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Counseling Adults With Sensory Processing Disorder: An Exploratory Study

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Sensory processing disorder (SPD) is a neurological disorder impacting up to 20% of the global population. The majority of SPD research has been conducted outside the counseling profession and typically examines the presentation of SPD in youth. Therefore, counselors often have limited awareness of this disorder. The purpose of the present study was to conduct an exploratory qualitative thematic analysis (N = 89) examining the primary concerns of adult counseling clients with SPD, as reported by their counselors. Results include 12 themes that were organized into three categories: biological, psychological, and social. Thus, the results reflected the biopsychosocial model, originally outlined by G. L. Engel, as it pertains to SPD. Researchers provided implications for mental health counselors' practice and suggestions for future research.

Sensory processing disorder (SPD) is a neurological disorder affecting 5%–17% of the global population by altering how sensory inputs (i.e., auditory, olfactory, tactile, visual, gustatory, proprioception, and vestibular) are perceived, processed, organized, and responded to (e.g., Ben-Sasson et al., 2009). Scholars believe that SPD causes developmental and functional impairments due to hyper- or hyposensitivity, which can lead to difficulties regulating behaviors, emotions, and motor abilities in response to sensory stimulation (Goodman-Scott & Lambert, 2015; Zero to Three, National Center for Infants, Toddlers, and Families [Zero to Three], 2005). Due to its prevalence, counselors will likely encounter clients with SPD. At the same time, most existing research pertains to allied professions (e.g., occupational therapy [OT], social work, psychiatry) and is specific to youth (e.g., Fox et al., 2014; Goodman-Scott et al., 2016). In this paper, researchers describe the results of a qualitative thematic analysis conducted on survey data, with a national sample of mental health counselors (N = 89), examining the primary concerns of adults with SPD, as described by their counselors.

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SENSORY PROCESSING DISORDER

For decades, the field of OT has theorized and researched SPD in youth, including the addition of diagnostic criteria into both the *Diagnostic Manual for Infancy and Children* (Interdisciplinary Council on Developmental and Learning Disorders [ICDLD], 2012) and Zero to Three's (2005) *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood–Revised*. Specifically, diagnostic criteria for SPD can include difficulty modulating physiological or behavioral responses (i.e., over-responsivity or under-responsivity); altered motor activity (i.e., gross, fine, and oral motor activity); language or cognitive concerns; poor sleep, eating, or elimination patterns; and/or changes in affective tone that may impact interactions with others (ICDLD, 2012; Zero to Three, 2005).

After Jane Ayres, a notable researcher, occupational therapist, psychologist, and neuroscientist, discovered patterns of atypical sensory processing in children, SPD emerged as a highly individualistic neurobiological disorder presenting in children (Parham & Mailloux, 2015; Walbam, 2014). While the field of OT contains numerous studies supporting the SPD diagnosis (e.g., Ayres, 1989; Champagne et al., 2010; Schoen et al., 2014), other disciplines have only recently begun discussing this disorder, including social work (e.g., Walbam, 2014), nursing (e.g., Byrne, 2009) neuroscience (e.g., Miller et al., 2009; Owen et al., 2013; Schoen et al., 2009), and counseling (e.g., Goodman-Scott et al., 2016; Goodman-Scott & Lambert, 2015; Murphy, 2011).

Counseling and Sensory Processing Disorder

Counselors will likely encounter clients with SPD. Because SPD is often unrecognized and thus untreated by counselors, it is important for counselors to appropriately identify and understand primary SPD symptoms, secondary symptoms stemming from coping with SPD (e.g., anxiety, aggression, poor self-esteem, relational concerns), and the role of counselors as advocates (Goodman-Scott et al., 2016; Goodman-Scott & Lambert, 2015; Miller et al., 2012; Murphy, 2011; Walbam, 2014). However, there is limited research on SPD in the counseling literature. In their conceptual article, Goodman-Scott and Lambert (2015) provided case studies of youth with SPD, offering implications for school and mental health counselors. Next, Goodman-Scott et al. (2016) noted that the majority of counselors surveyed ($N = 204$) reportedly lacked knowledge and competence regarding SPD in children and adolescents. For those counselors working with youth with SPD, they discussed common presenting concerns, which were often related to primary or secondary SPD symptoms. The remaining counseling literature on SPD includes a national magazine article on SPD across the life span (Murphy, 2011). Thus, there exists only one empirical study in the counseling field focused on SPD in youth, and no research pertaining to adults with SPD.

