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The Environment-Within-Person Perspective: Integrating a Mindfulness Framework into Social Work Practice

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Over the last 25 years there has been increasing recognition of the role that traumatic stress plays in a wide range of health, mental health, and social problems affecting client populations served by social workers. Traumatic stress is generated by conditions in one's external environment, mediated by internal cognitive processes, and stored in the physical body. Generalist social work practitioners are trained to address conditions of the environment through a social justice lens and to help clients think through logical steps of a problem-solving or change process. However, social workers are not typically trained to understand or respond to trauma symptoms with which a growing number of their clients live. Because traumatic stress adversely affects individual well-being at intra- and interpersonal levels, generalist social workers are in need of additional tools to effectively work with clients. In this article we argue that traditional frameworks used to guide social work practice do not equip social workers to respond effectively to individuals afflicted by traumatic stress because of the absence of attention to and understanding of the human body. We propose the integration of a mindfulness framework and introduce the environment-within-person perspective. It is a natural extension to the understanding of person in the Person-In-Environment perspective and provides a tangible pathway to supporting post-traumatic growth among people served by social workers.

Key words: mindfulness, traumatic stress, social work practice, person-in-environment, post-traumatic growth

Traumatic Stress and Social Work Populations

Traumatic experiences can have both short- and long-term impacts on people and their abilities to cope with life stressors. Social workers serve populations which come from varied backgrounds, many of which include different sources of trauma. There is ample evidence that traumatic events (e.g., physical abuse, sexual abuse, neglect, witness to violence) in childhood are negatively correlated with health in adulthood. The Adverse Childhood Experience study was the first to confirm that childhood abuse and other family dysfunction was related to physical and mental illness in adulthood (Felitti et al., 1998). Specifically, higher numbers of adverse childhood experiences predict increased problems in adulthood in affective, somatic, substance abuse, memory, sexual, and aggression-related domains (Anda et al., 2006). This new frontier is a challenge to social workers to learn more about the neuroscientific implications for practice (Matto, Strolin-Goltzman, & Ballan, 2014).

The trauma-related challenges among populations served by social workers are compounded by overwhelming loss in neighborhoods and communities. The breakdown at the community level is so pervasive that Abramovitz and Albrecht (2013) developed a Community Loss Index to measure it. The six areas measured to calculate loss within a community include rates of: unemployment, foreclosure, foster care placement, incarceration, long-term hospitalization, and untimely deaths. It is apparent that personal well-being of individuals living in neighborhoods with such profound loss will be adversely affected by elevated scores on this index. One of the possible effects of living in communities with high loss is traumatic stress that accumulates over time and is stored in the complex neuro-physiological networks that make up the human body. When a person moves out of depleted and dysfunctional environments, they carry within them the old negative imprints into new places. In summary, people can be impacted by experiences in childhood and in their communities, both of which are stored in their bodies and shape their perceptions and responses to life's challenges.

Prevalence of Traumatic Stress

Traumatic events involve an extreme level of stress that overwhelms a person's ability to cope. The long-term impact of the event appears to be mediated by one's self-appraisal of both the traumatic event and the coping strategy used in response to it (Pechtel & Pizzagalli, 2011). This self-appraisal filter, or how a person thinks about himself, in part, explains how it is possible for two people to experience the same traumatic event (e.g., two college roommates robbed at gunpoint following dinner together at a local restaurant; two siblings exposed to abuse by the same caregiver) but suffer different levels of distress related to the event. Furthermore, not everyone who experiences a traumatic event will suffer with symptoms that meet the level of a clinical diagnosis. For example, earlier studies estimated the prevalence of post-traumatic stress disorder (PTSD)—a clinical-level trauma disorder—at 1 percent in the general population, 3.5 percent for civilians exposed to physical attack, and 20 percent among Vietnam veterans (Helzer, Robins, & McEvoy, 1987). More recent studies focused on children report that the rate of PTSD for the general population of young adults is 6 percent, and for children who experience foster care placement, it is 15 percent (Kessler et al., 2010; McMillen et al., 2005). These are conservative estimates, since traumatic stress affects a larger segment of the population than is addressed here.

Levels of Disintegration of Traumatic Stress

Traumatic stress disrupts connection and cohesion that is essential for a sense of holistic well-being. This disintegration happens when differentiated components (e.g., memories, skills, experiences) do not link together in a coherent manner (e.g., personal narrative) (Siegel & Gottman, 2015). Importantly, disintegration happens at intrapersonal and interpersonal levels.

Intrapersonal integration. At the level of individual or self, adverse experiences over extended periods of childhood result in varying degrees of complex trauma, which adversely affect basic neurological and physiological processes integral to developmental growth (Van der Kolk, 2005). Siegel (2007) explains that early trauma affects brain

development by inhibiting the key neural linkages that allow individuals to perceive the world as a safe and secure place to explore and grow. Van der Kolk (2003) identifies learning, memory, perception, attachment, cognition, and affect regulation as brain functions that are at risk of being compromised by neural disintegration in response to early trauma. He further notes that these neural disruptions can affect how young people make sense of their growing up experiences, their learning capacities, and their reflexive responses to the world around them.

