was led by the authors of this article, who are both certified MT instructors. After the course, an invitation letter explaining the aim and the details of the study and a consent form were sent to all the participants by the NABP. The voluntariness of attending and the possibility for withdrawing from the study at any time was underlined. Six persons consented to participate in the study.

The individual interviews were carried out by the first author in the participants’ home, 2–3 months after the course. Each interview lasted about 1 hr, was audio-recorded, and transcribed verbatim. The interviews were conducted in Norwegian, and all the quotes reported in this article

were translated to English by the authors. The respondents' anonymity was assured in writing by leaving out highly identifying features such as age, employment, and duration of VI.

All six participants were women, aged 39–90 years old. They had different types of VI and the elapsed time from when participants were first diagnosed ranged from 1 to 38 years. Two persons were retired, two were working part-time, and two were medically retired following their diagnosis.

The Norwegian Social Science Data Services (NSD) approved the study (reference number 25848/3/MAB). The Regional Committees for Medical and Health Research Ethics (REC) considered that a formal application was not applicable.

Data analyses

Systematic text condensation (STC) (Malterud, 2008) was used to analyze the material, through the following four stages: (1) the interview transcripts were read to establish an overview of the data. When finished, a short summary with preliminary themes was written for each interview; (2) preliminary themes were sorted into code groups and meaning units were identified; (3) the code groups were further sorted into subgroups focusing on different aspects. An artificial quotation was made for each code group, where the original expressions used by the participants were maintained as far as possible; and (4) the artificial quotations from each code group were summarized to a content description and illustrated by relevant quotations. Inspired by interpretative phenomenological analysis (IPA), we have sometimes incorporated several quotations for each code group in the presentation of the findings (Smith et al., 2009, p. 110).

Results

Stressful situations

Lack of access to information. Several of the respondents reported stress in relation to public transportation such as the buss, tram, metro, airplanes, or going to places such as the pharmacy or the post office. The challenges were related to, for example, registering which train was entering the station, or to be able to see which number is next in line at the pharmacy or the post office. The participants expressed frustration over not receiving sufficient verbal information over speakers at such places:

A number comes up, but I can't see it, I am able, using a lamp and a magnifying glass, to see my own number, that is good, but it doesn't help when I can't connect it with the number on the display . . . and not a shit is announcing the numbers.

Several of the respondents underlined that VI requires a lot of concentration and the ability to remember several things, since one is, for example, unable to read one's own to-do list.

Social expectations. The feeling of being watched was described as unpleasant and thoughts about what other people were thinking was described as stressful. One participant described the source of her stress as the feeling of not being good enough. Some of the respondents reported that they were stressed by their perceptions of frustrating other people because they took too long to get on the train, to pay the cashier in the store, and such:

I think the circumstances can be very stressful when you are visually impaired because things take more time, getting on the train, paying in the cashier, passing through a narrow door . . ., you feel as if people are pushing and thinking: F . . . can't she hurry up?

Hah. . . I feel that my breath shortens just thinking about a full buss, I am of course afraid that something will happen to the dog – that she will be stepped on and that someone will be annoyed that she is there, oh, I work so hard on this. I have to be allowed to take up the space I take, right?

Navigating the body through one's surroundings. Fear of falling when walking down steep stairs, on the ice, or in rugged terrain was mentioned by three of the respondents. Most of the participants described that having to be somewhere at a particular time, such as public transportation or appointments, was stressful. Several of the participants mentioned difficulties in getting on and off transportation in time before the doors closed. One person consequently avoided the metro and the tram for this reason, while others still used public transportation despite unfortunate experiences:

If I have found the right seat [on the buss] and have placed the [guide] dog under the seat so that I know that no one will step on her, then much is accomplished.

All the respondents described “time” as a common factor for all their stress experiences. Despite being of central importance, time was therefore not coded as a group. Thoughts about how one would be able to cope with stressful situations worried several of the respondents prior to the actual situation and prolonged the stress.

You can get so worried in advance [. . .] you make such scenarios, right? And then you already start to fling, make it difficult for yourself.

