Pre-Service Teachers' Perceptions on Implementing the Trauma-Informed Approach in Educational Institutions

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Abstract: This study examines pre-service teachers' perceptions of their knowledge and competence in implementing trauma-informed approach. The study has a quantitative design and is set in Ukraine. Participants (*N*=54) are pre-service teachers affiliated with early childhood or primary education institutions during their practical training. The study is set amidst a full-scale war in Ukraine. Based on the descriptional statistics, the author concludes participants perceive their knowledge about trauma as average or below average. However, they express relatively higher confidence in their competence to implement trauma-informed practices. The study demonstrates the importance of the extensive introduction of a trauma-informed approach in teacher training and formal preparation of pre-service teachers to implement trauma-informed practices. The author outlines the suggested content plan for teaching The study adds to the field of pre-service teacher training and scholarly research on trauma-informed practices.

1 INTRODUCTION

The full-scale invasion of Russia in sovereign Ukraine in 2022 has impacted the education landscape not only in Ukraine but abroad as well. It has disrupted education for two-thirds of Ukrainian children who are not currently enrolled in the Ukrainian national education system (UNI, 2024). Moreover, as of July 2023, 6,302,600 refugees from Ukraine were recorded globally (Operational Data Portal, 2024). According to Ukrainian data provided by the Ministry of Reintegration of the Temporarily Occupied Territories of Ukraine, as of January 2023, there are 4,867,106 internally displaced people officially registered in Ukraine (Ukrinform, 2023).

Preparing pre-service teachers to respond to challenges currently imposed on the education system should become one of the top priorities of all teacher training institutions. Some of the challenges of teaching students in wartime include continuous blackouts, lack of Internet access, and as a result – inconsistent knowledge of students. Moreover, a study in Kyiv schools has shown that Ukrainian school students are looking for emotional support from adults and having sessions with psychologists (Khoruzha et al., 2023). According to the study on psychosocial stress and emotional health among school children in Donetsk and Luhansk oblasts, 31% of 9 to 11-year-olds have a high level of post-traumatic stress. This is compared to 24% of 12-14-year-olds and 15-17-year-olds (NUK, 2023). This data illustrates that young learners are particularly vulnerable to stress and are affected by military actions.

This statistic is not unique to Ukraine but is a rising issue across the world. For instance, according to SAMHSA, more than two-thirds of children reported at least 1 traumatic event by age 16 (SAMHSA, 2023). Among traumatic events mentioned by the organization, there are psychological, physical, or sexual abuse; community or school violence; witnessing or experiencing domestic violence; national disasters or terrorism; commercial sexual exploitation; sudden or violent loss of a loved one; refugee or war experiences; military family-related stressors (e.g., deployment, parental loss or injury); physical or sexual assault; neglect; serious accidents or life-threatening illness (SAMHSA, 2023).

All these traumatic events are not a challenge for various countries and as a result, it is important for educators to be able to respond to the challenges students experience related to their previous experiences.

In the next section the author analyzes the theoretical underpinnings of the research on pre-service teachers' perceptions on implementing the trauma-

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informed approach in educational institutions.

2 THEORETICAL GROUNDING

2.1 A Trauma-informed Approach to Education

In this section, the author analyses various scholarly approaches to defining the scope of the trauma-informed approach.

Recently teacher practitioners indicated a growing number of students with signs of trauma, such as behavioural issues, academic challenges, stress and anxiety, and mental health issues. To address this issue, a lot of teachers implement trauma-informed practices.

The core of trauma-informed practices is the idea that every individual has experienced some kind of trauma in their life, but the impact of the trauma differs from case to case (Berardi and Morton, 2019). The aftermath of coping with trauma is a complex of factors, such as what the stressful event was, access to internal and external resources, and reinforcing inner neural networks to cope with stress.

According to Forbes et al. (2020), the trauma-informed model can be described as an opposition of the "regulated" and "dysregulated" state of students.

The author of this paper thinks that a Regulatory approach to responding to traumatic events creates a welcoming space for all students as they are, no matter what behaviour they demonstrate. Hence, it is one of the reasons why all classrooms and schools should become trauma-informed.

An overarching idea is expressed by Venet (2021), who states that focusing on the individual needs of students, does not respond to the community needs and leads to continuous problems within a school. Venet (2021) suggests adopting the Universal approach regardless of the number of students who are traumatized.