Interpersonal integration. How well integration is achieved at the intrapersonal level has consequences for interpersonal connections, which is the second level of integration. Chronic traumatic stress negatively affects one's ability to attach or develop healthy and enduring relationships with others (Siegel & Gottman, 2015). Siegel (2007) explains how disintegration within interpersonal relationships can manifest as either rigidity or chaos. For example, among foster youth, those with "rigid" coping strategies operate from a "go-it-alone" attitude, often without seeking the help of others (Kools, 1999; Samuels & Pryce, 2008). In contrast, those with "chaotic" coping styles may have developed a habit of "oversharing" their struggles with multiple individuals, without managing to connect with any one person in particular, perhaps hoping that someone will emerge to assist them in some concrete way (Siegel, 2007). Another way disintegration manifests at the interpersonal level is when a person is able to recognize social cues but is unable to accurately interpret them in different contexts. The interpersonal rewiring that happens in response to a traumatic stress is real; however, it is possible to learn and adapt new strategies for relating through the emerging adulthood years (Scaer, 2014; Siegel & Gottman, 2015).

Among social workers these levels of integration are more commonly understood as micro (individual) and meso (social relationships) systems, which are part of ecological systems theory (Bronfenbrenner, 1979). Not only is there disintegration within each level, but without targeted supports, disconnections may exist between levels. Moreover, the presence of traumatic stress calls for social workers to skillfully attend to the intrapersonal experience of clients in order to achieve gains

in quality connections that clients make with others in their environments.

Post-Traumatic Growth

In this paper, we have acknowledged the critical role of trauma in the well-being of the person, and we have kept our attention focused on the person (vs. the trauma). Another way to focus on the person and help promote resilient outcomes is to explore the concept of post-traumatic growth (PTG). Post-traumatic growth was initially defined by Tedeschi, Park, and Calhoun (1998) as a cognitive process initiated by people in response to a traumatic life event; this cognitive process then results in people experiencing growth in response to the trauma. However, post-traumatic growth has not been widely discussed in social work literature. Froma Walsh (2015) briefly discussed post-traumatic growth in her work on family resilience, but we argue that there is much for social work to gain from further exploration of this concept.

Much research has been done on PTG in psychological literature (Arpawong et al., 2016; Ickovics et al., 2006; Jayawickreme & Blackie, 2014; Meyerson, Grant, Carter, & Kilmer, 2011; Pals & McAdams, 2004; Tedeschi & Calhoun, 2004; Woodward & Joseph, 2003) and in medicine, where it has been explored in terms of treatment of patients with cancer (Cordova, Cunningham, Carlson, & Andrianovsky, 2001; Lepore, 2001; Scignaro, Barni, & Magrin, 2011), or treatment of patients with heart disease or heart attacks (Affleck, Tennen, Croog, & Levine, 1987; Sheikh, 2004). Additionally, PTG has been studied in response to terrorism (Bleich, Gelkopt, Melamed, & Solomon, 2006; Galea et al., 2002; Hobfoll et al., 2007) and natural disasters (Bonanno, Galea, Bucciarelli, & Vlahov, 2007). Given the strengths-focused perspective of the field of social work, it would seem appropriate for social work practitioners to explore PTG.

Tedeschi and Calhoun (2004) found that PTG occurs when people are trying to adapt to highly distressing life circumstances. As a result of this struggle, people have shown a variety of changes in appreciation for life, meaning in interpersonal relationships, increases in the sense of their own

strength, and changed priorities.

Similarly, Scrignaro, Barni, and Magrin (2011) noted that they observed post-traumatic growth in cancer patients as "changes in the perceptions of oneself, one's social relationships, and one's life priorities" (p. 823). In their work, they found that having basic needs such as autonomy and relatedness fulfilled in the time following their cancer diagnosis was helpful in facilitating clients' perception of the experience of post-traumatic growth.

Malchiodi, Steele, and Kuban (2008), in their work with traumatized children, identified several interventions that reduce post-traumatic stress and may encourage post-traumatic growth. Among these are receiving social support from others during recovery, developing a cohesive trauma narrative (as well as being heard and validated), and understanding that they are not to blame for what happened. Malchiodi and her colleagues stated that developing an understanding of the traumatic event and being allowed to feel and integrate the experience was very important in terms of facilitating PTG in children. In terms of our focus on embodiment in this paper, Malchiodi and colleagues (2008) noted that,

While it is important to provide children with the opportunity to communicate their memories of and feelings about what happened, it is equally important to ask them to explore how the experience may have helped them to become stronger or discover new things. Otherwise, they are left with the sensory aspects of the trauma and have not identified how they have changed for the better in some cases since the crisis or loss occurred. (p. 298)

Here, the authors focus on dealing with trauma, through communicating memories and feelings and thinking about their experiences. Yet they also recognize the role of the body in storing the "sensory aspects of the trauma" (p. 298). Further, they note the importance of asking about growth as a way of opening the framing of the experience, which makes room for people to consider ways in which they may have grown following a traumatic experience.

PTG, then, is something that can be encouraged and facilitated in people who experience dysregulation of self because of traumatic or external stressors. In order for that to happen, however, social workers need to know about PTG and access relevant literature that can help them foster PTG in their clients. Adding the concept of PTG to the social work knowledge base will give workers another tool to help their clients effectively engage with trauma, and may offer some hope to those struggling with the disintegration effects of trauma in their lives.

