



# Trauma-informed primary care for medical residents

Andrea M Shamaskin-Garroway<sup>1</sup> , Elizabeth A McLaughlin<sup>2</sup>, Noel Quinn<sup>2</sup> and Frank D Buono<sup>3</sup>

<sup>1</sup>Departments of Psychiatry and Medicine, University of Rochester, School of Medicine and Dentistry, Rochester, New York, USA

<sup>2</sup>Department of Psychology, VA Connecticut Healthcare System, West Haven, Connecticut, USA

<sup>3</sup>Department of Psychiatry, Yale School of Medicine, New Haven, Connecticut, USA

## SUMMARY

**Background:** Psychological trauma can have a significant impact on mental and physical health, and interpersonal relationships. Many physicians report discomfort addressing psychological trauma in the context of health care visits, and few training opportunities exist for health care trainees to learn about the relationship between trauma and health. The aim of this project was to develop and implement an educational curriculum to teach medical and nursing trainees about trauma-informed primary care.

**Methods:** We expanded upon pilot data from a brief

interdisciplinary intervention to train medical residents in trauma-informed primary care at a Veterans Affairs hospital. We generated a trauma-informed care curriculum involving five 1-hour didactic sessions, 10-minute group reflection regarding patient interactions prior to each didactic session, and optional patient care observation and feedback. The curriculum aligned with internal medicine ( $n = 16$ ) and nurse practitioner ( $n = 5$ ) interprofessional primary care education sessions during the 2017/18 academic year.

**Results:** The curriculum was feasible and associated with increased self-reported knowledge, attitudes and practice

around trauma-informed care. Free text feedback indicated that residents found the topic important, appreciated a skills-based approach and valued experiential educational activities.

**Conclusions:** Training residents in trauma-informed care results in improved knowledge, attitudes and practices in caring for patients with psychological trauma. Residents appreciated both experiential and skills-based exercises. Next steps include continued exploration of using direct observation and feedback, and examining effects of training on patient outcomes (e.g. satisfaction with care).

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## INTRODUCTION

Health care clinicians must understand psychological trauma (an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on individual's functioning and mental, physical, social, emotional or spiritual well-being)<sup>1</sup> in order to promote patient-centred environments and deliver trauma-sensitive clinical care. Early trauma exposure is associated with increased risk for numerous physical health issues, including cardiovascular disease, cancer and liver disease.<sup>2</sup> Furthermore, trauma survivors may be particularly sensitive to power dynamics, have difficulty trusting others and experience discomfort with the intrusive nature of some medical procedures.<sup>3</sup>

Clinicians must understand how psychological trauma impacts health, and how to sensitively and effectively work with patients who have a trauma history. Primary care clinicians themselves do not feel adequately trained to discuss trauma with patients.<sup>4</sup> Clinicians in one study felt frustrated working with patients who had trauma histories, sometimes focusing on acute medical issues to avoid initiating a discussion about trauma that they felt ill-equipped to handle.<sup>4</sup> A recent survey of family medicine residency programmes found most programmes had what was perceived as insufficient training in trauma-informed care domains, using primarily didactic teaching methods to recognise trauma signs.<sup>5</sup>

One pilot study in a Veterans Affairs (VA) women's primary care clinic involved a health psychology resident observing patient encounters and providing feedback about trauma-related communication.<sup>6</sup> Although this

intervention improved medical residents' self-perceived communication skills and comfort responding to trauma disclosure, it was brief in nature during a 2-week rotation, used a small sample ( $n = 8$ ), and did not include any background teaching about trauma.<sup>6</sup>

Based on a previous pilot study,<sup>6</sup> the current project developed and implemented an extended trauma-informed primary care (TIPC) curriculum. We define TIPC as conceptualising patient health care through a biopsychosocial and interpersonal lens that: 1) respects the impact of psychological trauma; 2) acknowledges how the health care environment can be challenging for a trauma survivor and how to minimise that challenge; and 3) highlights the value of a collaborative patient-clinician relationship to achieve patients' optimal health.<sup>7</sup>

### Setting and participants

This programme occurred during the 2017/18 academic year within a VA interprofessional primary care residency programme. The VA Connecticut Institutional Review Board Research Office determined this quality improvement project to be exempt.

Participants were 21 trainees who elected to train in a specialty interprofessional training environment and completed both pre- and post-curriculum assessment: 16 physicians (56% female) and five nurse practitioner (NP) residents (100% female) (Postgraduate Year 1 [PGY1] = 48%; PGY2 = 30%; PGY3 = 12%). The physician residents, who have completed medical school and were enrolled in a 3-year residency programme focusing on adult primary and specialty care, completed their primary care rotations within the VA and their other clinical training at Yale University-affiliated

hospitals and clinics. The NP residents, whose training background can be more varied and include undergraduate nursing education, accelerated post-baccalaureate nursing programmes, and/or training across the lifespan, completed all clinical training at the VA. The trainers were the curriculum developers: two clinical health psychology faculty members (AMS-G and NQ) and one health psychology resident (EAM).

