

Development & Validation of The Vicarious Occupational Trauma Exposure (VOTE) Index

Many professionals who work with people who have trauma histories experience *vicarious trauma*. Vicarious trauma is “second hand” trauma that is passed on to workers when they interact with individuals who experienced trauma “firsthand” or encounter information about the trauma. A worker may not directly experience the trauma, but because they work with people or communities that have, the worker may experience these traumas *indirectly*. Vicarious trauma can negatively affect the mental and physical health of professionals through psychological and physiological stress-response pathways.

The **Vicarious Occupational Trauma Exposure (VOTE) Index** is a tool designed to identify:

- What parts of a worker’s job expose them to vicarious trauma
- How often they are exposed to vicarious trauma
- How strong the vicarious trauma exposure is

The VOTE Index assesses 16 common occupational sources of vicarious trauma across four domains: 1) clients/patients sharing about trauma; 2) receiving and reviewing evidence of trauma; 3) documenting and reporting trauma; and 4) other staff members sharing about trauma. This instrument was developed with interviews and focus groups of substance use disorder (SUD) providers; extensive review of the scientific literature on vicarious trauma in behavioral health, victim advocate, and housing/ homelessness workforces; and cognitive interviews of SUD providers to refine the instrument before being psychometrically tested.

The VOTE Index demonstrated excellent validity and reliability when tested with 1,415 members of the SUD workforce, sampled to reflect the composition of this workforce in the United States. Participants’ VOTE Index scores were very consistent over a 2-week period of time, indicating strong reliability. VOTE Index scores were also highly statistically significantly correlated with validated measures of secondary traumatic stress, psychological distress, and job satisfaction, demonstrating strong validity.

The validity and reliability of the VOTE Index was assessed with two different approaches to scoring the instrument. The first approach is to sum an individual’s vicarious trauma exposure frequency scores (i.e. how often they experienced the exposure across all 16 items). This is a straight-forward approach that gauges how much an individual is exposed, but not how strong their exposure is. The second approach is to multiply each vicarious trauma exposure frequency score by the respective exposure impact score and then add all of these multiplied scores together. This score *weights* how much somebody is exposed to vicarious trauma by the strength of the exposure. Both approaches to scoring demonstrated excellent validity and reliability.

Uses of the Vicarious Occupational Trauma Exposure (VOTE) Index

The VOTE Index can be downloaded for free from the Harvard Center for Work, Health, and Wellbeing website and can be used in several ways, including to:

1. Measure the total amount workers are exposed to vicarious trauma at work, which may vary by work setting or job role.
2. Identifying the types of job tasks (such as writing notes or case consultation) that particularly expose workers to greater amounts of vicarious trauma. This information can be used to pinpoint what parts of a job may need to be changed or require greater supports.

FAQs

Why was the Vicarious Occupational Trauma Exposure (VOTE) Index developed? How is it different from other vicarious trauma measures?

Until the development of the VOTE Index, we only had instruments to measure vicarious trauma *symptoms*, also referred to as secondary traumatic stress or vicarious traumatization. Example symptoms include experiencing gaps in memory about client/patient interactions or disturbing dreams about clients/patients. Vicarious trauma symptoms may or may not meet the clinical threshold for a post-traumatic stress disorder (PTSD) diagnosis.

Measuring *symptoms* of vicarious trauma is important, but without a tool to measure *exposure* to vicarious trauma, we do not have a way to identify what parts of the work environment causes symptoms in the first place. Without knowing what causes symptoms, it is hard for organizations, researchers, and policy-makers to figure out how to improve the work environment to either reduce vicarious trauma exposure or (if reducing exposure is not possible) identify supports to protect workers from becoming harmed by the work they do. In other words, if we only measure symptoms, we do not know what needs to change.

Our research has shown that workers are exposed to a variety of different sources of vicarious trauma at work, some of which come directly from communicating with patients/clients while other exposures come from other parts of their job, such as viewing images of traumatic events. Both how much a worker is exposed to vicarious trauma and the way they are exposed may differ based upon work setting and job role. The VOTE Index can help identify which workers may particularly benefit from support, which may depend on the type of work they do.

Another important reason to measure vicarious trauma exposure (instead of only symptoms) is that it allows organizations to identify where to modify parts of the work environment to prevent workers from becoming traumatized. Research has shown that “up-stream” organizational interventions that seek to change the work environment are often more effective in improving worker health and wellbeing for more workers than interventions that focus only on individual workers, such as practicing mindfulness.

Is vicarious trauma a type of trauma?

Yes, vicarious trauma is a type of trauma, and it can negatively impact the mental and physical health of professionals similar to direct trauma. The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) recognizes “indirect exposure to aversive details of the trauma, usually in the course of professional duties” (i.e. vicarious trauma) as a type of trauma that can contribute to post-traumatic stress disorder.

Is vicarious trauma the same as moral injury or burnout?

No, vicarious trauma, moral injury, and burnout are different occupational experiences. However, they can all occur in the same work environment, especially in the healthcare and human service fields.

Vicarious trauma is “second hand” trauma that is passed on to workers when they interact with individuals and communities who experienced trauma “firsthand” or when they encounter information about the trauma. To experience vicarious trauma exposure or symptoms, the individual must first encounter trauma from another individual or community. Moral injury is the psychological distress that can occur when an individual or organization acts or fails to act in ways that are counter to deeply held moral beliefs and expectations. People experience burnout after experiencing chronic workplace stress that they have not been able to manage well, and this occurs in a wide range of industries.

What is the difference between *vicarious trauma exposure* and *vicarious trauma symptoms*?

