J Child Fam Stud (2015) 24:1322–1333
DOI 10.1007/s10826-014-9939-y

ORIGINAL PAPER

Mindfulness Meditation Training for Graduate Students in Educational Counseling and Special Education: A Qualitative Analysis

Ricardo Tarrasch

Published online: 9 March 2014

Abstract Students of teaching and counseling training programs are exposed to relatively high levels of stress during their studies, and later during their work. They are expected to help their pupils deal with stress and frustration; however, few professional development programs specifically address this issue in their curricula. I developed a two-semester training course to provide theories and research on mindfulness meditation, training of self-application techniques, and instruction in fieldwork teaching of these techniques to children. Over the academic year, students completed weekly journals. Qualitative analysis of students' journal summaries yielded three core themes related to students' mindfulness training: process, experiences, and outcomes. Most students lacked previous experience in meditation and reported difficulties as the process began. Changes in experiences emerged, sometimes following a turning point, together with a change in the relationship to thoughts, accepting them in a more compassionate manner. Outcomes included a better awareness of thoughts, feelings, and behaviors, a perceived reduction in stress, and a better sleep quality. The study suggests that mindfulness practices can be successfully introduced into traditional academic settings and integrated as part of preservice course curricula to enhance professionals' personal mental health and their ability to transmit the benefits of meditation to their pupils.

R. Tarrasch (✉)
Jaime and Joan Constantiner School of Education and Sagol School of Neuroscience, Tel Aviv University,
6997801 Ramat Aviv, Tel Aviv, Israel
e-mail: ricardo@tau.ac.il

Keywords Mindfulness · Meditation · Self-help · Stress prevention and control · Therapist training · Qualitative research

Introduction

Many different meditation practices exist, which are commonly classified into two basic types: concentrative meditation and mindfulness meditation. Concentration practices focus on a specific object of attention such as an image, a word (usually called mantra) or an emotion (Birnbaum and Birnbaum 2004). When the mind wanders away from the focus of meditation, attention is redirected back to the focal point. By contrast, mindfulness meditation does not restrict attention to a single object/event. Instead, awareness follows thoughts, feelings and sensations as they arise, flowing freely from one to another. Teasdale et al. (1995) described the nature of this state as "being fully present at the moment, without judging or evaluating it, without reflecting back on memories of the past, without looking ahead to anticipate the future … and without trying to solve problems or otherwise prevent the unpleasant aspects of the current situation". Non-judgmental acceptance refers to the ability to refrain from turning away from unpleasant experiences, maintaining an open, compassionate attitude and the willingness to let things be just as they are (Germer 2005). The person is instructed to be aware of any mental content, including thoughts, imagery, physical sensations, or feelings as they occur in consciousness on a moment-to-moment basis along with non-judgmental acceptance of it (Bishop et al. 2004; Kabat-Zinn 1990, 1994). Psychologically oriented scholars describe mindfulness as an intention-based process, emphasizing an observant and nonreactive stance

toward one's thoughts, emotions, and body states. Indeed, perhaps the most significant outcome of mindfulness meditation is the capacity to adopt an "observing self".

Among the modern versions of mindfulness, mindfulness based stress reduction (MBSR) has played a key role in fostering the introduction of mindfulness practice to the fields of psychology and medicine (Rapgay and Bystrisky 2009). MBSR involves experiential learning via silent periods of sitting meditation, walking meditation, or purposeful attending to daily activities (for example, mindful eating) (Kabat-Zinn 1990, 2005).

The use of mindfulness meditation as a tool for improving physical and mental health, in a secular context detached from spiritual beliefs, has increased significantly during the last two decades. The number of studies of mindfulness has grown exponentially since the 1980s, and dozens of reviews have been written (e.g., Arias et al. 2006; Grossman et al. 2004; Praissman 2008). Mindfulness practice has been reported to reduce emotional distress (Jain et al. 2007), anxiety and depression (Hofmann et al. 2010; Toneatto and Nguyen 2007), maladaptive behavior (Singh et al. 2007), and chronic pain (Kabat-Zinn et al. 1985), as well as improve social competence (Schonert-Reichl and Lawlor 2010), cognitive abilities (Chambers et al. 2007), and attention (Baijal et al. 2011; Semple 2010). In 2003, based on empirical literature, mindfulness training was proposed to be classified as a clinical intervention (Baer 2003).

Despite its proven potential, until recently there have been relatively few attempts to introduce mindfulness into higher education curricula (Bush 2011; Chrisman et al. 2009; Miller and Nozawa 2002; Napoli 2004). Lately, this trend has begun to change due to organizations like the Association for Contemplative Mind in Higher Education, and programs for educators like Cultivating Awareness and Resilience in Education (Jennings et al. 2011) and Stress Management and Resiliency Training (Sood et al. 2011), aimed at building educators' mindfulness, job satisfaction, empathy for students, and efficacy in regulating emotions. Such efforts promote the emergence of a culture of contemplation in the academy by connecting a network of leading institutions and academics committed to the recovery and development of the contemplative dimension of teaching, learning and knowing. The integration of mindfulness into academic curricula is especially interesting in the case of students in clinical and education-related fields, considering its twofold potential for such students. First, university students may practice mindfulness skills to improve their own coping with stressful personal states, possibly caused by their intense clinical or educational work (Shapiro et al. 2000, 2008a, b). Second, these students may learn to offer mindfulness techniques as part of their teaching or therapy to help pupils or clients who face difficulties such as anxiety, social incompetence, attention disorders, and so forth, for which mindfulness has shown positive contributions (Haydicky et al. 2012; Hofmann et al. 2010).

Interestingly, although counseling training programs often emphasize the importance of self-help strategies to prevent negative effects of stress and burnout, the demands of the academic curricula leave little room for direct instruction of such strategies. Acquisition of self-help strategies is typically presented to students as an individual responsibility to be met outside the curriculum. The present study describes an attempt to introduce mindfulness training directly into the curriculum in a form of a practicum course offered for special education and educational counseling students.