Sensory Processing Disorder Recognition

Relatedly, counselors may be unfamiliar with SPD due to its lack of inclusion in the latest revision of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; *DSM*-5; American Psychiatric Association [APA], 2013). There is consensus that sensory challenges exist, as evidenced by the inclusion of sensory-related concerns in the *DSM*-5 as part of autism spectrum disorder (ASD) and avoidant/restrictive food intake diagnoses (APA, 2013). However, the *DSM*-5, in contradiction with youth-diagnostic manuals (e.g., ICDLD, 2012; Zero to Three, 2005), does not include the diagnosis of SPD. The *DSM* is an evolving diagnostic manual that incorporates new research into subsequent editions (APA, 2013). As a result, during the latest revision of the *DSM*, the national SPD Scientific Work Group comprising physicians, occupational therapists, psychiatrists, neurologists, and researchers advocated and submitted a proposal supporting the inclusion of SPD (Star Institute for Sensory Processing, 2012). This proposal was denied due to the reported lack of research (APA, 2013). Thus, two primary critiques of SPD exist: (1) whether SPD is an independent disorder, and (2) whether it is a lifelong disorder (McMahon et al., 2019; Walbam, 2014).

First, researchers suggest an overlap between sensory concerns and other mental health and medical disorders, such as anxiety disorders, ASD, attention-deficit/hyperactivity disorder (ADHD), conduct disorder, depression, Fragile X syndrome, obsessive-compulsive disorder, and substance use disorders (Bailliard & Whigham, 2017; Engel-Yeger, 2014; Fox et al., 2014; Goodman-Scott et al., 2016; Van Hulle et al., 2012). Hence, high comorbidity between SPD and other diagnoses brings SPD into question as a stand-alone disorder and may pose a problem when attempting to isolate SPD symptoms. As a second concern, the trajectory of SPD from childhood into adulthood is poorly understood, challenging whether SPD is a lifelong phenomenon (McMahon et al., 2019). Researchers acknowledge that the prevalence of sensory-related concerns in adults has largely been unknown (Mazor-Karsenty et al., 2015). Ultimately, most research about SPD has focused on youth; therefore, researchers wonder whether SPD impacts adults, suggesting the need for further investigation (Goodman-Scott et al., 2016; Mazor-Karsenty et al., 2015).

In response to these two critiques, researchers have sought to determine whether SPD is an independent and lifelong disorder. In examining SPD as an independent disorder, Schoen et al. (2009) discovered contrasting profiles between children with SPD and ASD, in terms of sensory-related behaviors and varying levels of functioning in the sympathetic nervous system. Similarly, Chang et al. (2014) reported significant group differences in brain connectivity between typically developing adolescents and individuals diagnosed with SPD and ASD. Miller et al. (2012) found evidence that sensory assessment, ADHD assessment, parental report, and physiological measures suggest SPD and ADHD are two distinct diagnoses. Owen et al. (2013) compared the micro-

structure of white matter in individuals with SPD with matched neurotypical participants. Results indicated that individuals with SPD had reduced white matter, suggesting there may be a biological basis for SPD. Despite limited generalizability due to small and homogenous samples, these recent studies offer supportive evidence of SPD as a stand-alone disorder, highlighting the neurological and behavioral differences that exist between youth with SPD and those with other common comorbid disorders (Chang et al., 2014; Miller et al., 2012; Owen et al., 2013; Schoen et al., 2009).

