Views, self-rated competency, and perceived barriers in practicing trauma-informed care: A survey of Physician Assistants in Canada

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Abstract

Psychological trauma has a widespread impact on individuals and the healthcare system, with it being estimated that over 70% of Canadians have experienced a traumatic event in their lives (1). Trauma-informed care (TIC) acknowledges the impact that trauma can have on an individual, works to understand the effects of trauma, recognizes the signs and symptoms of traumatic stress, and works to actively resist re-traumatization. The purpose of this study was to assess the opinions, self-rated competency, and perceived barriers of Canadian Physician Assistants (PAs) towards their practice of trauma-informed care. A survey study was distributed via email and various social media groups with a total of 66 respondents. The majority of participants had positive opinions towards TIC, feel somewhat confident in their practice of TIC and expressed a desire to learn more about it. Participants also acknowledged various barriers to the implementation of TIC, including a lack of training and education on the topic. In conclusion, there appears to be a knowledge gap between Canadian PAs and the practice of TIC, but the positive reception and interest towards the topic suggests this is a promising area for future growth and education for PAs in Canada.

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I. Introduction

Psychological trauma is a pervasive issue within healthcare, costly to the individual as well as the public health system. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma as a health problem that "results from an event, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening, and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (2). It is estimated that over 70% of Canadians have experienced a traumatic event in their lives, and a survey by WHO World Mental Health that 70.4% of respondents from 24 countries had experienced lifetime traumas (1,3). There are many different events or circumstances, either singular or recurrent, that can result in an individual's trauma. Trauma can be interpersonal, including acts or threats of psychological or physical harm, and/or acts of neglect. It can also be external, for example, occurring as a result of war, crime, loss of a loved one or livelihood, and natural disasters. Trauma can also be thought of with regards to shared experiences of a population, including refugees and immigrants, LGBTQS2+, and Indigenous Peoples (4). Multiple factors contribute to the experience of trauma, including the interactions between neurobiology, previous traumatic or violent experiences, and the influence of community and social structures (5). The experience of a particular event may be traumatic for one individual and not for another. This depends on how the individual assigns meaning to the experience and can be influenced by feelings of guilt and shame, cultural influences, support system, and developmental stage. The effects of trauma can have immediate or delayed onset after the event, and they can be either short or long-term (2). Much of the literature on trauma and its effect on health outcomes focuses on trauma in childhood, influencing the childhood trauma focus of this paper.

Trauma-informed care, also known as trauma and violence-informed care, are practices and policies established to recognize the connection that exists between trauma and negative health outcomes and behaviours. Ultimately, the goal of trauma-informed care is to minimize harm, resist re-traumatization, and to promote a culture of awareness and resilience (6). This current survey study investigated the current practices of trauma-informed care by Canadian Physician Assistants (PAs) with respect to the attitudes, perceived competency, and barriers towards implementing trauma-informed approaches to their everyday practice.

The Effects of Childhood Psychological Trauma

The effects of trauma are complex and can be damaging to an individual's psychological, physical, and emotional health. Some immediate, short-term effects after a traumatic event or circumstance include exhaustion, confusion, agitation, dissociation, hyperarousal, and blunted affect. In the long-term, individuals can develop post-traumatic stress disorder (PTSD), anxiety, sleep disorders, persisting nightmares, flashbacks, and chronic fatigue (7). Highly associated with trauma are substance abuse, disordered eating, and other self-destructive and self-harm behaviours (7). A significant amount of research in the field of trauma focuses on early childhood experiences and has shown that the effects of trauma at a young age on health outcomes are strong and cumulative. A landmark study on childhood trauma, The Adverse Childhood Experiences Study by Felitti et. al, demonstrated that exposure to abuse and dysfunction during childhood was associated with many serious health issues in adulthood, including a strong dose-response relationship of early life traumatic experiences and adverse adult health outcomes (8).

Vincent Felitti and a team of researchers collected questionnaires about adverse childhood experiences from 9,508 adults who had all received a standardized medical evaluation

at Kaiser Permanente's San Diego Health Appraisal Clinic. The questionnaire focused on seven categories of Adverse Childhood Experiences (ACEs), including psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance users, mentally ill or suicidal, or ever imprisoned. It was found that adverse childhood experiences were common, with almost two-thirds of participants reporting at least one ACE, and more than one in five reporting three or more ACEs. The results also showed that there was a relationship between the number of childhood exposures and the number of health risk factors for several of the leading causes of death in adults. For example, participants who had experienced four or more categories of childhood exposure had a 4-to-12-fold increased health risk for alcoholism, drug use, depression, and suicide attempts, and a 2-to- 4-fold increase in smoking, poor self-rated health and other poor health outcomes, compared to those who had no exposure. Several diseases such as ischemic heart disease, cancer, and chronic lung disease have also shown a graded relationship to the degree of exposures. The research team suggested that the link between ACEs and adult disease are high risk health behaviours that may be used as a coping mechanism in the context of stress and dysfunction, such as substance use. Studies such as this one have been replicated many times, and the underlying theme has been that experiencing trauma in childhood has a significant impact on the likelihood of adverse health outcomes, and over 80 publications have demonstrated a strong dose-response relationship of traumatic early life experiences and adult health outcomes (9,10).

Adverse Childhood Experiences and the impact on healthcare

An individual's experience of trauma may not only affect their health outcomes, but also how they access healthcare. Studies have shown that adults with a history of ACEs may utilize healthcare services, especially emergency services, at higher rates (4,5). Additionally, there is

evidence that individuals with high number of ACEs book more healthcare appointments but fail to show at a higher rate than those with no or moderate ACEs (11). Data collected from the 2011 Behavioural Risk Factor Surveillance system in the United States also showed an association between childhood trauma and preventative health care services among adults. All categories of ACEs were associated with lower odds of being insured. Additionally, having a personal health care provider was inversely related to most ACEs. These findings suggest that a history of childhood trauma, along with factors such as lower socioeconomic status and healthcare avoidance, may compromise access to healthcare resources (12). Preventative healthcare and screening for disease may also be significantly affected by a history of trauma. One study showed that a history of sexual assault, especially during childhood, was strongly associated with decreased cervical cancer screening with a Pap test. This may be attributed to the invasive and potentially re-traumatizing nature of a gynecological exam, which sexual abuse survivors have reported more fear, anxiety, and shame during, compared to other women (13). A history of sexual assault and witnessing or experiencing violence has also been negatively associated with receiving screening mammographies for breast cancer (14). Trauma also impacts how individuals receive and provide healthcare. Patients with a history of trauma or a diagnosis of PTSD report more negative relationships with and perceptions of healthcare providers, while providers often feel unprepared on how to provide comprehensive care and follow-up for these patients, and that in general, these patients are more "difficult" (15–17). While primary care providers have a high level of contact with patients with a history of trauma, they report feeling inadequate in their interventions, often not knowing what to do next once a disclosure of trauma is made (17). In a qualitative study, when providers were asked to describe their emotional

reactions to encounters with patients with a trauma history, most were negative, and included feeling frustrated, overwhelmed, helpless, and drained (17).

