

## Just Workforce Resiliency for Sexual Assault Nurse Examiners: Part 2

**Introduction** [00:00:05] Now this is recording, RTI International Center for Forensic Science presents Just Science.

**Voiceover** [00:00:19] Welcome to Just Science, a podcast for justice professionals and anyone interested in learning more about forensic science, innovative technology, current research, and actionable strategies to improve the criminal justice system. In episode three of our Workforce Resiliency mini season, Just Science continues our conversation with Dr. Cara Berg Raunick, a women's health nurse practitioner and the Director of Clinical Quality and Advancement at Health Care, Education and Training, on vicarious trauma experienced by sexual assault nurse examiners, also known as SANEs. On last week's episode, Dr. Berg Raunick discussed the realities of vicarious trauma, its effects on SANEs, and how those effects - anxiety and depression, for example - can hinder SANEs from providing critical care to survivors of sexual violence. Listen along as Dr. Berg Raunick continues detailing her research methods and findings on vicarious trauma among SANEs in this episode of Just Science. This season is funded by the National Institute of Justice's Forensic Technology Center of Excellence. Some content in this podcast may be considered sensitive and may evoke emotional responses or may not be appropriate for younger audiences. Here's your host, Donia Slack, along with co-host Dr. Heidi Eldridge.

**Heidi Eldridge** [00:01:28] All right, so I think we have a good overview of the study design. Thank you for all those details and insight into how you put it together. Let's move on to the results a little bit and talk about what some of your key findings were in this study.

**Cara Berg Raunick** [00:01:41] So the higher your TABS score, the more sort of cognitive distortion or changes in cognitive schema there would be. So what we found was that TABS scores were highest for people who had a personal history, and it was higher in SANEs with a personal history than in women's health nurses with a personal history. And then it was much lower for women's health nurses who had no personal history. The most interesting thing, though, was how close the scores were for SANEs who did not have a personal history and women's health nurses who did have a personal history. To me, that is the crux of the research findings. So essentially, being a SANE without a personal history of trauma contributed to a similar level of cognitive change as having personally experienced sexual violence. That's incredibly powerful.

**Heidi Eldridge** [00:02:34] That's a tough profession. I mean if it has that effect on people.

**Cara Berg Raunick** [00:02:38] And for integrity's sake, I want to own that scores for SANEs without a personal history was actually not significantly different from women's health nurses without a personal history in our first analysis. So I always want to be open about that. But my statistician through the university saw something interesting, which was that the mean raw scores for those two groups were only 1.3 points apart, and the TABS suggests standardizing scores and they actually shared a standardized score. And so he suggested further investigating those two groups together just against each other, and it was a secondary exploration that showed significance. So what we really saw was that the SANE nurses who didn't have a personal history - where their only exposure to sexual violence was through the narratives of their patients - their scores on the TABS were almost identical to the scores of women's health nurses - so again, not having professional trauma, not having that secondary exposure, but who themselves had been victimized - they were almost equal. For me, one of the things that comes up with this is, of the sample

as a whole, that 46 percent of these nurses reported a personal history of sexual trauma. And when I talk about this study with people, they find that staggering. And it is - to hear that almost half of these almost- almost all women, but half of these nurses had experienced sexual violence. In truth - and I'm betting this isn't that surprising to your audience who actually is involved in forensic work regularly - that's consistent with national data. Trauma and violence is incredibly, incredibly common. And again, here we're really only looking at sexual violence. If we did expand more broadly, it's even more common than that.

**Heidi Eldridge** [00:04:25] Which I think helps to substantiate the effects that you've noted.

**Donia Slack** [00:04:30] You previously mentioned ACEs, an ACE score. Can you explain a little bit about what that is and how that relates?

**Cara Berg Raunick** [00:04:36] Yeah, absolutely. So ACEs stands for Adverse Childhood Experiences, which comes from the ACE study which came out of partnership between the CDC and Kaiser Permanente. It's an incredible body of work. It has an n of over seventeen thousand - just a huge sample size - and these ACEs fall into 10 categories. The categories are abuse, physical, sexual, and emotional abuse or psychological abuse, neglect, physical and emotional or psychological neglect. And then household characteristics are categories which include things like living with someone who has a substance use disorder; a family member being incarcerated; parental divorce, which is really interesting - we know how common divorce is; living with someone with mental illness; or the language in the original is witnessing violence against a mother, but I think - I think we can expand that at this point to living with intimate partner violence or witnessing violence against a parental figure. And what we know is that the higher a ACE score, the more negative health effects happen across the life span. I would argue that ACEs might be the public health issue of our time or at least I argued that before COVID, that we see - so it's a dose-response relationship, and this is a plus minus - not how many times have you experienced this event or this abuse, but yes/no, did this happen to you? And the higher your score, we see negative health outcomes on everything from mental health outcomes, which usually people are like, OK, that makes sense, right? Or what we might categorize as negative coping behaviors. So things like higher rates of substance use or abuse, self-harm, things like that, which again, I think people might connect more easily. But we also see it with chronic health conditions. We see it even when we control for things like some of those negative health behaviors, so this is folks who have never smoked a day in their life but are more likely to have things like COPD or other, other chronic health conditions. And then we see negative sort of long-term quality of life outcomes. So less education, more interpersonal difficulties and so on.

