Trauma-Informed Approaches in Pelvic Health: Exploratory Understandings of Adverse Childhood Experiences, Trauma, and Trauma-Informed Care

Kristen Springer, OTD, OTR/L, RYT-500[1]
Rebecca Patton, PT, DPT[2]
Heather Hagaman, MA, C-IAYT[3]
Daniel Martin, DSc, OTR/L[1]

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ABSTRACT

Background: Although pelvic floor clinicians (PFCs) typically approach evaluations and interventions through a client-centered lens, trauma-informed care (TIC) is a relatively new clinical approach. Because of the high prevalence of adverse childhood experiences (ACEs) and adult traumatic experiences among clients with pelvic floor dysfunction and complex pelvic pain, TIC should be integrated into all pelvic health practices.
Objectives: This study explores PFCs' current understanding of ACEs, trauma, and TIC.
Study Design: Exploratory concurrent.
Methods: When recruiting PFCs, purposive and convenience sampling methods were administered. There was no minimum or maximum age, sex, or gender requirement, and all races and ethnicities were encouraged to participate. The interviews were recorded, transcribed, and coded, abiding by phenomenological methodology.
Results: Each research question was exceedingly addressed through both the survey and qualitative interview responses.
Conclusion: This study outlines how PFCs actively translate a trauma-informed framework into their clinical practices while revealing their most prevalent areas of improvement, areas of future growth, and urgency for collaboration across the specialty.
Key Words: adverse childhood experiences, pelvic floor clinicians, pelvic health, trauma, trauma-informed care

[1]Shenandoah University, Winchester, Virginia.
[2]Patton Pelvic Health, Phoenix, Arizona.
[3]Beloved Yoga, Reston, Virginia.

Institutional review board protocol approved by Department of Occupational Therapy, Shenandoah University, February 2023.

The authors declare no conflicts of interest.

Received March 1, 2023; revised March 24, 2023; accepted April 01, 2023.

Corresponding Author: *Kristen Springer, OTD, OTR/L, RYT-500, Department of Occupational Therapy, Shenandoah University, 1775 N Sector Ct, Winchester, VA 22601 (kristen.springer@su.edu).*

DOI: 10.1097/JWH.0000000000000285

INTRODUCTION

The core experiences of psychological trauma are disempowerment and disconnection from others. Recovery, therefore, is based upon the empowerment of the survivor and the creation of new connections. Recovery can take place only within the context of relationships; it cannot occur in isolation.

Dr Judith Herman[1]

Trauma is universally prevalent across the life span and is encountered by practitioners in all health care settings due to its adverse influences on one's physiological, psychological, and relational development.[2,3] The impacts of trauma are difficult to define objectively, as they are the subjective construal of one's lived experiences. In other words, they are lasting imprints affecting one's whole self, relationships, and perceptions of the world. Although trauma can occur at any stage of life, adverse childhood experiences (ACEs) are currently organized into 10 categories: physical, emotional, and sexual abuse; physical and emotional neglect; witnessing domestic violence; having a family member affected by mental illness; substance abuse; incarceration; or losing a parent to separation or divorce.[2,3] These aberrant experiences often distort one's perception of safety, negatively influence healthy development, and appear to be directly associated with instances of depression, anxiety, perceived pain sensitivity, posttraumatic stress disorder (PTSD), and attempted suicide.[2]

Evidence suggests that ACEs often "override any genetic, constitutional, social and psychological factor

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contributing to resilience due to its ability to alter biological stress systems ensuring long-term effects on brain development."[4] Furthermore, the impact of ACEs is often exacerbated by relational instability and lack of support.[5] These long-term effects often influence deficits in emotion regulation, impulsiveness, distrust, and challenges with intimacy as an individual develops.[6–8] These neurobiological indicators often persist into adulthood[9] and pervade regions affected by the nervous system—such as the pelvic floor.[10]

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ACEs in Pelvic Health: An Overview

Although trauma affects the cortical regions involved in stress responses and regulatory skills, clients in pelvic health settings may exhibit neurological, physiological, and/or psychological symptoms.[10] For example, one of the most common conditions comorbid to pelvic floor disorders is PTSD, which is mediated by changes in one's neural stress mechanisms and moderated by stress-response regulation skills.[11,12] Karsten and colleagues'[12] exploratory analysis supports this notion, as there was a significant association between the PTSD symptoms of nightmares and hypervigilance (via the *Diagnostic and Statistical Manual of Mental Disorders* [Fifth Edition] PTSD Screening) and pelvic floor overactivity (via the Amsterdam Overactive Pelvic Floor Scale).

Although there is limited research developed by pelvic floor clinicians (PFCs) on the impacts of ACEs on pelvic health, related professions have delved into research on the topics of chronic pelvic pain and dysfunction in the urogenital pelvic region.[10,12–14] Furthermore, research suggests these chronic and intensified sensations are often exacerbated by childhood trauma and demonstrate the relationship between physical diagnoses and psychiatric dysfunction.[14,15] Following this phenomenon, Chiu and colleagues'[14] study examining interstitial cystitis found significant between-group differences for depression, anxiety, psychoform, and somatoform dissociation variables. A similar interdisciplinary study explored the impacts of ACEs on urologic chronic pelvic pain syndrome and reported strong associations with diffuse pain, comorbid functional symptoms/syndromes, and worse perceived physical well-being.[10] These empirical constructs are significant associations, as responses to ACEs and pelvic pain likely have similar neurophysiological responses. The aforementioned health concerns constitute a need for additional research, as it appears to be the inception of evidence-based insight regarding ACEs' enduring nature on one's pelvic health.