The course's ingredients were based on published recommendations (e.g., Crane et al. 2010) and on my experience of over 25 years of practicing meditation and 8 years of teaching and researching its effects. These ingredients included: development of students' understanding of the aims of the various elements of the program; development of students' understanding of the rationales underpinning the use of mindfulness, both generally and with defined populations; opportunities for students to reflect on the personal and wider implications of the insights that emerged through their personal mindfulness practice; and opportunities to practice teaching skills and receive structured feedback on teaching experiences.

The study research hypothesis was that students' journal summaries would reveal both their personal experiences during the practice of mindfulness and their experience while teaching mindfulness to children as factors that: enriched their personal experience, improved their personal quality of life, improved their coping with conflict and anxiety, allowed them to feel calmer and more centered, enhanced their skills for developing and implementing curricula, and increased their belief in the positive effects of meditation.

Method

Participants

The participants were enrollees in a two-semester practicum course entitled "Meditation: Theory, Research, and Practice" for master's students in special education and educational counseling at Tel Aviv University's School of Education. The course was opened for enrollment in the second week of the semester, after most students had already registered to other practicum courses. Most of the enrollees in this course had not been able to fit into any of the other available practicum courses for administrative

reasons and therefore were required to enroll in this one. This opportunistic sample consisted of 9 educational counseling and 10 special education students. All the students were females, aged between 25 and 41 ($M = 30.4$ years, $SD = 4.02$). Most of the students (79 %) did not have any past experience in the field of meditation. All 19 students gave consent to the course instructor to analyze their final summaries of their weekly journals for research purposes.

The Course Curriculum

First Semester

During the first semester (13 lessons, 1.5 h each), each lesson began with a 10-min discourse about students' experiences from the previous week: their difficulties, achievements, and questions about the techniques/process. Then, for 60 min, students were exposed to the theoretical basis and beneficial effects of meditational practice among adults and children via readings and discussions of empirical studies in the field, and learned methodologies needed for understanding the assessment of various effects of meditation (e.g. functional magnetic resonance imaging and electrophysiology). During the last 20 min of each lesson, students learned and practiced one or two mindfulness exercises. These techniques aimed at enhancing students' observation of their thoughts, emotions, bodily experiences, and reactions to challenging situations in a non-judgmental manner and, as a byproduct, to enhance their attention and their ability to teach the techniques to their pupils/clients. The techniques included: focusing on the sensations of the breath from the nostrils to the abdomen and back, noticing and focusing on any sensations that arise in the body simply acknowledging them, or non-judgmentally witnessing thoughts that automatically arrive, trying to merely label them and then to return the attention back to their breathing (Wallace 2006) (3 weeks); counting breaths from 1 to 10 while noticing sensations and thoughts as above (2 weeks); performing body scan by first focusing attention on the breath and then on each part of the body, methodically thinking about each body part, observing their sensations and their physical aspects and if pain or unpleasant sensations are felt, trying to describe them as objectively as possible and then intentionally relaxing each body part (3 weeks); mindful raisin/piece of fruit-eating where participants are instructed to smell, hear, and eat the raisin/fruit deliberately and open-heartedly (based on Kabat-Zinn 2006), and be nonjudgmental and fully aware, with all senses, of different aspects of the raisin/fruit (1 week); walking meditation, which is mindful slow walking noticing the lifting, moving and placing of each leg over the ground, with focused attention on body sensations and/or breathing (1 week); basic yoga positions (2 weeks) and imagining one's own (according to personal preferences) safe peaceful place, vividly visualizing it and paying attention to all its details while feeling happy, healthy, strong, and safe, followed by attempting to invite or open up to inner guidance (or wisdom) (2 weeks).

Students were asked to practice these techniques daily at home over both semesters for 5–20 min a day as course requirements. Although students were encouraged to practice, they were not penalized for not practicing. At the beginning of the year, students were asked to enter weekly notes into a journal, in order to express their experiences and provide feedback about their weekly training. They were informed that they would need to submit a summary of their weekly journal entries at the end of the year to receive course credit, but it would not be graded for content.

Upon the end of the first semester, in preparation for the teaching practicum in the second semester, a 6-hr. mini-retreat was held at the university, where students practiced all studied techniques, with an emphasis on their adaptation to work with children. The last lesson of the first semester was devoted solely to practicing the child-adapted version of the techniques to be practiced with children during the second semester.

Second Semester

During the second semester, students performed their practical fieldwork by teaching meditation to small groups (3–4) of 10–11 year old children in a public elementary school for eight weekly sessions (45 min each). The graduate students and I arrived each week to the school, where they were split into small training groups, practicing independently at isolated places in the school. I visited the different groups and helped whenever needed. At the end of each session, we held a joint discussion to comment on the experiences of the day, evaluate difficulties and gains, and give and receive feedback.

In their first session, children were asked to keep a diary and record personal practice at home. Personal practice at home was encouraged by giving children clear instructions including printed materials, sending weekly emails to the parents explaining the exercises practiced in each session, meeting and practicing with the parents at the beginning of the process and separately with the school teachers, encouraging them to practice with children at home and in the classroom.

Each session with the children included the practice of three different meditation exercises based on mindfulness principles. The exercises included mindful eating (with specially cut fruits); walking meditation; listening to the here and now which is a deliberate and full observation of

the sense inputs in the present moment, including elements such as the chair the child is sitting on, the room he/she is in, the time of day, smells and sounds; basic yoga (the sun salutation); breathing awareness (such as counting breaths); imagining one's own safe peaceful place, and bubble meditation, where each thought that arrives enters a bubble, rises up, and disappears when the bubble bursts, and then the child curiously waits for the next thought. Exercises aimed to raise children's awareness of their feelings, thoughts, and body. After each exercise, children shared their experiences and feelings. Each meeting opened up with a brief conversation about the previous meeting and about practice at home.

Instructions for Journal Management

Students were asked to report when and why they did or did not practice meditation during the past week. They were encouraged to write what helped them to practice or what obstacles they encountered, and describe and reflect upon each week's contemplative experience, and the insights gained from observing their thoughts, including both positive and negative experiences and insights. In addition, they were asked to reflect on changes experienced in daily life, as well as on the possible effects they felt it had on their personal lives and (in the second semester) during their practice with children. Instructions for writing the summary (4–5 pages long) were to try to be as faithful to the original entries as possible, without exposing personal information that students did not feel comfortable sharing with the instructor. In addition, students were required to present a report about the effects of mindfulness practice on the children they taught.