Traditional Social Work Practice Frameworks

Social work has traditionally drawn from three main frameworks to guide generalist practice: the biopsychosocial model, the systems perspective, and the ecological approach (Pyles & Adam, 2015). The biopsychosocial model considers client problems due to factors of biology, psychology, and social systems in which they interact (Pyles & Adam, 2015). Systems theory focuses on the systems practitioners address, which are "collections of interrelated parts that typically function as a unit and change in concert" (Hudson, 2012, p. 4), with the primary system of focus being the family. The ecological approach focuses on the importance of recognizing the influence of the environments in which people live. In Bronfenbrenner's (1979) ecological theory, human behavior consists of individuals interacting with their environments, which he modeled as a nested set of concentric circles which lead from the individual, to the family, to the community, to the larger social context (Van Hook, 2008). All choices made by people have to be understood by social workers within the greater contexts of the worlds in which they live and interact. A major focus of social work practice then becomes the person-in-environment (Kondrat, 2008). When working with clients, social workers employ a strengths perspective to ascertain what strengths and resources clients are able to bring to bear upon solving their problems (Karls & Wandrei, 1992) at all of the levels of their environments.

Attention to person in the person-in-environment perspective is typically approached using a problem-solving process in which clients work collaboratively with the worker to articulate

treatment or target goals that call for change by the individual. Common steps in this change process include engagement, assessment, planning, intervention, evaluation, termination and follow up (Kirst-Ashman & Hull, 2012). In general, the specified outcome at the micro level of practice typically calls for the client to demonstrate growth in one or more areas, such as greater insight (e.g., awareness of how personal behavior supports or undermines treatment goals), acquisition of new knowledge (e.g., learning rules or procedures), or achievement of new skills (e.g., asking for help, self-advocacy).

Traditional social work frameworks, then, emphasize the person in relationship to external environments. The concept of internal bodily experiences has been largely absent from social work practice frameworks, and we believe its inclusion will increase social work efficacy in practice.

The Absence of the Body in Social Work Practice Frameworks

The body is a very important component in understanding the effects of our environments (Scaer, 2014; van der Kolk, 2014), but in our Cartesian worldview, our bodies often become invisible. Leder (1990) describes "the absent body" this way:

While in one sense the body is the most abiding and inescapable presence in our lives, it is also essentially characterized by absence. That is, one's own body is rarely the thematic object of experience. When reading a book or lost in thought, my own bodily state may be the farthest thing from my awareness. I experientially dwell in a world of ideas, paying little heed to my physical sensations or posture. (p. 108)

In social work practice, the focus on the problems experienced by clients and the related paperwork demands or organizational constrictions within which we work can leave us unaware of our own bodies, thus making it harder to pay attention to the bodily experiences of our clients (Mensinga, 2011). Nevrein (2008) described how our habitual use of our bodies as "background to goal-oriented thoughts and actions" (p. 126) leaves us feeling disconnected from our bodies, our

selves, and our environments. According to Pyles and Adam (2015), our bodily experiences become another aspect of life that we have to manage, instead of being seen as resources that we can explore for the messages our bodies may hold for us. One thing seems certain—a person disconnected from his or her own present moment experience cannot create genuineness and authenticity in connection with another person. This holds for both social workers and their clients.

Peile (1998) decried the dominance of conceptual and rational processes in social work, which he claimed leave out the body. Older practice wisdom, according to Peile, held that "it is a good idea in any interaction to have *touched* (emphasis added) how the other is thinking, feeling and acting in relation to the issue at hand," as this approach recognizes "emotions (feelings) and the body (action) as equally legitimate realms for exploration along side the conceptual (thinking)" (p. 57). Indeed, social workers "touch" their clients with words, body language, gesture and quality of presence. In social work this touch is often referred to as genuineness, empathy and warmth, which are hallmarks of a quality worker-client relationship, and it is understood that these worker qualities affect client experience (Trevithick, 2003). Moreover, these qualities of a worker are intended to create a physically felt sense of safety and trust.

Importantly, the goal of client growth cannot be accomplished if the body is not included in the process. Thus, social workers can enhance their practice effectiveness by incorporating understanding of skills of body-based approaches. Since the mind and body work together to inform us about our states of being, we must be prepared to address both in a manner that meets clients where they are; that is, in the present moment experience during interaction with social workers. Tangenberg and Kemp (2002) challenged social workers to focus on "how to gain access to, value, and validate the lived experience of the body" (p. 13), in part to bring forth an "invigorated praxis of the body for present day social work" (p. 10), and as a method of understanding our clients better.

These discussions show that the concept of embodiment continues to be overlooked in social work practice, as the topic arises repeatedly over time. This is problematic for effective

social work practice, if we are to live up to the standards in the field and embody the profession's ethical values and principles.

The Environment-Within-Person Perspective

Saleebey stated in 1992 that "the social work profession has become, in both theory and practice, disembodied" (p. 112), and he called for social work to move toward embodiment of the person-in-environment perspective, because without it, social workers can miss out on bodily wisdom, which can serve the forces of "transformation, regeneration, and healing" (p. 112). Research investigating the effects of intervention approaches that target the internal physical experience has explored a wide variety of body-based interventions and their effects on well-being and is promising. Examples include the teaching of specific breathing practices, which correlated with reduced stress and anxiety among adult women who have been sexually assaulted (Kim, 2012). Additionally, movement and stretching through yoga have been associated with reduced post-traumatic stress symptoms in veterans (Staples, Hamilton, & Uddo, 2013) and adult women with trauma histories (van der Kolk et al., 2014). These body-based approaches typically augment rational problem solving approaches that rely on clients having insight and language capabilities to be effective.

