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Examining physical therapists' training and intervention needs around workplace violence

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ABSTRACT

Physical therapists (PTs) are an occupational group vulnerable to workplace violence, with reported rates of assault against them ranging from 14 to 51%. PTs are often unprepared to deal with such incidents. Few research studies have investigated this occupational group's experiences with violence and related training and support needs. We examined PTs' perceived training and support needs around incidents of workplace violence, and checked for differences in perceived needs as a function of setting and level of PT experience. We conducted interviews with 91 licensed, full-time PTs practicing in 17 states in the US. Interview transcripts were coded using content analysis to identify themes of recommendations. Recommendations revolved around: organizational support; strategies, skills, and attitudes; and coping with incidents. The nine more specific themes of recommendations falling under these categories were consistent regardless of PTs' setting or level of experience.

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Introduction

Workplace violence, defined broadly to include verbal aggression or abuse, threatening behaviors, and physical assaults [1–3], as well as different categories of perpetrators (e.g. strangers/non-clients such as robbers; customers or patients of the organization; coworkers and supervisors; personal acquaintances) [4–6], is a cause for concern due to the physical, psychological, and financial toll it takes [7,8]. Approximately 75% of workplace assaults between 2011 and 2013 occurred in healthcare and social service settings [9]. Although incidents of violence often do not result in physical injuries and the need to take time off from work, healthcare professionals commonly report negative psychological reactions to incidents of violence, including sadness, self-doubt, anger, reduced job satisfaction, and increased intentions to quit [1,10–13].

For patients, quality of care may be compromised after incidents of violence against their care providers, especially if the perpetrator is the patient. Healthcare professionals may not feel safe interacting with a patient who tried to threaten or assault them, and may try to minimize the amount of time spent treating that patient by shortening or skipping visits or refusing to continue treating the individual [14–16]. In fact, some training programs explicitly recommend avoidance as a strategy for healthcare professionals to safely respond to aggressive patients [17].

Most of the research on workplace violence in healthcare has focused on nurses as the group most at risk for such incidents [18,19]. However, among healthcare workers, physical therapists (PTs), whose job it is to diagnose and treat impairments in individuals' cardiopulmonary, integumentary, musculoskeletal, and neuromuscular systems, are another group that is particularly vulnerable to violence because they routinely push patients to perform challenging or painful physical activities [7,20]. Studies have reported rates of assault against PTs ranging from 14 to 51% [7,20–22], with rate of assault typically defined as the percentage of surveyed PTs who indicate they were assaulted at work at least once during the past 12 months. PT students and younger PTs, who have relatively little experience, appear to be most at risk and are often unprepared to deal with incidents of violence [7,23]. Further discussion of the risks faced by PTs is provided by Stubbs, Winstanley, Alderman, and Birkett-Swan [24].

Better education or training has been recommended as a means to reduce the frequency and severity of incidents of workplace violence as well as to mitigate the negative consequences for victims [4,21,24]. Preparation for dealing with workplace violence does not appear to be a standard part of degree programs, and is more often left to continuing education courses and employer programs [if offered] to cover. Many countries (e.g. US, Canada, UK, Finland, and Australia) have issued legislation requiring employers to take actions to promote workplace safety in so far as they are reasonably practical [25,26]. Most European countries have a general law regarding workplace safety and health, even if there is no specific law pertaining to

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workplace violence [3]. In the US, the Occupational Safety and Health Administration [OSHA] of the government's Department of Labor recommends that employers implement violence prevention programs and specifies the general elements that should be included in such programs (e.g. management and employee commitment to the program, hazard identification, program evaluation and improvement) [9]. Designing and implementing such programs is left up to employers. In practice, employee training may not be offered at all, may be provided only for new hires as part of their orientation (as opposed to on a recurring basis to refresh workers' memories and in response to workplace changes), and may not necessarily cover important content areas (e.g. self-defense) [27]. Research is an important means of highlighting gaps in employees' preparation for dealing with violence and thereby informing the design of training and other interventions. However, there has been relatively little focus on PTs' training and support needs around workplace violence, and authors have recognized the need for more work in this area [20,23,24,28].

