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An Educational Intervention Focused on Identifying Adverse Childhood Experiences

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Executive Summary: Staff Education Project

An Educational Intervention Focused on Identifying Adverse Childhood Experiences

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Summary

Adverse childhood experiences (ACEs) refer to traumatic childhood experiences that individuals may have been exposed to during their youth, such as child maltreatment, domestic violence, or interparental violence. Research has demonstrated that experiencing ACEs in childhood may result in physical and mental illnesses that led to dangerous lifestyle patterns in adulthood. In the local organization, several patients with ACEs presented in the emergency department (ED). The nurses, unaware of ACEs, were unable to detect and respond to the consequences of ACEs. Thus, the purpose of this Doctor of Nursing Practice (DNP) project was to determine whether an educational intervention focused on ACEs and proper screening for ACEs increased knowledge and awareness among nurses working in an ED. A convenience sample of nurses who worked in the ED were invited to participate in the educational intervention. Nine ($N = 9$) nurses attended the educational intervention. The mean pretest score for knowledge was 5.33 ($SD = 2.23$) with a range of 2 to 8 and the mean posttest score was 9.67 ($SD = 0.71$) with a range of 8 to 10. Using a Wilcoxon signed-rank test to estimate the data, there was a statistical difference between pretest and posttest scores ($z = -2.68$, $p < .01$), indicating an increase in knowledge among the participants. Participants were also asked to rate their awareness of three specific areas surrounding ACEs using a Likert scale. A Wilcoxon signed-rank test showed a statistical difference between pretest and posttest scores among all three content areas, indicating an increase in awareness among the participants. It is hoped that the increased knowledge and awareness among the participants translate into practice and ultimately lead to positive patient, provider, and organizational outcomes.

Background

Adverse childhood experiences (ACEs) are intense sources of stress that children, aged 0 to 18, may be exposed to during their youth such as child maltreatment, domestic violence, interparental violence, and parental substance use (Bellis et al., 2019). When left unmanaged, ACEs can activate and affect stress response systems, which in turn, may result in long-term physical and mental health concerns, developmental consequences, and increased costs to the healthcare system. (Bellis et al., 2019, McBain et al., 2023). For example, Bellis et al. (2019) identified that in the United States, 30% of anxiety cases and 40% of depression cases were linked to ACEs, with combined healthcare costs of $82 billion. Moreover, more than a quarter of respiratory cases were attributed to ACEs, with estimated costs of $99 billion (Bellis et al., 2019). The effects of ACEs also extend to other diseases such as cardiovascular diseases, hypertension, and mental health issues. Thus, ACEs are a cause for concern for children and adults as well as for providers who treat these individuals (McBain et al., 2023).

The Centers for Disease Control and Prevention (2023) data posited that 61% of adults living in the United States experienced at least one ACE and at least 16% of all adults encountered four or more different ACEs. Further, a person with six or more ACEs has an average life span of 20 years shorter as compared to those with no ACEs (McBain et al., 2023). Given this, there has been significant attention to ACE screening as an initial step in trauma care (Mishra et al., 2021) and a way to improve long-term health outcomes for children and families (Lovelady et al., 2019). However, in a national survey of pediatricians, 61% did not ask about ACEs, and only 2% indicated that they were

familiar with ACE screening tools (Hickey, 2020; Shonkoff & Garner, 2012). Moreover, a number of controversies surround the routine screening for ACEs, including whether ACE screening is necessary for all patients, whether patients find the screening intrusive and retraumatizing, and the cost–benefit of educating and administering the screening by providers (Marsicek et al., 2019). However, despite these concerns, the literature supports that the ACE screening should be a standard of care in pediatric and adult care as it provides an opportunity to improve the health outcome for the individual (Watson, 2019).