Relatedly, individuals may expend significant energy developing coping skills in response to the symptoms of SPD (Goodman-Scott et al., 2016; Goodman-Scott & Lambert, 2015; McMahon et al., 2019; Miller et al., 2012; Murphy, 2011; Walbam, 2014). Secondary symptoms, such as depression, anxiety, and challenges in social interactions and relationships, are often attempts to self-regulate and cope with the primary symptoms of SPD. Thus, to further address SPD as an independent disorder, research must explore whether the overlap between sensory concerns and mental health and medical disorders is a consequence of individuals coping with SPD symptoms.

In considering whether SPD is a lifelong disorder, McMahon et al. (2019) conducted an exploratory study that suggested children continued to have SPD symptoms into adulthood, indicating the existence of symptoms across the life span. Their study offered an initial glimpse of how childhood SPD may continue to impact adulthood and provides support to the argument that children do not grow out of sensory-related challenges (McMahon et al., 2019). Further, researchers have constructed instruments to assess sensory-processing concerns (Blanche et al., 2014; Tavassoli et al., 2014), which have been employed, revised, and validated (Engel-Yeger, 2014). The Sensory Perception Quotient (SPQ) was designed mainly to measure sensory sensitivity in adults; however, the researchers discovered that the instrument differentiates sensory concerns between adults with and without an ASD diagnosis (Tavassoli et al., 2014). Another instrument, the Adult Sensory Processing Scale, was created to measure sensory-related symptoms in adulthood, such as sensory over-responsiveness, under-responsiveness, and sensory-seeking behaviors (Blanche et al., 2014). These instruments provide further evidence that measurable symptoms of SPD can be assessed independently of ASD and that SPD symptoms can continue into adulthood (Blanche et al., 2014; Tavassoli et al., 2014).

RATIONALE AND PURPOSE STATEMENT

SPD has been recognized as a disorder in the OT field, and youth-specific nosologies have been based on decades of research. Recent literature has supported biological differences between people with SPD and those with other diagnoses, and emerging research suggests an etiological path of SPD from childhood into adulthood (Blanche et al., 2014; Chang et al., 2014; McMahon et al., 2019; Miller et al., 2012; Owen et al., 2013; Schoen et al., 2009;

Tavassoli et al., 2014). Considering the prevalence of SPD, counselors will likely work with individuals who have sensory-related concerns, although SPD is largely unrecognized and untreated in the counseling profession (Goodman-Scott et al., 2016; Goodman-Scott & Lambert, 2015; Murphy, 2011). Due to the limited research on SPD in the counseling field, and the total lack of research pertaining to adults, scholars recommended counseling-specific research to bolster the field's understanding of how SPD may present in adults during counseling sessions (Goodman-Scott et al., 2016; Goodman-Scott & Lambert, 2015). The purpose of this research was to conduct an exploratory study garnering counselors' perceptions of the presenting needs of adult clients self-identifying with SPD, attending to the gap in literature. The following research question guided the study: According to professional counselors, what are the main issues typically addressed with their adult clients who have SPD? The results may highlight areas for further study, as well as implications for providing mental health counseling to adults.

METHOD

To address the research question, researchers conducted a qualitative thematic analysis on survey data, with a national sample of mental health counselors ($N = 89$). They examined the primary concerns of adults with SPD, as relayed by their mental health counselors.

Participants

Participants were professional counselors working with adult clients with SPD in the United States. Overall, 304 individuals completed the survey, and 89 of those met the participation criteria, including (a) agreeing to the informed consent, (b) self-identifying as a practicing counselor working with adults with SPD, and (c) completing 90% or more of the required survey questions. Thus, every participant reported having a master's degree in counseling and currently working as a practicing counselor. Some participants noted multiple licenses and/or certificates. Demographic data are summarized in Table 1.