Trauma-Informed Care

With more awareness of the concept of psychological trauma and its effects, developing an approach to caring for patients who have experienced trauma has become very important. Felitti's landmark study and others emphasized the need for a solution to a pervasive problem. At its core definition, trauma-informed care (TIC) is grounded in an understanding of trauma and its impact and responding to it in a way that emphasizes physical and psychological safety for providers. Even if a personal history of trauma is not acknowledged, TIC recognizes that individuals may still be affected. A trauma-informed system realizes that the effects of trauma are widespread, recognizes the signs and symptoms of trauma, responds by integrating knowledge about trauma into procedures and policies, and actively resists re-traumatization of their clients via their practices (2). With this understanding practices are adapted, and instead of approaching the patient's current presentation with a mindset of "what is wrong with you?" the approach shifts to "what has happened to you?" (4). TIC operates under six key principles: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment; and cultural, historical, and gender issues. In TIC, the collaborative partnership between provider and patient is paramount, with a focus on eliminating the power differential that often exists in services such as healthcare. Importantly, the trauma-informed approach actively resists cultural biases and stereotypes, offers gender responsive services, and recognizes intergenerational trauma. TIC practices can be applied universally, and are especially important in screening, interviews, physical exams, procedures, and treatment planning.

It is recognized that certain medical practices, for instance gynecological exams, can be invasive, distressing, and triggering for individuals with a history of trauma (13). Adapting a trauma-informed healthcare framework that prioritizes patient-centered communication, empowerment, awareness of mental health and trauma, and how to appropriately respond and support these patients is extremely important and can help to improve patient experiences and outcomes. Data from Kaiser Permanente's San Diego Department of Preventative Medicine found that integration of trauma-informed care and regular assessment for trauma exposure resulted in a 35% reduction in primary care outpatient visits, and a 11% reduction in Emergency Department visits over the next year compared to prior utilization (9). In a Massachusetts psychiatric hospital, it was found that incorporation of TIC practices resulted in a substantial decrease in seclusion and restraint use, with a 73% decrease of use in child units, 47% decrease in adolescent units, and 59% in child/adolescent mixed units. In turn, studies have shown that reducing seclusion and restraints decreases staff and client injuries, with 60% decrease in client injuries and a 98% reduction in severity of staff injuries. Another outcome found was decreased recidivism, with 32% fewer adolescents hospitalized at six months post discharge. (18,19).

In a trauma-informed organization, communication is one of the most important aspects. Most patients appreciate and feel comfortable being asked direct questions about trauma, answering trauma screening questionnaires, and including a history of trauma on their medical records (20). While many care providers report feeling hesitant to ask trauma-related questions due to fear of re-traumatization or not knowing what steps to take next, patients expect that their clinicians would be comfortable to do so, and would be able to help them (17,20). Primary care providers who received training on trauma-informed medical care and communication received

higher ratings of partnership after training compared to before, demonstrating that this knowledge gap is one that can be addressed and improved upon (21,22).

Research purpose

This current study is being done to understand the attitudes, self-rated competencies, and perceived barriers of Canadian Certified Physician Assistants towards the practice of trauma-informed care. Physician Assistants have been recognized as designated health science professionals within the Canadian public healthcare system since the early 2000s. PAs work as highly trained medical professionals extending the services of their supervising physicians in numerous specialities of medicine, optimizing patient-centered care and alliances (23). Implementing trauma-informed care into medical practice requires a dedication, advocacy, and continuity of care, something that a Physician Assistant can offer in their role. Canadian PAs are trained within the Can-MEDS-PA framework, and being proficient in the roles of the Advocate and Communicator are important assets in practicing TIC (24). As physician-extenders, who commonly practice in primary care or Urgent Care/Emergency settings, PAs are likely to encounter patients who have a history of trauma. In these settings, there is an opportunity to learn more about a patient and their experiences, screen for trauma and implement trauma-informed interventions. For this reason, this study focuses on Canadian PAs and their current roles in trauma-informed care. While research surrounding the profession is growing, there is little to be found on the role of PAs in trauma-informed care. This current study is based on a previous study that found healthcare providers in trauma-centers hold positive attitudes and opinions of trauma-informed care, acknowledge several barriers towards their personal practice of trauma-informed care, and recognize the need for further training (25). This study will further elaborate

on these factors and help to understand the role of trauma-informed care as a part of the Canadian PA role and scope.

II. Methods

Creation and distribution

This cross-sectional survey study was created as an online survey using the *SurveyMonkey* software platform. Following approval by the University of Manitoba Health Research Ethics Board, the survey was distributed through the Manitoba Society of Physician Assistant mailing list and Facebook group; the Ontario Physician Assistants & Students Facebook group; the PAs for Research, Scholarship and Education in Canada Facebook page; and the Canadian Association of Physician Assistants newsletter. Those eligible to participate were Canadian Certified Physician Assistants (CCPA). Consent to participate was implied with initiation of the online survey, and all participants were informed that there was no collection of personal identifying information, IP addresses, or email addresses. The survey was comprised of four sections: an introductory section of 5 demographic questions and 1 question regarding themes of TIC, a section on personal opinions regarding TIC, self-competency ratings, and perceived barriers to practicing TIC, which included time constraints, scope constraints, lack of training/education, and fear of upsetting patients. To explore what themes respondents attributed to trauma-informed care, seven different themes of TIC found in the literature were listed, and participants were asked to select the themes they most related TIC to, with the option to select multiple and comment others if not listed. The options included: Patient Safety, Patient Empowerment, Patient Choice, Shared Decision Making, Trust, Compassion, and Cultural, Historic, and Gender Issues. The last three sections were adapted from the Trauma-Informed Care Provider Study (TIC Provider Study) by Kassam-Adams et al, which was used to assess

TIC in pediatric trauma centers. The survey was opened on February 13th of 2022, with email and social media reminders to complete the survey sent after 3 weeks of survey initiation. Once closed on March 23rd, the survey data was collected by a single investigator. This study was conducted in full accordance with the Health Research Ethics Board (Ethics # HS25284 H2021:425).

Data Analysis

All data was collected and analyzed by *Survey Monkey* software. The Word Cloud generated to represent themes of TIC was created with WordCloud.com, and represents the frequency that themes were selected by participants by the size of the word within the word cloud (Figure 4).