Despite the well-documented effect of ACE screenings on health outcomes and the ready availability of ACE screening tools, there is a lack of education among nurses to implement and conduct ACE screening (Clark & Jones, 2022; Hall et al., 2016). Research has determined that nurses, as frontline care providers, should be educated to effectively screen for ACEs using ACE screening tools and implement evidence-based practices like trauma-informed care (Alvarado et al., 2023; Garay et al., 2022). Thus, addressing this educational gap among nurses is a plausible solution, which in turn, may create a healthcare environment that recognizes and mitigates the lifelong impacts of ACEs among individuals (Hall et al., 2016).

In the local organization, several patients with ACEs presented at the local organization with somatic symptoms common in adults with ACEs. The health care team, unaware of the patients' traumatic experiences, lacked the knowledge to identify ACEs in these patients, and as a result, did not detect and respond to the psychological consequences of ACEs as part of the patient's individual treatment plan. As a result, the patient's mental health worsens, which led to delayed interventions and exacerbation of

the patient's chronic condition. Thus, leadership identified the need for comprehensive ACE education in the organization. Given that the emergency department (ED) is a primary entrance for care in the organization, an educational intervention focused on ACEs and ACE screening tools was warranted. Thus, the purpose of this DNP project was to determine whether an educational intervention focused on ACEs and proper screening for ACEs increased knowledge and awareness among nurses working in an ED. It is hoped that by educating nurses on ACEs and proper screening for ACEs, the increased knowledge and awareness will translate into practice and result in positive patient, provider, and organizational outcomes.

Staff Education Project Development

During the initial evaluation, the Organization Readiness for Implementing Change (ORIC) Tool was used to evaluate the readiness of the participants in the organization. The organization acknowledged the importance of ACEs and the proper screening for ACEs as this aligns with their goal of enhancing care delivery. In addition, the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis identified organizational strengths such as strong leadership support and a culture of continuous learning. However, the organization has experienced weaknesses such as change resistance and limited staff resources. Despite these weaknesses, opportunities for the organization included the current evidence supporting ACEs and screening guidelines for ACEs. However, competition between similar organizations and larger healthcare facilities with more extensive resources and infrastructure may present threats to the organization.

Both the ORIC and the SWOT analysis demonstrated the organization's willingness to address the concern and implement the educational intervention. Following organizational approval of the project and guided by the current event, I conducted an extensive literature review using various databases to identify supportive evidence to create an educational intervention (see Appendix A), a pretest (see Appendix B), and a posttest (see Appendix C). Prior to implementation, identified experts reviewed the materials and established the content validity. Using the Item- Content Validity Index (I-CVI) and Scale-Content Validity Index (S-CVI) as a guide, the indices of each tool were 1.0 and 1.0, respectively, which met and exceeded the threshold of 0.80 as acceptable standards across all three tools (Polit & Beck, 2006).

Procedures

A convenience sample of nurses who work at the local organization were invited to participate in the educational intervention. Participation was voluntary and the participants were not compensated for attending. Prior to the commencement of the educational session, the participants were asked to create a unique anonymous identifier to identify and link their pretest and posttest. The participants were asked to complete the pretest, which consisted of five demographic questions to describe the sample, 10 true/false questions to assess their knowledge, and three Likert-scale questions to determine their awareness level on a scale of 1 (*no awareness*) to 7 (*full awareness*) of three content areas: awareness of the ACE screening importance, awareness of the significance of ACEs on overall health and well-being, and awareness of implementation

and administration strategies of the ACE tool. After the completion and collection of the pretest, the educational intervention took place.

Upon conclusion of the educational intervention, the participants were asked to complete a posttest that consisted of the same 10 true/false questions to assess their knowledge on the topic and three Likert-scale questions to determine their awareness level on a scale of 1 (*no awareness*) to 7 (*full awareness*) of three content areas as the pretest. After the completion of the posttest, the educational intervention ended. Then, each pretest was matched with its posttest using the participant's unique identifier. Each pretest and posttest was reviewed and scored for number of correctly answered questions to create a pretest and posttest score. Demographic information, pretest, and posttest scores were entered into an Excel spreadsheet and uploaded into SPSS for analysis. Descriptive statistics were used to describe the sample, and inferential statistics were used to determine whether there were differences in pretest and posttest scores.