ACE Screenings in Pelvic Health

Although PFCs tend to evaluate clients through a sensitive lens, trauma-informed care (TIC) is a relatively new clinical approach.[15–17] Because of the high prevalence of traumatic experiences among clients with pelvic floor dysfunction,[10] it may be salient to administer screenings to clients with a traumatic history. However, there is no consensus on a specific ACE measurement protocol to utilize at a client, group, or population level.[18] Therefore, when assessing, PFCs may benefit from administering either a child- or adult-focused ACE measure.

Based on the themes extracted from the literature reviewed, ACEs serve as critical determinants of health and should be examined when fully capturing a client's holistic needs. Accordingly, the baseline data analyzed from one's ACE score open the aperture into one's life experiences.[18] To date, evidence on assessing ACEs in adults suggests that clients do not "object to and find dialogue about ACEs empowering."[5] Although this client-provider misconception may stem from the practitioner providing services,[13,15,16] it is vital to address PFCs' level of comfort with ACEs, including their "lack of training or clarity on resources and appropriate response to [the] assessment of results."[5] Although public health advocates are laboring to develop solutions to these systemic barriers, medical, translational, and rehabilitative researchers would benefit from developing a trauma-informed protocol for PFCs.[16,17]

Guiding Theoretical Implications

Because of the paucity of research on TIC in pelvic health, and the absence of a trauma-informed pelvic health framework, the Polyvagal Theory[19,20] and the Sensory Integration Theory served as the theoretical foundation for this study.

Polyvagal Theory

The Polyvagal Theory provides a trauma-informed and neuropsychological framework on vagal systems and their respective regulatory roles.[19,20] It delves into current evidence-based understandings of how vagal subsystems associated with the parasympathetic nervous system modulate the autonomic nervous system and its regulatory and reactive functions.[21] The social engagement system, the first assumption of interest, is influenced by higher brain structures (ie, top-down influences) and by sensory pathways from visceral organs (ie, bottom-up influences).[17] This system aims to help individuals detect risks or threats (via neuroception) to determine whether an interaction is safe or unsafe and support the development of positive social interactions.[20] However, trauma can inhibit both top-down and bottom-up processes, which disrupt and reprogram one's vagal subsystems, adversely affecting adaptive reactivity. Similarly, Porges' second assumption, resilience, is defined as the "capacity to rapidly return to an autonomic state of calmness

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following a challenge."[20,21] Although individuals are programmed to employ homeostatic mechanisms and exhibit resilience, trauma often disrupts the ability to activate or downregulate responses based on what an individual perceives as safe or unsafe.[19]

Sensory Integration Theory

Similar to the constructs in Polyvagal Theory, Sensory Integration Theory addresses downregulation through sensory modulation, which describes how one's brain and nervous system respond to an environment's sensory input.[22] An inability to adequately adapt to sensory input often inhibits emotion regulation and the awareness of sensory needs.[23] Adopting sensory-based evaluations and interventions to address sensory dysfunction in a trauma-informed manner will likely cultivate the feeling of safety in one's inner and outer environment.[22,23] This theory provides the acronym "SAIM" to translate theory into practice: "Safe (emotionally and physically), Appropriate (age, gender, culture, identity, environment, and affordability), Individualized (tailored to unique preferences), [and] Meaningful (does the person know why it is being offered? Does it make sense to them?)."[22] These guidelines align with the Substance Abuse and Mental Health Services Administration's (SAMHSA) "trauma-informed four Rs," which instruct multidisciplinary service providers to realize, recognize, respond, and resist retraumatization.[24] Furthermore, it establishes nascent TIC practices for ACEs through collaborative and client-centered approaches.

Gaps in Literature

The literature review for this exploratory study demonstrated significant gaps in pelvic health research, clinical processes, interdisciplinary collaboration, and trauma-informed resources. Moreover, most resources available on current approaches to TIC refer to the research on ACEs rather than how to assess for and affirmatively interact with pelvic floor clients.[10,12,14] Therefore, this study aspires to provide novel understandings of PFCs' trauma-informed service delivery skills. In addition, results from this study will support the development of a trauma-informed tool kit for PFCs.

Research Questions

Based on these objectives, the corresponding research questions were developed:

1. What are PFCs' perceptions of TIC?
2. How do PFCs currently provide TIC when working with clients with ACEs and/or a history of trauma?
3. What is the current state of PFCs' recognition of, approach to, and strategies implemented when addressing ACEs and/or trauma?
4. To what extent do PFCs desire to learn more about integrating TIC in their clinical practices?

METHODS

Participants

Institutional review board approval was granted prior to the start of this study. Participants were recruited via convenience and purposive sampling. The first author posted recruitment information on pelvic health-specific social media groups and identified eligible PFCs using public databases of 2 pelvic health-specific organizations (eg, the Global Pelvic Health Alliance [Pelvic Guru] and Herman & Wallace). These organizations were selected on the basis of their inclusive listing of both occupational therapists (OTs) and physical therapists (PTs) who specialize in pelvic health. Individuals eligible for participation included licensed PTs and OTs who currently practice as PFCs.

Procedures

This exploratory concurrent study consisted of 2 components: a Web-delivered descriptive survey and semi-structured phenomenological interviews. Recruitment materials provided information for participants to express interest in an interview with the first author, or access to the survey. Participants were able to complete both data collection methods if desired. PFCs completed informed consent prior to participation. Data collection occurred for more than 3weeks in early 2023.

Survey

The descriptive survey that consisted of 11 closed-ended and 8 open-ended questions was administered through the Qualtrics platform (Appendix 1).

Phenomenology

An interview was scheduled via the Calendly scheduling software for PFCs interested in the qualitative component of this project. Interview invitations were sent via email after consent was obtained and were recorded on Zoom virtual meeting platform. To maintain confidentiality, each PFC was assigned a numerical pseudonym. The phenomenological interview consisted of 7 open-ended questions with prompts (Appendix 2). The interview data were transcribed via Descript.

Data Analysis

Survey

After administration, the closed-ended survey data were analyzed via descriptive statistics and frequency tables (Table 1). The open-ended survey data were categorized into themes based on the research questions and most prominently discussed topics.