### Programme description

The TIPC curriculum was developed from several published guidelines by the American Psychological Association,<sup>8</sup> the Substance Abuse and Mental Health Association,<sup>1</sup> and an existing model of trauma-informed care in medical settings.<sup>7</sup>

The TIPC curriculum involved three components to offer a breadth of teaching modalities: 1) didactics to teach about novel content; 2) reflection rounds to facilitate introspective processing of emotionally-laden content and interactions; and 3) observation and feedback on actual skills in real patient interactions. Trainees participated in five 1-hour didactic sessions, which were built into their ambulatory education sessions and occurred approximately once every 8 weeks. Topics included: 1) background about psychological trauma, adverse childhood events, and impacts on physical health; 2) clinician self-care and self-reflection; 3) the trauma-informed physical exam; 4) trauma screening; and 5) managing a triggered patient. Prior to each didactic session, 10-minute 'reflection rounds' occurred to allow group reflections regarding trauma-informed patient encounters. At the training year mid-point, after which trainees developed some familiarity with practical application of the content, they could select a patient encounter for observation and individualised feedback by

the health psychology resident focusing on core communication skills and trauma-informed elements of the physical exam.

## Programme evaluation

### Evaluation methods

**Pre- and post-curriculum assessment:** A six-member expert panel of clinical health psychologists developed a self-report questionnaire that examines medical trainees' TIPC-related knowledge, attitudes, beliefs and self-reported practices (see Appendix S1). Content validity was assessed using content validity index (CVI). Based on an 86% criterion level, the TIPC assessment was deemed acceptable at an 88% CVI agreement rating. Residents completed this questionnaire prior to the training and after curriculum completion.

**Feedback on observed patient encounters:** Study researchers created a 10-item checklist of specific clinician behaviours (see Appendix S2). The health psychology resident rated each item as present or absent during observed encounters. The health psychology resident e-mailed written quantitative and qualitative feedback to trainees within 24 hours of the observation.

**Curriculum content feedback:** At curriculum completion, participants provided anonymous written feedback using the prompts, 'What worked well?' and 'What could be even better yet?' (90% response rate).

### Data analysis

Paired-samples *t*-tests were performed to evaluate the difference between the aggregate pre- and post-test scores across the four factors of the TIPC assessment. The qualitative feedback provided by trainees about curriculum content was independently reviewed by the first three authors (AMS-G, EAM and NQ), who each created a list of broad themes from the data. Themes from the feedback

were discussed collaboratively and organised into categories of *content* or *delivery* for purposes of tailoring the curriculum in the future.

### Assessment of learning outcomes

Paired-samples *t*-tests demonstrated improvements in trainees' self-reported knowledge ( $t = 5.80, p < 0.001$ ), trauma-informed attitudes ( $t = 6.85, p < 0.001$ ), and self-reported trauma-informed practice ( $t = 3.78, p < 0.001$ ) (see Figure 1).

### Observation and feedback

Six residents (29%) requested to receive feedback about an observed patient visit. The residents demonstrated most of the 10 behaviours on the checklist ( $M = 9.5$ ). Qualitative feedback highlighted strengths in how the clinicians delivered patient-centred care and areas for growth, such as using open-ended questions or asking permission prior to touching during the physical exam.

### Residents' response to the curriculum

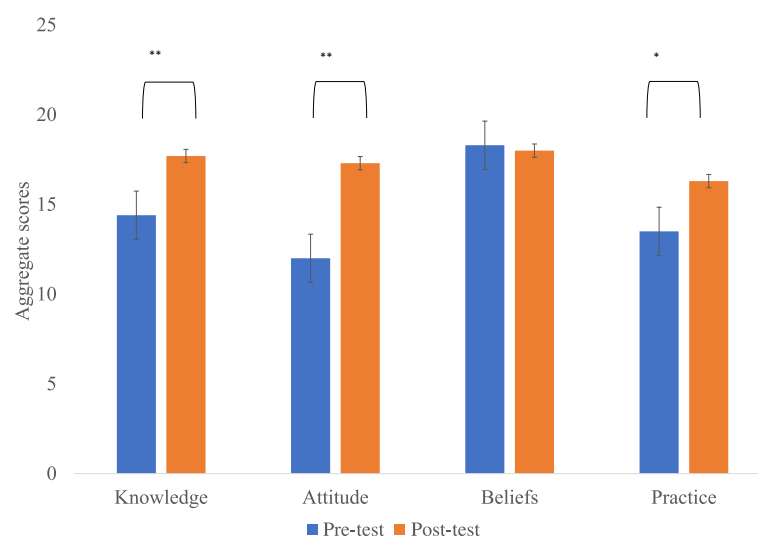
Regarding *content*, residents felt the topic was useful and important. They enjoyed the concrete skills practice and appreciated the self-care and self-reflection

portion of the curriculum. Some residents suggested the content was too basic and should not replace the medical education curriculum. Regarding *delivery*, residents highlighted the role-plays and interactive exercises as helpful but felt the didactic sessions were too frequent and the curriculum needed clearer learning objectives due to the topic's abstractness and novelty (see Table 1).