Both Universal and Regulatory approaches have one thing in common – they advocate for creating a trauma-informed environment across the school regardless of the fact of previous traumatic experiences of the majority of students if any.

Implementing trauma-informed practices in schools plays an important role in creating a welcoming environment for those who experienced a different scale of traumatic events (Berger and Martin, 2021). However, according to Berger and Martin (2021), a lack of common understanding of the notion of trauma-informed learning between scholars and a lack of teachers' knowledge of effective approaches to its implementation leads to a situation, where instructors are unable to recognize behaviour, impacted by trauma, and lack access to resources necessary to support students. Scholars stated the importance of raising awareness among instructors on the need to implement comprehensive trauma-informed strategies, make a justified choice of those strategies, and be able to give first psychological aid in case their students need it. Berger and Martin (2021) consider the lack of research, dissemination, and professional training to be the main reasons why system-wide implementation of trauma-informed learning is not introduced.

The author of this paper agrees on the importance of adopting a comprehensive approach to preparing pre-service teachers grounded in research-evidenced practices and practices supported by evidence, as well as the provision of continuous professional training for in-service teachers.

Jakobson (2021) studied how trauma-informed school frameworks are used to support the social and emotional needs of learners and made a very similar conclusion. The scholar dwells on the successful examples of teaching students regulation skills and the importance of building strong relationships between students and teachers as an initial step in proceeding with instruction.

Analysis of previous research shows that scholars have been consistently advocating for the implementation of a system-wide trauma-informed approach and appropriate professional teacher training (Berger and Martin, 2021; Jakobson, 2021).

Research on the practices of implementing the trauma-informed approach in school settings gives insights into how a system of implementing the trauma-informed approach across the school might look like.

Trauma-informed practices in school settings comprise six elements, such as district-level support, school support, educators' competence, trauma-informed classrooms, community support, regulation and support systems (Morton and Berardi, 2018). Scholars indicate that trauma-informed practices only work in their correlation and thus enhance each of its elements.

Based on the phenomenological study, Choice-Hermosillo (2020) grounds the conditions of the success of trauma-informed practices in education settings in five domains: Relational Trust and Classroom Community and Culture; Emotional and Physical Regulation; System-level Support: Purposeful Implementations; System-level Support: Backgrounds, and Teacher Coaching; and Accountability with Compassion. Choice-Hermosillo (2020) highlights the importance of the implementation of Social and Emo-

tional Approach to teaching, delivering continuous professional development of school staff, as well as providing support for teachers working with traumatized children.

This scholarly research provides for some of the implications: it is important to prepare pre-service teachers to work with children having trauma or mental health issues; it is necessary to create school-wide culture of trauma-informed practices to ensure success of trauma-informed practices by carefully designing the correlations between each of its elements.

2.2 Attitudes of Teachers to the Implementation of Trauma-informed Practices

In this section, the author analyses findings of research related to studying the attitudes of teachers to the implementation of trauma-informed approach in their classrooms or school-wide.

Veach (2021) in a qualitative case study of elementary educators' attitudes and perceptions towards working with students impacted by trauma showed staff has a positive perception of trauma-informed practices. However, participants of the study indicate their attitudes have changed over time as a result of a series of professional development events and collaborative activities with other staff whose primarily responsibilities is working with traumatized students.

The author of this paper finds it important to develop a complex approach to building the matrix of the implementation of the trauma-informed approach with a diversity of perspectives from professionals in various areas, including classroom teachers, subject teachers, psychologists, leadership, nurses, and special education teachers.

Vincent (2020) examined the perceptions of educators towards trauma-informed practices in school settings and the findings show that more than 66% of respondents (N=61) strongly agree with the importance of trauma-informed strategies. However, the same amount of respondents indicated they did not have any instruction on trauma-informed practices in their licensure preparation. At the same time, only around 5% of participants perceive themselves as those who mastered trauma-informed practices.

The result of this research shows the importance of the introduction of trauma-informed studies in pre-service teacher preparation and further developing in-serve teachers' expertise in the area. Among some of the attempts to bring trauma-related issues into the in-service practice of elementary school teachers the author's attention is drawn to Drymond's study. Drymond (2020) has studied the perceptions of ele-

mentary school teachers to address the mental health needs of students through trauma-informed practices. The participants of the study (N=299) demonstrated some confidence in responding to the mental health problems of their students. However, they reported low levels of efficacy in recognizing signs of mental health issues, referring students to get specialized support and discussing mental health issues with caregivers (Drymond, 2020).