**Heidi Eldridge** [00:06:46] And what is the normal range of scores? Because I think earlier you had referred to an ACE of one. What- would that be a low score or is it from zero to one?

**Cara Berg Raunick** [00:06:56] Yes. So the scores can go from zero to 10. Right. It's just plus minus. How many of these categories have you experienced? So it could be zero, it could be 10. I'll also acknowledge again, the original ACE data was really collected on a very white and very upper middle-class population. So since that time, there's been some other really amazing work through the Philadelphia ACE study that expanded the categories to include things like being involved in the foster system, community violence, experiencing racism or discrimination - so it has been expanded since that time as well.

**Donia Slack** [00:07:30] Have there been studies specifically linking ACE scores and trauma - any type of trauma, secondary, post-traumatic, vicarious?

**Cara Berg Raunick** [00:07:38] So yes, PTSD. I don't know of anything that connects vicarious trauma to ACE scores.

**Donia Slack** [00:07:44] Wheels are turning. I feel like there's- that would be a really interesting study, right? Or even, you know, you- you mentioned before, or maybe it was in the paper about at least informing people before they get into a profession, right, that these might be some risk factors. And it's almost- it kind of ties into this whole idea of an ACE score - if people were to understand an ACE score, know their ACE score, of how that might actually guide them in future career paths. And it's one of these things, too, where if we could just pivot to this idea in that when you say that there is a possibility that the most experienced SANE nurse in a group could only have five years, that really is shocking. I think, you know, Heidi and I - I could read each other's faces here - we did not know that that could even be a thing, right? And so figuring out a way to even, I guess, self-monitor what you know yourself to be - your own personal history of trauma or your own upbringing and how that might impact your career choices - because perhaps knowing that you might have a higher a score, you might have a personal history of trauma, you might want to maybe be dissuaded against going into a field where you know that you might burn out or you might not want to be in it for more than five years versus perhaps another career choice. Maybe there is a discussion here on how do these study results maybe inform what this could look like for career choice or being able to make an informed decision about what would be best for your own mental health as it relates to a profession?

**Heidi Eldridge** [00:09:21] I was just going to say that with what Donia was leading us into here about, you know, self-selection out of careers that you might be sort of doomed to burnout and frustration in. I think there's a really interesting contradiction or conflict here between your finding that the nurses who had personal trauma showed a greater effect of the vicarious trauma, which seems to indicate that those nurses are putting themselves at a higher risk of being traumatized by their job. In other words, if you had a personal trauma, maybe this isn't the field for you. Maybe this is going to be too rough on your psyche. But at the same time, I really keyed into something you said earlier where you said, you know, I think that people are really drawn to this field for a reason, and that's sort of almost in direct opposition to that first statement, right? Because what we're sort of saying is, look, if you've been in this situation, this career is going to be rough for you. And at the same time, we're saying if you've been in this situation, you're going to be drawn to this field. So it's sort of like the people who are being attracted to the field, the people who potentially might be really great at it because they are personally invested, and they do care - going back to your whole feeling about how the care for the patient should be paramount. We'd like to attract those people who care and are going to be great advocates for their patients. But at the same time, those are the people who are at the greatest risk of doing damage to themselves by going into this field. So I just- I find that a really interesting paradox.