Given the absence of attention to the internal experiences of the body in social work practice, and the increased understanding about how traumatic stress negatively impacts one's ability to both self-regulate and relate to the environment, we propose expanding the practice paradigm of the profession to equip social workers for the current demands in the field. Specifically, we introduce the "environment-within-person perspective," which adapts a mindfulness framework for social work practice.

Although mindfulness meditation has its roots in Buddhist traditions, it draws from spiritual, psychological, and neurophysiological arenas (Hölzel et al., 2011). Moreover, its philosophy and practices have long been adapted and incorporated into secular psychotherapeutic modalities, including Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT), Dialectical

Behavior Therapy (DBT), Acceptance and Commitment Therapy (ACT), Mindfulness-based Stress Reduction (MBSR), Hakomi, and Sensorimotor Psychotherapy, to name a few.

The environment-within-person perspective, introduced here, is not presented as a modality of therapy but as a paradigm shift to expand the standpoint of generalist social work practice. Specifically, it extends the person-in-environment perspective, which is a signature framework used to orient social workers, by adding knowledge and skills to engage with each client in the moment, or "where the client is at." It also draws from the rich resource of mindfulness practices and research to provide tools to support self-regulation, or self-integration, through attunement to present moment experiences.

Principles of the Environment-within-Person Perspective

The environment-within-person perspective is an application of a mindfulness meditation framework. Therefore, it stands that social workers who adopt this perspective would necessarily cultivate a personal mindfulness practice, so that they may be equipped to focus attention to what is happening in the present moment without judgement. Nonjudgement is about relating (not reacting) to our internal thoughts, emotions and feelings as experiences when interacting with the external environment of which our clients are a part. Mindfulness builds capacity for social workers to hold space for clients to generate self-integration that involves sense-making of one's life and to build healthy connections with people and opportunities. The boundaries of this mindful space between worker and client continues to be informed by the profession's knowledge and values; policy, procedure and regulations; evidence-based and evaluative practices; and organizational specifications. That said, we identify three interrelated principles that aim to ready social workers for using the environment-within-person perspective.

Asynchronous communication. The first principle addresses the flow of communication between worker and client. All phenomena from internal and external environments of an individual inform the well-being of that person. Moreover, the information flows between internal and external environments of a person appear to be connected

asynchronously by the social worker, who is an outside observer. In other words, a client's verbal or behavioral expressions may not match happenings in the immediate external environment. Internal experiences and external environments are both dynamic and constantly changing. This principle of asynchronous connection helps to understand the importance of engaging clients as partners in the change process and conferring with them about the meaning of any notable observations in the present moment. For example, flat affect expressed by the client may be interpreted as indifference by the worker, when in fact the client is (consciously or unconsciously) masking a sense of fear or surprise. Careful communication about observations with the client is essential as the worker makes her assessments. Moreover, any observations made about a client that are to be documented should be applicably tied to the context in which they were made and not used to suggest enduring qualities or characterizations of a person.

Worker self-attunement. A second principle of the environment-within-person perspective is self-attunement by the social worker throughout the process of interacting with clients and client systems. The orientation of one's own internal environment builds capacity for workers to be fully present and ready to attend to needs and opportunities for a client. Self-attunement is not a belief about one's identity as a social worker (e.g., I am a compassionate worker) but is an ability to suspend belief and remain receptive to information as it presents in the process of interaction with a client. Self-attunement includes a worker turning towards her own biases and emotions about a client or client situation and being aware of her own internal patterns, especially in client situations that are difficult (Himmelstein, 2013).

Present-moment centered. A third principle of environment-within-person perspective is being present-moment centered. A present-moment orientation to the change process necessarily includes relevant past information and future change targets; however, the worker attends to the client's experience in the process. Huffman (2013) discussed this idea as "making one's body about the other," or "embodied aboutness" (p. 95), a term he coined while researching compassionate communication by professionals working with youth served