Survey Measures

Questions 1-6 of the survey collected demographic information including: age, gender identity, years of practice, province/territory of practice, and current work environment, such as hospital-based care, emergency/urgent care, community/ambulatory care (including family, community clinic, and primary care), military service, occupational/industrial health, and other. The section on opinions regarding TIC was measured on a 4-point Likert scale: 0 = strongly disagree, 1 = disagree, 2 = agree, 4 = strongly agree. Similarly, competency was measured as: 0 = not competent, 1 = somewhat competent, 2 = competent, 4 = very competent. Finally, the barriers to practicing TIC were measured on a 3-point Likert scale as: 0 = not a barrier, 1= somewhat of a barrier, 3 = significant barrier (Appendix A, B).

III. Results

Response

A total of 66 survey responses were collected and analyzed, as 66 individuals opened and completed the survey in its entirety, resulting in a 100% completion rate. The number of PAs who received the survey via email or saw it via social media was not determined.

Demographics

Questions 1-5 consisted of demographic questions. The majority of respondents were aged 26-35 years old (54.6%), and female (66.7%). Most respondents, 62.1%, are currently practicing in Manitoba, 31.8% in Ontario 4.5% in Alberta, and 1.5% in Nova Scotia. Exactly half of total respondents practice in hospital (50.0%), followed by Community/Ambulatory Care (22.7%), Emergency/Urgent Care (19.7%), Military Service (3.0%), and Other, which included outpatient clinic/surgery, trauma surgery, and not currently practicing (4.5%). With regards to years of practice, most respondents have been practicing as a CCPA for 1-5 years (63.6%), 21.1% for 6-10 years, 10.6% for 11-15 years, and 4.6% for 16+ years. The following table and chart depict demographic data collected from the survey (Table 1, Figure 1 and 2.)

Table 1: Demographic data obtained from 66 survey respondents

Age		
≤ 25 years	13.64	9
26-35	54.55	36
36-44	16.67	11
45-54	10.61	7
55-64	3.03	2
≥65	1.52	1
Gender		
Non-binary	0	0
Female	66.67	44
Male	33.33	22
Years in Practice		
1-5 years	63.64	42
6-10 years	21.21	14
11-15 years	10.61	7
16+ years	4.55	3
Province of Practice		
Alberta	4.55	3
British Columbia	0	0

Manitoba	62.12	41
New Brunswick	0	
Newfoundland and Labrador	0	0
Nova Scotia	0	0
Ontario	31.82	21
Prince Edward Island	0	0
Quebec	0	0
Saskatchewan	0	0
Northwest Territories	0	0
Nunavut	0	0
Yukon	0	0
Current Work Environment		
Hospital-based Care	50	33
Emergency/Urgent Care	19.7	13
Community Care (Family, Community, Primary)	22.73	15
Military Service	3.03	2
Occupational/Industrial Health	0	0
Other	4.55	3

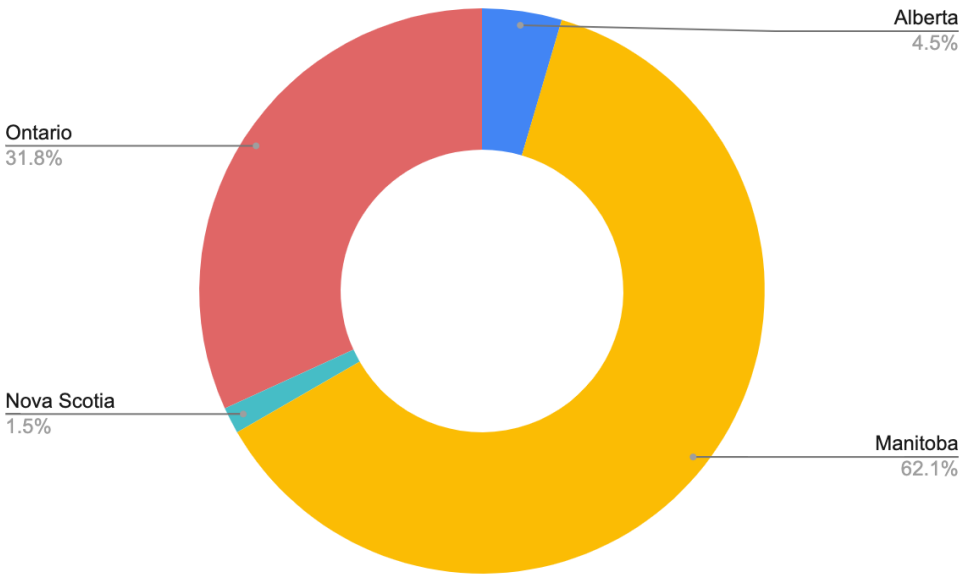

Figure 1: Current province of practice as a CCPA

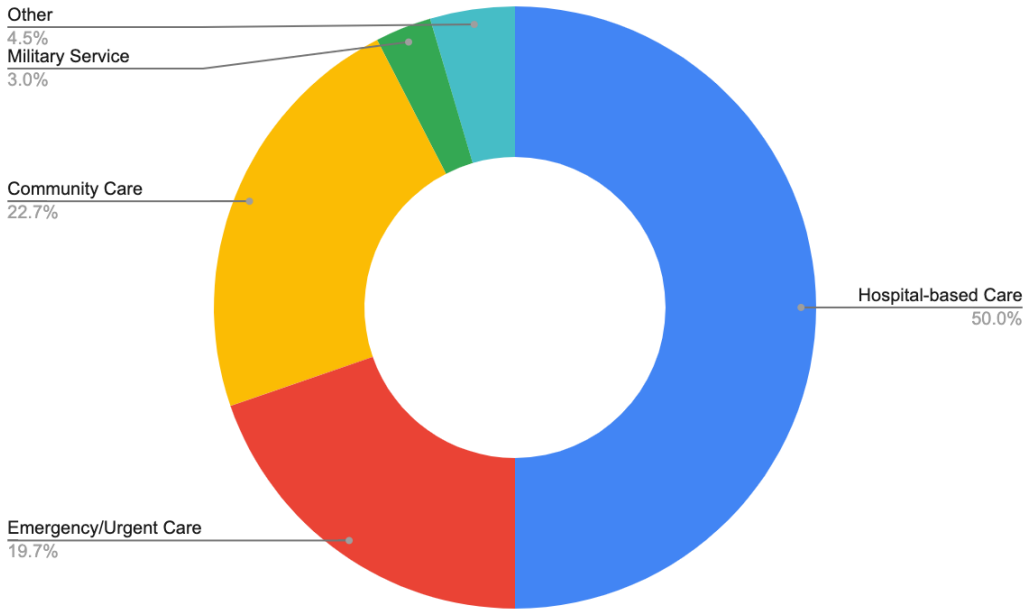

Figure 2: Current Work Environment as a CCPA

Themes in trauma-informed care

Participants were able to select as many themes they personally attributed to TIC as possible. The theme most selected was Compassion (87.8%) followed by Cultural, Historic, and Gender Issues (83.3%), Patient Safety (81.8%), Trust (78.8%), Shared Decision Making (75.7%), Patient Choice (66.7%), Patient Empowerment (60.6%). (Figure 3 and 4).