Participants also reported their levels of knowledge, preparation, competence, and experiences collaborating and screening as they pertain to counseling adults with SPD. Specifically, when describing their level of knowledge about SPD before the present study, almost half reported having moderate knowledge (47.2%), 40.4% reported little knowledge, 12.4% reported substantial knowledge, and 0% reported no knowledge about SPD. When elaborating on how they acquired their knowledge on SPD, most participants noted professional reading related to counseling (e.g., books, journals, magazines; 52.8%); colleagues (38.2%); trainings/conferences related to counseling (37.1%); and self, family member, or friend with SPD (27.0%). Other respondents indicated they learned about SPD through their master's coursework in counseling/counselor education (15.7%), clinical supervision (18.0%), training/conferences

Table 1 *Participant Demographic Data*

Demographic		%
Gender		
	Female	74
	Male	20
Race/ethnicity		
	White (non-Hispanic)	85
	African American	1
	Asian/Pacific Islander	2
	Hispanic/Latino	3
	Multiethnic	1
Professional licenses/certifications		
	LPC/LMHC/resident or equivalent	89
	Other (e.g., LMFT, addiction counselor, NCC)	25
Education level		
	Master's degree	67
	Post-master's certificate/degree	17
	Doctorate	12
Graduation year		
	1968–1979	6
	1980–1989	14
	1990–1999	27
	2000–2009	25
	2010–2016	28
Employment settings		
	Private practice	67
	Clinical mental health clinics/agencies	25
	Substance abuse rehabilitation facility	6
	Other (e.g., higher education, hospital)	14
Client demographics		
	Emerging/young adulthood (18–29 years)	96
	Early adulthood (30–39 years)	89
	Middle adulthood (40–65 years)	90
	Late adulthood (65+ years)	60
	Couples	65
	Families	45

Demographic	Mean	*SD*
Participant age	53.41	12.69
Years providing counseling	17.73	11.78

Note. LPC = licensed professional counselor; LMHC = licensed mental health counselor; LMFT = licensed marriage and family therapist; NCC = national certified counselor. Percentages may not reach 100% due to nonresponse.

unrelated to counseling (10.1%), or in a specialty other than counseling/counselor education (7.9%).

In regard to competence, participants rated their perceived competence to work with clients with SPD on a 0 (*no competence*) to 5 (*high competence*)

Likert scale (M = 3.313; SD = 1.334). They reported various levels of perceived competence to screen for SPD in clients, on a 0 (no competence) to 5 (high competence) Likert-type scale (M = 3.048; SD = 1.325). Most participants indicated that they screened their clients for SPD either not at all (47.2%) or informally (43.8%); 6.7% reported providing an SPD-related checklist for some clients, depending on their needs and symptoms, or other strategies for screening (2.2%).

Finally, participants indicated that they collaborated with other professionals regarding their clients with SPD, including physicians (41.6%), occupational therapists (40.4%), psychologists (31.5%), social workers (28.1%), licensed professional counselors (27.0%), and licensed marriage and family/couple therapists (10.1%).

Measure

Web-based surveys can be an efficient, anonymous, standardized strategy for collecting data across a large target sample (Dillman et al., 2009). The present survey consisted of close-ended demographic and descriptive questions (i.e., Likert-type scales and checklists) to gain background information on participants, such as their self-reported knowledge, preparation, competence, and experiences collaborating and screening, pertaining to counseling adults with SPD. In addition, the survey included open-ended questions, which were used specifically for data analysis. These open-ended questions were (a) Regarding adults with SPD, what were their presenting concerns? and (b) Regarding adults with SPD, what was the focus of your counseling together?

The researchers developed and piloted the survey utilizing four steps. First, they developed the survey items based on SPD literature. Next, two individuals familiar with the SPD literature reviewed the survey and provided feedback on content and format. Three counselors then completed a pilot test of the survey and provided feedback on format, content, email solicitation, and incentives. Researchers incorporated all suggestions that were provided during review. Last, the researchers in the present study collected data using Qualtrics, a university-sponsored, web-based survey tool.

Procedures

When developing and distributing the survey, researchers used the following recommendations outlined by Dillman et al. (2009): provide succinct questions, instructions, and solicitation messages; send solicitations early in the day and week; organize questions by similarity; request minimal personal information; place sensitive demographic information at the end; provide incentives for completion (raffled SPD-related books); test the survey through various platforms (e.g., computers, tablets, and cellular phones); and pilot-test the survey for content and clarity with members of the population.