Results

Demographic Results

With the support of the organizational leadership, nine individuals were able to attend the educational intervention. The average age of the participants was 37.89 years (SD = 9.89) with a range of 24 to 56 years. Twenty-two percent (n = 2) of the participants identified as male, and the remaining 78% (n = 7) identified as female. Most of the participants had an Associates' degree in Nursing (45%; n = 4); three of the participants were Bachelor-prepared (33%); and the remaining two individuals were Masters-prepared (22%). The mean years working in nursing was 12.00 (SD = 8.94) with a range

of 2 to 30 years. The mean years working in the participant's current position was 7.33 years (*SD* = 5.02) with a range of 1 to 16 years (Table 1).

Table 1

*Project Sample Descriptive Statistics (*N = 9*)*

Demographic category	*n*	%	*M* (*SD*)	Range
Gender				
Male	2	22		
Female	7	78		
Education				
Associate degree	4	45		
Bachelor's degree	3	33		
Master's degree	2	22		
Age			37.89 (9.89)	24 to 56
Years in nursing			12.00 (8.94)	2 to 30
Years in current position			7.33 (5.02)	1 to 16

Statistical Results

Knowledge

The mean pretest score for knowledge was 5.33 (*SD* = 2.23) with a range of 2 to 8 and the mean posttest score was 9.67 (*SD* = 0.71) with a range of 8 to 10. Using a Wilcoxon signed-rank test to estimate the data, I found a statistical difference between pretest and posttest scores ($z = -2.68$, $p < .01$), indicating an increase in knowledge among the participants.

Awareness of ACE Screening Importance

The mean pretest score for awareness of ACE screening importance among the participants was 3.33 (*SD* = 2.50) with a range of 1 to 7 and the mean posttest score for awareness of ACE screening importance was 6.33 (*SD* = 1.41) with a range of 3 to 7.

Using a Wilcoxon signed-rank test to estimate the data revealed a statistical difference between pretest and posttest scores ($z = -2.53$, $p < .05$), indicating an increase in the awareness of ACE screening importance among the participants.

Awareness of ACEs on Overall Health and Well-Being

The mean pretest score for the awareness of ACEs on overall health and well-being was 3.33 ($SD = 2.64$) with a range of 1 to 7 with the mean posttest score for the awareness of ACEs on overall health and well-being was 6.33 ($SD = 1.32$) with a range of 3 to 7. Using a Wilcoxon signed-rank test to estimate the data, the change was statistically significant ($z = -2.37$, $p < .05$) indicating increased awareness of ACEs on overall health and well-being among the participants.

Awareness of Implementation and Administration Strategies of the ACE Tool

The mean pretest score for the awareness of implementation and administration strategies of the ACE tool was 2.78 ($SD = 2.68$) with a range of 1 to 7, and the mean posttest score for the awareness of implementation and administration strategies of the ACE tool was 6.67 ($SD = 0.71$) with a range of 5 to 7. Using a Wilcoxon signed-rank test to estimate the data, the change was statistically significant ($z = -2.55$, $p < .05$), indicating increased awareness of implementation and administration strategies of the ACE tool among the participants (Table 2).

Table 2

*Knowledge and Awareness (*N = 9)

Scoring category	*M* (*SD*)	Range
Knowledge**		
Pretest	5.33 (2.23)	2 to 8
Posttest	9.67 (0.71)	8 to 10
Awareness of ACE screening importance*		
Pretest	3.33 (2.50)	1 to 7
Posttest	6.33 (1.41)	3 to 7
Awareness of ACEs on overall health and well-being*		
Pretest	3.33 (2.64)	1 to 7
Posttest	6.33 (1.32)	3 to 7
Awareness of implication and administration strategies*		
Pretest	2.78 (2.68)	1 to 7
Posttest	6.67 (0.71)	5 to 7

*Significant at $p < .05$; **Significant at $p < .01$.