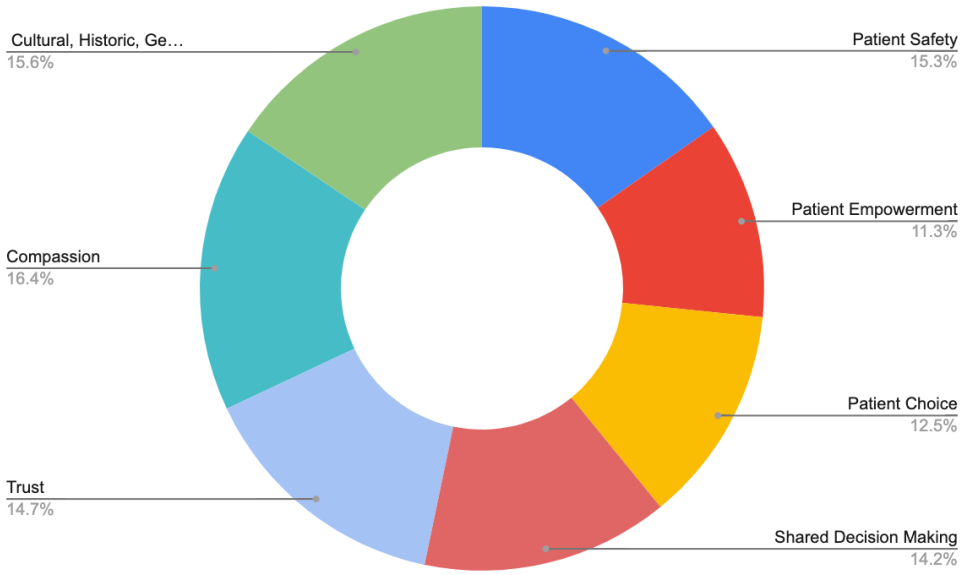

Figure 3: Themes in Trauma-Informed Care and their Perceived Importance to Canadian PAs

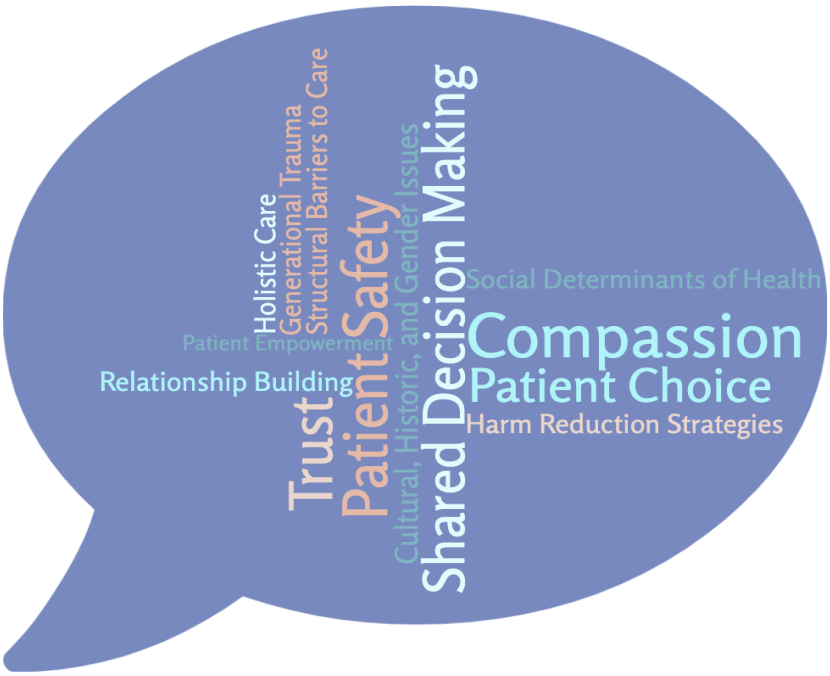

Figure 4: Word Cloud representation of themes in trauma-informed care

Opinions regarding TIC

To assess opinions on TIC, five statements surrounding it and its practice were presented with a 4-point Likert scale from strongly disagree to strongly agree. Of note, 56% of respondents agree that a universal trauma-informed approach to healthcare is important for all patients, while 34.9% strongly agree with this statement. Additionally, all participants agree to some extent that medical care can be provided in a way that makes it less stressful for patients, and 45% agreed that healthcare professionals should regularly assess for symptoms of traumatic stress. Finally, nearly all participants (93.9%) indicated that they were either interested or very interested in learning more about TIC. (Figure 5).

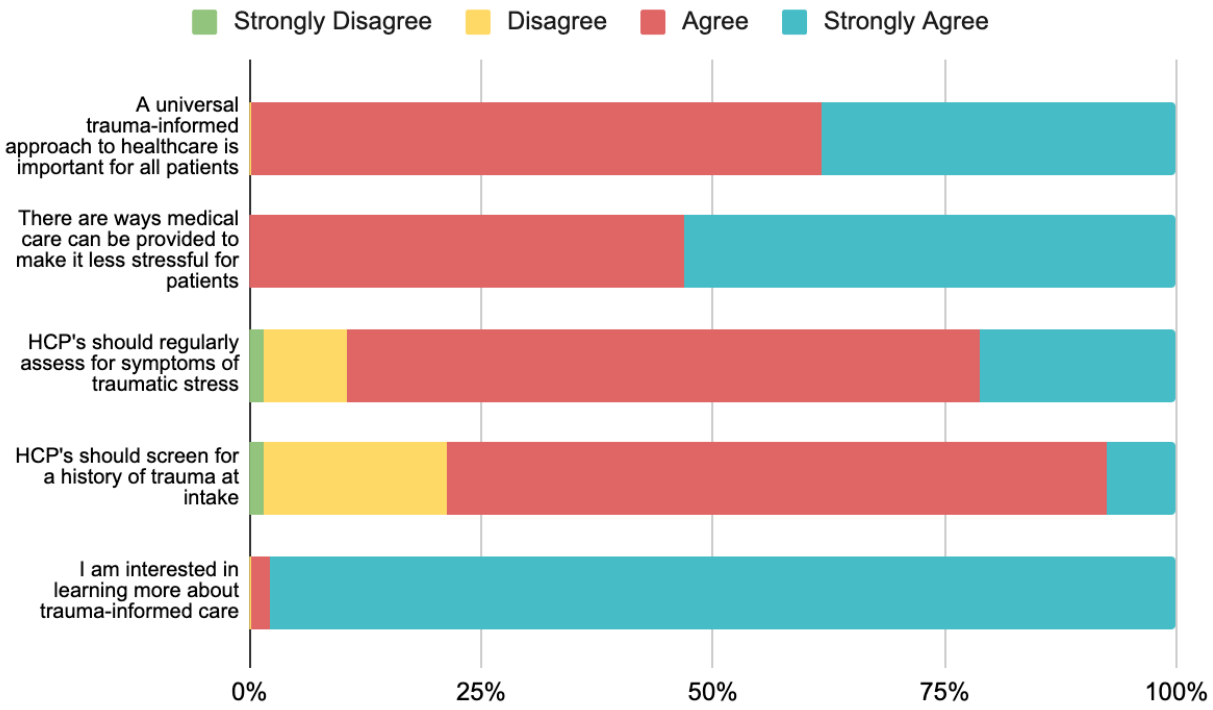

Figure 5: Opinions of Canadian PAs Regarding Trauma-Informed Care and its Practice