Data collection began after obtaining approval from the primary researcher's university human subjects review committee. The researchers used web-based communication platforms and email lists from professional organizations

(e.g., American Mental Health Counselors Association, American Counseling Association [ACA]). Participation was requested through each outlet at least twice. Solicitations included a description of the participation criteria and study, informed consent, participants' rights, researchers' contact information, and a link to the web-based survey. After closing the survey, researchers cleaned the data, including only participants meeting the selection criteria (described previously). Due to the unknown number of individuals who received the survey solicitation and were also eligible for participation, it was not possible to calculate a response rate.

Data Analysis Strategies

Researchers qualitatively analyzed participant responses to two open-ended questions: (1) Regarding adults with SPD, what were their presenting concerns? and (2) Regarding adults with SPD, what was the focus of your counseling together? Specifically, they analyzed data across interview questions. They employed thematic analysis as outlined by Braun and Clarke (2006) to describe and summarize emergent themes from the data, both manually and with the assistance of QSR*NVivo software. Researchers systematically progressed through the six phases of thematic analysis. In the first step, becoming familiar with the data, researchers each read through the transcripts multiple times and discussed their reactions and reflections during research meetings. In the second step, creating initial codes across all data sources, researchers participated in open coding, assigning codes to the open-ended responses, and then engaged in consensus coding, discussing codes assigned to each data segment, until reaching full agreement across the research team. In the third, fourth, and fifth steps, searching codes for larger themes, reviewing themes and their relationships, and constructing definitions and names for themes, researchers held lengthy meetings to determine themes across the coded data, reviewed relationships between themes, and finally defined and named these themes, labeling them accordingly in the codebook. In the sixth step, researchers highlighted examples of each theme and category in the codebook and decided which findings to use in the Results section. Throughout the data analysis process, researchers utilized a semantic approach to summary and interpretation, which was appropriate because participant responses varied greatly in length and depth of description. The data analysis approach was also inductive, grouping data without a preexisting frame of analysis and allowing themes to emerge in the process (Braun & Clarke, 2006).

Trustworthiness Strategies

Trustworthiness strategies are often used in qualitative research to increase the rigor of the study (Creswell & Poth, 2018; Hays & Singh, 2012). The researchers in the present study conducted consensus coding, also known as investigator triangulation or intercoder agreement, in which the first and third researchers reached 100% agreement, or consensus on all coding, themes, and subthemes. Next, the second researcher, who was removed from the data anal-

ysis, served as an auditor, reviewing the coded data, codebook, field notes, and audit trail, and providing feedback, including confirmability and rival explanations. Further, the researchers bracketed, or set aside, their assumptions and biases during the study, discussing their beliefs and reactions during research meetings. For instance, the researchers had a range of experiences working with clients with SPD, and thus, voiced their corresponding beliefs. Finally, after the auditor and researchers discussed feedback on the data and findings, the researchers reviewed the data to resolve discrepancies in coding.

Reflexivity Statement

The three researchers held doctorates in counselor education and supervision. The first researcher identifies as a White woman of European descent, is employed as an associate professor in counselor education, and has worked in school and clinical settings with youth diagnosed with SPD and sensory concerns. The second researcher identifies as a White woman of European descent, is employed as an assistant professor in counselor education, and has worked with children and adolescents in schools and with adults in outpatient mental healthcare. The third researcher identifies as a woman of Mediterranean descent and is employed as a higher education assessment professional; she has worked as a mental health counselor and clinical researcher with clients of all ages and diagnoses.

RESULTS

Researchers investigated professional counselors' (N = 89) accounts of the primary concerns addressed with adult clients with SPD. While participants were required to complete 90% of the survey overall, 14 participants answered only one of the two qualitative questions. Twelve themes emerged that were organized into three categories: biological, psychological, and social (see Table 2). Participants' responses varied in range, as some reported findings across multiple categories/themes, while others presented across few categories/themes.

Biological

The biological category included themes related to physiological processes, such as sensory experiences (e.g., sight, taste, touch) and body movements. There were 71 total references in the biological category, and two themes emerged: (1) physical sensations and (2) behaviors.