Data Analysis

The texts of the journal summaries were analyzed through a thematic analysis grounded in a social constructionist framework (Denzin and Lincoln 1994). Braun and Clarke (2006) described thematic analysis as a method for identifying, analyzing, and reporting patterns (themes) within data. To analyze the current journal summaries, two coders (the author and a psychology student with 10 years of experience in meditation practice) first read all the summaries at least twice each, to become familiar with the contents. As journal summaries were rather widespread in focus, we next isolated sentences in an attempt to name and classify central concepts. Each sentence could be coded for more than one theme or subcomponent. We then formed categories by grouping those coded concepts that seemed to relate to the same phenomena. As we continued grouping these identified and interrelated concepts, we sought larger general categories or recurring patterns that could depict a well-fitting, data-driven "story" of the participants' experience. General categories included the experience of meditation, effects on global well-being, obstacles to practice, and so forth. We next compared these different general categories to identify possible similarities, thereby enabling the construction of three core themes that each blended several general categories. We made extensive use of in vivo codes (Strauss 1987), drawn from the participants' own accounts in ways that attempted to summarize participants' own meanings in their own words.

Results

Students described a rich and varied range of experiences arising from their mindfulness practice. These experiences were formulated in three core themes—process, experience, and outcomes—along with their component parts, and they comprise this study's findings (see Fig. 1). These labeled final themes and components and their various aspects are nevertheless interconnected and overlapping.

Core Theme I: The Process

This core theme comprised two subcomponents: initial attitudes and challenges to the practice.

Initial Attitudes

Because of the late course opening, most of the students (79 %; $n = 15$) lacked previous experience or interest, based on self-reports in the first lesson. Accordingly, 7 (37 %) of students' journal summaries revealed initial negative notions about meditation, regarding it as something distant from their lives and even as disconcerting or expressed skepticism about the possible effects of meditation in the field of education/counseling or in their personal lives: "A few months ago I wouldn't have even agreed to practice at all" (Student 3). "Meditation is a spiritual practice for people who are entirely different from me… I viewed the whole field of meditation rather negatively" (Student 4). Student 10 expected the course to be "experiential… inherently different from the academic environment and… courses I took before … I was even a bit repelled by this world. It always seemed a bit ridiculous to me, a little detached from the essence of my life". Some of the participants (11 %; n = 2) commented that normally they would not have enrolled in such a course, but no other course fit their schedule. However, other students had more positive attitudes. Several students (37 %; $n = 7$) looked forward to the opportunity to participate in a unique experiential course: "When this practicum was announced

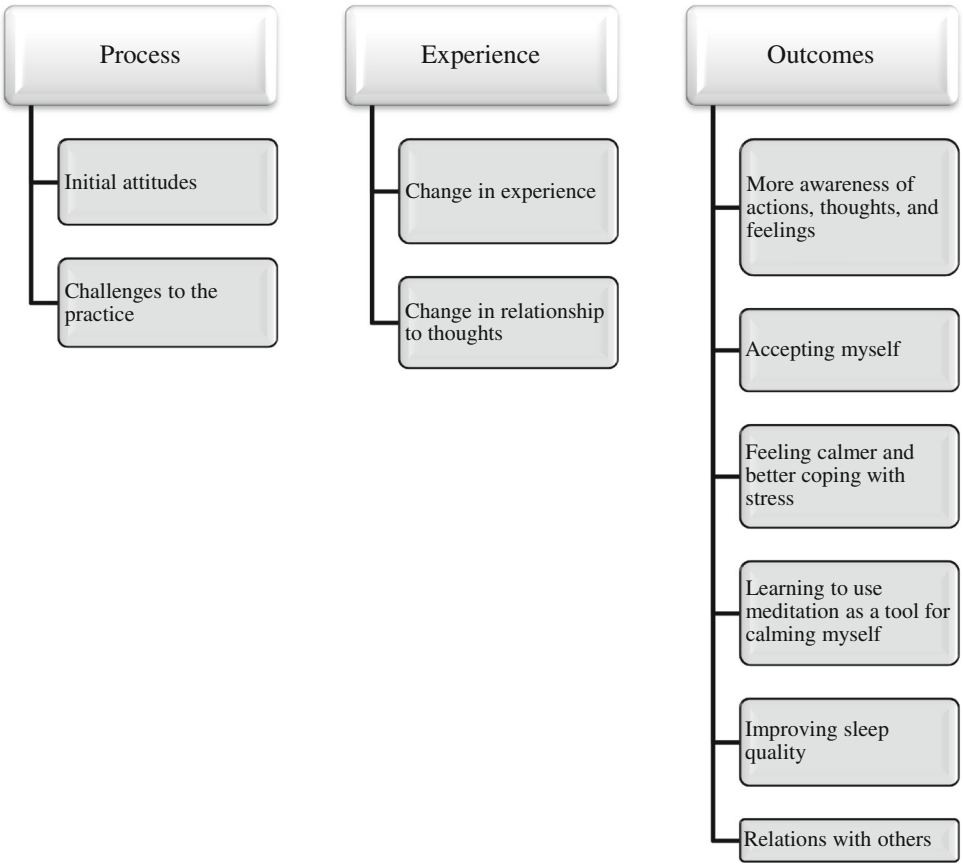

Fig. 1 Three core themes of mindfulness training and their subthemes

I immediately switched to it. I felt like studying and experiencing something a bit different" (Student 8). Seven students (37 %) revealed an initial inquisitiveness about mindfulness meditation practice: "At the beginning of the course I knew very little about meditation and was very curious… I thought I could connect to the topic with ease and would manage all of the practice assignments" (Student 15). In addition, eight students' journal summaries (42 %) expressed specific interest in meditation as a self-help and professional tool: "I was very curious with regard to meditation as a potential working tool with children and of course with myself, as a tool for personal work" (Student 2).

Challenges to the Practice

All the students shared their experiences of difficulties in the practice of the techniques taught in class. Most students (95 %; $n = 18$) described the meditation tasks as very demanding, especially during the first 2 months, requiring substantial efforts and internal resources and even leading some to regret their participation: "The first month … was very difficult for me" (Student 1); "The meditative exercises were not easy right from the start" (Student 5); "The beginning was very frustrating… The first time we practiced this meditation in class I really didn't connect to it and even stopped in the middle" (Student 10).