Coping with stressful situations

Breathing anchor. The respondents highlighted the breathing anchor or awareness of the breath as the most important tool they had learned at the MT course, both in preparation of and in coping with stressful situations. They described the breathing anchor as enabling them to think more clearly, lower their shoulders, calm the body, and maintain control. One person described it as her daily medicine. Several of the respondents had previous experience with breathing exercises from practices like meditation, yoga, Lightning Process, and Mensendieck. These respondents experienced the MT course as an important reminder and they expressed that they were more often aware of the breath after the course. The breathing anchor was described by some of the respondents as giving them more control or power over their breathing. The breathing anchor was used when expecting something unpleasant to happen, such as a dreaded phone call or when they were afraid of falling:

. . . when I am standing in front of a steep staircase that is a bit grueling to descend, [. . .], then before I take the first step, I get a “whoaa,” a sort of fear, am I going to fall now, or? Will this be ok? Then I think to myself: Breath now! [laughter] and then it usually works out fine.

To gain power over your breathing, it means everything actually, – so that some oxygen can enter the head so that one can think clearly anyways, you know.

Awareness of and reflection upon thoughts and feelings. Several of the respondents described that they had become more aware of the thoughts and feelings that would emerge in stressful situations. To some, anger was the most prominent feeling, for others anxiety, or the feeling and thought of others' irritation, observation, and judgment. They described actively working to cope with these thoughts and feelings by seeing them as just thoughts and feelings:

Concerning the subway situation: I stand there on the platform and get so damn furious [. . .] I can feel in my body that I am angry . . . , but if I then take a big breath and come to myself, then I should have time to think about it, what am I doing now? [. . .] why do I stand here and feel so furious . . . what can I do about it? . . . and is it really so damn important? . . . I always get help anyways.

One respondent described that if she managed to stay calm and “not give a damn” about what others might think, a feeling of relief flowed through her:

Then I feel that oh, now I can release my breath all the way down to my belly, no one is going to quality control me, but who does that anyway? I mean, it’s just a feeling, right?

Another respondent was relieved that she had finally been able to “let go of thoughts and feelings” that had plagued her for decades. However, she also became aware of difficult issues she thought she had let go earlier. Another respondent was frustrated that she failed to control her frustration by using mindfulness in stressful situations, but she thought that she got rid of negative thoughts and feelings faster:

It may well be that when a situation is over that I do not dwell on it as much anymore, because earlier it darkened for hours and I would swear and curse and think: why? [. . .] It is this powerlessness. [. . .] The fact that I try, with my poor ability, to use this technique as often as I can – I think this makes it pass faster . . . I still get angry in the situation, but I get over it when I have found my seat on the tram. It’s about becoming aware, what am I doing?

Most things are doable. Despite frequent thoughts like “Am I able to do this?” some of the respondents considered themselves stubborn and as persons who did not easily give up. Although they might be annoyed by the surroundings because they experienced that they were not sufficiently taken into account, all respondents had several positive experiences of getting support and understanding from people around them:

What I need to work on is to think that “This has turned out well so many times,” and to hold on to the good feeling you had then, to bring it back and to embody it and it will make you stronger.

And when you notice that most things are doable, you realize that there are not many situations, really, that you cannot deal with.

If I don’t find my seat in the opera, then there are lots of people who can point and . . . the certainty that this will work out well.

Tackling the situation in a new way. The respondents described altering the ways in which they approached stressful situations by preparing ahead of time, practically or mentally or behaving differently in the situation. Some of the participants described that they mentally prepared themselves in front of potential stressful situations by calming down and trying to meet the situation with an attitude of being nice and not so strict. They also reported responding to stressful situations in a direction of being more tolerant, flexible, and less harsh and sometimes keep quiet when that was experienced as useful:

I have become more round around the edges . . . I think twice before I speak.