Physical Sensations

When asked about clients' presenting concerns, some respondents referenced their concerns with physical senses, such as sight, sound, touch, smell, taste, proprioception, and vestibular perception. There were 37 references to clients' physical sensations. Examples included "bright sun, hot temperatures, the feel of a certain fabric on their skin," "not being able to tell if they were hungry, not being able to feel the weight of an object," "balance issues," and

Table 2 *Emergent Themes of Presenting Concerns of Adult Clients with Sensory Processing Disorder*

Category/theme/subtheme	Definition	Number of references
Category 1: Biological	References about physiological processes, such as sensory experiences (e.g., sight, taste, touch) and body movements	71
Physical sensations	References include descriptions of concerns with sensations such as sight, taste, smell, hearing, and taste. May or may not specify whether hyper- or hyposensitive	37
Extremes in sensitivity	Includes hyper- and hyposensitivity for any of the senses; general reference to sensory; does not name a specific sense	13
Behaviors	Include statements about clients' physical movements and/or actions that do not reference physical sensations or sensitivity	21
Category 2: Psychological	References about clients' thoughts, feelings, perceptions, states of mind, and other issues related to mental health	184
Coping skills	Include adjustment, adapting, tolerating symptoms, and/or learning new strategies/techniques for distress	41
Executive function	Includes focus, concentration, attention, organization and problem solving, information processing, and impulse control	19
Co-occurring mental health	References to a clinical disorder (e.g., attention deficit hyperactivity disorder [ADHD], anorexia nervosa, anxiety disorder, major depressive disorder) or other mental health issues (e.g., anxiety, depression)	78
Anxiety	Descriptions include "anxiety" and "social anxiety"	42
Depression	Descriptions include "depression"	22
Clinical disorders	Descriptions include clinical mental health disorders (e.g., ADHD, anorexia nervosa, anxiety disorder, major depressive disorder) and not symptoms or mood status	14
Category 3: Social	Interpersonal, communication, behavioral, and social skills, work or school	72
Education/vocation	Includes references about performance, achievement, and goals related to school and/or work	28
Interpersonal skills	Includes references to how the client interacts with other people	24
Relationships	Referencing the dynamic or relationship between the client and another person in their life (e.g., friendship, romantic partnerships)	20

"issues with smells, food." A subtheme with 13 references emerged, in which respondents described clients' extremes in sensitivity. The respondents noted that clients either were very sensitive or needed extra sensory input. Examples included "hypersensitivity," "overstimulation," "extreme responses to invasive sound experiences," "sensory-seeking behavior," and "heightened sensitivity to sensory information that others are not aware of."

Behavior

At times, respondents described movements or actions when referencing client concerns, without noting a specific physical sense. There were 21 references to client behavior. Examples included "aggression," "constant movement," "stimming," and "engaging in certain self-soothing behaviors."

Psychological

The psychological category included themes related to thoughts, feelings, perceptions, states of mind, and other issues related to mental health. This was the largest category, comprising three themes and 184 references total. The three salient themes in this category included (1) coping skills, (2) executive function, and (3) co-occurring mental health.

Coping Skills

When asked about the focus of their counseling with clients with SPD, some respondents described working on strategies for addressing distress, tolerating symptoms, and adjusting and adapting to situations. These references were grouped into the theme of psychological coping skills. This was the second largest theme within the psychological category, with 41 references. Examples of the coping skills theme included "distress tolerance," "developing strategies for reducing sensory overload," "mindfulness," "ways to self soothe and calm," "learning to tolerate uncomfortable situations," and "teach anxiety reduction techniques."

Executive Function

References about client concerns included focusing, concentrating, attention, problem solving, organization, processing information, and impulse control. These descriptions about cognitive processes were grouped into the theme of executive function. There were 19 references to executive function, and examples included "challenges with focus," "difficulty processing directions," "task completion," "concentration," and "attention."

Co-Occurring Mental Health

When describing client concerns, respondents sometimes referenced clinical disorders and other mental health issues, in addition to sensory processing. These descriptions were grouped into a theme of co-occurring conditions, or comorbidity, with 78 references to this theme. This theme had three subthemes: "anxiety," with 42 references; "depression," with 22 references; and

"clinical disorders," with 14 references. Examples of clinical disorders included "ADD/ADHD," "autism spectrum," and "substance abuse issues."