Vicarious trauma is “second hand” trauma that is passed on to workers when they interact with individuals who experienced trauma “firsthand” or encounter information about the trauma. According to stress and trauma theories, vicarious trauma can be separated out into vicarious trauma *exposure* (e.g. a client sharing about their trauma history, viewing photos of a traumatic event), appraisal of the vicarious trauma exposure (e.g. deciding how distressing the exposure is), and vicarious trauma symptoms (e.g. the impact of the exposure on the individual). Vicarious trauma symptoms can develop after a specific vicarious trauma exposure or accumulate over time. Vicarious trauma symptoms have been shown to be associated with workers’ health, wellbeing, job turnover, and other important occupational outcomes.

With what workforces can I use the VOTE Index?

As of 2024, the VOTE Index has been validated with the substance use disorder workforce, which included individuals working in a wide range of jobs (peer workers, counselors, prevention workers) and settings (inpatient, outpatient, and community settings). Efforts are currently underway to validate the VOTE Index among forensic nurses. Literature on vicarious trauma and behavioral health (e.g. mental health and addiction treatment providers), victim advocates (e.g. domestic violence advocates), and housing insecurity workers (e.g. individuals working in homelessness and refugee fields) were used to develop this measure. We expect that the VOTE Index will also be applicable to these settings. However, the VOTE Index has not been validated with these workforces yet, and we encourage these next steps.

Why was the VOTE Index assessment timeframe restricted to the last 30 days?

The VOTE Index asks how often in the last 30 days an individual encountered a type of vicarious trauma exposure at work. The VOTE Index asks about the last 30 days because it is specifically designed to assess an individual’s *current* work environment. When we tested the VOTE Index with a 6-month timeframe or no timeframe, cognitive interview participants frequently described vicarious trauma exposures that were not part of their current jobs because they had changed roles or left a previous job. Other participants described how vicarious trauma exposure often fluctuated over the course of a month, and shorter timeframes may not capture higher or lower periods of exposure. Considering high rates of staff turnover rates in many human service fields as well as the fluctuation of vicarious trauma exposure over a month, a 30-day timeframe appeared to best capture levels of vicarious trauma exposure in an individual’s current job.

That said, cognitive interview and survey participants in this study shared how vicarious trauma exposures that happened months or years earlier or in another job continued to impact them, and the long-reaching effect of vicarious trauma exposure should not be ignored.

How valid and reliable is the VOTE Index?

Validity refers to how *accurately* an instrument captures what it is intended to conceptually measure. Through an extensive development and testing process, the VOTE Index demonstrated very strong content, convergent, and discriminant validity with the substance use disorder workforce for both exposure frequency and weighted scoring options. The convergent validity table below shows how the VOTE Index strongly statistically correlated with existing measures of psychological distress and job satisfaction with which the VOTE Index would be expected to correlate.

Convergent validity with validated measures of psychological distress and job satisfaction (N=1,415)

	Measure	Weighted VOTE Index	Exposure Frequency
Psychological Distress	Secondary Traumatic Stress Scale β (95% CI)	1.50 (1.30, 1.70) ***	0.35 (0.28, 0.41) ***
	Kessler Psychological Distress Scale β (95% CI)	3.10 (2.60, 3.60) ***	0.65 (0.49, 0.81) ***
	Symptoms Checklist Somatic Subscale β (95% CI)	4.30 (3.70, 5.00) ***	1.00 (0.79, 1.20) ***
Job Satisfaction	Job Satisfaction Index β (95% CI)	-1.10 (- 1.60, -0.57) ***	-0.24 (-0.40,-0.08) **
	Intention to leave job β (95% CI)	10.00 (4.40, 17.00) ***	2.60 (1.0, 4.3) ***

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$
 All β adjusted for age, racial-ethnic identity, and gender

Reliability refers to how *consistently* an instrument produces the same result. The VOTE Index demonstrated strong test-retest reliability over a 2-week period of time, indicating that scores that scores were measured consistently at two points in time.

Test-Retest Reliability VOTE Index comparing scores taken 2-weeks apart (N=94)

Measure	Weighted VOTE Index	Exposure Frequency
Intraclass Correlational Coefficient	0.86	0.93

Interclass correlational coefficient scores range from 0-1, with scores closer to 1 indicating similarity between scores taken at two time points.

What other validated vicarious trauma instruments would you recommend using to measure vicarious trauma?

The Vicarious Occupational Trauma Exposure (VOTE) Index is the only instrument validated to measure *exposure* to vicarious trauma at work. Multiple instruments exist to measure vicarious trauma *symptoms*. One widely used and validated instrument is the Secondary Traumatic Stress Scale (STSS; Bride et al., 2004). The Vicarious Trauma Organizational Readiness Guide (VT-ORG; Hallinan et al., 2019) is a validated instrument to measure how prepared an organization is to prevent and respond to vicarious trauma.

Participants in our study who completed the VOTE Index validation survey wrote that they also appreciated opportunities to share how their work affected them personally or opportunities to improve vicarious trauma response at work. Based on this feedback when assessing workers with the VOTE Index, it may be helpful to either include opportunities for them to give open-ended responses about their work environment and/or also use the STSS or VT-ORG alongside the VOTE Index.

Are results from the VOTE Index published?

Efforts are currently underway to publish the VOTE Index in a peer-reviewed scientific journal. This can take some time, and we will update this document when the citation is available.

How should I cite the VOTE Index?

While efforts are currently underway to publish the VOTE Index in a peer-reviewed journal, please use the following citation in the meantime:

Stelson, E., Sabbath, E.L., Chen, L., Sorensen, G., Berkman, L., Moallef, S., & Kubzansky, L.D. (2024). The Vicarious Occupational Trauma Exposure (VOTE) Index: Instrument development and validity and reliability assessment with the substance use disorder workforce. Available at <https://centerforworkhealth.sph.harvard.edu/resources>.

How can I learn more about the VOTE Index?

If you have any questions, please contact:

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