**Cara Berg Raunick** [00:10:54] I think a big part of what this comes down to is informed consent, as with almost anything in health care and in life, right? All about consent. And I think that having this knowledge and being able to make choices through knowledge is the key. It does feel unfair to ask someone to go into this and not understand that this is a risk, right - someone with or without a personal history of trauma. Right. I don't think that this is specific to those who come to this work with trauma because we know that just doing the

work impacts your world view as well. That knowing that and also encouraging people to have sort of done some of the work and done their own healing, you have to know that you are in a space that is psychologically and emotionally healthy enough to be able to separate your own history and your own needs and feelings and care for the person in front of you. We always have to believe that the person in front of us is the expert on their own lives, right, more than- more than we are. It encourages us to make room for people to do the work before they come to this work, and just to know that this is a risk and perhaps to know what signs to look for and when to reach out and ask for help. That's the key. I would never want someone to take this research and say that it should dissuade people who have a history from engaging in this work. I also want to say separately, I know many SANE nurses who have been doing this for robust and long careers, who are brilliant leaders with decades in the field. So again, I just I want to make sure that we're not coming away from this thinking there aren't people who last beyond five years. There is a high rate of turnover and attrition. But wow, just in my own Indianapolis community, we have giants who have been doing this work for decades.

**Donia Slack** [00:12:36] I really appreciate that you brought that up because we work a lot on the FTCoE with some fantastic and well-statured SANE forensic nurses, and I agree. And some of the impact that they've brought to the community is because of the wealth of experience that they have come with. The turnover is really where we wanted to focus that thought on. So I do appreciate you saying that. But one thing that really resonated with me when you just said about this idea where, you know, when I asked the question, is this something that maybe you should not do if you have had a personal history of trauma? And I love that you called it informed consent, right? Like so many times, us researchers - and I say this because I've had to re-up my CITI training for research, you know, Health and Human Services documents - but you know, when you think of informed consent, we always think of it as the researcher side because that's what we put forth in a proper IRB package. But thinking about it for your own personal decision making, right, informed consent, being able to say yes, I do consent to wanting to go down a career path. I do consent to wanting to make a difference in the world in this particular way. It's the informed part that is so powerful in that, knowing that yes, there's a risk that based on my personality type or my past experience, my cognitive schema, that that might actually impact something in a way downstream. However, that impact could actually be extremely positive, right? You're coming to a situation with a cognitive schema that the literature calls it here the constructivist self-development theory, right. So it's actually bringing something to the table where as long as you're informed that this is a risk and you know how to mitigate for it or you know how to cope with healthy strategies, that actually it could be a positive thing. So having a nurse practitioner that might have had either primary trauma or even secondary trauma in your case actually could make them an even better provider, it could be- you can be an even better forensic scientist sometimes when it comes to having these histories or bringing your own personal worldview to the table. It's just having that informed idea that, yes, this is an impact. So I just loved that thought there.

**Cara Berg Raunick** [00:14:47] One of the reasons I'm so excited to get to talk to you on this podcast - I really like to be geeking out on the science part of this, so I'm really excited that you brought up the theory behind it, which I think makes us formally kind of losers. But I'm really excited about it.

**Heidi Eldridge** [00:15:03] Don't even worry about it.

**Cara Berg Raunick** [00:15:04] We're going to nerd out. So let's talk about constructive self-development theory a little bit. And this is the theory that McCann and Pearlman

originally paired with the concept of vicarious trauma - so this is not a me-thing, this is a them thing - but I used this as the foundation of what I did and to explain it a little bit, this theory basically says that the way that we organize information or experiences or our patterns or thoughts and behavior, our personality and our belief systems create the way that we view the world and the way that we interpret events. So it's really boiling down to that experience is subjective, meaning everyone's going to be unique in their response to trauma or to any event. And I actually like this, especially, because I've been doing a lot of teaching lately on trauma-informed care and a trauma-informed response. And I use the SAMHSA definition of trauma, and they really also focus on that personal experience and that subjective experience. So an example I think about sometimes is if you think about two children who are moved from an abusive home - to one of those children, that may be freeing and healing and the start of safety and a new life. That other child removed from the same home and the same situation, even though they're now out of danger, may experience that removal from the home as its own trauma, as its own profound additional layer of harm to that child, right. And that's going to come from each of those children's worldviews and experience. So that's sort of what that's talking about. Does that make sense?

**Heidi Eldridge** [00:16:43] Yeah, no. That's- that's great. I wanted to talk a little bit about one of the findings in the paper. Yes, the article definitely demonstrated an effect of vicarious trauma. People were affected by what they're exposed to in their jobs. Yet with that needle having been moved, it wasn't necessarily moved enough to be in a range where it might be concerning to an outside observer, shall we say. And so I'm wondering, from a management and policy perspective, if someone were to bring your paper to the manager of a SANE facility and say, Look, your nurses are in danger, that they're going to have negative mental health outcomes if you don't have mitigations in place for the vicarious trauma they may experience in their job. And I could see a manager of that facility saying, Yeah, but they're still within the range of normal. They're fine. So they're a little bit worse than they were, but they're still normal. Well, what would you say to that? You know, how do we address the reaction coming from the person having to make decisions based on bottom lines and cost-benefit analysis of, well, you know, they're hurting, but they're not hurting bad enough?