To address this research gap, we asked practicing PTs to recommend training or intervention needs that could help PTs to prevent or better cope with incidents of violence. Exploring PTs' self-reported training and support needs, similar to the type of research done with healthcare workers more generally [21], is important in light of the negative outcomes of violence for PTs and their patients. PTs may have certain training or support needs that are unique to their profession and studies with other healthcare workers may not capture these distinct needs. Importantly, PTs provide care to patients across a variety of settings, and the demand for this profession is projected to grow rapidly (34% in the US from 2014 to 2024) as the population ages and individuals require rehabilitation services [29]. Insight into PTs' perceptions of unmet training and support needs can inform training programs and organizational policies in order to better attend to the needs of practicing therapists and improve their well-being, health, work productivity, and retention within their organizations. We also examined whether a particular type of recommendation was more or less common as a function of PTs' setting or experience. Research on whether training and support needs may differ based on PTs' practice setting or level of professional experience can further inform programs and policies.

Methodology

Participants

PTs were recruited using various means. First, they were recruited with the help of physical therapy service providers (management) in a southeastern state. The researcher either recruited participants in person (e.g. at staff meetings), or requested for management to recruit participants by sending out study information. Next, to recruit nationally, study information was distributed through various professional listservs and online forums for PTs. Finally, a snowball sampling strategy was used – participants could forward information about the study to their colleagues. Regardless of the recruitment method, interested PTs contacted the third author directly to set up an interview. No interested individuals were turned away.

It is not known how many PTs were actually reached via the various recruitment methods (e.g. we do not know how many participants forwarded information about the study to others). Since we cannot know how many individuals saw a posting or message about the study but chose not to participate, it is not possible to calculate a participant response rate. Additionally, given the qualitative nature of this study, our primary goal was to reach saturation of the content area based on participants' recommendations, rather than to get a representative sample of participants. We stopped sampling when additional interviewees were no longer introducing new recommendations (i.e. all their points were already raised by earlier participants). Therefore, a response rate may not be a particularly useful indicator in our case.

In total, 94 licensed, full-time PTs from 17 states of the US were interviewed about their experiences with violence, however, only 91 provided useable data pertaining to training- or intervention-related recommendations. We focus on the responses of these 91 participants. Their practice settings included acute care, in-patient, out-patient/private orthopedic, pediatric, geriatric/home health/skilled nursing, occupational health, and professional sports. Table 1 summarizes participants' practice settings, demographics, and employment information (including weekly work hours, professional tenure, and organizational tenure).

Data collection

Interviews were conducted between January and June 2010 by the third author. She interviewed participants one on one, typically via telephone. Each participant received a $25 gift card for approximately a 1-hour interview. The first part of the interview focused on PTs' experiences with various types of verbal or physical violence. During the second part of the interview (our focus), participants were asked an open-ended question about their recommendations for their workplace, education or training programs, or professional organizations that would help prevent future exposure to violence, as well as strategies to assist PTs in managing exposure. Participants' background information was recorded at the time of the interview.

Table 1. Descriptive characteristics of interview participants.

Variable	Mean	SD
Work hours per week	37.3	12.6
Professional tenure (months)	220.2	131.5
Organizational tenure (months)	94.1	84.4
	N	%
Sex		
Male	26	28.6
Female	65	71.4
Age		
21–30	11	12.1
31–40	24	26.4
41–50	19	20.9
51–60	21	23.1
61–70	2	2.2
No response	14	15.4
Ethnicity/race		
White	77	84.6
Hispanic or Latino	4	4.4
Asian	2	2.2
Black or African American	2	2.2
Native Hawaiian or Other Pacific Islander	1	1.1
Multiracial	1	1.1
No response	4	4.4
Practice setting		
Acute care	33	36.3
Outpatient/private orthopedic	31	34.1
Geriatric/home health/skilled nursing	16	17.6
Pediatrics	7	7.7
Inpatient rehab	2	2.2
Occupational health	1	1.1
Professional sports	1	1.1

All interviews were audio-taped with participants' consent and transcribed verbatim for coding and analysis. During transcription, any identifying information mentioned by participants was removed; numeric codes were used in place of participants' names. Audio recordings were erased after transcription. Transcripts were saved on a password-protected computer.