Strengths and Limitations

The strength of this project is the outstanding support received from the leadership and staff of the organization. Their willingness to embrace change contributed to the success of the project. However, the project has some limitations. First, given that the participants were drawn from a convenience sample from a single organization, the results may not be generalizable to other settings. Second, the sample of nine participants may only adequately represent part of the population of the organization, warranting replication with a larger sample for validation of the results. Last, given that the data were measured at one point in time, the sustainability of the knowledge and awareness is unknown.

Conclusions

Implications for the Organization

As evidenced by the results, the educational intervention increased participants' knowledge and awareness of ACEs and proper ACE screening. Thus, there are important implications for the organization to consider. First, this project demonstrated the value of using data to identify issues and concerns in clinical practice. By using data to identify the concern and the best possible evidence to address the concern, the intervention ensured that the education delivered was relevant to nursing and nursing practice. Second, intervention increased the knowledge and awareness of ACEs and proper ACE screening among nurses, which has the potential to improve nursing practice. Thus, it is hoped that the increase in knowledge and awareness would then translate into practice, which in turn, may result in positive patient, provider, and organization outcomes. Last, this project demonstrated the importance of using educational interventions to educate nurses on important clinical issues such as ACEs and proper ACE screening.

Implications Beyond the Organization

The outcome of this project also has implications beyond the organization. Given the significance of this educational intervention, the organization should consider sharing it with other institutions through presentations at local forums. The results of this project demonstrated that such an intervention can increase knowledge and awareness of ACEs and proper ACE screening. It is hoped that the increased knowledge and awareness is then translated into practice and results in positive patient, provider, and organizational outcomes and ultimately, positive social change.

Recommendations

There are several recommendations based on the results of this DNP project. First, this educational intervention should be shared with all employees in the organization. Once the education is disseminated throughout the organization, the organization may wish to build on this topic using the current evidence. Second, it is recommended to incorporate the educational intervention into the annual education requirements and onboarding for new hires. This will ensure that all staff are updated on best practices for ACEs and proper ACE screening. Last, given the organization's commitment to continuous quality improvement, it is vital to disseminate the project's findings among organizational leadership. Sharing these insights may encourage a collaborative approach to addressing ACEs and ACE screening among providers and staff. Further, dissemination may promote discussions that may lead to more comprehensive and effective solutions that have the potential to address this important issue.

Summary

This DNP project demonstrated the importance of education to increase knowledge and awareness of ACEs and ACE screening among ED nurses. Equipping nurses with the knowledge and awareness needed to screen for and respond to ACEs can enable healthcare organizations to better support patients with a history of ACEs and contribute to public health efforts to address childhood trauma. The project results have implications for the local organization as well as beyond the organization and serve as a call to action for other organizations to provide education on this important topic, which ultimately may positively affect patient, provider, and organizational outcomes.

References

Alvarado, G., McBain, R., Chen, P., Estrada-Darley, I., Engel, C., Malika, N., Machtinger, E., McCaw, B., Thyne, S., Thompson, N., Shekarchi, A., Lightfoot, M., Kuo, A., Benedict, D., Gantz, L., Perry, R., Kannan, I., Yap, N., & Eberhart, N. (2023). Clinician and staff perspectives on implementing adverse childhood experience (ACE) screening in Los Angeles County pediatric clinics. *The Annals of Family Medicine*, *21*(5), 416–423. https://doi.org/10.1370/afm.3014

Bellis, M. A., Hughes, K., Ford, K., Rodriguez, G. R., Sethi, D., & Passmore, J. (2019). Life course consequences and associated annual costs of adverse childhood experiences across Europe and North America: A systematic review and meta-analysis. *Lancet Public Health*, *4*(10), e517–e528. https://doi.org/10.1016/s2468-2667(19)30145-8