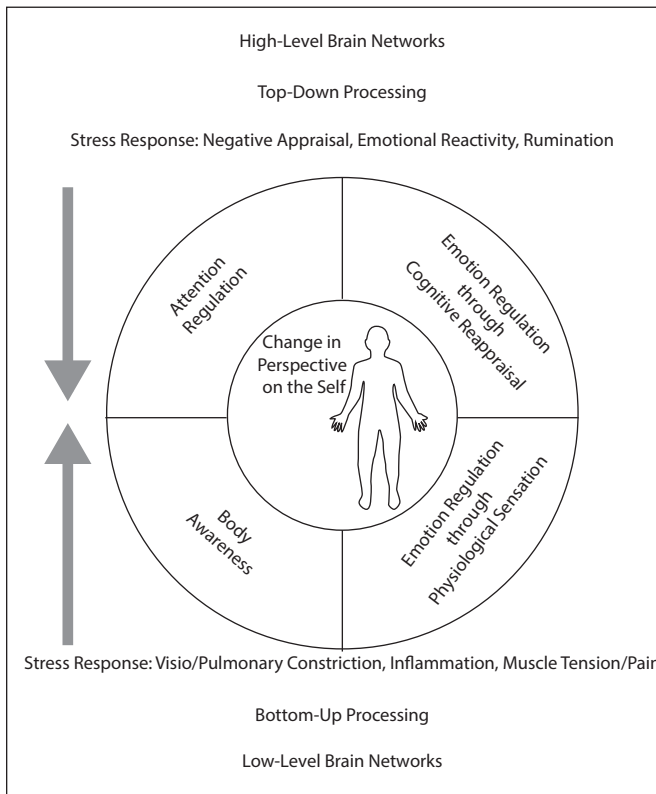
at homeless shelters. Embodied aboutness was a quality of the workers that were able to successfully engage usually resistant or reluctant youth, which in turn resulted in youth gaining better access to resources and available supports. Embodied aboutness combines the notion of being in the present-moment and having body awareness into one experience. It is a helpful concept for social workers who often provide services to clients living with traumatic stress, while working in environments where organizational demands compete with and sometimes thwart client needs. Embodied aboutness helps social workers to fortify the space they hold in which to explore with clients their needs, strengths and opportunities. While the breadth of the shared space will be impacted by organizational constraints, the focus of the worker-client interaction remains on the highest level of service to the client.

The Environment-Within-Person Map

How do social workers skillfully navigate worker-client interactions to more fully attend to the intrapersonal or inner environment of a client? When the above three principles are internalized by the worker in a way that informs the worker-client interaction, then the worker is minimally ready to navigate the environment-within-person map as a tool for generalist practice. As we will demonstrate, mindfulness meditation provides a framework that synchronizes with traditional frameworks of the profession, harmonizes with social work values and ethics, and elicits differential pathways for intervention. There are many models of mindfulness; however, we draw from Hölzel and colleagues (2011), who wrote about interrelated mechanisms of mindfulness meditation and underlying brain function. The mechanisms, which are rooted in neuroscience, ultimately reveal practical "points-of-entry" to engage clients in order to promote self-regulation, which builds capacity for integration at intra- and interpersonal levels. With communication tools that match where the client is at, or the client's present-moment experience, social workers can do much to help clients regain and maintain the self-regulation that is needed to engage optimally in life situations, including the social work helping relationship.

Figure 1 illustrates the environment-within-person map and is based on the work of Hölzel and her colleagues (2011). This figure shows the workings of the environment within a person as separated into high-level brain functions (e.g., cognition, perception, memory) and low-level brain functions (e.g., somatic sensation, physical exposure) that are connected through multiple neurological and physiological networks that ultimately inform the perspective that one has on the self.

Figure 1. The Environment-Within-Person Map



As depicted in the top half of Figure 1, high-level brain networks emphasize mental and intellectual capacities and rely on "top-down" brain processing. Signs that self-regulation within a client is compromised in the high-level brain networks include persistent negative appraisal, accelerated

emotional reactivity and rumination. Mindful tools that can be used by social workers to restore self-regulation for clients include mechanisms of attention regulation and emotional regulation reappraisal.

In contrast, low-level brain networks emphasize functions of the body and rely on "bottom-up" brain processing. Some signs that self-regulation within clients is compromised in the low-level brain networks include rapid heart rate increases, shallow breathing, muscle tension, and perspiration. Mindfulness tools available to social workers to restore self-regulation in these instances include exercises to increase body awareness and exposure to emotional felt sensation. The center of Figure 1 features the perspective on the self, which reflects a holistic sense of self that involves fluid integration of both high- and low-level networks.

The Five Mechanisms of Self-Regulation

The circular representation of Figure 1 illustrates the non-linear orientation of the map; that is, clients may display signs of internal dysregulation from any of the five mechanisms. Social workers are tasked with the challenge of helping clients to discern which mechanism is the source of compromise, and then applying appropriate tools that align with where the client is at during the worker-client interaction. Because social work practice has historically emphasized higher-level brain network interventions that focus on cognition, reasoning and executive function, the top half of the map (Figure 1) is likely to be more familiar to practitioners. The bottom half of the environment-within-person map offers workers a way to navigate lower-level brain network strategies through body-based approaches, which for the majority of social workers opens up another dimension of intervention tools.

Change in Perspective on the Self

The first mechanism of mindfulness that we discuss is located at the center of the environment-within-person map (see Figure 1) and is labeled "change in perspective on the self." At the heart of this mechanism is the inquiry about how one views him or herself in light of the situations and circumstances of their lives. When individuals fuse with their

circumstances and form a fixed identity, they develop a static sense of self. Examples include individuals who ruminate on a single identity, such as "I am a victim" or "I am a survivor," and ignore or dismiss other aspects that make up the complexity of their dynamic selves. From the environment-within-person perspective, the social worker intentionally supports detachment from or letting go of identification with a static or unidimensional self, which Hölzel and colleagues (2011) explain as a product of mental processes and not a true representation of being. The idea of detaching from or letting go of a particular identification is not a process of rejection but one of acceptance; that is, the one identification is a partial and temporary reflection of the totality of the person. When a client gets stuck on a single identity or thought, as is common with traumatic stress, then there is misalignment with the present moment, and difficult emotions are inevitable. Clients can learn to experience thoughts, emotions, and sensations as distinct parts of the holistic self. Providing knowledge about the ever-changing sense of self will better serve clients to be prepared when responding to life situations and often unjust conditions in their external environments.