Self-rated competency in TIC

Competency in TIC was assessed by survey respondents rating themselves on a scale from not competent to very competent regarding general TIC practices and approaches. For example,

48.5% of participants rated themselves as somewhat competent in discussing a traumatic event or history with a patient without triggering them, and 24.2% rated themselves as not competent. When it comes to recognizing signs and symptoms of traumatic stress, over half of participants rated themselves as somewhat competent (53.0%) and 31% rated themselves as competent. In patient and family education on traumatic stress reactions, nearly half of participants feel somewhat competent, a quarter feel competent, and nearly a quarter feel not competent. With regards to using trauma-informed interventions, 28.8% feel not competent, 37.9% feel somewhat competent, and 30.3% feel competent. Finally, nearly half of participants feel somewhat competent in their understanding of the different presentations of traumatic stress across age, genders, or cultures. 19.7% feel not competent and 25.8% feel competent in this. Only 3-9% of participants felt very competent for any of the measures, where the highest (9%) was with regards to recognition of the signs and symptoms of traumatic stress (Figure 6).

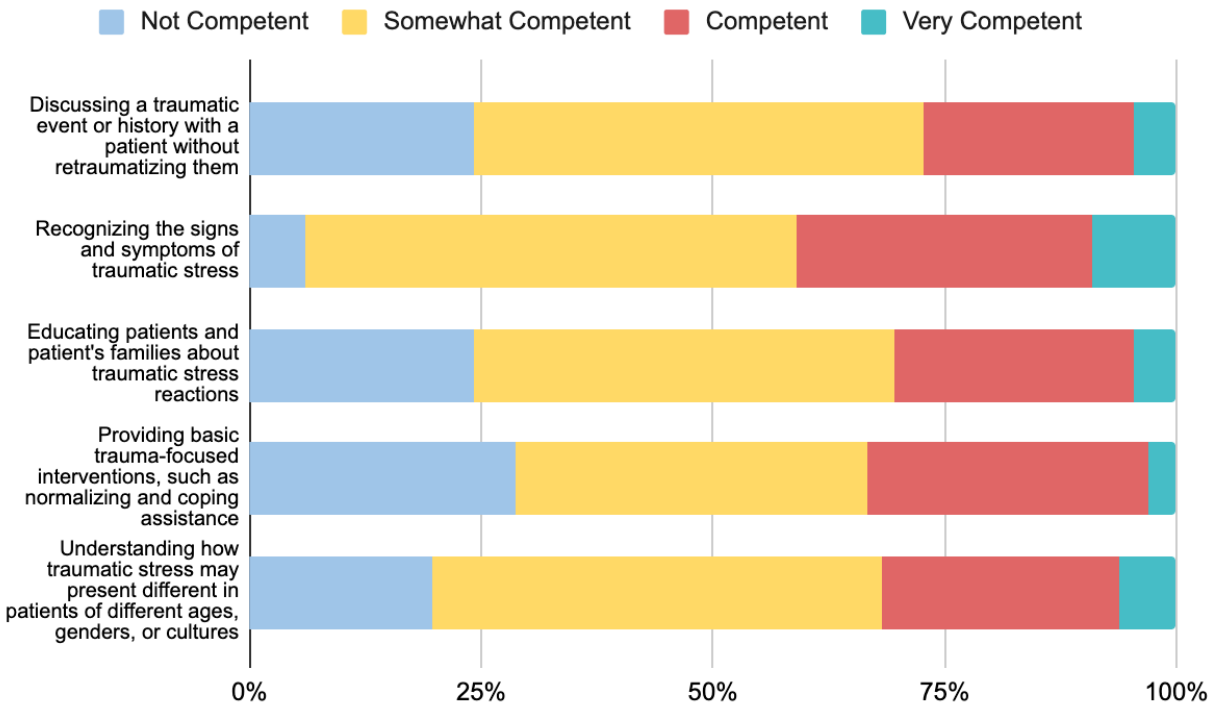

Figure 6: Self-Rated Competency in the Principles and Practice of Trauma-Informed Care

Perceived barriers to implementing TIC:

Looking at perceived barriers to implementing and practicing TIC, lack of training and education on trauma-informed care is a significant barrier for nearly half of participants (46.97%). Following lack of education and training, time constraints was rated by 34.9% as a significant barrier, and fear of upsetting patients was rated as significant by 24.2%. Scope constraints was rated as a significant barrier by only 6% of participants, with 42.2% rating it as not a barrier at all. For all categories of barriers, around half of participants rated each as somewhat of a barrier. See below for visual representation of perceived barriers (Figure 7).

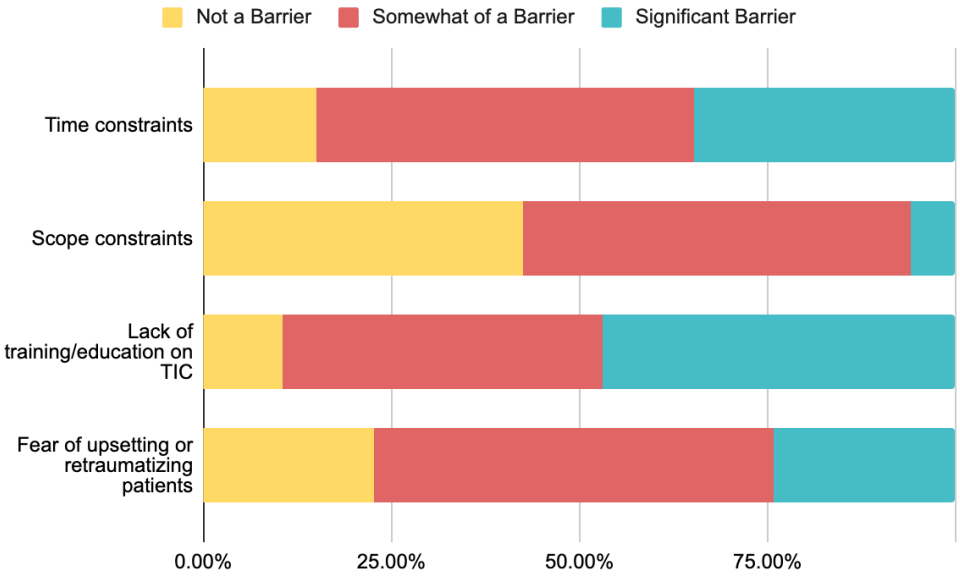

Figure 7: Perceived Barriers to Practice of Trauma-Informed Care

IV. Discussion

Demographics and Survey Outcomes:

The majority of respondents (62.1%) currently practice in Manitoba, however the majority of Canadian PAs work in Ontario (26). This may be due to the fact that the survey was shared first and more frequently with Manitoba PAs, first in email lists with reminder emails sent

out and Manitoban Facebook groups. This will ultimately skew the results towards the experience and education of Manitoba PAs.