Data analyses

The interview transcripts were coded using inductive content analysis [30]. As themes emerged, each transcript received a code of yes (=1) or no (=0) for each of the themes to record whether it applied to that participant's response. As analysis progressed, new themes were identified and less common or similar themes were combined together and relabeled as appropriate. The first two authors met to discuss the coding scheme, independently reviewed and coded all the transcripts, and met again to resolve any coding disagreements.

To examine interrater agreement, Cohen's kappa coefficients were calculated for each thematic category using initial codes (prior to resolution of disagreements). As shown in Table 2, kappa values ranged from 0.55 to 0.76, indicating moderate to substantial agreement [31]. All analyses were conducted after coding disagreements were resolved. Although many qualitative studies rely on coder discussion to resolve all discrepancies in coding, Cohen's kappa provides a quantitative index to show the extent to which coders view the data in similar ways. This index speaks to the reliability of the coding and helps ensure that research findings will be replicable [32].

Table 2. Frequency and interrater agreement kappa values of response themes.

Theme	Number of times mentioned	Kappa
Strategies to either avoid/prevent or diffuse an incident	72	0.55
Training or educational opportunities	65	0.68
Resources other than education/training provided by the organization	61	0.76
Coworker support	48	0.63
Supervisor support	42	0.76
Personal attitude and behavior	35	0.57
Learning from and coping with bad experiences	32	0.70
Supportive organizational culture	27	0.65
Interpersonal skills	25	0.63

Additionally, by taking a mixed methods approach and quantifying the qualitative data, we were able to directly explore whether PTs' background characteristics were associated with the nature of their recommendations. Driscoll, Appiah-Yeboah, Salib, and Rupert [33] describe the benefits of such a mixed methods approach. We created a dichotomous variable for each of the themes extracted from PTs' recommendations (each coded as 0 = theme not mentioned by participant and 1 = theme mentioned by participant). One by one, we entered each variable into a cross-tabulation with a variable representing PTs' practice setting (see Table 1 for a list of practice settings). As part of each analysis, Pearson's chi-squared (χ^2) statistic was calculated to check whether a particular theme was more frequently mentioned by PTs in a certain setting. Pearson correlations (*r*s), rather than cross-tabulations with χ^2 tests, were used to test if a particular theme was mentioned more frequently by those with more (or fewer) months of professional experience as a PT because level of experience was a continuous variable. The themes included in these analyses were mentioned by 25–72 respondents (see Table 2).

Results

To highlight that this was a knowledgeable sample of PTs to ask about training and support needs around workplace violence, as well as the prevalence of this issue, approximately 90% of them stated that they had personally experienced one or more incidents of verbal aggression (e.g. being yelled or sworn at, being insulted, being threatened verbally or with a weapon); an additional 3% stated that they had witnessed someone at work experience such an incident. Approximately 76% of the participants reported experiencing one or more incidents of physical aggression (e.g. being pushed, grabbed, or shoved; being hit or slapped; having something thrown at them); an additional 5% reported witnessing someone at work experience such an incident.

Participants offered recommendations pertaining to organizational support, strategies/skills/attitudes, and coping with incidents. Within these three categories, there were nine themes of recommendations (see Table 2 for kappa values). These themes, organized by category, are described next. No statistically significant differences in recommendations were found based on setting or level of professional experience.

Organizational support

Regarding support the organization can provide, 71.4% of respondents mentioned the need for *training or educational opportunities* on topics such as *aggressive behavior management* (e.g. physical skills and strategies, de-escalating a situation; 30.8% of all respondents), *broad topics not specific to violence or aggression* (e.g. diversity, assertiveness, sexual harassment, patient confidentiality; 24.2%), *dealing with patients appropriately based on their special needs* (e.g. based on stage of illness or age; 23.1%) and *continuous socialization or training* (e.g. via on-the-job or refresher training; 20.9%). One participant (#15) said the following regarding aggressive behavior management:

> I think it's every one or two years we go over [aggressive behavior management] or if we have a turnover in staff with new therapists we'll go over it again. And I think that is really helpful, not only is self-defense mechanisms and how to physically get out of a situation or restrain a patient who's being aggressive but it talks a lot about of the zones safety and looking for precursors and all those things that help you create better awareness to prevent things like that. I think that is just absolutely key if you're going to be dealing with any population like that.