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Table 1. Quantitative Findings[a]

Within-Group Frequency Table			
Variable	**Groups**	**Frequency**	**Valid %**
Years of practice	1-5	30	46.88
	6-10	16	25.00
	11-15	9	14.06
	16+	9	14.06
Demographic information collected	1-3	7	10.94
	4-6	26	40.63
	7+	31	48.44
Question formats on intake form	MC, CATA, FIB	16	25.00
	CATA, FIB	22	34.38
	MC, FIB	3	4.69
	FIB	17	26.56
	CATA	3	4.69
Site body map usage	Yes	21	32.81
	No	43	67.19
HRQOL measurement	Yes	37	57.81
	No	27	42.19
Stress and depression levels measurement	Yes	36	56.25
	No	28	43.75
ACE screen	Yes	10	15.63
	No	54	84.38
Openness to administering ACE screen	Yes	53	82.81
	No	1	1.56
	No, answered yes on previous question	10	15.63
Number of completed trauma-informed training (s)	0	26	40.63
	1-2	31	48.44
	≥3	7	10.94
Patient education materials on trauma	Yes	5	7.81
	No	46	71.88
	Occasionally	13	20.31

Abbreviations: ACE, adverse childhood experience; CATA, choose all that apply; FIB, fill in the blank; HRQOL, health-related quality of life; MC, multiple choice.
[a]N = 64 for all variables assessed.

Phenomenology

Themes were established from transcriptions and interpreted memos. Authors engaged in phenomenological bracketing, a form of reflexivity, prior to analysis to identify preconceived beliefs that may bias the responses.[25] This act of recognizing authors' own biases reduces the influence of author bias and increases authentic reporting of PFC's reported experiences. Trustworthiness was further addressed through audit trail maintenance and peer debriefing. Qualitative data were analyzed through the initial immersion of the author in interview responses and subsequent identification of emergent themes. Initial themes were documented, and the author reread interview transcripts through the lens of thematic organization. Subthemes described by the participants were documented on the basis of interpretative phenomenological analysis procedures.[25]

RESULTS

Survey

Participant Characteristics

In total, 41 PTs and 23 OTs completed the descriptive survey. Geographic locations of PFCs included the United States (n = 50), Australia (n = 12), and Canada (n = 2). PFCs' years of clinical experience

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were categorized as follows: 1 to 5 (47%, n = 30), 6 to 10 (25%, n = 16), 11 to 15 (14%, n = 9), and 16+ (14%, n = 9).

Survey Analysis

The analysis of descriptive survey data indicated that nearly half (41%, n = 26) of the participating PFCs have not received official training or continuing education on TIC, and most (72%, n = 46) do not offer trauma-focused patient education materials. For those reporting prior training on TIC (59%, n = 38), 18 specific continuing education courses were described (Table 2). All PFCs provided definitions of TIC (Table 3) based on their anecdotal and/or continuing education knowledge. Table 4 highlights PFCs' insights on trauma-informed patient education materials, including elements such as appropriate health literacy, gender-inclusive, trauma-informed, and sensitivity to medical jargon. Of these responses, 20 participants (31%) were "unsure." Most participants report screening for health-related quality of life (58%, n = 37) and stress/depression (56%, n = 36) upon intake. The majority of PFCs (84%, n = 54) did not screen for ACEs, but most clinicians (82%, n = 53) were open to including an ACE screen in their intake process. When asked about the most common ACEs reported in pelvic health settings, 43% (n = 27) responded "unsure." Other responses varied widely but included forms of abuse, shame, neglect, discrimination, poverty, and inadequate caregiving (Figure 1).

In Table 5, PFCs described their envisioned future for the field of pelvic health, shedding light on 6 key areas: (1) making TIC continuing education mandatory, (2) screening for trauma/ACEs regularly, (3) using inclusive language on intake forms, outcome measures, and in research, (4) avoiding retraumatization, (5) prioritizing interdisciplinary care, and (6) acknowledging both OTs and PTs as competent PFCs (Figure 2).

Table 2. Pelvic Floor Clinicians' Completed Courses on Trauma-Informed Care

- Bessel van der Kolk's Trauma Training
- Canadian Mental Health Association's [TIC] Training
- Clinical Applications of Polyvagal Theory in Trauma Treatment
- Curtin University's Course on Violence, Abuse and Trauma
- Dyadic Developmental Psychotherapy Training
- Employer/Place of Employment Training on [TIC]
- Herman & Wallace—Trauma Awareness for the Pelvic Therapist
- Institute for Birth Healing's Holistic Treatment of the Postpartum Body Course
- Jane Clapp's Movement for Trauma Training
- Janina Fisher's Complex Trauma Courses
- National Institute of Clinical Application of Behavioral Medicine [TIC] Course
- Neuroscience, Epigenetics, ACEs and Resilience Training
- Pelvic Guru's Trans-Inclusive, Kink-Aware [TIC]: Optimizing Sexual Wellness
- Sexual Victim Interviewing Training
- Somatic Experiencing Training
- Institute for Sex, Intimacy & Occupational Therapy Course
- [TIC] for Trans and Gender Diverse Patients
- Trauma-Informed Yoga Teacher Training

INTERVIEW RESULTS

A total of 32 PFCs (17 PTs and 15 OTs) practicing in the United States (n = 30) and Canada (n = 2) engaged in the interview portion of this study.