This study once again confirms the need to destigmatize mental health education among practitioners with a focus on the educational perspective.

Among the studies incorporating intervention in the form of educating on the trauma-informed approach implementation, the author's attention is drawn to Mikolajczyk's (Mikolajczyk, 2018) and Metzinger's (Metzinger, 2021). Mikolajczyk (2018) has studied perceptions of knowledge, competence, school climate and program effectiveness during and after participation in a trauma-informed care professional development. The study shows that with more knowledge and training on trauma-informed practices, participants have only slightly increased their perceived knowledge and competence.

Metzinger's study has a similar aim to Mikolajczyk's and focuses on investigating the perceptions of trauma in the classroom and the levels of trauma awareness among primary and secondary teachers. One of the major findings in Metzinger's study shows that elementary school teachers implement a significant number of trauma-informed strategies in the classroom (Metzinger, 2021). However, their perceived self-efficacy was relatively moderate.

This leads to the conclusion that providing in-service teachers with professional development trainings does not always lead to desired outcomes of becoming better trauma-informed teachers.

Hence, it is important to suggest pre-service teachers with systemic knowledge of trauma-informed practices rather than covering the gaps of their knowledge with individual training sessions. Moreover, the analysis of scholarly research has shown that pre-service teachers' perspectives on their perceived awareness of the trauma-informed approach.

Overall, educators positively perceive trauma-informed practices in schools. At the same time, they indicate some gaps in their knowledge and skills in implementing trauma-informed practices. These findings raise the importance of building a system of pre-service and in-service teacher training to build trauma-informed educational settings.

3 METHODOLOGY

This paper aims to identify pre-service teachers' perceived awareness of trauma and its impact on students. The research is guided by the following research question How do pre-service teachers perceive their knowledge, and competence in implementing trauma practices in educational settings?

The author has adopted Mikolajczyk's (Mikolajczyk, 2018) study methodology (study tool and analysis framework). However, the author of this paper has modified the procedure and the research question for pre-service teachers as a target group.

3.1 Participants of the Study

The study was carried out in February-May 2023 in Ukraine, which is amidst full-scale war. The survey was administered on a non-probability sample. The criteria for inclusion were being pre-service teachers of any major (N=54).

Table 1 shows the demographic data of participants. All of them have no prior teaching experience. 98.1% of them identified themselves as women and 1.9% as non-binary. The Ukrainian system of pre-service teacher training is a binary concurrent model represented by the university and non-university sectors. Pre-service teacher training comprises simultaneous theoretical instruction and pedagogical training and internship in the workplace (Kotenko and Holovatenko, 2020). 64.8% of participants have no formal pedagogical experience, 11.1% of participants have been associated with early childhood education institutions in any capacity, and 24.1% of respondents have been associated with primary education institutions. Respondents indicated only 9.3% of them received training in crisis response and/or trauma. The training they mentioned was an online course on working with internally displaced children, teaching in times of crisis, crisis and trauma response training, and having prior medical education.

3.2 Data collection and analysis plan

The quantitative data in this paper was obtained through the adapted survey developed by Mikolajczyk (2018). The survey tool has 13 questions to identify students' perceived knowledge and competencies through the Likert scale tool. The survey was tailored to the needs of pre-service teachers.

Participants were asked to share their opinion on knowledge about the prevalence of trauma, and their perceived competence in working with traumatized children. The survey was grounded in ARTIC scale

Table 1: Demographic data of participants.

Type of data	Frequency	Percent
Gender identification		
Woman	53	98.1%
Man	0	0
Non-binary	1	1.9%
Prefer not to answer	0	0
Including this year, how many years of teaching experience do you have?		
No teaching experience	54	100%
1-3 years	0	0
Type of educational institution you are affiliated with during the internship		
No formal pedagogical experience	35	64.8%
Early childhood education institutions, ISCED 0	6	11.1%
Primary education institutions, ISCED 1	13	24.1%
Have you ever had training in crisis response and/or trauma?		
Yes	5	9.3%
No	49	90.7%

(Attitudes related to trauma-informed care). Participants could choose their answer on a scale from 1 (Strongly disagree) to 5 (Always true of me). The survey was distributed in Google Forms and data was transferred to Excel, where it was analyzed. 'Strongly disagree' was coded as 1, 'Disagree' was coded as 2; 'Neither Disagree nor Agree' was coded as 3, 'Agree' was coded as 4; and 'Strongly agree' was coded as 5. The author checked the internal reliability of the tool using Alpha Cronbach α=0.760, which showed its acceptable level of tool consistency (Taber, 2018). The data analysis details are provided in the next section of this paper.