Themes in Trauma-Informed Care

When assessing themes, it is evident that all qualities presented were important components to TIC and its practice. Above all, Compassion was the most selected by participants, echoing the notion that TIC is grounded in a holistic model that appreciates what an individual has gone through, and uses this knowledge to better provide safe and compassionate care. Following compassion was Cultural, Historic, and Gender issues, demonstrating that Canadian PAs are aware of the different experiences certain populations go through, such as intergenerational trauma and sexual violence. This is a crucial component to TIC, as being aware of the different experiences of specific populations and the potential for trauma is often the first step in practicing in a trauma-informed way. Finally, Patient Safety stood out as salient to respondents, which is intrinsic to providing care to patients in a non-retraumatizing manner within a safe environment. Participants were also able to leave comments expressing further themes they associated with TIC; responses included “holistic care”, “harm reduction strategies”, “social determinants of health, relationship building, structural barriers to care” and “generational trauma”. These comments demonstrate a deep understanding of what TIC means and its importance in patient-centered care, in meeting patients where they are and taking the time to understand the mental, emotional, social, and cultural factors contributing to the individual’s current health status and presentation.

Opinions Regarding TIC

In general, Canadian PAs hold positive opinions towards TIC and see its value in healthcare. Over half of respondents believe that universal trauma-informed care is important in

healthcare, and strongly believe that in general, there are ways to provide medical care that prioritize patient safety and resist retraumatization. This basic belief is important, because even if there are no official trauma-informed policies or practices in their current workplace, Canadian PAs are aware there are even small things that can be done to help patients navigate healthcare with less stress. When it comes to screening, the majority of participants agreed that screening for a history of trauma upon initial intake and regularly should be a part of medical practice. Regular screening for trauma is crucial to help guide medical care and establish a positive therapeutic relationship, as patients appreciate being asked about their history of trauma(20). One respondent left a comment expressing they "agree that trauma should be screened for more than it already is" but that "situationally it may not be appropriate to ask around trauma at first visit as it may retraumatize". Some participants also discussed the importance of trust and clinical gestalt at initial intake with patients, and that healthcare providers must use this "to decide if screening questions at intake are appropriate or if they should be explored after a few visits" once a "therapeutic relationship foundation is laid". Another participant echoed this, saying that "some patients may not be ready to talk about a trauma until trust is fully gained" and that "it is important to listen to the answers and monitor reactions as clues to possible trauma". Importantly, one participant noted that disclosure of trauma without appropriate follow-up may be more harmful than beneficial. Trauma-informed care requires trust and a strong therapeutic alliance, something that can take time to build, and these comments demonstrate an understanding that providing TIC may not always be formulaic. TIC requires meeting patients where they are, understanding their comfort levels and potential for retraumatization, and building from there as a partnership. There was a strong positive response when asked if interested in further education on trauma-informed care and its practice. This shows great

promise and is an area worth further investigating, as PAs have a great deal to offer to their clinical practice and patients, and further awareness on how to provide safe, trauma-informed care will only further their role as patient-centered health practitioners. Many medical education programs do not offer training on trauma-informed practices, but the integration of these is feasible and well accepted (27,28).

Self-rated competency in TIC

To get a better understanding about Canadian PA competency in trauma-informed care, survey respondents were asked to rate themselves with regards to basic trauma-informed interventions. For all categories, most participants rated themselves as "somewhat competent", ranging from 38-48%. The competency that individuals rated themselves highest at was in recognizing signs and symptoms of traumatic stress, with 53% rating themselves "somewhat competent" and 32% rating themselves as "competent". The category that received the highest rating of "not competent" was in providing basic trauma-informed interventions such as normalizing and coping assistance, at 29%, while 38% of respondents rated themselves as "somewhat competent". While competency and actual practice of these basics of TIC wasn't fully explored, this result suggests a knowledge gap in basic trauma informed interventions. For all categories, 23-32% of participants rated themselves as "competent", while only 3-9% of individuals rated themselves as "very competent". One respondent left a comment stating these skills and competencies were "not part of the curriculum but absolutely should have been". Overall, Canadian PAs view themselves as somewhat competent in their skills of TIC, but there are clear areas for improvement.

Perceived barriers to implementation of TIC

To understand what factors may be preventing Canadian PAs from using TIC principles, respondents were asked what barriers they come across in their daily practice. Time constraints were rated as "somewhat of a barrier" by 50% of respondents, and a significant barrier by 35%. Fear of upsetting or retraumatizing patients was also a somewhat of a barrier for over half of participants, with one participant expressing that a fear of upsetting patients is directly linked to time constraints. Indeed, discussing a history of trauma is not something that can be done quickly, and a fear of not spending enough time with the patient to assess, discuss, and further support them is a legitimate one, as discussing a traumatic event without further follow up can be potentially harmful. In this instance it is also important to consider practice environment, where it would be expected that a PA practicing in Community Health may have more time than one practicing in Emergency Medicine, for example. Scope constraints were nearly split by respondents as either not a barrier at all or as somewhat of a barrier, suggesting that Canadian PAs consider TIC to be within their scope and something they should feel competent to do. The barrier rated as most significant was a lack of training and education on TIC, with 47.0% rating it as a significant barrier, 42.4% rating it as somewhat of a barrier, and only 10.6% rating it as not a barrier at all. Once again, it is clear that there is a knowledge gap present for Canadian PAs and their practice of TIC.

V. Limitations and Further Research Directions

There were several limitations to this survey study. The sample size of 66 is small and not representative of the population of Canadian PAs. Additionally, over half of participants were from Manitoba, therefore the data may not be generalizable to the rest of Canada. Another limitation and a factor worth further investigation was current work environment. Participants had to choose from very general work environments that best matched their own, such as

"hospital-based care", which could include various subspecialties. This would be worth further investigating to see if Canadian PAs working in certain specialities have more training or feel more competent in TIC, such as Psychiatry, OBS/GYN, or Trauma Surgery. Worth further investigating is previous work experience before becoming a PA, to understand if previous careers make an impact on self-rated competency in providing TIC. Additionally, as results suggested a knowledge gap and lack of training in TIC, it would be interesting to conduct a study that includes lessons on TIC, with pre- and post- responses in competency and knowledge for Canadian PAs and their practice in TIC. Ultimately, this survey study did not explore actual practice of TIC, and only serves as a preliminary investigation into opinions and self-rated competency in TIC. Investigating how much TIC is used in practice by Canadian PAs would be beneficial to know in order to assess gaps in care.