Another participant (#18) talked about learning more about troubled youths:

> … learning about their home situation and where they're coming from … Like a lot of the young gangbangers they don't have anyone at home that cares about them or loves them and they're always arguing and fighting with people and that's how they get things accomplished. Maybe knowing more about them would have helped me approach them easier at first.

PTs (70.7%) also spoke about *resources other than education/training* that the organization can provide. That would include *programs/structures for assistance post incident* (35.2% of all respondents), *clear policies and procedures* (26.4%), and *enough personnel* (particularly, male) (13.2%). For example, one participant (#6) commented:

> We have resources set up so that if someone is injured, then they can go to the emergency department or to employee help to get the necessary help … If you feel that you cannot physically handle the patient then you can ask for someone else to take that patient for you.

Another participant (#48) highlighted the value of male personnel:

> We haven't had incidences that occurred here, partly because … I know this may sound sexist … We do have a very equal ratio of male and female employees, and some of the guys that we have hired happen to be as big as the Hulk. I think there's a deterrent factor that goes along if you have lots of male staff … And I've actually tried to get most of my clinics to have a gender mix no matter what.

Over half of PTs (52.7%) mentioned the need for *coworker support*. This includes *practical* (45.1% of all respondents) or *emotional support* (30.8%). Examples of *practical coworker support* include helping with tasks, giving a heads up about a patient, and giving constructive feedback after an incident. Examples of *emotional support* include listening to PTs talk about incidents and letting the PTs know that what happened was not their fault. The following two quotes illustrate the theme of coworker support:

> To hear affirmations that they are an excellent therapist and getting support from the other therapists … providing social support. And sometimes we treat each others' patients. And so if I were treating a patient who [had been violent with another therapist], I would build up that therapist with that patient and pointing out how much progress they have made with the other therapist or pointing out how well the therapist educated them and that kind of thing. (#33)

> I think staff meetings are helpful to do problem solving and to see that maybe one person's concern is a concern to lots of people. And then we can do something about it. Maybe it was a misunderstanding or just an isolated incident. It helps to get it out in the open and discuss. It helps people not to take things personally and sharing stories helps people to not think it's just about them. A lot of time it's just a misunderstanding or oversight. (#27)

Close to half of PTs (46.2%) referenced the need for *supervisor support*, including support of a *practical* (42.9% of all respondents) or *emotional* nature (23.1%). Examples of *practical supervisor support* include taking action to help PTs when needed, letting PTs step away from abusive situations, and informing PTs about available options in a situation. Examples of *emotional support* include not blaming PTs and validating their feelings. Exemplifying the theme of *supervisor support*, one participant (#15) commented:

> I have a great deal of respect for my boss. I know that I can come to her and tell her this is the issue I am having and can you help me deal with it and she'll be very supportive and she's got a lot of experience so she can help me through it.

Another participant (#44) provided the perspective of a supervisor (and business owner) who believes it is important to support his staff after incidents to help them cope:

> I will pay for any expenses they had, any medical care, any time lost because of the incident. I will show my support in any way that I can. If a therapist feels threatened in a situation, I will always side with the therapist, not require them to go back. It's up to them.

Last in the category of organizational support, 29.7% of respondents mentioned the need for a *supportive organizational culture*. They mentioned the desire for *safety as the highest priority* (e.g. backing caregivers who do not feel safe entering a particular environment; 17.6% of all respondents) and *positive work environment and relationships* (e.g. showing each other respect; 12.1%). The following are illustrative quotes from two participants who felt supported, and a third who did not:

> I think the hospital I'm at now, more so than the other hospital I was at before, that they are open to your opinion that this person just isn't safe for me to be working with. Before it was—'You have to. What do you mean you can't?' Whereas where I am now it's more—'What are we going to do now? Let's re-evaluate.' (#10)

> I believe that there is not just one approach in preventing these kinds of ordeals, you just need to be willing to accept or try different approaches and also try to switching staff members. Frankly you and I have worked with people that we are just not going to be accepted with. These individuals just make it difficult to work. Switching them in and out, it's like a whole new day. Our hospital always wants to make sure that the patients are happy and if the patient is just not happy with their therapist we just switch them. Our hospital is good with treating everyone the same, in the sense that most hospitals try not to blame it on their therapist for any wrong doings or unhappiness about the rehab the patient is feeling. (#19)