A common thread that appeared in most of the reports at the beginning of the process (89 %; $n = 17$) was a conflict with the daily routine: "It's very hard to practice. I try meditating in the evenings but the sounds of the house don't let me" (Student 3); "I had great difficulty in anchoring the practice into my usual daily routine, both in technical terms of time and also in terms of mental availability that would enable me to concentrate and devote myself to the practice" (Student 2); "It took me a little time until I found the time to practice alone…. It's very difficult to find the time for it" (Student 17). Student 19 summarized this internal dialogue as follows:

> The simplicity of the idea is a bit "misleading" since mindfulness is very complex and requires much study and practice in order to feel the desired change in the long term…. I couldn't practice at home…. I always found a reason or an excuse to postpone the practice until the "right moment". That experience was frustrating. I knew how to tell others how important it is, and how it contributes to our lives. I knew how to say it, but not do it myself.

Some students (37 %; $n = 7$) reported the appearance of distressing physical symptoms during their initial experiences with meditation: "I felt I was choking during practice… I felt great discomfort" (Student 15); "My leg itched and I felt an intense need to move" (Student 6).

Some students' initial negative feelings and sensations even led them to view meditation as threatening or oppressive: "At the beginning of the year there were certain times when the experience of meditation became a burden" (Student 16); "It was very difficult to persist… In class I enjoy myself, but at home it's pure misery… I can never manage longer than few minutes" (Student 3); "The meditative practice… became a constant nightmare because all the fears I had been suppressing suddenly resurfaced" (Student 19).

Core Theme II: The Experience

The second core theme that derived from the journal data depicted students' subjective experiences before, during, and following performance of the assigned tasks. This theme comprised two subcomponents: change in experience and change in relationship to thoughts.

Change in Experience

All but one of the students reported an important change in their attitude. "I don't know where exactly to put my finger… I made a decision to persevere with meditation … and slowly … it started working" (Student 1).

> Later in the year I… felt it was much easier, time-wise, to practice meditation. I felt sensations of happiness, joy, freedom, liberation, and a wish to continue…. I understood that when you continue practicing the influence of meditation grows… It takes some time before you can connect to the idea of meditation practice and what it can bring about (Student 16).

For the vast majority of students (95 %; $n = 18$) the change was very meaningful: "I started feeling a significant change, I knew there was in me a desire for change, that I could take what I learned from meditation and use it to change my daily experience" (Student 13).

> I was surprised to discover how difficult it can be to simply "sit up straight" and focus on the breath. …Suddenly I felt more connected with the breaths and the counting than with the thoughts or the sounds from the living room. In addition I felt a good physical feeling of looseness,…it was a wonderful experience (Student 12).
>
> I felt more able to deal with it [pain] than before. Acknowledging the pain, focusing on it and understanding that the pain is not all I am enabled me to accept it and keep focusing on the breath. … first the physical pain was first on my mind and later it became second or third on the list … I feel during the practice that I am more in control of the thoughts and of my focus on the breath, thoughts and pain (Student 7).
>
> Shortly before the age of 40 I found myself sick, I couldn't smile or be happy. I was numbed, emotionless. My first experience in the course was very positive. I felt a kind of pleasantness after the first practice. I suddenly experienced a type of peace that I had not known. For a few moments I could focus on my breathing and nothing else. It was an uplifting, liberating feeling. The meditative process's journey had ups and downs, satisfaction and frustration, enlightenment and new insights that deepened as time passed by. I feel that the meditative process has helped me tremendously to calm down and it happened like a charm (Student 2).

About half of the students (53 %; $n = 10$) could easily identify a specific turning point when they experienced a change in their attitude:

- One morning… I managed to sit there for a few more minutes,…suddenly I was overwhelmed by positive, pleasurable feelings… For a few minutes I was devoid of any thoughts … a feeling that was unfamiliar to me till then (Student 6).
- Suddenly I felt more connected with the breaths and the counting than with the thoughts or the sounds from the living room. I also felt a good physical feeling of looseness…. It was a wonderful experience…. I feel a significant development in my practice since the day I had that turning point…. Beyond the time of the practice itself, I feel I also benefited in day to day moments (Student 12).
- About a month after the course opened my grandfather's health began deteriorating…. I was anxious most of the time and was looking for something to hold on to…. I began connecting more to myself and to the moment. Less to what would be in the future (Student 10).

While the time required for the change varied among students, for a large proportion of participants (32 %; $n = 6$), the period of practice that elapsed until a turning point was approximately 2 months.

Change in Relationship to Thoughts

More than half of the students (58 %; $n = 11$) described initial feelings of being preoccupied by intrusive thoughts and lacking the concentration or focus necessary to

complete the meditation practice: "I noticed that certain thoughts bothered me over and over. I labeled them and tried to return the focus to my breathing, but it was very difficult. At the beginning… I was often busy with what I'd write in my journal" (Student 4). "The first practices were accompanied by inner arguing, intense criticism and being very judgmental… The thoughts in the beginning focused on… self-criticism and worries" (Student 7).

The process of meditation allowed students to attend to and better regulate their own thoughts. The beginning of practice was characterized for most participants by recurrent thoughts: "I tried over and over but very quickly the thoughts arrived…. Thoughts wouldn't stop coming" (Student 6); "My thoughts repeated themselves pretty much from one practice to the next and dealt with the same topics more or less" (Student 2). "One of the thoughts that kept repeating was do others think like me?… And then I remembered I wasn't supposed to think… but focus on breathing… and I started worrying that I may not be meditating at all!" (Student 4).

With practice, students (58 %; $n = 11$) developed an ability to disengage, from repetitive thoughts or to observe thoughts that had previously appeared threatening in a more compassionate and accepting yet detached manner. The students also described a change in how they coped with thoughts during their practice. A common thread mentioned by several students (42 %; n = 8) was the overflow of thoughts at the very beginning and the subsequent reduction in the parade of thoughts: "In the beginning, most thoughts revolved around the correctness of the practice…. With time I felt more able to control thoughts and I tried harder to focus on the breathing" (Student 18); "With time, I have managed to disengage from thoughts and mostly feel sensations" (Student 8).