VI. Conclusion

Trauma and traumatic stress are issues that will not cease to be prevalent in society, and as key players in healthcare, Canadian PAs will undoubtedly come across this in their careers. How a patient experiences and expresses trauma may differ, but having a solid understanding in its development, effects on pathophysiology, and how to properly care for patients experiencing this is a crucial skill for Canadian PAs to have. In assessing a small sample size, Canadian PAs hold positive opinions on TIC, appreciate its value in patient-centered care, and are generally somewhat competent in their skills of TIC. Importantly, the majority of respondents would like to learn more about TIC and feel that a lack of training can pose as a barrier to their personal implementation of trauma-informed interventions. Uncovering this knowledge gap for PAs in trauma-informed care is important for further directions and potential improvement, whether that be in the context of physician assistant program curriculums or continuing education. Physician

Assistants are strong assets to healthcare, and their unique role as physician extenders provides them the opportunity to be leaders in providing safe, trauma-informed care for all patients.

References

1. Van Ameringen M, Mancini C, Patterson B, Boyle MH. Post-traumatic stress disorder in Canada. CNS Neurosci Ther [Internet]. 2008 Sep [cited 2022 May 14];14(3):171–81. Available from: https://pubmed.ncbi.nlm.nih.gov/18801110/
2. Samhsa. SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. 2014;
3. Kessler RC, Aguilar-Gaxiola S, Alonso J, Benjet C, Bromet EJ, Cardoso G, et al. Trauma and PTSD in the WHO World Mental Health Surveys. Eur J Psychotraumatol [Internet]. 2017 Oct 27 [cited 2022 May 14];8(sup5). Available from: /pmc/articles/PMC5632781/
4. Klinic Community Health Centre. Trauma-informed: The trauma toolkit. The Trauma Toolkit [Internet]. 2013;2:1–150. Available from: www.trauma-informed.ca
5. Wathen C., Varcoe C. Trauma-& Violence-Informed Care (TVIC): A Tool for Health & Social Service Organizations and Providers [Internet]. London, Canada. . 2021 [cited 2022 Mar 28]. Available from: https://equiphealthcare.ca/files/2021/05/GTV-EQUIP-Tool-TVIC-Spring2021.pdf
6. Trauma and violence-informed approaches to policy and practice - Canada.ca [Internet]. [cited 2022 Mar 28]. Available from: https://www.canada.ca/en/public-health/services/publications/health-risks-safety/trauma-violence-informed-approaches-policy-practice.html?msclkid=6d4fc6e1aad111ecb67d7d8f289f5515
7. (US) C for SAT. Understanding the Impact of Trauma. 2014 [cited 2021 Dec 15]; Available from: https://www.ncbi.nlm.nih.gov/books/NBK207191/

8. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults The Adverse Childhood Experiences (ACE) Study. Am J Prev Med [Internet]. 1998 [cited 2022 Jan 6];14(4). Available from: www.elsevier.
9. Felitti VJ. Health Appraisal and the Adverse Childhood Experiences Study: National Implications for Health Care, Cost, and Utilization. Perm J [Internet]. 2019 [cited 2022 Mar 4];23:18–026. Available from: /pmc/articles/PMC6326558/
10. Bellis M, Hughes K, Hardcastle K, Ashton K, Ford K, Quigg Z, et al. The impact of adverse childhood experiences on health service use across the life course using a retrospective cohort study: http://dx.doi.org.uml.idm.oclc.org/101177/1355819617706720 [Internet]. 2017 Jul 11 [cited 2022 Feb 7];22(3):168–77. Available from: https://journals-sagepub-com.uml.idm.oclc.org/doi/10.1177/1355819617706720
11. Koball AM, Rasmussen C, Olson-Dorff D, Klevan J, Ramirez L, Domoff SE. The relationship between adverse childhood experiences, healthcare utilization, cost of care and medical comorbidities. Child Abuse Negl. 2019 Apr 1;90:120–6.
12. Alcalá HE, Valdez-Dadia A, Von Ehrenstein OS. Adverse childhood experiences and access and utilization of health care. J Public Health (Oxf) [Internet]. 2018 Dec 1 [cited 2022 Feb 5];40(4):684–92. Available from: https://pubmed.ncbi.nlm.nih.gov/29182751/
13. Farley M, Golding JM, Minkoff JR. Is a history of trauma associated with a reduced likelihood of cervical cancer screening? (Original Research). J Fam Pract [Internet]. 2002 Oct 1 [cited 2022 Feb 5];51(10):827–32. Available from: https://go-gale-com.uml.idm.oclc.org/ps/i.do?p=HRCA&sw=w&issn=00943509&v=2.1&it=r&id=GALE%7CA92958026&sid=googleScholar&linkaccess=fulltext

14. Farley M, Minkoff JR, Drph HB. Breast Cancer Screening and Trauma History. [cited 2022 Feb 5]; Available from: https://doi.org/10.1300/J013v34n02_02

15. Green BL, Saunders PA, Power E, Dass-Brailsford P, Bhat Schelbert K, Giller E, et al. Trauma-Informed Medical Care: Patient Response to a Primary Care Provider Communication Training. J Loss Trauma [Internet]. 2016 [cited 2021 Dec 14];21(2):147–59. Available from: https://www.tandfonline.com/action/journalInformation?journalCode=upil20

16. Bassuk EL, Dawson R, Perloff J, Weinreb L. Post-traumatic stress disorder in extremely poor women: implications for health care clinicians. J Am Med Womens Assoc. 2001;56(2):79–85.

17. Green BL, Kaltman S, Frank L, Glennie M, Subramanian A, Fritts-Wilson M, et al. Primary care providers' experiences with trauma patients: A qualitative study. Psychol Trauma Theory, Res Pract Policy. 2011 Mar;3(1):37–41.