## DISCUSSION

This project assessed the initial effectiveness of an educational curriculum focused on trauma-informed care within an interprofessional learning environment. On a pre- and post-curriculum self-assessment, medical and NP residents reported significant improvements in knowledge, attitudes and practice related to TIPC. There was no significant change in trainees' beliefs about TIPC. However, this subscale score was high at baseline, suggesting participants initially believed that this topic was relevant in primary care. Residents found the content to be important and useful, and they appreciated the opportunities for clinician self-reflection, self-care and skill development. Constructive feedback suggested

... medical and NP residents reported significant improvements in knowledge, attitudes and practice related to TIPC [trauma-informed primary care]



**Figure 1.** Comparison of residents' (trauma-informed primary care) pre- and post-curriculum self-report assessment scores ( $n = 21$ ). Note: Scores on each subscale range from 3–21; \*  $p < 0.01$ ; \*\*  $p < 0.001$ .

Residents found the content to be important and useful, ... they appreciated the opportunities for clinician self-reflection, self-care and skill development

**Table 1. Written curriculum feedback from residents**

Curriculum component	Sample feedback
<b>Content</b>	
What worked well?	<p>'I think this is one of the most important curricula we have at [the] COE [Center for Excellence in Primary Care Education]' (Resident 14)</p> <p>'Laying foundation that all providers across all disciplines should provide care in a trauma-informed format' (Resident 15)</p> <p>'Great self-care session, because so often focused on patients that we burnout ourselves' (Resident 14)</p> <p>'Interesting topic relevant to everything we do as clinicians' (Resident 2)</p>
What could be even better yet?	<p>'Sessions tended to cover med school/intro level material' (Resident 11)</p> <p>'Should avoid replacing medical education curriculum, may run the sessions during the lunch hour' (Resident 8)</p>
<b>Delivery</b>	
What worked well?	<p>'Hands-on experience (i.e. working in groups for role-plays) ' (Resident 12)</p> <p>'Really enjoyed doing the exams and seeing other people's approach to trauma-informed care' (Resident 10)</p> <p>'Simulations ... Specific instructions on how to respond appropriately to an upset patient' (Resident 16)</p>
What could be even better yet?	<p>'Overall I think the topic was diluted because of multiple extra sessions' (Resident 17)</p> <p>'Themes or goals per immersion block/aims that could be introduced at the beginning of each immersion block and reinforced by the preceptors' (Resident 7)</p> <p>'Re-time sessions so they are not Friday afternoons ending 16:30–17:00 p.m.' (Resident 11)</p>

fewer didactic sessions with more intentional objectives and goals outlined at the beginning of the curriculum.

This curriculum adds a unique contribution to the medical education literature. In interprofessional education settings, this curriculum could be adapted to involve both interprofessional

learners and educators. Our curriculum also emphasised regular clinician self-reflection and self-care, highlighted as a curricular strength by several trainees. This component is critical when discussing trauma to prevent vicarious, traumatisation, burnout and compassion fatigue.<sup>7</sup> We recommend that future teaching on

trauma-informed care include clinician self-care as a core curricular element given the emotionally-laden conversations that often occur when discussing trauma. Lastly, the curriculum provided an opportunity for live observation and individualised feedback regarding patient interactions. Though most trainees declined observation and

feedback, perhaps due to a concern about the evaluative nature of the observation, the use of direct observation can be a powerful tool in improving patient-centred care,<sup>9</sup> improving physician communication,<sup>9,10</sup> strengthening biopsychosocial approaches to care,<sup>9</sup> and reducing burnout,<sup>10</sup> all of which are highly relevant in a trauma-informed care domain.

Project limitations include small sample size with a self-selected group who chose an interprofessional training environment. Another limitation is using self-report data as an outcome measure, which does not allow assessment of whether the curriculum actually changed patient-clinician interactions. Lastly, there was no control group and residents may have increased their understanding of trauma-informed care simply by training within the VA.

Next steps include distilling the curriculum into fewer didactic sessions, longitudinal observation and feedback sessions, and measuring impact on outcomes such as patient satisfaction and residents' longitudinal fidelity to a trauma-informed care approach.

## CONCLUSIONS

This curriculum is feasible, well-received in an interprofessional training programme, and targets the graduate medical educational

emphases on interpersonal communication and biopsychosocial approaches to patient care. It holds promise as a tool for medical learners to broaden their conceptualisation of health and interact with patients in a trauma-informed and ultimately patient-centred manner.

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Appendix S1.** Trauma-Informed Primary Care Clinician Questionnaire.

**Appendix S2.** Trauma-Informed Primary Care Clinician Observation Form.

**We recommend that future teaching on trauma-informed care include clinician self-care ...**

**Corresponding author's contact details:** Andrea M. Shamaskin-Garroway, Departments of Psychiatry and Medicine, 601 Elmwood Avenue, Box PSYCH, University of Rochester School of Medicine and Dentistry, Rochester, New York 14642, USA. E-mail: Andrea\_garroway@urmc.rochester.edu

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