Social

The social category included themes related to interpersonal communication, relationships, social skills, and educational or vocational settings. There were 72 references in this category, and three themes emerged: (1) education/vocation, (2) interpersonal skills, and (3) relationships.

Education/Vocation

Respondents included descriptions about client performance, achievement, or goals related to their school or work environments. There were 28 references within the education/vocation theme. Examples included "educational issues such as studying, test taking," "differences in performance in high school than in college," "how to seek accommodation in interviews," and "vocational rehab to sustain meaningful employment and help provide ways to deal with limitations."

Interpersonal Skills

References about how clients interact with other people were grouped into the interpersonal skills theme. There were 24 descriptions of client concerns with interpersonal skills. Examples included "social awkwardness," "misinterpretation of social cues," "communication," "difficulty getting along with others," and "difficulty with intimacy."

Relationships

When describing the clients' presenting concerns, respondents also referenced the interpersonal dynamic between their client and other people in the client's life; these were grouped into the relationships theme. There were 20 references to relationships, and examples included "family conflict," "marital problems," and "feelings of anger/distrust of others because of inability to adequately communicate feelings."

DISCUSSION

In conducting this study, researchers gained a better understanding of professional counselors' ($N = 89$) accounts of the primary concerns addressed when counseling adults with SPD. Given that most research on SPD has been conducted in allied professions (e.g., Chang et al., 2014; McMahon et al., 2019; Miller et al., 2012; Owen et al., 2013; Walbam, 2014), this exploratory study provided a unique lens into counselors' specific experiences with adults with SPD, which has, to our knowledge, otherwise not been studied.

According to the counselors in this study, their adult clients with SPD were seeking support for a combination of physical, psychological, and/or interpersonal symptoms. Accordingly, the overall structure of these emergent themes resembles the biopsychosocial model originally outlined by Engel

(1977), though with symptoms specific to SPD presentation. This model challenges the traditional medical model of simply treating a disease or disorder, and instead addresses mental illnesses by emphasizing the importance of behavioral, psychological, and social aspects of patients' experiences (Engel, 1977). The biopsychosocial model generally aligns with the person-centered, holistic approach often taken in professional counseling and has been theoretically accepted in the healthcare field (Wade & Halligan, 2017). However, some have argued that practitioners have yet to fully support the approach by integrating it into regular practice, which may be due to the logistical challenges of coordinating care across providers (e.g., Lane, 2014; Wade & Halligan, 2017). Thus, the results of the present study offer a biopsychosocial lens to view the unique experiences and primary concerns of adults with SPD.

Counselors' accounts of clients' presenting biological, psychological, and social concerns are also aligned with the description of SPD in the literature, including alterations in perceiving, processing, organizing, and responding to senses, manifesting as over- or underreaction to stimuli, and impacting one's daily functioning (Miller et al., 2012). Consistent with the presentation of SPD in the literature, participants' responses varied; some reported SPD symptoms across multiple categories/themes, while others presented across few categories/themes. Thus, the present study offered consistent representation of SPD aligned with studies in OT, neuroscience, social work, and other allied fields. The findings reinforced common understanding of SPD, but as viewed through the unique experience of counseling adults with SPD, which has otherwise not been explored.

The presenting concerns reported in the current study by counselors working with adults are similar to the findings of Goodman-Scott et al. (2016) pertaining to youth with SPD. In particular, counselors noted that youth with SPD presented with the following concerns: externalizing and internalizing behaviors (e.g., anxiety and inattentiveness; outbursts); over- and under-sensitivities; and challenges with self-regulation, social and communication skills, and school related activities. The parallel findings between these two studies support the conclusion of McMahon et al. (2019) that SPD symptoms persist across the life span.