> Sometimes, when you go into a patient's house, you are literally in a war zone. You get verbally assaulted, you get verbally abused, you get degraded, and when you actually speak back in defense of yourself, you as a clinician, you've just crossed a line. How dare you speak to our patient like that, how dare you? So we sometimes get reprimanded in the office in terms of this is a warning letter of inappropriate feedback to the patient, you can't communicate with them like that. I would like to see more of the office staff, the administrators and manager say you know, you're right you stood up for yourself and we back you on that. That's not done. (#41)

Strategies, skills, and attitudes

Regarding relevant strategies, skills, and attitudes, 79.1% of respondents talked about *strategies to avoid/prevent or diffuse an incident*. The most frequent subtheme here was *taking a team approach to patient care* that would include PTs, technicians, nurses, and doctors, where a PT is not be the first person to see a patient, and good communication among team members (27.5% of all respondents). For example, one participant (#55) noted: 'I think just having open communication lines with your supervisor and building a team effort or environment, so that people care for one another, and make sure that people are doing okay'. Other examples of subthemes under *avoiding/preventing or diffusing incidents* included *strategies for personal safety* (e.g. being attentive/on guard, evaluating the environment, planning ahead and asking for additional personnel, being willing to leave an uncomfortable situation, having a backup plan for exiting; 24.2%), *showing patients respect and consideration* (e.g. showing compassion, developing rapport, making a patient comfortable, letting a patient make a choice and respecting it; 22%), and *informing patients/family members and getting buy-in for the treatment* (e.g. educating about a patient's condition and therapy process; 17.6%). Regarding *showing patients respect and consideration*, one participant (#20) suggested:

> I think it would be important for students to be aware of how to approach someone, how to approach them from a level playing field with compassion and flexibility, at their level and show them that you are empathetic with them … you can't just walk into someone's territory and be arrogant and expect that to go over well.

The following quote from a participant (#14) illustrates the recommendation to inform patients and family members:

> I think the biggest thing is educating the patients and educating the family members would be really helpful, on what you are there to do with them, how you are going to help them and how we do that. I think it's important for them to know the scope of what we are doing. This would help so they don't have unrealistic expectations.

PTs (38.5%) also gave recommendations regarding *personal attitude and behavior*, such as *remaining calm and confident* (19.8% of all respondents), *showing good professional conduct* (e.g. arriving on time, dressing professionally; 16.5%), and *not taking things personally* (11%). For example, one participant (#77) commented:

> Well, I think in my setting … the initial interactions with the patient are extremely important, as in any physical therapy setting. This might mean how your appointment is made on the phone before you go to see the patient. Do you have a calm voice, a reassuring voice, do you have a tone helpful to the patient. Then when you actually appear, you should identify yourself. Your physical appearance, I think, are all extremely important involving the confidence of the patient … I've seen therapists that don't seem to think that some of those things are very important … and I think this can sometimes certainly reduce or lower the confidence level of patients when you're trying to establish a professional therapeutic intervention.

Last in the category of employee skills and attitudes, 27.5% of respondents touched on *interpersonal skills*, including recommendations related to *verbal communication* (22% of all respondents) and *listening* to patients and other staff (7%). The following quote from a participant (#42) illustrates this broad theme:

> You know a lot of times I'll see somebody in the hospital, one of the other care providers … a family member or a patient will be accusatory or irate and immediately the nurse or the other person becomes defensive … You stand there as a bystander and you see this situation escalating when a different response could totally diffuse it … And it's not a nursing skill, it's not a physical therapy skill, it's an interpersonal interaction skill, that how to not escalate a situation, how to diffuse just an irate person … in an interactive dialogue you can show understanding and show compassion … there's a lot of people that don't listen and don't hear and that's an upsetting situation for patients, for staff that have to work with you.

Coping with incidents

Finally, PTs (35.2%) made recommendations related to *learning from and coping with bad experiences*. Specifically, PTs mentioned the value of *self-reflection and learning what could have been done differently* (20.9% of all respondents) and said that learning could happen in the context of *staff debriefing about incidents* (12.1%). Illustrating this theme, one participant (#46) commented:

> Well I think it's kind of good to always reexamine the situation and think is there anything that I could have done differently to have averted? Or did I do anything, did I do something wrong that prompted it? Did I do something that set off this child? Did I do something that communicated incorrectly to this patient? And so that self-reflection or examination I think is also good because that's how we learn.