**Cara Berg Raunick** [00:17:55] So overall, the participants in my study fell in the 42nd percentile of TABS respondents, so not even crossing 50 percent, right? But remembering it's not necessarily normal, it's within the range of responses on the TABS. So that's the first thing, is that it is showing some level of trauma response. It's not that one level of the TABS isn't impeccable mental health and the other is traumatized, right? So it is within the range of normal of TABS respondents. We know that literature is mixed on the validity of the concept. There are some who even challenged the existence of the phenomenon. However, we also know that qualitative studies and anecdote endorse this consistently. We know intuitively and by talking to people on the ground that people experience this. People know what we're talking about. It resonates. When I have the opportunity to talk to nurses about this, people approach me afterwards with tears in their eyes, right, and talking about how validated they feel. And it's also really important to me that I say one of the things about vicarious trauma is that these changes are actually normal. They are not pathological. This is a normal response to this engagement and repeated exposure. It's the sequelae of the vicarious trauma that can be problematic, if that makes sense. So I think that this is actually more of a measurement issue that we haven't solved yet. Again, experientially and intuitively, it is so present. And it's also so consistent with the other things we know about trauma and people's lives, right, like the ACE score, like the ACE study. We know that this impacts people and the way that they engage in the world and

with other humans. So again, I fully acknowledge that there is literature out there and studies that have shown that this concept is a little squishy and we don't quite have all the information yet, but I believe that that's a measurement issue.

**Donia Slack** [00:19:46] I'm really glad that you brought up this idea of the qualitative side of the study. It's hard for me sometimes because I am trained as a physical scientist, so I always gravitate towards quantitative studies. It's just the bench scientist in me. But in researching this topic, a lot of the research that has been done with police officers and mental health professionals and psychologists, a lot of them have been qualitative studies, and they have absolutely validated exactly what you said, that yes, there might be on the scale - on a quantitative scale - ranges of normal, but on the qualitative side, when these are coded and done with a qualitative statistician and looked at with some of the more formal coding mechanisms by which qualitative studies are done, that there is an absolute impact, right? And it's sometimes really hard to quantify because as you mentioned before, there are so many other factors that might be impacting the score - whether it's personal trauma, whether it's exposure from a family member or just the ACEs score, right - like, were you in the foster care system or in a household that had abuse or whatnot? So I'm really happy that you brought that up because I wanted to mention that one of the areas where I believe that research should be done is in qualitative studies or mixed method studies at minimum. And so that really does bring home the fact that there are still gaps in the literature. This is not brought up, problem solved. There is a lot of moving parts to this problem and lots of ways to beat the elephant in this case.

**Cara Berg Raunick** [00:21:21] Yeah, I really appreciate that. I think there's so much more research that could be done here. I would be really interested in a longitudinal study around VT, around vicarious trauma. We know that conceptually it may grow over time, and it's operationalized as permanent changes. But I'll also tell you, as my career has shifted and I'm now doing more follow-up and less of the actual on the ground in the middle of the night connecting in that way, I feel less affected. I haven't retaken my TABS and seen, you know, what my- what my score is. I don't know if that's maturity. I don't know if that's better coping skills or the way that I've shifted my practice. But I would be very curious to see what kind of interventions can shift that score over time, and how much it grows over time because again, this is another area where research is mixed. There are actually some places, while we're talking about the tide of burnout, there are some studies that have shown that experience is protective. And again, we don't know if that's because they're self-selecting, and the people that aren't doing well are dropping out of the field and the ones that have figured out how to cope are the ones staying. We don't know. But there's got to be more to do there. There's obviously more to explore between primary trauma and vicarious trauma or secondary trauma in itself.

**Heidi Eldridge** [00:22:32] I think it's really interesting that you brought up that phrase permanent damage because permanent could mean irreversible, or it could mean permanent if nothing is done about it. So permanent if we leave you to your own devices and let you go wallow versus, you know, maybe not so permanent if we found the right interventions. And I think that's really a rich area for future research.

**Cara Berg Raunick** [00:22:56] And that actually is one of the other disappointing pieces of this is we don't have a lot of evidence-based intervention. We just don't. There's a lot of intuitive stuff - that supervision, that support, that exercise, mindfulness. Yes, all the things self-care, whatever that means, right? That all of those things are helpful. But we don't have great studies to show us what works and what helps. Which also I think, Heidi, goes to your question around what do we bring to administrators because intervention costs

money and people want things that are scored and established and proven. And that's a really hard space that we're in here.