The largest category in this study conveyed the psychological aspects of clients' experiences with SPD (i.e., co-occurring mental health concerns, secondary symptoms, and coping skills). This emphasis seemed fitting because clients often seek services from professional counselors to gain therapeutic support for mental health concerns (e.g., thoughts and feelings that are distressful). This finding also relates to the literature, in that (a) individuals with SPD may have co-occurring mental health disorders (Bailliard & Whigham, 2017; Engel-Yeger, 2014; Van Hulle et al., 2012) and/or (b) they could be experiencing SPD as a distinct, stand-alone disorder, and the psychological symptoms could be secondary symptoms of SPD, as a result of attempting to cope with the disorder (e.g., anxiety, depression; Goodman-Scott & Lambert,

2015; Goodman-Scott et al., 2016; McMahon et al., 2019; Miller et al., 2012; Murphy, 2011; Walbam, 2014).

STUDY LIMITATIONS

In terms of limitations, the majority of participants were White/non-Hispanic, which could denote bias in self-selection or recruitment. In addition, some participants referenced children/teens with SPD, despite questions and content specifying adults. To address this inconsistency, researchers reviewed each case independently, removing data related to children and adolescents. Last, researchers did not gather information on how or when their clients received a diagnosis of SPD, leaving potential variability in counselors' and clients' definition of SPD.

IMPLICATIONS AND FUTURE RESEARCH

This was the first study to examine the presenting concerns of adult clients with SPD who were seeking counseling. While the purpose of this qualitative study was not to generalize findings, counselors may consider the following implications. First and foremost, mental health counselors may use the results of this study to gain a more robust understanding of how SPD could present in the adults they are counseling. Some participants (40.4%) reported having little knowledge on SPD, as well as moderate competence to work with this population. In a similar vein, only a small percentage (15.7%) noted having SPD-related content in their master's coursework in counseling/counselor education. As a result, there may be a need for greater preparation and training on SPD. For instance, counselor educators may consider including more SPD material in their preparation programs, including opportunities for learning content theoretically and practicing concepts practically. Also, practicing counselors may benefit from seeking SPD-specific training and resources within and outside of the profession, to increase their awareness and competence. OT training and resources may be of particular interest. Counselors could also seek clinical supervision to increase their skills pertaining to serving clients with SPD.

Next, when working with clients with SPD, counselors could collaborate and consult with allied professionals who specialize in, treat, and diagnose SPD (e.g., occupational therapists). In addition to individual collaborations/consultations, counselors could be part of a client's treatment team, comprising multiple professionals working together toward the client's common goals and sharing expertise and resources. As a result, counselors may incorporate content gleaned from other professionals and the treatment team into their clients' counseling treatment plan and counseling goals, due to having a more comprehensive understanding of the client's presenting needs and underlying concerns. Aligned with professional recommendations, counselors should be mindful that the focus of counseling would likely not be to address the under-

lying SPD specifically, but rather to include comorbid disorders or secondary symptoms of SPD, such as anxiety, depression, and difficulties with social skills.

As nearly half (43.8%) of participants reported screening clients for SPD informally, counselors may consider strategies to more formally screen clients for SPD. For instance, counselors may include SPD screening measures as part of their intake paperwork, utilizing checklists such as the Sensory Processing Disorder Checklist (Sensory Therapies and Research Center, 2006). The results of such screening could inform the counselors' practice and also initiate collaboration and consultations as needed with other providers versed in SPD.

While there have now been counseling-specific studies for youth and adults, future research may explore SPD across the life span, discussing symptoms and treatment. Researchers could also conduct future qualitative investigations, such as a multi-case study approach, utilizing in-depth interviews to gain rich information on counseling clients with SPD. Finally, there is a need for large-scale research examining SPD in adults, studying the prevalence of the disorder over the life span, and comparing SPD with often co-occurring mental health disorders.

CONCLUSION

According to the ACA (2014), counselors are ethically responsible for ensuring clients are accurately diagnosed and appropriately treated. As upwards of 20% of the general population has SPD, mental health counselors must be aware of, screen for, and collaborate regarding clients with SPD to ensure they receive accurate diagnosis and treatment. This exploratory investigation is the first in the counseling field to shed light upon how SPD presents in adults during counseling. This study adds to the burgeoning, multidisciplinary research base on SPD and paves the way not only for future studies but for advancing mental health counseling services to adults with SPD.

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