One respondent described how she handled walking on ice in a new way by adjusting her body posture and taking on a different mental attitude:

I try to straighten up, not lean forward as I often do when I get scared or stressed. Then I try to breathe, relax, because simply; then it is much easier to take one step at a time. I have gained some freedom from being anxious, and from tightening the muscles as if that could help me not to fall on the ice. So, frankly, I've got a little sense of freedom in that situation.

At the MT course we talked about making ourselves mindful reminders that would help us remember to be present during the day. For this person, a rubber band functioned as a mindful reminder:

It seems to me that I am forgetting less. So I have put a rubber band on the door handle on the inside of the door and then when I touch that rubber band, it is a reminder that "you are now about to exit, be present and think through: is there anything I should be remembering to bring with me now?," Because it's things like these that are more difficult when you don't see; because you can prepare stuff ready to go, but then you can still leave it behind because you haven't seen it . . .

Haste makes waste. Several participants were already aware of the necessity of allowing enough time when you have to be somewhere at a specific time and in situations that require concentration, and some reported using this coping strategy more deliberately after the MT course. Some of the respondents worked on accepting and permitting themselves to take more time due to the VI. Shopping in a store was mentioned as stressful for several of the respondents and one of the respondents described how taking her time to concentrate helped her while at the cashier:

I then try to think about breathing calmly, and to instantly slow down, I mean to not hurry and press the pin code, but rather wait until I am certain that I can press the pin code, and rather ask "Can I press the pin code now?" Because then I know it will work the first time, whereas if you hurry and press the pin code immediately and then it wasn't ready, given that I can't see if it's ready. So, this is a method I now use to avoid that stress.

One person pointed out that slowing down had relevance for her vision:

If I then allow enough time, to not rush myself . . . , cause that's the killer; cause then it's just as if my sight also gets worse . . .

Several of the respondents described that they deliberately sought to be present in the moment and to concentrate on what they were doing at the time. Some respondents said that this helped them remember things; others said that it helped them maintain balance. One respondent pointed out that she had always been good at being present; another person mentioned that maybe persons with VI already were more present because they had to compensate for the vision loss. One respondent experienced that even though she concentrated on what she was doing, she had also become more aware of her surroundings, which she described as giving her more space. On being asked whether her ability to be present had improved after the MT course, one respondent answered:

Yes, because now I deliberately concentrate, it's not as if I think "finish this now so that you can do something else afterwards." Rather, I concentrate on what I am doing, I am present in the situation [. . .] It is also important to me with my poor balance that I think about: "Now you are doing this, and now you are standing here."

Other respondents had similar experiences that they had become more aware when they turned off the coffee maker, the stove, or when locking the door.

Discussion

Coping by addressing one's response to the stressful situation is known as emotion-based coping. We understand Strategies 1–3, (The breathing anchor, Awareness of and reflection upon thoughts and feelings, and Most things are doable) as emotion-based coping (Lazarus & Folkman, 1984). We understand Strategies 4 and 5 (Haste makes waste and Tackling the situation in a new way) as problem-focused coping strategies, which aim to alter the stressful situation itself (Lazarus & Folkman, 1984).

The three main areas of stress we found were lack of access to information, social expectations, and navigating the body through one's surroundings are well known from the literature (Bittner et al., 2010; Brennan et al., 2001; Crudden et al., 2017; Lee & Brennan, 2006; Nyman et al., 2012; Saur et al., 2017). Our findings indicate that the respondents describe using MT to cope with all three areas of stress.

For example, to cope with stress related to navigating the body through one's surroundings, one respondent described becoming aware that her tense muscles were counterproductive to walking on ice. This enabled her to change her bodily posture and her attitude, thereby tackling the situation in a new way (Strategy 4). Marquès-Brocksopp (2014, p. 114) also found that mindfulness improved mobility and balance by increasing awareness of the body.

To cope stress related to lack of information regarding finding her seat at the opera, one respondent described trusting herself and others that it would work out (Strategy 3, Most things are doable). Another respondent described using the Breathing anchor (Strategy 1), to cope with her anger over lack of information at the train station.