4 RESULTS AND DISCUSSIONS

This study aimed to investigate what perceptions pre-service teachers have related to their knowledge and competence around trauma-informed approach to education. In this section the author presents the research results and their implications for practice.

The first component of teachers' perceptions the author wants to identify is their knowledge about trauma. The hypothesis is that pre-service teachers do not have formal instruction on trauma, but due to the unique Ukrainian context, they to some extend either empathise students or use knowledge about their experiences to understand their students.

Table 2 illustrates pre-service teachers' percep-

Table 2: Pre-service teachers' perceptions of own knowledge base of trauma.

Descriptive statistics	Value
Mean	3.629
Median	3.714
Mode	3.857
Standard Deviation	0.975
Skewness	-0.599

tions of their own knowledge about trauma. Participants were asked 7 questions about their perceived knowledge about the impact trauma can have on a child or adolescent's academic success; their behaviour; about different types of trauma; about the ways that violence and traumatic experiences can lead to mental health and co-occurring disorders; ways staff should take into account how students' learning difficulties should be accommodated at educational institutions; about reasons of students' behaviour; about how to get help if the teacher is struggling.

On average, pre-service teachers are not sure if they know about different types of trauma, ways that violence and traumatic experiences influence students, learning and behavioural difficulties students might have because of trauma, and how working with students having traumatic experiences influences teachers. The mean, median and mode of the data indicate that participants do not percept their knowledge as noteworthy. Negative skewness indicates that the data is unevenly skewed to the left, which means that a relatively high number of participants' answers lies below the mean value.

One of the main results of the study is pre-service teachers have rather mixed opinions on their knowledge of trauma. If comparing the mean in this domain with the pre-test in Mikolajczyk (2018), the latter is smaller (3.21) than in this study (3.629). One of the reasons for that the author sees in the study settings. This study is set in Ukraine, which is in the middle of a full-scale war with constant shellings of all settlements where both instructors and students are traumatized. In an intuitive way, pre-service teachers feel they are more knowledgeable about trauma compared to participants of the school staff in a peaceful country. At the same time, it should be mentioned that the variety and intensity of various types of trauma participants are expected to face their students exhibiting are also slightly different.

At the same time, this result indicates that Ukrainian pre-service teachers are ready to learn about trauma-informed practices and the issue of implementation of a unit or a course on trauma-informed practices is of great importance and urgency. The importance of the inclusion of trauma-informed training in pre-service teacher training is actualized by Berger and Martin (2021), Morton and Berardi (2018), Vincent (2020) and other scholars.

Based on the questions in the survey tool and participants' answers, the author suggests teaching the basics of the trauma-informed approach to pre-service teachers based on the following topics:

- The notion of trauma-informed approach to education;

- The neurobiology of trauma and its impact on people;

- Classroom management as a way to regulate individual students;

- Classroom management as a way to create a trauma-informed classroom space;

- Approaches to building the trauma-informed supporting school environment.

Another component of the study of pre-service teachers' perceptions of implementing the trauma-informed approach is their perceived competence.

Participants were asked 6 questions on their ability to explain to students what trauma is, including the effects of an event; their ability to recognize the signs of trauma, even if the student does not verbally express them; ability to establish trust and safety as a priority in their work with students; being comfortable discussing or explaining trauma to others; ability to impact a student's behaviour in a positive way regardless of how they are raised; being able to focus on student strengths.

The analysis of descriptive statistics on the perceived competence of pre-service in trauma-informed practices is demonstrated in table 3. On average, participants see themselves as relatively competent in explaining students what trauma is and its effect on students, recognizing the signs of trauma, establishing trust and safety in their work, influencing students' behaviour in a positive way, identifying and incorporating students' strengths and interests in the learning process, presenting information using various modalities, and being comfortable discussing and explaining trauma to others. However, the data is distributed asymmetrically with a slight left skewness indicating there is a slightly higher number of participants with perceptions slightly below the mean value.

