

**Opinion***Copyright © All rights are reserved by Catherine Cavaliere*

Sensory Health: Expanding Our Thinking about Sensory Processing

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Opinion

We are sensing beings. Sensing is foundational to who we are as people. As Winnie Dunn so eloquently states “The experience of being human is imbedded in the sensory events of everyday life” [1]. But this does not mean that we all sense in the same way. Each person has a unique pattern of processing sensory information. These patterns of processing sensory information influence our experiences within the world. Sensations drive our likes and dislikes, habits and behaviors. For instance, why do some of us love a great cardio class at the gym and others prefer yoga? Why do some of us love horror movies and others hate them? Why do we choose one partner to spend our lives with over another? The answer is because we like or do not like how these activities or people make us FEEL. “Feeling is sensing. Sensation is not just what we see and hear but the information we get from our bodies. This information regarding the internal condition of the body is referred to as interoception. Interoception is the basis for how we recognize emotions [2]. Further, noticing the way your body feels and connecting that to an emotion is what motivates purposeful self-regulated behavior [3]. For example, if we detect the bodily signals of thirst such as dry mouth, we seek water and when we get that water, we feel satisfied. Hence, understanding our body cues, in combination with becoming aware of our own unique sensory processing styles, can aid in our well-being by supporting feelings of satisfaction, contentment and happiness.

However, not all of us can process sensory information in a way that supports well-being. Some people sense too much, too little or have trouble modulating the intensity or duration of what they sense both from their bodies and from the environment. The impact of experiencing sensory processing challenges is profound and far reaching due to the foundational nature of sensory processing in shaping our behavior and influencing our choices in life. Imagine a

life where you are not able to rely on the information coming from your body or the environment? Imagine the impact that might have on your mental health; on your relationships with those around you; on your sense of self.

There is a building body of literature that speaks to the role of sensory processing in health and well-being. Several studies point to the fact that individuals who are more sensitive to sensation than others, have been shown to be at a higher risk for the development of mental health conditions such as anxiety and depression [4,5]. It has also been found that people with sensory sensitivity tend to have more difficulty with developing relationships, have higher rates of social discomfort and introversion, low self-esteem, and negative affect [6,7]. On the other hand, people who need more sensory information to make sense of their world and their bodies, and who actively seek this out, are shown to be more resilient and adaptable [8-10]. Active patterns of sensory seeking are also associated with an increased sense of control, increased self-confidence, better social interactions, and a more satisfying quality of life [8,9]. A person’s response to their sensory processing patterns may also play a role in their response to trauma. Those who exhibit active responses to their sensory needs (active regulation) are better able to respond to a traumatic event without experiencing the negative sensory symptoms of extreme hypersensitivity or, on the other end of the spectrum, complete shutdown [11].

However, sensory processing patterns alone cannot determine one’s well-being. There is a dynamic interplay between internal factors such as sensory processing abilities, and external factors such as family and social supports, that support or inhibit well-being. [12] found that sensory processing sensitivity in conjunction with active regulation strategies and social support led to a decrease in psychological symptoms such as depression and anxiety.

Conversely, negative contextual factors such as problematic home environments, increased the likelihood of experiencing negative affect in sensitive individuals [12]. This points to the fact that persons with sensory sensitivity are more sensitive and susceptible to the effects of their environment on their well-being.

There is also some evidence to suggest the role of sensory processing in physical health. Children with sensory avoiding patterns are less likely to engage in physical activity [13,14] which over time can be a risk factor for chronic health conditions such as obesity and hypertension. Children with sensory seeking patterns, on the other hand, are more likely to engage in active physical activity [15] and thereby potentially ward off long term chronic health conditions associated with decreased physical activity. It has also been shown that individuals who demonstrate sensory sensitive processing patterns are prone to higher levels of stress [16] thus placing them at risk for stress related chronic health conditions such as high blood pressure as well as mental health challenges such as anxiety. Lastly, there are associations between sensory sensitivity and chronic health conditions such as Type I Diabetes, Complex Regional Pain Syndrome, migraines and poor sleep patterns [17-19].

Just as the way that we process sensations internally can support or hinder our well-being, sensations can be used actively as tools to support regulation and well-being. Sensory based interventions aimed at improving active regulation strategies for persons with sensory sensitivities have been shown to decrease stress while increasing positive relationships and increasing role fulfillment [20-22].

With an understanding of the impact of sensory processing styles on areas of health and well-being, occupational therapists are uniquely positioned to be innovators in addressing sensory health from an occupational lens. A three-tiered public health approach [23-24] to addressing sensory health should be utilized as a means of promotion of sensory health and prevention and intervention of sensory ill health. The first tier is promotion of positive mental and physical health through education and programming to foster self-awareness and discovery of one's own sensory health needs. This can include education about what sensory health is and why it is important for physical and mental health and well-being. Addressing sensory health at the second tier involves supporting populations at risk for mental and physical health challenges. This can include but is not limited to, those who are under high amounts of stress, such as high school students, people in high powered jobs, new mothers/fathers and people who have undergone trauma. This can include education on the positive effects of understanding one's own sensory processing patterns and needs and using sensory based strategies to support those needs, as well as supporting optimal health and preventing ill health. At the third tier are the targeted interventions for those who have been identified as having a sensory processing challenge and for those who are diagnosed with conditions that include sensory processing differences such as people with autism, attention deficit disorder and schizophrenia.

Now more than ever, as we are living amidst the Covid 19-pandemic, increasing awareness of sensory health and the impact that this can have on our mental and physical health is extremely important. People are experiencing high levels of stress and a collective trauma and thus are at high risk of being in a state of mental ill health. Occupational therapists with their expert knowledge on sensory processing and its impact on health and occupational participation need to share this information at the community level. We need to inspire people to think about what they need as individuals to maintain physical and mental health, how they fulfill their sensory needs and how that may have changed in light of the pandemic, and about the role of context in sensory health? The time is now to educate society on the importance of sensory health in health promotion and prevention. As we are striving to become more aware and connected to our bodies the concept of sensory health is pivotal to optimizing health. Being aware of what we need to feel happy and satisfied is the key to health promotion and is the missing piece of the wellness conversation.

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Conflict of interest

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