18. LeBel J, Goldstein R. The economic cost of using restraint and the value added by restraint reduction or elimination. Psychiatr Serv [Internet]. 2005 Sep [cited 2022 Mar 4];56(9):1109–14. Available from: https://pubmed.ncbi.nlm.nih.gov/16148326/

19. LeBel J, Stromberg N, Duckworth K, Kerzner J, Goldstein R, Weeks M, et al. Child and adolescent inpatient restraint reduction: a state initiative to promote strength-based care. J Am Acad Child Adolesc Psychiatry [Internet]. 2004 [cited 2022 Mar 4];43(1):37–45. Available from: https://pubmed.ncbi.nlm.nih.gov/14691359/

20. Goldstein E, Athale N, Sciolla AF, Catz SL. Patient Preferences for Discussing Childhood Trauma in Primary Care. Perm J [Internet]. 2017 [cited 2022 Mar 4];21:16–055. Available from: /pmc/articles/PMC5363895/

21. Green BL, Saunders PA, Power E, Dass-Brailsford P, Schelbert KB, Giller E, et al. Trauma-Informed Medical Care: Patient Response to a Primary Care Provider Communication Training. J Loss Trauma [Internet]. 2016 Mar 3 [cited 2022 Jan 5];21(2):147. Available from: /pmc/articles/PMC5051697/

22. Helitzer DL, LaNoue M, Wilson B, de Hernandez BU, Warner T, Roter D. A Randomized Controlled Trial of Communication Training with Primary Care Providers to Improve Patient-Centeredness and Health Risk Communication. Patient Educ Couns [Internet]. 2011 Jan [cited 2022 Mar 4];82(1):21. Available from: /pmc/articles/PMC3539754/

23. Jones IW, Hooker RS. Physician assistants in Canada: Update on health policy initiatives. Can Fam Physician [Internet]. 2011 Mar [cited 2022 May 12];57(3):e83. Available from: /pmc/articles/PMC3056699/

24. Canadian Association of Physician Assistants. CanMEDS-PA. 2015;(October):5–23.

25. Bruce MM, Kassam-Adams N, Rogers M, Anderson KM, Sluys KP, Richmond TS. Trauma Providers' Knowledge, Views, and Practice of Trauma-Informed Care. J Trauma Nurs. 2018;25(2):131–8.

26. PA Facts | CAPA - ACAM [Internet]. [cited 2022 May 13]. Available from: https://capa-acam.ca/about-pas/pa-fact-sheet/

27. Goldstein E, Murray-García J, Sciolla AF, Topitzes J. Medical Students' Perspectives on Trauma-Informed Care Training. Perm J. 2018;22:1–6.

28. Cannon LM, Coolidge EM, LeGierse J, Moskowitz Y, Buckley C, Chapin E, et al. Trauma-informed education: Creating and pilot testing a nursing curriculum on trauma-informed care. Nurse Educ Today [Internet]. 2020;85(October 2019):104256. Available from: https://doi.org/10.1016/j.nedt.2019.104256

Appendix A

Survey Introduction and Questionnaire:

Please read before beginning:

Substance Abuse and Mental Health Services Administration (SAMHSA) defines individual trauma as resulting from "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects of the individual's functioning and mental, physical, and social, emotional, or spiritual well-being. Trauma-informed care is a framework that acknowledges the impact that trauma can have on an individual, works to understand the effects of trauma, recognize signs and symptoms of traumatic stress, and works to actively resist re-traumatization.

Part A: Demographics:
1. What is your age?
- <25 years
- 26-35
- 36-44
- 45-54
- 55-65
- >65

2. What is your gender?
- Non-binary
- Female
- Male
- Other
- Prefer not to answer

3. How many years have you been practicing?
- 1-5 years
- 6-10 years
- 11-15 years
- 16+ years

4. What is your province of practice?
- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador,
- Nova Scotia
- Ontario

- Prince Edward Island
- Quebec
- Saskatchewan
- Northwest Territories
- Nunavut
- Yukon

5. What is your current work environment?
- Hospital-based care
- Emergency/Urgent Care
- Community Ambulatory Care (Family, Community Clinic, Primary Care)
- Military Service
- Occupational/Industrial Health
- Other

6. Please select themes that come to mind when thinking about trauma informed care (select multiple):
- Patient Safety
- Patient Empowerment
- Patient Choice
- Shared-decision making
- Trust
- Compassion
- Cultural, historical, and gender issues

Other themes (comment box):

Part B:

Opinion Regarding TIC
1. A universal trauma-informed approach to healthcare is important for all patients (strongly disagree, disagree, agree, strongly agree)
2. There are ways medical care can be provided to make it less stressful and retraumatizing for patients (strongly disagree, disagree, agree, strongly agree)
3. Health care professionals should regularly assess for symptoms of traumatic stress (strongly disagree, disagree, agree, strongly agree)
4. Health care professionals should screen for history of trauma at intake (strongly disagree, disagree, agree, strongly agree)
5. I am interested in learning more about trauma-informed care (strongly disagree, disagree, agree, strongly agree)

Self-Rated Competency:
1. Discussing a traumatic event or history with a patient without retraumatizing them (very competent, somewhat competent, not competent)
2. Recognizing the signs and symptoms of traumatic stress (very competent, somewhat competent, not competent)

3. Educating patients and patient's families about traumatic stress reactions (very competent, somewhat competent, not competent)
4. Providing basic trauma-focused interventions, such as normalizing and coping assistance (very competent, somewhat competent, not competent)
5. Understanding how traumatic stress may present differently in patients of different ages, gender, or cultures

Barriers to providing basic trauma-informed care/assessments:
1. Time constraints (not a barrier, somewhat of a barrier, significant barrier)
2. Scope constraints (not a barrier, somewhat of a barrier, significant barrier)
3. Obtaining training in providing trauma-informed assessments and interventions (not a barrier, somewhat of a barrier, significant barrier)
4. Fear of further upsetting or traumatizing patients (not a barrier, somewhat of a barrier, significant barrier)

Appendix B

Table 2: Opinions on trauma-informed care

Opinions on TIC	Strongly Disagree	Disagree	Agree	Strongly Agree
A universal trauma-informed approach to healthcare is important for all patients	3.03%	6.06%	56.06	34.85
There are ways medical care can be provided to make it less stressful for patients	0.00%	0.00%	46.97	53.03
HCP's should regularly assess for symptoms of traumatic stress	1.52%	9.09%	68.18%	21.21%
HCP's should screen for a history of trauma at intake	1.52%	19.70%	71.21%	7.58%
I am interested in learning more about trauma-informed care	0.00%	6.06%	63.64%	30.3

Table 3: Self-rated competency in trauma-informed care

Self-Rated Competency	Not Competent	Somewhat Competent	Competent	Very Competent
Discussing a traumatic event or history with a patient without retraumatizing them	24.24%	48.48%	22.73%	4.55%
Recognizing the signs and symptoms of traumatic stress	6.06%	53.03%	31.82%	9.09%
Educating patients and patient's families about traumatic stress reactions	24.24%	45.45%	25.76%	4.55%
Providing basic trauma-focused interventions, such as normalizing and coping assistance	28.79%	37.88%	30.30%	3.03%
Understanding how traumatic stress may present different in patients of different ages, genders, or cultures	19.70%	48.48%	25.76%	6.06%

Table 4: Perceived barriers to implementing TIC

Perceived barriers to TIC	Not a Barrier	Somewhat of a Barrier	Significant Barrier
Time constraints	15.15%	50.00%	34.85%
Scope constraints	42.42%	51.52%	6.06%
Lack of training/education on TIC	10.61%	42.42%	46.97%
Fear of upsetting or retraumatizing patients	22.73%	53.03%	24.24%