Table 3. Pelvic Floor Clinicians' Personal Definitions of Trauma-Informed Care

- Compassionate understanding of someone's history and current response patterns to stimuli, ideas, and interactions.
- Being aware that even if a client does not immediately volunteer that they have had a traumatic event in their lives, they may have experienced these events.
- Practicing with the awareness that trauma can be conscious or subconscious and that a person's body language and affect are just as important as his or her words.
- Understanding the influences of toxic stress and trauma (ACEs, racism, inequality, intergenerational trauma, medical trauma, violence, injury), recognizing how they affect our [clients], how they affect physiology/neurobiology/behavior, and how to address these issues with [clients] in a way that does not dismiss or trigger them. Honoring the inherent wisdom of the stress response as survival.
- Educating [clients] that they are in charge. Asking permission before touching or applying a treatment strategy. Choosing verbiage carefully to avoid triggering phrases. Not making assumptions. Having a vast network of providers to refer to if a client needs services beyond my scope of practice.
- Providing care that promotes safety and self-efficacy through appropriate language and graded exposure at a client-led and client-centered rate.
- Not only being aware of the prevalence and impact of trauma but also providing them with choices, a sense of agency, and autonomy within an environment of felt safety.
- Adjusting intervention and treatment based on the specific needs of a particular client, including nervous system regulation, body awareness, mental health status, home environment, social support, and overall wellness and quality of life.
- An intentional approach to clinical care that seeks to prevent traumatization/retraumatization and creates a safe space to promote holistic healing.
- A nervous system–based approach that yields precedence to sensory processing awareness and self-regulation strategies

Abbreviation: ACEs, adverse childhood experiences.

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Table 4. Pelvic Floor Clinicians' Insight on Trauma-Informed Patient Education Materials

• Appropriate health literacy • Avoiding terms such as "normal" anatomy • Based in theory and research • Gender-inclusive • Include information about trauma, ACEs, and resilience through a neurodevelopmental lens • Information on alternative health care approaches and resources • Sensitive to jargon (eg, overuse of anatomical terms) • Recommendations, not requirements • Unsure (responded "unsure" or "I do not know") (20 responses)
Abbreviation: ACEs, adverse childhood experiences.

Interviews lasted approximately 30 minutes and resulted in 405 pages of transcribed data. Four main themes and 7 subthemes emerged. Subthemes are described within each category providing specific information and direct quotes from participants.

Theme 1: PFCs' Experiences and Beliefs Regarding Trauma, ACEs, and TIC

Subtheme 1a: PFCs' Perceptions of Trauma, ACEs, and TIC in Clinical Practice

When discussing current understandings of ACEs, several PFCs referred to how childhood trauma adversely affects both the nervous system and the pelvic floor. When trauma occurs as a child, "we are not at the cognitive level to truly process it. As a result, trauma is stored in the body. Most of my clients who either have pelvic pain or pelvic floor dysfunction also have a history of [ACEs]" (P1). In P1's clinical experience, most clients with complex (pelvic) pain are "aware that something happened in their childhood but not sure of what exactly happened … their body knows it is threatened but cannot completely process it." Since ACEs are often stored as "implicit memories" and "emotionally invasive experiences that shape the trajectory of a child's life, how they interact with people, how they engage in health behaviors, they are at a significantly higher risk for experiencing even more trauma, and it becomes compounding" (P22). In other words, trauma "fragments the nervous system and influences a lack of opportunity for robust development" (P10).

In addition to ACEs, another recurring category of trauma discussed in all 32 interviews was medical trauma—operationally defined by the first author as trauma inflicted by a medical professional or the medical model of care. In the words and experiences of P25, "Several of my clients have a history of medical trauma. Either they have not felt heard and seen,

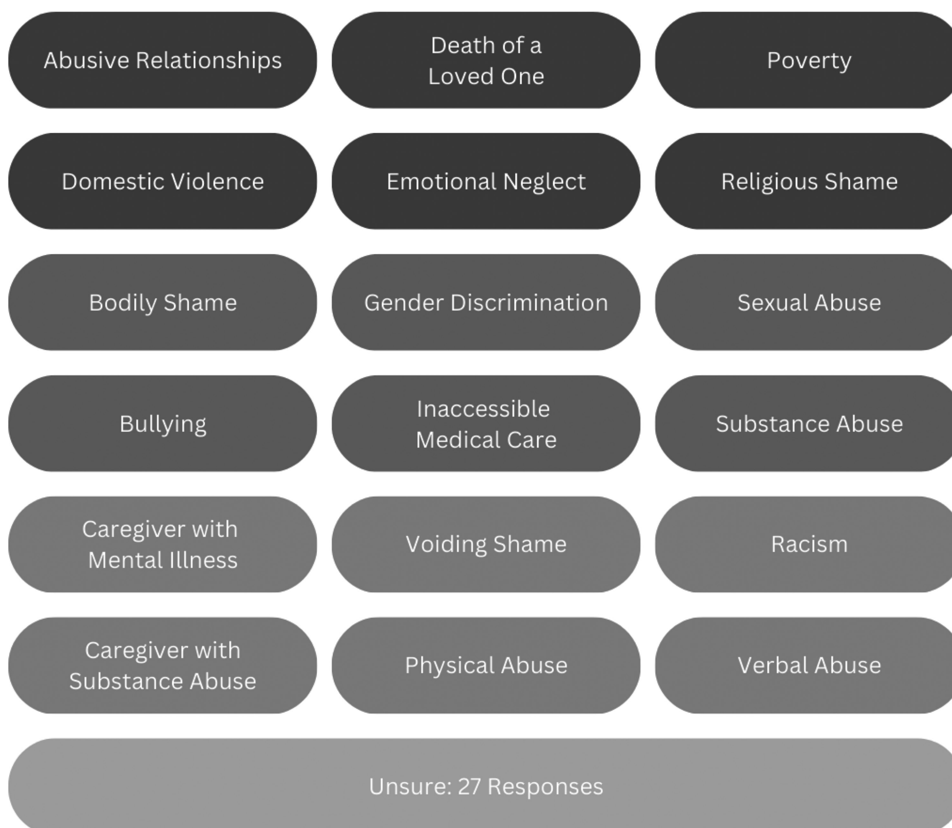

Figure 1. Pelvic floor clinicians' most commonly observed adverse childhood experiences.