Attention Regulation

The second mechanism we discuss as part of the environment-within-person map is attention regulation (top left quadrant of Figure 1), and this refers largely to executive attention that allows a person to sustain focus on a single object in spite of distractions in one's internal (e.g., thoughts, body pains) and external environments (e.g., sounds, smells, communication from others). Improved attention regulation enhances alertness and orientation and reduces distractibility. In many models of mindfulness, strengthening attention is prioritized as a foundational step to improve focus and concentration, which widens the field of awareness. Indeed, mindfulness is a practice of paying attention to the present moment without judgement (Kabat-Zinn, 1990). Since different mindfulness programs impact distinct subcomponents of attention (Jha, Krompinger, & Baime, 2007), social workers will want to use evidence-informed practice skills to learn both the intervention and its target effect prior to application with clients. Attention regulation draws primarily on cognitive skills that

involve mental reasoning, which is a top-down brain processing function. Problem-solving exercises commonly used by social workers to facilitate the change process require clients to keep attention on a focused target goal or behavior.

Emotion Regulation through Cognitive Reappraisal

The third mechanism featured in the environment-within-person map—emotion regulation through cognitive reappraisal (top right quadrant of Figure 1) also involves top-down mental processing and reasoning. A prerequisite of reappraisal is commonly understood as emotional intelligence, which is the capacity of individuals to recognize and discriminate between their own and other people's emotions by labelling them accurately and using this emotional information to guide thinking and behavior (Goleman, 2006). Stronger emotional recognition abilities are correlated with lower emotional defensiveness (Mayer & Geher, 1996), which allows for greater access to intellectual reasoning as a tool for self-regulation. Reappraisal is a process of reconsidering one's thoughts, feelings and actions and how they inform one another, and it is not available to individuals suffering an acute episode of traumatic stress. Cognitive or reasoning tools, such as rational self-analysis from the Rational Emotive Behavioral Tradition, are useful in helping clients approach emotional reactions from different vantage points to accurately align beliefs with observations in the client's environment.

Emotion Regulation through Physiological Sensation

The fourth mechanism—emotion regulation as experienced through physiological sensation—is shown in the bottom right quadrant of the environment-within-person map and shifts orientation to the client's internal environment that is processed through bottom-up brain networks and is experienced as somatic, visceral, or physiological functions. Thus, we understand that emotion regulation, which is the ability to alter ongoing emotional responses through action of conscious monitoring processes, has two regulatory pathways. One involves cognitive appraisal (top-down brain processing), which can literally change one's mind about an emotional experience (i.e., third mechanism described above), while the other involves sensory exposure in the body (bottom-up brain

processing) as a way of reducing reactivity to emotions. In other words, the worker guides the client to "let themselves be affected by the experience, refraining from engaging in internal reactivity toward it, and instead bringing acceptance to bodily and affective response" (Hölzel et al., 2011, p. 545). Exposure to the physical sensations of difficult emotions (e.g., clenching jaw, tight chest, heat, tightness in hands) is generally more tolerable than thinking about the emotion (e.g., being angry).

Body Awareness

The fifth mechanism to self-regulation is body awareness (bottom left quadrant of Figure 1), which is the ability to notice obvious and subtle bodily sensations. These internal sensory experiences may be generated by the five senses (i.e., taste, smell, sound, sight, touch), breathing, thoughts, emotions and/or body movements, and they provide important information about an individual's needs in a given moment (Hölzel et al., 2011). They are experienced as a myriad of sensation such as temperature (e.g., hot, cold), texture (e.g., rough, smooth), density (e.g., solid, hollow), movement (e.g., pulsing, quivering) and so on. As discussed earlier, too often the inner experience of the body is ignored by clients and social workers alike, and valuable information for assessing situations and acting on decisions in the present moment is ignored. Body awareness is a simple concept to grasp, but like all of the mechanisms of the person-within-environment map, it takes consistent practice to master.

The key roles of social workers when working with the fourth and fifth mechanisms are: (1) to facilitate a conscious experience of sensations that are already happening within the client, without attempting to change the present moment but, instead, letting change happen; and (2) to facilitate a conscious shift to more tolerable or pleasant sensations only if the client requests it. The roles of facilitation are nondirective and supportive, allowing the client to be with all experience, including those that are difficult, unfamiliar and uncomfortable in the safety of the social work relationship. While it may be tempting to analyze physical sensations from a psychodynamic lens, doing so effectively shuts down the body-based pathways for healing and can reignite old cognitive-based habits. A

complimentary role is to provide clients psycho-education about underlying physiological sensations of arousal and their connection to emotional labels, as well as how these sensations can generate fight, flight or freeze reflexes. There are many intervention models from which social workers can learn how to safely support clients through intense physiological arousal or emotional flooding (e.g., Gottman & Gottman, 2012; Levine, 2008; Odgen, Minton, & Pain, 2006; Weiss, Johanson, & Monda, 2015).