- At first the thoughts were very disturbing and wouldn't leave me alone…. With time I managed to accept them more lovingly and it was easier for me to let them go…. What a relief that was. Later on I also noticed that my thoughts changed…. Thoughts that were about difficulties and misgivings became less threatening (Student 1).
- After about a month I decided to let the thoughts just pass me by and I managed to just simply observe them. Once in a while I managed to prolong the period of time in which I was "emptied" of thoughts. The effect it had on me was incredible (Student 10).
- The thought to teach myself to focus my attention on the experience of the present moment, together with an attitude of curiosity and self-acceptance was for me a new and outstanding discovery. Forgiving myself for good or negative thoughts has a great deal of freedom and this is a wonderful feeling (Student 19).
- "The concept of 'observing' my thoughts is the one I most identify with because when I observe thoughts they suddenly seem nice and harmless, even if a few seconds ago they literally strangled me" (Student 3).

Students (53 %; $n = 10$) also referred to changes in the type, quality, or nature of their thoughts: "The thoughts that came up were different than usual…. It was a lot of fun. After the meditation I felt really good, and even though I wasn't constantly focused on the breaths, thoughts were not disturbing but pleasant" (Student 5). "When I started practicing there were many thoughts regarding personal things. Today I see a certain change in the quantity and quality of things and thoughts I wrote down in my journal…. The nature of the thoughts has changed" (Student 7).

Student 16 vividly describes: "Thoughts became deeper and the techniques enabled me to go through a very deep process, thought-wise and emotionally…. I eventually reached more complex thoughts and feelings about myself". Student 19 put emphasis on the ongoing process of deepening the awareness to thoughts and the self:

> The thought of teaching myself to direct my attention to the present moment's experience, was for me a new and unusual discovery. From one practice to the next, I sense how I reach deeper and deeper levels of myself, my thoughts, and my soul…. The journey of the meditative process includes many ups and downs, feelings of satisfaction and frustration, enlightenment and new insights, which keep deepening with time.

Core Theme III: Outcomes

The third theme deriving from students' data depicted the outcomes of their mindfulness practice and teaching.

The data analysis yielded six areas of benefits: More awareness of actions, thoughts and feelings, accepting myself, feeling calmer and better coping with stress, learning to use meditation as a tool for calming myself, improving sleep quality and relations with others.

More Awareness of Actions, Thoughts, and Feelings

Students (47 %; n = 9) reported that with the practice of meditation, they became more conscious of their everyday thoughts, feelings, and behaviors: "With practice, I managed to label my thoughts more easily" (Student 4); "I've enhanced my attention and my mindfulness to things I experience in my daily life, and didn't notice that much in the past" (Student 8). "I am now far more aware of the things I do and the way that I do them" (Student 18). "A new path opened to myself following the course, a path of

feelings and sensations—where you can manage yourself differently" (Student 9).

Students also learned to express themselves better and make decisions more rationally:

> The change that was most prominent… was my ability, in important conversations with people, to express precisely all that I wanted to say… I began being very focused on the conversations, without distractions…. I also feel that decisions that I make are more correct, from a place that's mine, healthier and more rational, decisions that are based more on what's happening now and less on patterns from the past (Student 13).

Accepting Myself

Compassionate, loving acceptance of the self is another very important outcome that is related to the aforementioned ability to observe thoughts and accept them compassionately as-is, and was reported by 7 students (37 %):

- I got an important gift—I learned about a skill I desperately needed—to forgive myself for being human, and to accept myself as I am…. Meditation, I feel, is an immeasurably important skill for anyone wishing to lead a peaceful life, wishing for self-acceptance, and basic joy of living" (Student 3).
- Thoughts have become more positive. This change is expressed by my feeling of happiness from my life, acceptance of things, and openness to trying new things (Student 7).
- Practicing throughout the year has benefited me a lot, personally and emotionally, by letting me look at myself in a different way I was unaccustomed to before (Student 16).

Feeling Calmer and Better Coping with Stress

A common outcome of practice mentioned by a large number of students (53 %; $n = 10$) was a reduction in anxiety and an increase in relaxed and pleasant feelings: "I feel more relaxed and organized. My life is comparatively calmer, I feel things are more under my control" (Student 18); "If at the beginning I arrived with worries, today they're all gone!… Today I am in a far more relaxed place and I feel that I received a personal tool that is all my own" (Student 4). Interestingly, anxiety reduction was achieved also in students who reported a more anxious state before the beginning of the course, such as Student 2 who began the course "sick… couldn't smile or be happy" and who later stated that "thanks to the practice and to perseverance I reached places that are more calm and relaxed". Student 5 also described a profound change:

> The mere concentration led to a more peaceful feeling…. My romance with meditation has gone up a notch…. I simply breath, metaphorically and practically speaking. The feeling is totally different, the meditations … led me to a place of calm and inner peace that I can't describe, and it teaches me about myself over and over again, more and more each time".

Student 8 stated: "I felt that in the face of the turbulent life outside, I managed to find silence inside me. I think it helped me a great deal during that time".

Learning to Use Meditation as a Tool for Calming Myself

Students (32 %; $n = 6$) also learned to use the meditation techniques when they encountered specific needs to relax and reach calmness: "If I was in an emotional turmoil that disrupted my calm, I would choose the breathing" (Student 1); "Connecting to the pleasant place made me feel relaxed and at ease" (Student 6); "Practicing the various techniques in my daily life in a variety of situations… helps me experience a calmer life style, and has a significant influence on my peace of mind" (Student 10).

> It was a very stressful period…. I kept practicing, even though the stress I was in didn't dissolve while meditating…. At the end of the meditation, I felt much more calm and relaxed because I knew what I was going to do now.… In retrospect, I think the practices helped me tremendously in getting through the stressful period (Student 5).

Students reported utilizing different techniques to decrease stress, such as detaching from thoughts or focusing on breathing: "Dealing with these thoughts enabled me to calm down and diminish the level of stress I was in beforehand… I could get a little distance from my thoughts and not keep dealing with them" (Student 14). "I also noticed that when I was stressed, and physically uncomfortable, focusing on my breathing helped me control the stress" (Student 17).