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Table 5. Pelvic Floor Clinicians' Envisioned Future of Pelvic Health and Trauma-Informed Care

A requirement for [PFCs] to take continuing education on TIC.
Being part of a multidisciplinary team to provide therapy based on client goals.
Everything we do should be guided by being aware and cognizant of possible trauma, and we do not want to contribute further.
Having standardized questions and methods to help [PFCs] engage with their clients.
More awareness of trauma's prevalence and impact on our overall health.
More inclusive language on intake forms, outcome measures, and research. Improved LGBTQIA+ and racial awareness. Greater accessibility to all clients regardless of insurance.
Screening for ACEs should be a standard part of the intake and/or evaluation process.
Universal acknowledgment that both OTs and PTs are well equipped to be [PFCs].

Abbreviations: ACEs, adverse childhood experiences; OTs, occupational therapists; PFCs, pelvic floor clinicians; PTs, physical therapists; TIC, trauma-informed care.

their symptoms have been overlooked, or they have been victims of medical malpractice." As a result, "any fear, anxiety, or apprehension they feel will likely elicit a somatic response. The pelvic floor is a conduit for stress, tension, and story, and it is going to reflect that." The most common phrase P3 hears when approaching internal work is—"go ahead, everyone has done everything to me." They continued, "it hurts to hear that statement because people tend to approach their medical care as an undignified experience" (P3).

The nervous system's trauma responses of fawning (responding to perceived threats by people pleasing or appeasement) and freezing (responding to perceived threats by becoming emotionally detached or dissociated) were also woven into various conversations (P21, P10). When working with clients with a history of ACEs and/or medical trauma, P14 notes that this population is "more prone to the freeze and fawn responses than the fight or flight." In these circumstances, "Being mindful of the fawning response is critical, as when people are willing to do anything in our sessions, they may be responding adversely to the perceived power dynamic." As an anecdote to this power dynamic, P26 discussed a client diagnosed with cerebral palsy who is "traumatized and disconnected, especially from [their] pelvic region" due to "medical providers physically moving [them] around and doing 'to her' instead of collaborating 'with her'." With this client, P26 takes "small, attainable steps to help [them] reconnect and rebuild trust in the medical system."

Because "different people have different nervous systems which need different tools for self-regulation," it is fundamental to "grasp how intimate our work is. We are touching people's most intimate tissues. We are asking them questions about their most intimate body functions—their stories are connected to that" (P5). When addressing these stories, they explain to clients how "trauma thaws slowly, especially when it is living inside stagnant tissue … we cannot claw trauma out. The nervous system must be ready to relinquish the tension and patterns it holds. It is subtle, slow work" (P5).

Subtheme 1b: Trauma-Informed Approaches in Pelvic Health

As clinicians ascribed meaning to TIC, their definitions emphasized the elements of consent, holding space for the client, compassionately listening, and actively reducing the likelihood of retraumatization. P12 succinctly defines TIC as "actively being able to hold space for the client in front of me and making them feel like they have a space they are in control

Figure 2. Pelvic floor clinicians' perspectives on the key elements of trauma-informed care.

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of, that there is no right or wrong in the process, and that we need to honor what feels intuitively right in their minds and bodies." P12 expressed how a considerable amount of clients feel like they are a "problem" and often say, "do whatever you have to do to fix me" (P12). As a response, they tell the client "as [PFCs], we are not fixers—we are a guide, we are a facilitator, and they are their own healers" (P12). P22 experiences the same phenomenon when people ask whether their symptoms, specifically, their trauma responses are "normal."

P22 suggests that it is not PFCs' role to "discern whether or not a trauma response is functional. Our role is to give them space, guidance, [and] tools to experiment with when they feel triggered to see if a new response may be something they consider moving forward" (P22). P21 shared similar insights, postulating that "if we actively address [our clients'] trauma responses, we can collaboratively create goals to help them learn how to navigate those trauma responses in their daily lives. In order to promote trauma healing, we need to provide opportunities for empowerment and connection." These opportunities "create a safe relationship with the [client] where there is trust and safety" (P21) With safety, there is also "empowerment—making sure we are giving informed choices along the way" (P21).

Another component PFCs frequently mention is that clients "might not be able to verbally articulate an informed consent response … a lot of our clients are frustrated with their symptoms and say, 'yes let's go forward with an internal assessment', but their body might be saying something else" (P23). Corroborating P23's experience, P32 steadfastly believes that "going straight to an internal pelvic assessment is negligent. We need to hear [a client's] story and observe their body language. I have had clients say, 'sure, let's just do the exam,' and I can tell they are not ready. I use my clinical judgment and know that consent is not just saying 'yes' or 'it is okay,' but the language one's body is emitting" (P32). P13 approaches this situation often, especially with clients who have a dissociation history—"if someone has a dissociation history, I ask them, what does that typically look like for you? What other ways could you communicate with me if your verbal shuts down?" (P13). In those cases, "we can provide empowerment by helping the client tune into what their body is telling them" (P21). P9, who specializes in sensory and somatic techniques, proposes "being attuned to [clients'] sensory needs makes them feel empowered during the session—like they are in control."

Alongside connection, empowerment, and emphatic consent, P6 "think[s] of TIC the same way [she] thinks of universal precautions." Moreover, PFCs "recognize that each individual comes to the table with their own perception [and] experiences" (P8), and that "you do not know everything about a person regardless of what they tell you" (P9). Accordingly, trauma-informed PFCs are able to discern that they "may not be the best provider to work with a particular individual" and, in those cases, "work to find a clinician who can better care for their needs" (P8).