Application of the Environment-Within-Person Map

As we have shown, the environment-within-person approach to working with clients offers ways to interact with clients differently. One way to use this approach is to determine where the client is in terms of how he or she is interacting interpersonally with the social worker or others, in general—which of the five mechanisms of self-regulation are they processing and working from? In this way, the social worker can discern the point of entry to optimally address the client. For example, suppose a client who was referred because of a recent eviction notice is "stuck" in rumination about frustrated feelings with a sibling during the meeting with the worker. The social worker could communicate this observation using behavioral language to the client, and then offer targeted interventions to help the client find relief in the moment from the agitation that typically accompanies this experience of dysregulation. The five mechanisms of the person-within-environment map offer differential points of entry, as illustrated in Table 1.

The ubiquitous Albert Einstein quote, "We cannot solve our problems with the same level of thinking that created them," provides helpful perspective for how best to approach the different points-of-entry offered by the five mechanisms of mindfulness meditation. In the example above, once rumination is experienced in the moment, the client will likely open to problem-solving the particular challenge or situation that is the primary reason for meeting with the social worker. And, if not, then the social worker will have at least helped the client process a current obstacle of self-dysregulation, which sabotages intrapersonal integration and interpersonal connection.

Table 1. Differential Points-of-Entry to Communication with a Client According to Mindfulness Mechanisms

Social worker shares observation: "I notice that you have mostly talked about your frustration with your sibling in the past 20 minutes, even as I have attempted to shift your focus to the matter at hand, which is responding to your recent eviction notice."	
Mechanism	Point-of-Entry via Question
Attention Regulation	Understanding that feelings of frustration with your sibling are strong today, is it available for you to shift your attention to focus only on problem-solving your recent eviction notice?
Emotion Regulation through Cognitive Reappraisal	Understanding that feelings of frustration with your sibling are strong today, is it available for you to assess how this frustration is similar to or different from the experience of your recent eviction notice?
Change in Perspective on the Self	Understanding that feelings of frustration with your sibling are strong today, is it available for you to broaden the scope of how you consider yourself? And, in so doing, reposition yourself to turn towards problem-solving the recent eviction notice?
Emotion Regulation through Physiological Functions	Understanding that feelings of frustration with your sibling are strong today, is it available for you to turn attention inward and experience the physical bodily sensations that accompany the frustration? Would you like to try being with those sensations before we shift to problem-solving your recent eviction notice?
Body Awareness	Understanding that feelings of frustration with your sibling are strong today and we are here because of your recent eviction notice, is it available for you to check in and notice subtle body sensations that are happening for you now to inform how best to proceed with problem solving in our time together?

Other types of self-regulation obstacles that clients present, such as anxiety, difficult emotions, resistance, and self-deprecating beliefs, can be similarly processed using the environment-within-person map.

Understanding the differential "points of entry" to engage clients helps to promote self-regulation, and ultimately, self-integration while tackling concrete problems and challenges in their environments. The particular point-of-entry, or mechanism, to use is decided in the moment and together with the client's participation. It may be that multiple points of entry are tried; if the social worker is unsure about how to proceed, then further exploration with the client is called for. We have used questions in Table 1 as illustrations in an effort to point to the different intervention pathways available within each mechanism, and not to suggest that the questions themselves offer a complete intervention. Overall, then, the environment-within-person map presents a holistic view of the internal experience of the person, capturing experiences within the body and mind, and using all of this information to facilitate self-integration.

Implications

In this paper, we have proposed the environment-within-person perspective as an expansion of the person-in-environment perspective and as an addition to the generalist practice framework in order to facilitate post-traumatic growth among clients living with traumatic stress. The implications for this expanded practice model have relevance for practice, education and research.

Implications for Social Work Practice

There are three immediate implications for social work practitioners. First, the scope of social work practice expands to incorporate a holistic view of the person, including the importance of the body, when helping clients to self-regulate and facilitating the possibility of experiencing post-traumatic growth. Moving forward, the generalist social work practice approach would expand to recognize that our bodies store

information that may be necessary to explore for problem-solving to be effective.

Understanding that our bodies have the capacity to act, perceive, and communicate...and that experiences become anchored in body memory allows us to change the focus of our interventions, so that we can access the bodily memories which "spread out and connect with the environment like an invisible network, which relates us to things and to people" (Fuchs, 2012, p. 11). Body-based techniques differ from cognitive intervention modalities in that they target subcortical or lower brain systems as a "point of entry" for improving behavioral health. Rather than target new thinking about a situation, the social worker focuses on facilitating attention to experience and learning in the present moment. Moreover, movement and sensation "in session" create sensory input, arousal stimulation that is a considered a prerequisite experience for effective trauma processing (Warner, Spinazzola, Wescott, Gunn, & Hodgdon, 2014). Mindfulness interventions have capacity to help clients with integration at the intrapersonal level (Siegel & Gottman, 2015). However, we strongly discourage generalist practitioners using any body-based or mindfulness techniques in the absence of adequate training and without expert supervision. This caution, however, does not preclude the need to continue to grow—in ourselves, in our knowledge, and in the range of tools that we can use to help our clients.