Improving Sleep Quality

A prominent effect reported was students' significant improvement in sleep quality (37 %; $n = 7$), sometimes with the help of meditation practice and sometimes as a result of simply being more relaxed or less busy with ruminant thoughts:

- Every evening as the sun set, I used to become incredibly anxious, and couldn't sleep at night…. Then I began to exercise the breath count technique every evening, and right afterwards the pleasant place, until I felt asleep. I enabled the feelings to surface, felt them totally and then released them… Two and a half weeks later I was able to quiet down the disturbing thoughts, sleep better at night, and continue the routine of life (Student 9).
- Lately, in bed before sleep, I began focusing on my breathing and emptying my head, and it really helps me fall asleep and that in itself holds considerable benefits (Student 17).
- I feel the change in me and notice a difference in how I function and in my quality of sleep when I don't practice consistently (Student 18).
- Apart from the time of the practice itself, I felt I was benefited by the practice also in day to day moments. … I also felt an improvement in my ability to fall asleep at night (Student 12).

Relations with Others

One expected but less commonly reported benefit (26 %; n = 5) comprised students' ability to empathize with others: "I also have an enhanced ability to try and see things from the viewpoint of the person standing in front of me" (Student 18); "In my conversations, I was truly more attentive" (Student 9). Student 5 stated in a more practical way: "After going through a process myself, I expect to be able to help others go through a similar one". Student 13 described: "The practice has positively influenced my relationship with my partner". Another beneficial outcome that appeared in many reports related to the students' work with children and to the self-demands that such field work elicited. That is, the fact that students had to demand compliance and practice while working with others (children) urged them to practice more and to become more aware of their own processes. Student 1 summarized this benefit of the practicum: "Another big change occurred when I gave the workshop at school. Then I understood that I couldn't demand or ask things from others that I was incapable of demanding of myself…. With the children I went through an astonishing process… a process that moved me a great deal…. I am now in a state that is far more whole, accepting, and calm".

Discussion

Strauss and Corbin (1990) recommended conceptualizing the central phenomenon emerging from qualitative analysis as a core category that encompasses the participants' storylines. The current sample's core phenomenon may be encapsulated by the following storyline: "The crux of the findings tells the story of the process through which the participants engaged throughout the year-long mindfulness course. Within this framework, they had initial attitudes (negative and positive), had struggles and difficulties (both in finding time/appropriate conditions for practicing and in initiating and performing the practice itself), experienced turning points and changes (in attitudes towards meditation, in relationship to thoughts, in patterns and contents of thoughts) and had longer-lasting outcomes (self-awareness, clarity of thoughts, self-acceptance, coping with stress, relationships, and better sleep)".

The themes that emerged from the current texts are consistent with those revealed in major prior applications of mindfulness (Kabat-Zinn 1990; Segal et al. 2002), both giving the current data validity and indicating that people in different settings learn mindfulness through similar processes and achieve similar outcomes. For example, the current graduate students' outcomes of increased calmness and concentration, reduced anxiety, less rumination, more consciousness of their actions, thoughts, sensations, and emotions, and enhanced alertness to things they experienced in daily life, corroborated McCollum and Gehart (2010). The current students' descriptions of increased awareness and acceptance of themselves and feelings of harmony and well-being, were consistent with previous findings showing that mindfulness-based stress reduction programs can lead to an increase in self-compassion (Birnie et al. 2010; Keng et al. 2012; Shapiro et al. 2007). The current reports that students discovered that thoughts and feelings were less powerful and threatening than they seemed initially, and their improved ability to observe and accept their inner chatter, substantiated Kabat-Zinn's (1990) observations. The reports of greater awareness of peers' and partners' feelings, improved ability to see things from others' perspectives, and the overall positive influence on their relationships, are in a line with Shapiro and Izett (2008). Altogether, although individual participants did not express all core themes and subcomponents, and some participants reported more than others, the current findings indicate that the course participants indeed had improved their quality of life, their concentration ability, their ability to make decisions based more on the present and less on patterns from the past, their coping with stress and their sleep quality.

Using a very similar approach to the one in the present study, McCollum and Gehart (2010) integrated mindfulness teaching (using breathing focus, mantra, walking meditation, mindful eating, or compassion), practice at home, discussions and assigned readings into a one semester academic practicum for graduate students. McCollum and Gehart's qualitative analysis of weekly journal reflections

raised four themes: being present (attending to inner experience, aware of what happens with client and acting from awareness), effects of meditation (calmer, managing inner chatter, slowing down), shift in mode (distinction between a doing and a being mode of mind), and compassion and acceptance (toward self, toward client, and sense of shared humanity). The theme "being present" appears to coincide with the current study's core theme of "experience" and the themes "effects of meditation" and "compassion and acceptance" with "outcomes". However, graduate students in the present study related more to the process and changes they underwent. This focus on the process in the present sample is likely to be related to the fact that in the present study, students experienced meditation self-practice for a longer period of time and also taught mindfulness to children. Indeed, the current students' initial practice often brought up distressing sensations and feelings and unfamiliar awareness of their bodies or their mental or emotional states. As students gained familiarity with the practice over time, they became increasingly more able to allow thoughts to flow through their minds and to accept their emotional selves. As their instructor, I remember the anxious, bewildered questions and diverse problems posed by students during the early weeks of the course. Again and again I guided students through the complex process of acquiring a mindful approach to life and experiencing thoughts, feelings, and sensations more consciously and less judgmentally. Gradually, I witnessed the change that students experienced in attitudes and behavior over time and heard their enthusiastic reports about improvements in several life domains—which they shared in class and in personal conversations and e-mails. I also observed their work with children firsthand, sometimes intervening during their teaching to give them constructive feedback. At school, I saw these graduate students' increases in professionalism and confidence, together with the children's better compliance and more mindful approach to bodily and mental processes.

The process the students underwent is particularly striking given their initial attitudes towards meditation. Unlike most similar university courses that attract students with previous meditation experience or inexperienced students actively seeking hands-on practice, the majority of the present course enrollees were new to the world of meditation. In addition to underscoring the pervasive impact of mindfulness training, the fact that many of the participants were meditation-naïve, and even suspicious of meditation, would lend support against the placebo effect.