Some of the respondents described using MT to cope with social expectations. Awareness and reflection upon thoughts and feelings (Strategy 2) was used to cope with perceived negative attitudes from others. One respondent questioned the truth of her thoughts, saying "who does that anyway?," and realized that her assumption that other people were criticizing her might not be true. By reappraising her thoughts and feelings, she realized that "it's just a feeling, isn't it?." This is in line with the hypothesis that MT improves emotion regulation by reappraisal (Garland et al., 2009).

One respondent described that rather than hurrying at the cashier in order not to create a queue, which was described as a source of stress, she deliberately slowed down and asked for help (Strategy 5, Haste makes waste). In this case she used Strategy 5, Haste Makes Waste, to cope with social expectations. Some persons with VI feel embarrassed to ask for help (Nyman et al., 2012, p. 975; Saur et al., 2017), and women in particular (Lee & Brennan, 2002, p. 404; Ramm, 2010).

We suggest that one way MT may contribute to problem-focused coping, such as asking for help or slowing down, is by cultivating acceptance and self-compassion. One respondent described working hard on accepting that she and her dog needed room on a crowded bus, saying "I must be allowed to take the space I take, right?" In this case and in the case at the cashier, there seems to be a shift from taking on a negative evaluation of oneself as being too slow or burdensome to others, to acceptance of one's VI and one's need to take more time. Acceptance of one's VI has been found to be important for coping (Nyman et al., 2012; Senra et al., 2015; Smith, 2008). Marques-Brocksopp (2014, p. 115) showed that MT can contribute to acceptance of VI. That the attitude of self-compassion can function as a buffer against perceived negative attitudes from others is supported by Neff and Dahm (2015).

The Breathing anchor, (Strategy 1) was mentioned under different strategies. We understand this as expressing that the breathing anchor was often the first step in a process of coping. The

respondents described that by paying attention to the breath they were able to think clearly and lower their shoulders and calm down, which indicates a lowering of the stress response, in line with the findings of Jeter et al. (2012) and Marques-Brocksopp (2014).

One might object that some of these strategies are common among persons with VI independently of MT. Our findings illuminated that several of the respondents were already aware of the importance of taking one's time (Strategy 5, Haste Makes Waste). Bittner et al. (2010) also found that doing things slowly was one of the main strategies for coping with stress reported by persons with Retinitis Pigmentosa. Lee and Brennan (2006) found that the coping strategies persons with VI use partly depend upon the personality. Since several of the respondents described themselves as persons who do not give up, one might maintain that Strategy 3, (Most things are doable) reveals a character trait. Persons with VI who sign up for coping-courses have to some extent accepted their VI and need of help (Nyman et al., 2012, p. 977). One might therefore object that our respondents had already to some extent accepted their VI. One might also object that Jeter et al. found no significant change in acceptance before and after an AYT course. This, however, can be because acceptance was not, as suggested by Jeter et al. (2012), a component of their course.

Conclusion

The aim of this study was to explore what six persons with VI experienced as stressful in their daily lives and their experiences of using MT to cope with stressful situations. Our respondents described using MT in five different strategies, both emotion-based and problem-based, for coping with stressful situations in all the three main areas of stress. Our findings suggest that MT was health enhancing for the participants in these situations.

Practical implications

Based upon this study we propose that there is good reason to offer MT as stress management for persons with VI, but further study is required to confirm the benefits of MT for this group.

Strengths and limitations

The authors' role as both researchers and group facilitators can be considered a strength in the respect that the respondents might have shared their experiences more freely and it can be considered as a weakness with respect to critical distance.

We have presented MT in an exclusively positive light. However, by becoming aware of thoughts and feelings one might also make painful discoveries (Schlosser et al., 2019). Recent findings suggest that MT may have negative side effects such as depression and anxiety (Farias et al., 2020).

Our focus has been upon individual coping with stress, however, we want to emphasize that healthy public policy is equally important for health promotion (Tones & Green, 2004). Universal design is of crucial importance to reduce the stress that persons with VI experience and enable equal participation in society (Lid, 2016; Saur et al., 2017).

Authors' note

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Supplemental material

Supplemental material for this article is available online.

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