Subtheme 1c: Pelvic Health Processes

While establishing rapport and fostering safety are common intentions in trauma-informed settings, they are not always inherently present; especially when "patterns of trauma often go unaddressed and dismissed because [clients] either work with someone they do not trust or try to do it on their own" (P5). P5 understands that to build rapport and shift the locus of control back to the client, PFCs have to humanize themselves, "as there is a certain level of intimacy where clients have to see [them] as a person through the credentialing." Others resonate with the notion that "many health care settings do not give [clients] choices" (P1), and in turn, "can be extremely triggering for people with a history of ACEs, adult trauma, or medical trauma" (P15).

To promote safety and decrease the likelihood of triggering a client, P24 believes it is "about connecting with the person instead of holding these medical-model-driven standards that we have to get to certain tests or exercises. Those standards can be dehumanizing, especially for those with chronic pelvic pain." P25 often tells pelvic health students, "if you want to be a phenomenal health care provider, you need to work on yourself first—every time you interact with clients, you should feel centered, grounded, and safe in your own body. If not, they will pick up on it and dread the experience of therapy." In P25's experience practicing "attunement and co-regulation," clients often reflect on how their "therapy feels different," as P25 does not "merely teach them what to do"; rather, P25 "listen[s] to their stories, speak[s] their language, and [has] a calming presence." These trauma-informed elements are effective in helping "[clients'] nervous systems downregulate" (P25).

Once PFCs "establish therapeutic use of self and a meaningful connection" with their clients, the processes vary on the basis of clinicians' education and practice settings (P32). PFCs who consider themselves to be trauma-informed ensure that a client does not feel an obligation to have an internal examination on the first visit (P2, P14, and P31). For instance, P2 "explain[s] the internal exam during the evaluation and the information it tells [PFCs], but if the [client] is not comfortable with it, we can proceed without ever doing it"—especially since "not everyone is ready for an internal exam, and that is perfectly okay" (P4). Although P1 and P4 specialize in manual techniques,

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P1 always "give[s] the option, with an emphasis on option, of an internal examination if [she] think[s] it is warranted." Moreover, PFCs help their clients understand the options, risks, and benefits of internal exams—and use their clinical judgment to decide whether or not an internal examination is appropriate during the first session. Although PFCs ideally spend between 60 and 90 minutes with each client, there may not be enough time for the internal examination, nor is it a mandatory piece of the evaluation (P1, 4, 25).

Some PFCs administer standardized measures, such as the ACE screening, to "discuss the relevance of ACEs and bring it to the forefront of the interdisciplinary team's mind" (P21). Others ask more general, nonstandardized questions such as "do you have a history of physical, sexual, or emotional trauma?" (P3); some include notes with prefaces such as "on our first visit, and every visit after that, you have the opportunity to share at your own pace—if at all" (P22). Although the style in which PFCs ask about trauma differs, most spoke to the notion that "clients are the experts on their own health" (P29) and that the client-therapist relationship is what helps "develop the most effective treatment plans" (P3). P5's approach is "anchored in nervous system regulation, as all of that muscular, structural tissue is controlled by [the] nervous system. Unless we honor the nervous system as the most important piece of someone's puzzle, we are missing an enormous component of care."

Once the intake and evaluation process is complete, P3 shared that they "choose[s] between practitioner-administered and self-guided" therapies as a way to "give people the time and support they need." Similarly, P32 often integrates holistic approaches such as "myofascial work, visceral mobilization, and acupressure to help down-regulate the autonomic nervous system." During P31's interventions, the concept of "giving the pelvis positive experiences" is often discussed, as if a client has "experienced trauma in the past, and if every touch and every interaction is uncomfortable or pain cycling, we have to break that cycle with positive moments of connection." These interventions may include "mindfulness, body-awareness exercises, and diaphragmatic breathing" (P32). These trauma-informed techniques and evidence-based interventions, further discussed in Theme 2, help clients "start to make connections between their past experiences and pelvic health symptoms" (P22).

Theme 2: Trauma-Informed Approaches in Pelvic Health

Subtheme 2a: Trauma-Informed Theories

When discussing trauma-informed theories, several practitioners shared their experiences with Polyvagal Theory when working on "vagal nerve toning" (P3), "educating clients about the vagus nerve and how trauma can influence the nervous system" (P32), and "how heart rate variability affects regulation" (P20). P31 assigns "Polyvagal Homework" to clients when they are learning about pain neuroscience, their social engagement systems, and how trauma often "manifests as chronic pain" (P31). This study's prevailing discussion on the Polyvagal Theory indicates that it is the most widely applied theoretical framework in pelvic health. Other frameworks mentioned during this discussion included the Sensory Integration Theory, the Four Quadrant Model of Sensory Processing, and the Neurorelational Framework (P5, 11, 21, 10).

When reflecting on the most prominent frameworks in pelvic health, P5 postulates, "If we approach a problem from just one theoretical angle, all that says is that 'x' theory is our most comfortable approach. When it does not work, we have to pivot—we are meant to be integrating philosophies and pulling these theories together." Similarly, P12 believes that in order to be trauma-informed, PFCs should be "well-versed and open to both top-down and bottom-up ideologies. Being able to blend those involves a strong understanding of anatomy and physiology, and a deep understanding of how the mind and body interact." With this understanding, "the biomechanical and orthopedic side of pelvic health is not enough. It will connect some dots, but pieces will always be missing" (P12).

Subtheme 2b: Trauma-Informed Holistic Approaches

Although the medical model still dominates a significant portion of Western health care, PFCs expressed the importance of alternative, holistic approaches in pelvic health. P5, who identifies as an integrative practitioner, describes how holistic approaches can mediate this sense of medical distrust when working with clients with a history of trauma: When clients "distrust these traditional models, I try to give them an alternative lens to anchor to, and it can be very liberating. It takes the headiness of our neuroscience and makes it more abstract and colorful." This perspective demonstrates the adaptable nature of PFCs in instances in which "clients are disoriented by medical jargon" or immobilized by nocebo effects—language which may inflict adverse understandings of their body's functioning (P5). Instead, PFCs actively practice TIC by providing alternative, "tangible practices that have carry over in their [clients'] lives" (P5).