In recent years, a growing interest has been directed toward the integration of meditation into higher education (Bush 2006, 2011; Shapiro et al. 2007, 2008a, b). Research has shown that mindfulness practices have a potential to promote the achievement of central goals in higher education including enhancement of cognitive performance (Hall 2013; Jha et al. 2007; Slagter et al. 2007), management of academic-related stress (Shapiro et al. 2007; Tang et al. 2007), and development of the "whole person" (Carson et al. 2004; Shapiro et al. 2007), indicating that such practices in higher education are potentially broad, affecting cognitive, emotional, and interpersonal domains. Recently, many studies have investigated theoretical and practical issues related to the practice of mindfulness and its influence on professionals' experiences and therapeutic relationships, with applications in family therapy (Lysack 2008; McCollum and Gehart 2010) and counseling (Chrisman et al. 2009; Schure et al. 2008; Shapiro and Izett 2008; Walsh 2009). Trainees reported increases in empathy, sometimes attributed directly to mindfulness practice (Chrisman et al. 2009; McCollum and Gehart 2010) and sometimes to reduced anxiety and stress (Davis 1983; Shapiro et al. 1998) or to greater attention and awareness (Holzel et al. 2011). Although the present study did not assess the effects of mindfulness training on either academic achievement or work with pupils/clients, the current students' reports of feeling calmer and more relaxed, coping better with stress, and experiencing increased attention and ability to focus, can be expected to positively affect their functioning in both domains.

Several limitations of the current study should be noted. First, the small size of the present sample and the reliance on qualitative data analysis may limit generalizability to other populations. Second, the course was an academic course in which students received credit. Although they were encouraged to report also negative experiences, and many certainly did, it may be that some were not completely honest with their diaries and wrote things they thought they were "expected" to write. Finally, the fact that the instructor was also involved in the qualitative analysis, may have introduced bias into the analysis.

In summary, this study provides support for the benefits of expanding the scope of tools provided to education students and future counselors to incorporate mindfulness training. Such curricula may help students to cope with the stress and anxiety experienced in their daily work and to develop a more therapeutic presence and more effective management of their treatment or classroom setting. Future research should determine if students' self-reported increased mindfulness actually leads to their more empathetic and sensitive teaching/counseling. In addition, future study designs could be planned to pinpoint which aspects of the course lead to which self-reported processes/experiences/outcomes. While there is a growing body of research to support the current findings, a need continues for thoughtful, well-designed research to guide educators in integrating meditative and other contemplative practices into the academic curriculum.

Acknowledgments I would like to warmly thank Libat Kimmhi (Choekyi) for her valuable help in translating and coding journal summaries.

References

Arias, A. J., Steinberg, K., Banga, A., & Trestman, R. L. (2006). Systematic review of the efficacy of meditation techniques as treatments for medical illness. *The Journal of Alternative and Complementary Medicine, 12*, 817–832. doi:10.1089/acm.2006.12.817.

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, *10*, 125–143. doi:10.1093/clipsy/bpg015.

Baijal, S., Jha, A. P., Kiyonaga, A., Singh, R., & Srinivasan, N. (2011). The influence of concentrative meditation training on the development of attention networks during early adolescence. *Frontiers in Psychology, 2*, 1–9. doi:10.3389/fpsyg.2011.00153.

Birnbaum, L., & Birnbaum, A. (2004). In search of inner wisdom: Guided mindfulness meditation in the context of suicide. *The Scientific World Journal, 4*, 216–227. doi:10.1100/tsw.2004.17.

Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress and Health, 26*, 359–371. doi:10.1002/smi.1305.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N., Carmody, J., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*, 230–241. doi:10.1093/clipsy/bph077.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. doi:10.1191/1478088706qp063oa.

Bush, M. (2006). Foreword: Contemplative practices and education. *Teachers College Record, 108*, 1721–1722.

Bush, M. (2011). Mindfulness in higher education. *Contemporary Buddhism: An Interdisciplinary Journal, 12*, 183–197. doi:10.1080/14639947.2011.564838.

Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior Therapy, 35*, 471–494. doi:10.1016/S0005-7894(04)80028-5.

Chambers, R., Lo, B. C. Y., & Allen, N. B. (2007). The impact of intensive mindfulness training on attentional control, cognitive style, and affect. *Cognitive Therapy and Research, 32*, 303–322. doi:10.1007/s10608-007-9119-0.

Chrisman, J. A., Christopher, J. C., & Lichtenstein, S. J. (2009). Qigong as a mindfulness practice for counseling students: A qualitative study. *Journal of Humanistic Psychology, 49*, 236–257. doi:10.1177/0022167808327750.

Crane, R. S., Kuyken, W., Hastings, R. P., Rothwell, N., & Williams, J. M. G. (2010). Training teachers to deliver mindfulness-based interventions: Learning from the UK experience. *Mindfulness, 1*, 74–86. doi:10.1007/s12671-010-0010-9.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113–126. doi:10.1037//0022-3514.44.1.113.

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

Germer, C. K. (2005). Mindfulness: What is it? What does it matter? In C. K. Germer, R. D. Siegal, & P. R. Fulton (Eds.), *Mindfulness and psychotherapy*. New York: Guilford Press.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35–43. doi:10.1016/S0022-3999(03)00573-7.

Hall, P. D. (2013). The effect of meditation on the academic performance of African American college students. *Journal of Black Studies*, *29*, 408–415. Retrieved from http://www.jstor.org/stable/2668066.

Haydicky, J., Wiener, J., Badali, P., Milligan, K., & Ducharme, J. M. (2012). Evaluation of a mindfulness-based intervention for adolescents with learning disabilities and co-occurring ADHD and anxiety. *Mindfulness, 3*, 151–164. doi:10.1007/s12671-012-0089-2.

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78*, 169–183. doi:10.1037/a0018555.

Holzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science, 6*, 537–559. doi:10.1177/1745691611419671.

Jain, S., Shapiro, S. L., Swanick, S., Roesch, S. C., Mills, P. J., Bell, I., et al. (2007). A randomized controlled trial of mindfulness meditation versus relaxation training: Effects on distress, positive states of mind, rumination, and distraction. *Annals of Behavioral Medicine, 33*, 11–21. doi:10.1207/s15324796abm3301_2.