**Heidi Eldridge** [00:23:39] Yeah, it's hard to say. If you- if you build a yoga studio, your nurses will be twenty-five percent less traumatized, like where did that come from? And what would that even look like? What does twenty-five percent less traumatized mean? Does this mean they will work for three more years before they burn out or-

**Donia Slack** [00:23:55] So that's why I believe it would be, when we have these intuitive studies, it would be really interesting to actually see funded research in this area where interventions are studied. Just simple, randomized controlled trials and pre- and post- tests just to start quantifying what the difference is and then we can put the language on, well, what does that really mean? And even bringing that to the end point research of, OK, well, what's the cost benefit analysis on that one? If we do invest in this, what is your actual impact to the person? And then ultimately the cases. These are victimized humans and being able to actually quantify that by caring about the problem and by quantifying what the problem is that in the end, we have ultimately made a safer society, I think is kind of the goal.

**Cara Berg Raunick** [00:24:45] So a lot of the work on vicarious trauma has been done among mental health professionals. There's way less among nurses in general and also forensic scientists in general than you would think, because again, it feels pretty obvious. But one of the things that's really unique to SANEs compared to other therapists or mental health professionals is that we don't get to see the evolution of the patient beyond the acute crisis. We don't necessarily learn if the patient followed up on the resources we provided. We don't necessarily know if the patient is healing well. Even if we work in a program where they do offer follow-up - which many are starting to do, but not all have the capacity to do - the no-show rate is really, really, really high among these patients, right? And so this might also create a different set of risks for SANEs to not only be exposed to the narrative, but also to have little opportunity for growth or closure with the patients.

**Donia Slack** [00:25:40] Yeah, I'm happy you brought up the idea or the notion of closure. It's definitely something when Heidi and I have been talking through future research for bench scientists, the possible trauma that bench scientists might experience. A lot of it comes from the fact that there is no closure, right? Like they might be able to give their statistical interpretation, but many times, unless they're called to testify and even then might not even be made privy to the results of the case. There's not a lot of closure that is received, so a lot of times it could almost be worse of thinking of well, what is the worst things that might have happened in this case?

**Cara Berg Raunick** [00:26:15] And we know that re-victimization is common. So it's- it makes sense that we go home with worries.

**Donia Slack** [00:26:20] Research like this, it goes a very, very long way of actually demonstrating the problem and saying pay attention - pay attention because it does matter. So for that, I applaud you, Cara. I think this is a fantastic paper.

**Cara Berg Raunick** [00:26:35] Thank you so much.

**Heidi Eldridge** [00:26:37] I agree. I think that's actually a really nice transition into the last question I have anyway, which is, Cara, do you have a take-home message for us? What

is the big picture idea that you would like people to get out of this discussion and out of your paper?

**Cara Berg Raunick** [00:26:51] I think the biggest thing is maybe that informed consent piece - that awareness, that normalizing - remembering that these changes again are not pathologic, that it is part of the process of doing this work and frankly, doing this work effectively. You can't jump in water and expect not to get wet, and you can't be in narratives of trauma with people engaging with humans with your heart and soul and mind and not expect to be affected. And I think that the more we're able to talk about this, to normalize it, and I don't mean normalize like minimize or accept that it's fine, but rather to work to remove stigma. I think that's one of the most important things that we can do because nurses and folks that gravitate towards forensics are- can have a hard edge, right? We are in it. We know what we're in for. At least we think we do, right, and learning that some of this difficulty and struggle is normal would be really, really important to moving forward for leaders, for administrators, and for the nurses themselves.

**Donia Slack** [00:27:53] Thank you so much. I think on that note, that is a perfect point for us to end the discussions. This has been really eye-opening and a very exciting topic. We are so grateful to you for joining us on this episode. Thank you so much, Heidi and Cara.

**Cara Berg Raunick** [00:28:09] Thank you so much.

**Donia Slack** [00:28:10] If you have enjoyed today's conversation, be sure to like and follow Just Science on your podcast platform of choice. For more information on today's topic and resources in the forensic field, visit [ForensicCOE.org](http://ForensicCOE.org). I'm Donia Slack, and this has been another episode of Just Science.

**Voiceover** [00:28:28] Next week, Just Science sits down with Donia Slack to discuss her research findings on workforce resiliency. Opinions or points of views expressed in this podcast represent a consensus of the authors and do not necessarily represent the official position or policies of its funding.