Another PFC who specializes in complex pelvic pain describes how they use trauma-informed yoga in their practice to "place clients in positions of power instead of vulnerability" (P19). Vulnerability refers to the understanding that body

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positioning and a client's history of trauma can influence one's ability to feel present, embodied, and empowered in a session. Several other PFCs described how yoga is efficaciously integrated into pelvic health when addressing "the physical aspect of yoga, focused on strengthening, flexibility, the pliability of muscles, and proprioception" as well as pranayama, "controlled breathing exercises that address the nervous system as well as the relationship between the diaphragm and the pelvic floor" (P21). Integrating alternative approaches supports PFCs in meeting the client where they are as a human—not as a list of dysfunctional symptoms. Although the pelvis is "its organs, muscles, nerves, circulatory and lymphatic systems, it is also an energetic space we hold for creativity. Being able to tune into both opens a door for healing and alignment" (P12). To make meaningful impacts that promote healing, PFCs should acknowledge that "there has to be both mind and body to heal the disconnect between [them]" (P29).

Theme 3: Interdisciplinary Collaboration in Pelvic Health

OTs and PTs are skilled rehabilitation professionals who commensurately specialize in and contribute to pelvic health. Since pelvic health falls within both professions' scopes of practice, "[we] should learn how to speak to each other, as we both aim to provide the best pelvic health care. One sole provider cannot provide the best care in most cases. When we start worrying that we are on someone else's turf, the possibilities for healing are minimal. Together, our integrated knowledge can change lives" (P19). Of note, "calling pelvic health 'pelvic floor physical therapy' diminishes any hope of collaboration and the whole spectrum of what pelvic health can be" (P32). As professionals who work with some of the most complex and intimate cases, several participants suggest that PFCs should actively seek relationships with one another to further their trauma-informed approaches to care. Blending the invaluable knowledge of both OT and PT depends on interdisciplinary communication and collaboration.

Prioritizing collaboration inherently supports the need for a multidisciplinary approach to pelvic health. This team often includes "psychologists, mental health counselors, sex therapists, and community-based support groups—all professionals whose tools and resources complement pelvic health" (P6). Others also mentioned holistic partnerships with doulas, craniosacral specialists, and yoga therapists (P5, 7, and 11). Providing alternative and multidisciplinary support is essential to TIC, especially when a client's concerns are outside of a PFCs' scope of practice.

Theme 4: Future Directions for Pelvic Health and TIC

Subtheme 4a: Increased Presence in Research

When participants were asked where they would like to see the field of pelvic health evolve, PFCs expressed, "we need to rise to the occasion and contribute to the research of our profession if we are going to have a seat at this table" (P5) as "our work is needed on such a huge scale" (P4). Although position papers have their role in research, P16 questioned, "Why are we doing these projects when we already have a role in pelvic health?" suggesting that the "language we use, or misuse, shackles us as clinicians." They also hope that future research addresses the "collaborative aspects of pelvic health, racially-informed pelvic care, and justice for marginalized populations" (P16). Similarly, P1 voiced a concern that the "narrow range of research does not account for all of the ways persons with pelvic floors identify."

As discussed in the alternative approaches section, P21 would appreciate future research on the "non-motor and non-biomechanical interventions for pelvic pain." Similarly, P25 believes that PFCs "have rich anecdotal experience, but there is no research, evidence, or tools to measure what [she] think[s] is going on clinically." Moreover, trauma-informed PFCs "need to focus on advancing [their] clinical role through research—not just [their] role in musculoskeletal rehabilitation, but in pelvic health, as [it] is so much more than layers of muscle" (P32).

Subtheme 4b: Areas of Clinical Advocacy and Growth

When reviewing prospective areas of clinical advocacy and growth, participants hope for TIC to "grow exponentially" (P5), "be the new standard for pelvic health" (P3), and ameliorate in their "role to ensure other clinicians are using trauma-informed frameworks" (P7). Although P10 feels that PFCs are "starting to grow strong roots and the confidence that we do belong," some clinicians feel as though they are "carrying the world on [their] backs when it comes to trauma and [TIC]" (P7). For instance, P19 fears that the field of pelvic health is "growing so fast that businesses will not want to 'miss out' on [clients]." Treating clients in a rushed and standardized manner may lead to a "lack of [TIC], resulting in retraumatization or new medical trauma" (P19).

To address this problem, PFCs must "incorporate [TIC] and pelvic health in both PT and OT curricula" (P15). This involves "holistic approaches braided into pelvic health continuing education courses" (P20), and "accessible resources that do not cost $800+ a class" (P18). Accordingly, P22 believes "all pelvic health therapists should have TIC training as a requirement to work in pelvic health because it infiltrates so many aspects of what [they] do."

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P23 promotes the normalization of pelvic health by emphasizing the "need to talk about trauma openly and to find language that is not triggering but provides space for clients to engage" (P31).

DISCUSSION

This study is the first to address PFCs' awareness, perceptions, and integration of TIC when working with individuals with a history of ACE(s) and/or trauma. Although the literature proposes elements such as SAMHSA's 4 Rs of TIC[24] and provides foundational insight on the impacts of ACEs and trauma, this study contributes invaluable therapeutic perspectives to a medically and biomechanically dominated research realm. The interviews allowed PFCs space to share their understandings of TIC based on their lived experiences, continuing education, and individual commitments to learning about trauma. PFCs were most confident when discussing their deep connections and collaborative care with clients, how they foster safe and trustworthy environments, especially with clients who distrust the medical system, and in developing holistic interventions that implement more than an orthopedic, biomechanical approach to care.