Jennings, P. A., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2011). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of two pilot studies. *Journal of Classroom Interaction, 46*, 37–48. doi:10.1037/spq0000035.

Jha, A. P., Krompinger, J., & Baime, M. J. (2007). Mindfulness training modifies subsystems of attention. *Cognitive, Affective & Behavioral Neuroscience, 7*, 109–119. doi:10.3758/CABN.7.2.109.

Kabat-Zinn, J. (1990). *Using the wisdom of your body and mind to face stress, pain and illness*. New York, NY: Delacorte Pr.

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York: Hyperion.

Kabat-Zinn, J. (2005). *Coming to our senses*. New York: Hyperion.

Kabat-Zinn, J. (2006). *Eating meditation. On mindfulness for beginners [CD]*. Louisville, CO: Sounds True.

Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine, 8*, 163–190. doi:10.1007/BF00845519.

Keng, S., Smoski, M. J., Robins, C. J., Ekblad, A. G., & Brantley, J. G. (2012). Mechanisms of change in mindfulness-based stress reduction: Self-compassion and mindfulness as mediators of intervention outcomes. *Journal of Cognitive Psychotherapy, 26*, 270–280. doi:10.1891/0889-8391.26.3.270.

Lysack, M. (2008). Relational mindfulness and dialogic space in family therapy. In S. Hick & T. Bien (Eds.), *Mindfulness and the therapeutic relationship* (pp. 141–158). New York: Guilford.

McCollum, E. E., & Gehart, D. R. (2010). Using mindfulness meditation to teach beginning therapists therapeutic presence: a qualitative study. *Journal of Marital and Family Therapy, 36*, 347–360. doi:10.1111/j.1752-0606.2010.00214.x.

Miller, J. P., & Nozawa, A. (2002). Meditating teachers: A qualitative study. *Journal of In-Service Education, 28*, 179–192. doi:10.1080/13674580200200177.

Napoli, M. (2004). Mindfulness training for teachers: A pilot program. *Complementary Health Practice Review, 9*, 31–42. doi:10.1177/1076167503253435.

Praissman, S. (2008). Mindfulness-based stress reduction: A literature review and clinician's guide. *Journal of the American Academy of Nurse Practitioners, 20*, 212–216. doi:10.1111/j.1745-7599.2008.00306.x.

Rapgay, L., & Bystrisky, A. (2009). Classical mindfulness: An introduction to its theory and practice for clinical application. *Annals of the New York Academy of Sciences, 1172*, 148–162. doi:10.1111/j.1749-6632.2009.04405.x.

Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre-and early adolescents' well-being and social and emotional competence. *Mindfulness, 1*, 137–151. doi:10.1007/s12671-010-0011-8.

Schure, M. B., Christopher, J., & Christopher, S. (2008). Mind-body medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and qigong. *Journal of Counseling and Development, 86*, 47–56. doi:10.1002/j.1556-6678.2008.tb00625.x.

Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression*. New York: Guilford Press.

Semple, R. J. (2010). Does mindfulness meditation enhance attention? A randomized controlled trial. *Mindfulness, 1*, 121–130. doi:10.1007/s12671-010-0017-2.

Shapiro, S. L., Brown, K. W., & Astin, J. A. (2008). *Toward the integration of meditation into higher education: A review of research*. Report Prepared for the Center for Contemplative Mind in Society. Retrieved from http://www.colorado.edu/ftep/events/eventdocs/documents/ShapiroResearchReport.pdf.

Shapiro, S. L., Brown, K. W., & Biegel, G. M. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training & Education in Professional Psychology, 1*, 105–115. doi:10.1037/1931-3918.1.2.105.

Shapiro, S. L., & Izett, C. D. (2008). Meditation: A universal tool for cultivating empathy. In S. Hick & T. Bien (Eds.), *Mindfulness and the therapeutic relationship* (pp. 161–175). New York: Guilford.

Shapiro, S. L., Oman, D., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008b). Cultivating mindfulness: Effects on well-being. *Journal of Clinical Psychology, 64*, 840–862. doi:10.1002/jclp.

Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioral Medicine, 21*, 581–599. doi:10.1023/A:1018700829825.

Shapiro, S. L., Shapiro, D., & Schwartz, G. (2000). Stress management in medical education: A review of the literature. *Academic Medicine, 75*, 748–759.

Singh, N. N., Lancioni, G. E., Singh Joy, S. D., Winton, A. S. W., Sabaawi, M., Wahler, R. G., et al. (2007). Adolescents with conduct disorder can be mindful of their aggressive behavior. *Journal of Emotional and Behavioral Disorders, 15*, 56–63. doi:10.1177/10634266070150010601.

Slagter, H. A., Lutz, A., Greischar, L. L., Francis, A. D., Nieuwenhuis, S., Davis, J. M., et al. (2007). Mental training affects distribution of limited brain resources. *PLoS Biology, 5*, 1228–1235. doi:10.1371/journal.pbio.0050138.

Sood, A., Prasad, K., Schroeder, D., & Varkey, P. (2011). Stress management and resilience training among Department of Medicine faculty: A pilot randomized clinical trial. *Journal of General Internal Medicine, 26*, 858–861. doi:10.1007/s11606-011-1640-x.

Strauss, A. (1987). *Qualitative analysis for social scientists*. New York: Cambridge University Press.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.

Tang, Y.-Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., et al. (2007). Short-term meditation training improves attention and self-regulation. *Proceedings of the National Academy of Sciences of the United States of America, 104*, 17152–17156. doi:10.1073/pnas.0707678104.

Teasdale, J. D., Segal, Z. V., & Williams, J. M. G. (1995). How does cognitive therapy prevent depressive relapse and why should attentional control (mindfulness) training help? *Behaviour Research and Therapy, 33*, 25–39. doi:10.1016/0005-7967(94)E0011-7.

Toneatto, T., & Nguyen, L. (2007). Does mindfulness meditation improve anxiety and mood symptoms? A review of the controlled research. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, *52*, 260–266.

Wallace, A. (2006). *The attention revolution: Unlocking the power of the focused mind*. Boston, MA: Wisdom Publications.

Walsh, F. (Ed.). (2009). *Spiritual resources in family therapy*. New York: Guilford.