Second, new skills would be added to the generalist social worker toolkit. For example, Adam and Pyles (2015) describe their approach as an intentional practice that allows us to use our "whole self" to engage in participatory processes—"a moving, breathing, developing practice that empowers a new understanding of the dimension of connection" (p. 35). They offer four vital skills for social workers to become so engaged. The first is presence with the whole self, which includes "the sources of our body, mind, heart, and spirit" (p. 36). The second is "whole self-inquiry," which they define as "a lifelong authentic and deliberate learning about all aspects of the whole self" (p. 39). The third is "empathic connection," or intentionally joining with the experiences of another with our whole selves to bear witness. Finally, they include "compassionate attention," which is "seeing things as they are with a

discerning capacity to suspend action or judgment en route to uninterrupted presence" (p. 43). These four skills together can help social work practitioners develop foundational readiness for embodying the mindfulness approach to the environment-within-person perspective by accessing more ways of knowing their clients and themselves, as well as help them integrate more data into their practices through bodily knowledge.

A third implication for social work practice is that practitioners must give greater attention to understanding their own experiences in the context of the worker–client relationship. At issue is a loss of access to data that our bodies take in through sensing and experience when workers fail to tune into their own present-moment experience. Being disconnected from our bodies as workers means incoming data that could enhance our efficacy with a client may be missed. Professionals require specific training in order to develop this capacity, "where each part of the body is noticed in a systematic and nonjudgmental manner and focus shifts away from the linguistic and conceptual to the nonverbal, imagistic, and somatic aspects of experience" (Pyles & Adam, 2015, p. 18). The capacity described sounds much like mindfulness and the environment-within-person model we have presented in this paper.

Implications for Social Work Education

A major implication for social work education is to revisit the generalist practice approach to social work with a view to updating perspectives, theories and research-supported practices. This involves branching out to other disciplines and theorists. For example, Nevrin (2008) describes some ways in which we can begin to focus on our own bodies and sensations as a way of reconnecting to our bodies and the world. Nevrin advocates the use of breath work in order to help our "inner" and "outer" selves become more aligned. The goal is to experience our own bodies in a more relational sense and to foster a "subtle, dialectical engagement of body-in-mind and mind-in-body" (Zarrilli, 2004, p. 661). Although Nevrin's work is in the field of yoga, he offers helpful insights for social work practitioners, noting that being able "to relax into an emotionally supportive atmosphere may enable the person to more openly express emotion and to feel 'at home' with others" (p. 132).

We must bring theories and models of intervention that offer holistic viewpoints to the forefront of social work education. For example, Pyles and Adam (2015), in their edited text *Holistic Engagement*, discuss a way to advance social work education that addresses many of the issues we have discussed in this paper. They want to help integrate our human experience through using multiple modes of knowledge and our own presence as tools to advance our personal growth, as well as that of our students. This holistic approach is characterized as the process of "integrative capability," by which we are able to use "the dynamic process of engaging fully, responding, and learning through attunement, experience, and context" to improve our practice (Adam & Pyles, 2015, p. 48). Similarly, Lee, Ng, Leung and Chan (2009) offer a social work practice approach that integrates not only components of mind and body, but also spirit. This model of holistic engagement brings the body into social work practice, and it helps social work faculty teach students body-based skills of mindfulness and awareness of multiple ways of knowing. These approaches to holistic engagement fill a gap in social work education, and Adam and Pyles (2015) argue that such approaches can lead to continued professional growth and personal development in social work practitioners. The environment-within-person approach and post-traumatic growth are two stepping stones towards a more holistic generalist practice approach.

Implications for Research

At the same time that body-based and other alternative approaches to social work intervention are becoming known, yoga, meditation and other "alternative" healing approaches are flooding mainstream western culture. The upside of this reality is that there are many mainstream books, workbooks, videos and workshops that package information that is accessible and understandable to a wide range of clients. It is incumbent on the social worker to assess the quality of research evidence supporting any tools recommended to clients. Indeed, Thyer and Pignotti (2015) have cautioned that social workers should avoid use of any pseudoscientific interventions, and point directly to some body-based

modalities in their critique. Social work, as a profession, continues to make advances towards more consistent use of evidence-based treatments; however, many such treatments (i.e., cognitive-behavior therapy, trauma-focused cognitive behavior therapy, exposure therapy), promise improvement for up to only half of individuals treated (Wells & Colbear, 2012). Consequently, there is considerable room to expand the evidence-based social work practice "toolkit," and this is especially true for people living with traumatic stress. Indeed, the adoption of mindfulness-based interventions to facilitate posttraumatic growth is an opportunity for social workers to engage in the rich research literature available in other disciplines, and to employ their evaluation skills in monitoring client progress. Future research opportunities include exploring the efficacy of the environment-within-person map (independent variable) on post-traumatic growth (dependent variable) among clients living with traumatic stress (population).

Summary

In this paper, we have presented a model for bringing mindfulness and the body into social work practice that we have named the environment-within-person perspective. We argue that the use of this perspective, as well as the awareness of the concept of post-traumatic growth, can help social workers interact more effectively with clients that have histories of trauma. We hope that this model is helpful for social workers in terms of bringing mindfulness into their own practices and in facilitating their engagement with clients and/or students of social work. Additionally, we hope that as people attempt to include this model in their practices that they are able to share their experiences with other practitioners through research, so that we can learn what kinds of effects this approach may have with clients and/or practitioners of social work.

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