Concerning areas of future inquiry, this study evaluates the dissociation between trauma-informed principles and the integration of TIC in pelvic health, which juxtaposes the ubiquitous understanding of TIC's critical importance. PFCs insist that TIC should be a universal part of their identity both clinically and existentially and also exhibit a hesitance to pragmatically apply TIC. This disconnect supports PFCs' need for additional research on TIC in pelvic health to shape the latter's understanding of its importance. Addressing these gaps in knowledge and promoting the notion that TIC and multidisciplinary health teams are essential will be a catalyst for the evolution of pelvic health. The demand for both inter- and multidisciplinary collaboration challenges antiquated barriers in pelvic health by advocating for an integrative approach. Thus, this study serves as an exploratory guide for future researchers and clinicians who aspire to make TIC the criterion standard.

LIMITATIONS

This study's recruiting methodology served as the main limitation, as pelvic health-specific social media groups and 2 pelvic health databases do not encompass all practicing PFCs. The second stage of this research will strive to include a more global sample of clinicians. In addition, the survey instrument's questions were developed by the author based on the literature reviewed and sought to explore PFCs practices in a descriptive manner. Future research may benefit from developing a standardized measure to assess clinicians' trauma-informed practices.

CONCLUSION

This study's findings illuminate the need for sharing interdisciplinary perspectives on TIC. When specialties continue their education in discipline-specific silos, collective lived experiences of PFCs may not be shared. However, when these experiences are disseminated, PFCs become aware of the current gaps in TIC and can intentionally choose to evolve their practices accordingly. Although one could easily look at the raw data and highlight the lack of trauma- and ACE-informed practices present in pelvic health, this study focused on PFCs' current trauma-informed approaches as well as areas where they may need additional training and support. Research empowering the continuous development of PFCs' trauma-informed practices is imperative, as individuals' responses to trauma have always, and will continue to be, a complex and multifaceted shared human experience.

ACKNOWLEDGMENTS

The authors express their gratitude toward Dr Morghen Sikes, PhD, OTR/L, for her unwavering encouragement and support throughout this study, and Professor Sarah Sidar, MS, OTR/L, who offered faculty mentorship and subject matter expertise on pelvic health.

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APPENDIX 1

Survey

1. How many years have you practiced in the pelvic health setting:
   a. 1-5 year(s)
   b. 6-10 years
   c. 11-15 years
   d. 16+ years
2. What is your professional degree?
   a. OT
   b. PT
3. What information do you collect about your clients' demographic information (select all that apply)
   a. Name
   b. Contact information
   c. Age
   d. Weight
   e. Race
   f. Ethnicity
   g. Biological sex
   h. Gender
   i. Relationship status
   j. Other
4. On your client intake form, what format are your questions? (select all that apply)
   a. Multiple choice
   b. Check all that apply
   c. Fill in the blank
5. Do you offer a site body map on your client intake form?
   a. Yes
   b. No
6. During your evaluation, do you measure your clients' health-related quality of life?
   a. Yes
   b. No
7. During your evaluation, do you measure your clients' perceived stress and depression levels?
   a. Yes
   b. No
8. As a pelvic floor clinician, how do you personally define trauma-informed care?
   a. Fill in the blank
9. What key elements establish a therapy session as trauma-informed?
   a. Fill in the blank
10. Do you screen for adverse childhood experiences (ACEs) on your intake form?
    a. Yes
    b. No
11. If you answered yes to the previous question, which tool do you use to screen for ACEs?
    a. Fill in the blank
    b. Did not answer yes on the previous question
12. If you answered no to question 7, would you be open to screening for ACEs?
    a. Yes
    b. No, I answered yes to question 7
    c. No, I am not open to screening for ACEs
13. As a pelvic floor clinician, how do you define ACEs?
    a. Fill in the blank
14. In ascending order, what are the 3 most common ACEs your pelvic floor clients disclose during sessions?
    a. Fill in the blank
15. Where do you see the pelvic floor therapy realm evolving in regard to trauma-informed care and ACEs?
    a. Fill in the blank
16. How many trauma-informed trainings have you completed?
    a. 0
    b. 1-2
    c. ≥3
17. If you answered yes to the previous question, which course/CEU program did you take to become proficient in trauma-informed care?
    a. Fill in the blank
    b. Answered 0 on the previous question
18. Do you offer patient education materials on the impacts of trauma?
    a. Yes
    b. No
    c. Occasionally
19. What makes a patient education material "trauma-informed"?
    a. Fill in the blank

APPENDIX 2

Phenomenology

1. Can you describe your pelvic floor client intake and evaluation processes?
   a. What information do you collect about your clients' demographic information and medical history?
   b. Can you elaborate on your intake question format (eg, answer options, check all that apply, fill in the blank)?
   c. How do you address clients' presenting health concerns (eg, written form, face-to-face)? Approximately, how much time do you spend on addressing these concerns?
   d. Do you offer a site body map on your client intake form?
2. Do you measure your clients' perceived stress and/or depression levels?
   a. If so, do you use a specific inventory?
   b. If so, what inventory?
   c. If not, would you be open to screening for perceived stress and depression levels?
   d. Have you ever collaborated with a client's psychotherapist regarding his or her stress and/or depression levels?
3. As a pelvic floor clinician, how do you personally define trauma-informed care?
   a. What key elements establish a therapy session as trauma-informed?
4. As a pelvic floor clinician, how do you define adverse childhood experiences (ACEs) (if applicable)?
   a. What are some of the most common ACEs your pelvic floor clients disclose during sessions (if applicable)?
   b. How do you respond to the disclosure of these ACEs (if applicable)?
5. Do you screen for ACEs on your intake form?
   a. If yes, how do you screen? Which measure do you use?
   b. If not, would you be open to screening for ACEs?
6. How would you describe your role in fostering safe, inclusive, and coregulatory environments for clients who endure ACEs?
7. Where do you see the pelvic floor therapy realm evolving in regard to trauma-informed care and ACEs?

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