Centers for Disease Control and Prevention. (2023). *Adverse childhood experiences* (ACEs). U.S. Department of Health and Human Services. https://www.cdc.gov/violenceprevention/aces/index.html

Clark, A. M., & Jones, H. M. (2022). Barriers to screening for adverse childhood experiences. *The Journal for Nurse Practitioners*, *18*(2), 190–194. https://doi.org/10.1016/j.nurpra.2021.11.004

Garay, B., Lasarte, G., Corres-Medrano, I., & Santamaría-Goicuria, I. (2022). Why should educators receive training in childhood trauma? *Trends in Psychology*. https://doi.org/10.1007/s43076-022-00223-1

Hall, A., McKenna, B., Dearie, V., Maguire, T., Charleston, R., & Furness, T. (2016). Educating emergency department nurses about trauma informed care for people presenting with mental health crisis: A pilot study. *BMC Nursing*, *15*(1), Article 21. https://doi.org/10.1186/s12912-016-0141-y

Hickey, K. (2020). *Educating health care providers on the benefits of screening for adverse childhood experiences in children and adolescents* [DNP capstone project, University of Amherst]. Doctor of Nursing Practice (DNP) Projects. https://doi.org/10.7275/17478692

Lovelady, S., Hall. T., Paton, K., Sanci, L., Goldfield, S., & Hiscock, H. (2022). Screening for adverse childhood experiences in children: A systematic review. *Pediatrics*, *149*(2), Article e2021051884. https://doi.org/10.1542/peds.2021-051884

Marsicek, S. M., Morrison, J. M., Manikonda, N., O'Halleran, M., Spoehr-Labutta, Z., & Brinn, M. (2019). Implementing standardized screening for adverse childhood experiences in a paediatric resident continuity clinic. *Pediatric Quality and Safety, 4*(2), Article e154. https://doi.org/10.1097/pq9.0000000000000154

McBain, R. K., Levin, J. S., Matthews, S., Qureshi, N., Long, D., Schickedanz, A. B., Gilgoff, R., Kotz, K., Slavich, G. M., & Eberhart, N. K. (2023). The effect of adverse childhood experience training, screening, and response in primary care: A systematic review. *eClinicalMedicine*, *65*, Article 102282. https://doi.org/10.1016/j.eclinm.2023.102282

Mishra, K., Atkins, D. E., Gutierrez, B., Wu, J., Cousineau, M. R., & Hempel, S. (2021). Screening for adverse childhood experiences in preventive medicine settings: A scoping review. *Journal of Public Health*, *31*(4), 613–622. https://doi.org/10.1007/s10389-021-01548-4

Polit, D. E., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, *29*(5), 489–497. https://doi.org/10.1002/nur.20147

Watson, P. (2019). How to screen for ACEs in an efficient, sensitive, and effective manner. *Paediatrics & Child Health, 24*(1), 37–38. https://doi.org/10.1093/pch/pxy146

Wheeler, K., & Phillips, K. E. (2019). The development of trauma and resilience competencies for nursing education. *Journal of the American Psychiatric Nurses Association*, *27*(4), 322–333. https://doi.org/10.1177/1078390319878779

Appendix A: Detailed Outline of the Educational Intervention

1. Introduction to Adverse Childhood Experiences (ACEs)
2. Significance in Healthcare Delivery
3. Understanding the Impact of ACEs on Health Outcomes
4. Role of Healthcare Professionals in Screening and Intervention
5. Overview of Validated Screening Tools
6. Methods for Identifying ACEs in Clinical Practice
7. Administering ACE Screening Tool
8. Interpreting ACE Results
9. Education on Trauma-informed Care Approaches and Practices
10. Case Studies and Interactive Sessions
11. Questions and Answers.
12. Conclusions

Appendix B: Pretest

Thank you for agreeing to participate in this educational intervention. Please create a unique ID that is only known to you. You will not be asked to share this ID with anyone, nor should you share your ID with anyone. The ID will only be used to match your pretest with your post-test. Please do not provide any additional information outside of the questions being asked. All information collected is anonymous and will be reported in the aggregate. Thank you again for agreeing to participate in this educational intervention.