The comparison of pre-service teachers' perceptions of their knowledge and competence indicates that participants, on average, feel slightly more competent in their practices than in their knowledge of trauma. However, the standard deviation for knowledge (0.975) is slightly higher than for competence (0.881), which means there is more variability in

Table 3: Pre-service teachers' perceptions of their own competence in trauma-informed practices.

Descriptive statistics	Value
Mean	3.805
Median	3.75
Mode	3.5
Standard Deviation	0.881
Skewness	-0.377

the perceptions of knowledge compared to competence. Comparing the skewness values shows that the skewness for competence (-0.377) is smaller than that of knowledge (-0.599), meaning a slightly more balanced distribution for competence perceptions. Hence, the perceived competence of participants is slightly higher than their knowledge about trauma.

This result shows lack of correlation between students' perceived knowledge about trauma response and their perceived competence in implementing the trauma-informed approach. The author thinks this might be due to the fact that pre-service teachers themselves are in the situation of trauma and a lot of teacher trainers use trauma-informed strategies in preparing pre-service teachers. However, this case should be further researched.

The mean in the perceived competence domain in Mikolajczyk's (Mikolajczyk, 2018) pre-test is higher (3.91) than in this study (3.805). The author that school staff, who are participants in Mikolajczyk's study have more experience directly being involved with traumatized children. According to Drymond (2020), Metzinger (2021), and Veach (2021), even experienced teachers mention they lack support in identifying suitable trauma-informed practices and providing help to their students.

Overall, pre-service teachers have rather mixed perceptions of their knowledge and competence regarding trauma-informed practices in education settings. These findings are supported by previous studies. However, having average or above-average knowledge of trauma-informed practices and feeling relatively competent in implementing them is a good starting point for introducing a unit or a course on trauma-informed practices for pre-service teachers.

5 LIMITATIONS OF THE STUDY

These findings might be useful in developing university curriculums, syllabi, and/or individual units on trauma-informed practices in education. However, the study has several limitations the author would like to discuss. One of the greatest limitations of the study is its sample. The non-probability sample in this study might not be representative of the target population enough to generalize the results of the study. Hence, administering the study for a larger sample is one of the prospects of further studies. Another limitation is due to the Likert scale survey used in this study. Data collection depended solely on participants' understanding of statements and their sincerity in their answers. Participants might have also avoided extreme answers in the tool. The prospects for the following research on the perceptions of respondents regarding trauma-informed practices is employing a mixed-method research design.

6 CONCLUSIONS

This research aimed at identifying perceptions of pre-service teachers on their knowledge and competency in implementing trauma-informed practices. From the research that has been carried out, it is possible to conclude that pre-service teachers have mixed perceptions of their knowledge about trauma. They show varying levels of confidence in their knowledge about different aspects of trauma, its impact on students and behavioural difficulties associated with trauma.

Despite their mixed perceptions of knowledge around trauma, pre-service teachers feel relatively competent in implementing some trauma-informed practices. They expressed confidence in areas such as explaining trauma to students, establishing trust and safety, influencing positive behaviour and incorporating students' strengths and interests.

However, variability in participants' answers suggests the need for the implementation of trauma-informed practices into the syllabi and curricula of pre-service teacher training. The findings suggest that pre-service teachers are ready to learn about trauma-informed practices and it is necessary to incorporate trauma-informed teaching as an approach to pre-service teacher training and as a subject matter.

The author suggests teaching pre-service teachers the following topics on the trauma-informed approach: The notion of the trauma-informed approach to education; The neurobiology of trauma and its impact on people; Classroom management as a way to regulate individual students; Classroom management as a way to create a trauma-informed classroom space; and Approaches to building the trauma-informed supporting school environment. These topics can both give students the foundations of the trauma-informed approach and form necessary skills and attitudes to implement this approach in their classroom.

The findings are of direct directorial relevance for all providers of pre-service teacher training. Further research on comparing pre-service and in-service teachers' perceptions and attitudes of trauma-informed practices is necessary. Continuing research into the design and outline of curriculum preparing pre-service teachers to implement trauma-informed practices in Ukraine is fully justified because there is a need to adapt successful foreign practices to local realities and war settings.

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