Discussion

In the current study, we examined PTs' perceived training and other support needs to reduce the incidents of violence they experience on the job or help PTs better cope after such experiences. The vast majority of participants based their recommendations on personal experiences with verbal and/or physical violence while on the job, so they had first-hand knowledge of the kinds of support structures that had helped (or likely would have helped) them cope.

Thematically, recommendations could be grouped as touching on organizational support, strategies/skills/attitudes, or coping with incidents that have happened. For at least half of the PTs, recommendations pertained to avoiding or diffusing incidents, the need for training or educational opportunities, desire for organizational support in the form of programs, policies, and personnel, and practical and emotional support from coworkers. Although we tried to identify *distinct* themes in participants' responses, there is naturally some overlap and interdependence between them. For example, some ideas that were mentioned as strategies to avoid incidents (e.g. taking a team-based approach to treatment) requires coworker support (a separate theme) and strategies for diffusing incidents can be taught during training (also a separate theme). The variety of themes that emerged, and the interconnections between them, help to highlight the fact that there is more to prevention of workplace violence than just training; employees must also have adequate administrative and environmental support [27].

It is noteworthy that participants in the study saw coworker support (52.7% of respondents mentioned it) to be at least as important as supervisor support (46.2%). While it is the role of a supervisor to clarify expectations – for example, that the organization prioritizes the safety of PTs and that PTs can refuse to treat abusive patients – coworkers are uniquely positioned to give practical assistance by providing warnings about potentially aggressive patients, being available to assist the PT during treatment sessions, and stepping in to treat a patient from whom a PT needs to take a break after an incident.

The kinds of recommendations that participants made are consonant with earlier research studies focused more generally on professionals in healthcare and guidelines for employers in that industry [9,14,25,34–36]. In conjunction with earlier work, the current findings show that, at a broad level, PTs need similar types of support to that required by other healthcare professionals. The study is informative because researchers have not focused enough on this occupational group to address the question of whether PTs may have unique support needs around workplace violence [7,20,23,24,28]. Our findings can function as guidelines for professionals and researchers within clinical and healthcare management settings on how to better support PTs.

Strengths of this study are that we sampled 91 PTs from different practice settings, exceeding the recommended minimum sample sizes for qualitative studies (e.g. 30–50) [37], and focused in-depth on their perceived needs. We also took a mixed, qualitative and quantitative method approach, which enabled not just identification of themes but also analyses of theme frequency based on PTs' setting and level of experience [33]. Our sample of PTs, most of whom were female, White, and worked in acute care, outpatient/private orthopedic, or geriatric/home health/skilled nursing settings, is demographically representative of the overall U.S. population of PTs [38,39].

We did not observe statistically significant differences in the frequencies with which PTs mentioned a particular recommendation based on their practice setting or level of professional experience. This suggests

that all PTs can benefit from the broad types of support structures mentioned by participants. However, it is also possible that differences would have emerged given adequate sample sizes for analyses of more specific themes. For example, earlier research implies that certain training needs may be unique to particular settings (e.g. home health) [14], and some of our participants mentioned the desire for training specific to the types of patients with whom they interact. The lack of thematic differences across settings may also be partly due to the perspectives of PTs working in pediatrics, inpatient rehab, occupational health, and professional sports being less well represented in the current study than the perspectives of those in acute care, outpatient/private orthopedic, and geriatric/home health/skilled nursing settings.

We recommend that future research continue to examine PTs' experiences and unmet needs for support to better identify the types of training and intervention needs that are unique to this profession versus shared with other healthcare professionals (e.g. nurses), as well as needs that may be specific to PTs practicing in a given setting (e.g. home health, acute care). Further research can also examine ways to facilitate the levels of supervisor, coworker, and organizational support PTs receive (e.g. ways that organizations can best signal an organizational climate for safety). More research is also needed on the extent to which training actually helps to prevent further incidents and boost PTs' confidence (as research findings in this area have been mixed [35]) and on ways to facilitate knowledge transfer from training to the job.

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No potential conflict of interest was reported by the authors.

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