My Unique ID: _____

Demographic Information

Age (in years): _____

Gender:

____Male

____Female

____Non-binary

Highest Level of Education

____Associates Degree

____Bachelor (BS/BSN)

____Masters (MS/MSN)

____Doctoral (DNP or PhD)

Years in Nursing: _____

Years in Current Position: _____

Knowledge Questions

Please answer the following questions to the best of your ability.

1. Adverse Childhood Experiences (ACEs) primarily affect mental health outcomes and have minimal impact on physical health.

   _____True _____False
2. Nurses and healthcare providers in the ED setting do not require specific training in recognizing and responding to ACEs.

   _____True _____False
3. ACEs screening should only be conducted if a patient self-reports a history of trauma.

   _____True _____False
4. Trauma-informed care is not applicable in the fast-paced environment of an Emergency Department.

   _____True _____False
5. ACEs screening can help identify individuals at risk of experiencing long-term health consequences.

   _____True _____False
6. ACEs screening is a time-consuming process that is not feasible in an Emergency Department setting.

   _____True _____False
7. Nurses are well-equipped to implement trauma-informed care practices without additional education or training.

   _____True _____False
8. True/False: Early identification and intervention for ACEs can help mitigate the risk of long-term health problems.

   _____True _____False
9. ACEs are only relevant to pediatric patients and have minimal impact on adult health outcomes.

   _____True _____False
10. The implementation of trauma-informed care practices in the ED setting can improve patient outcomes and satisfaction.

    _____True _____False

Awareness Questions

On a scale of one to seven, with 1 = "*no awareness*" and 7 = "*full awareness*", please rate your level of awareness about:

The importance of ACE screening	1	2	3	4	5	6	7
The significance of ACEs on overall health and well-being.	1	2	3	4	5	6	7
Strategies for implementation & administering the ACE tool.	1	2	3	4	5	6	7

Appendix C: Posttest

Thank you for agreeing to participate in this educational intervention. Please use your unique identifier for your posttest. Again, the identifier will only be used to match your pretest to your posttest. All information collected is anonymous and will be reported in the aggregate. Thank you again for agreeing to participate in this educational intervention.

My Unique ID: _____

Knowledge Questions

Please answer the following questions to the best of your ability.

1. Adverse Childhood Experiences (ACEs) primarily affect mental health outcomes and have minimal impact on physical health.

   _____True _____False
2. Nurses and healthcare providers in the ED setting do not require specific training in recognizing and responding to ACEs.

   _____True _____False
3. ACEs screening should only be conducted if a patient self-reports a history of trauma.

   _____True _____False
4. Trauma-informed care is not applicable in the fast-paced environment of an Emergency Department.

   _____True _____False
5. ACEs screening can help identify individuals at risk of experiencing long-term health consequences.

   _____True _____False
6. ACEs screening is a time-consuming process that is not feasible in an Emergency Department setting.

   _____True _____False
7. Nurses are well-equipped to implement trauma-informed care practices without additional education or training.

   _____True _____False

8. True/False: Early identification and intervention for ACEs can help mitigate the risk of long-term health problems.

   _____True _____False

9. ACEs are only relevant to pediatric patients and have minimal impact on adult health outcomes.

   _____True _____False

10. The implementation of trauma-informed care practices in the ED setting can improve patient outcomes and satisfaction.

    _____True _____False

Awareness Questions

On a scale of one to seven, with 1 = "*no awareness*" and 7 = "*full awareness*", please rate your level of awareness about:

The importance of ACE screening	1	2	3	4	5	6	7
The significance of ACE on overall health and well-being.	1	2	3	4	5	6	7
Strategies for implementation & administering the ACE tool.	1	2	3	4	5	6	7