

**Executive Summary: Improving Active Shooter Preparedness in Childcare Settings: A
Quality Improvement Project**

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Objective

This project, Improving Active Shooter Preparedness in Childcare Settings, aimed to enhance childcare staff's confidence and preparedness in emergency situations. We wanted to see if training and practice could make a difference in how ready they felt to respond to an active shooter. The main findings of the project included the following:

Main Points

- Increased Staff Confidence
 - Participants felt more emotionally prepared and better understood their roles during emergencies.
- Improved Knowledge and Preparedness
 - Pre- and post-training assessments showed a significant improvement in knowledge of emergency protocols, including lockdown procedures and situational awareness.
- Behavioral Changes in Daily Safety Practices
 - Observable improvements were noted in daily safety behaviors:
 - Fewer instances of staff holding doors open for others
 - Increased use of visitor sign-in logs
- Full Participation and Retention
 - 100% of the 25 participants completed the entire project, with no attrition.
- Identified Safety Gaps and Challenges
 - Staff observed unsafe behaviors, such as propping open playground doors or unclear procedures for vendor access.

Positive Qualitative Feedback

- Participants noted that practicing realistic but gentle drills helped reduce anxiety and clarify expectations.

Background:

With mass shootings on the rise in the United States, including tragic events in educational settings, there is an urgent need for tailored emergency preparedness in early childhood environments. Existing training models often mirror K–12 school protocols, overlooking the developmental and emotional needs of young children and the unique safety challenges faced by childcare providers.

Purpose:

This DNP project aimed to improve staff confidence, knowledge, and daily safety practices at two licensed North Carolina childcare centers through an evidence-based active shooter preparedness intervention.

Methods:

Using the RE-AIM framework alongside the Plan-Do-Study-Act (PDSA) cycle, the project involved 25 staff members across two childcare centers. The intervention included structured active shooter preparedness training based on U.S. Department of Homeland Security guidelines and early childhood best practices. Staff completed pre- and post-training assessments measuring knowledge, self-efficacy, and safety behaviors. The project also monitored daily compliance with critical safety protocols, such as door security and visitor sign-in procedures. These results will be used to increase trauma-sensitive training for both adults and children.

Results***Participant Engagement and Completion***

All 25-childcare staff across the two centers fully participated and remained engaged throughout the project, completing the pre-training survey, training session, monthly drills, and post-training survey. There were no dropouts during the 12-week implementation.

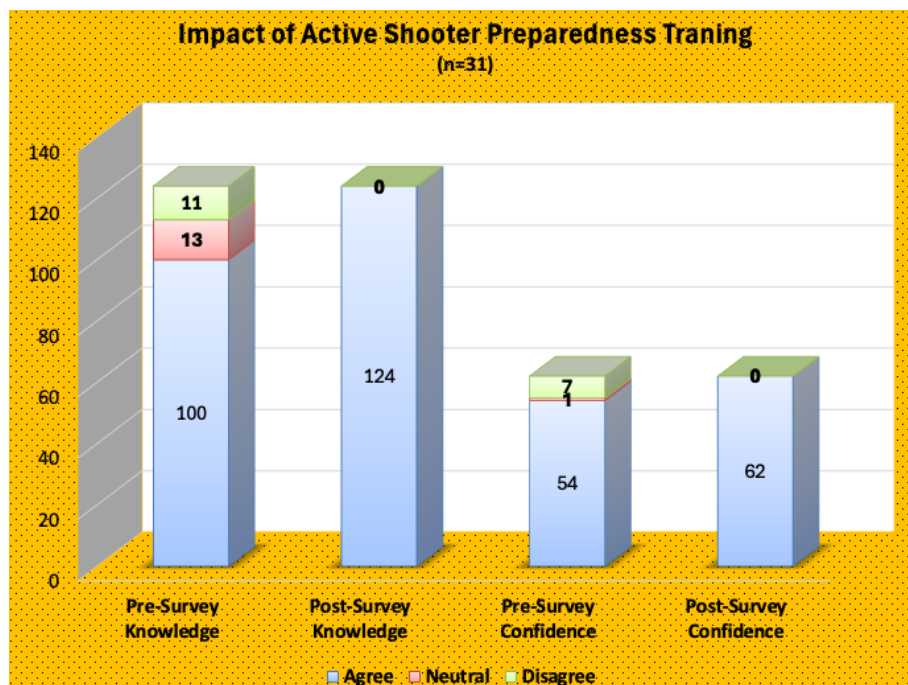
Increased Confidence and Preparedness

Staff reported a 25% boost in confidence when handling active shooter scenarios after the intervention. They also felt more emotionally prepared and better understood their roles during

emergencies. This graphic combines all knowledge questions and confidence questions.

For the pre- assessment, there were 100 agreeable responses, 13 neutral responses, and 11 disagree responses across the four knowledge questions. For the post-assessment, there were 124 agreeable responses, and no neutral or disagree responses across the four knowledge questions.

Pre- and post-assessment results showed significant improvements in understanding lockdown procedures, emergency communication, and response strategies based on Department of Homeland Security guidance, indicating positive behavioral changes.



Improving daily safety practices

The organization will implement several measures to enhance security and efficiency. These include reducing door-holding by staff and parents, increasing the use of visitor sign-in

logs, improving verification of vendor credentials, and minimizing incidents where parents or family members share access codes.

Feedback Highlights

Staff description of the training

This communication is relevant and directly applicable to their roles, providing emotional support rather than inducing fear. It is helpful for clarifying procedures and expectations specific to childcare, ensuring that staff are well-informed and confidently equipped to perform their duties

Institutional Impact

Both centers revised their emergency preparedness policies, increasing the frequency of lockdown drills and updating visitor management procedures. Center leadership continued to support ongoing reinforcement of safety protocols after the training concluded.

Strengths

High Participant Engagement and Retention

All 25 staff members completed the entire intervention and assessments (100% retention), demonstrating strong engagement and interest. Use of Evidence-Based Frameworks. The combined use of RE-AIM and PDSA provided both strategic guidance and practical structure, improving implementation and sustainability. Trauma-Informed, Developmentally Appropriate Training. The intervention was sensitive to the emotional needs of childcare staff and children, avoiding distressing simulations while still promoting preparedness.

Real-World Relevance

The training focused on real safety concerns (e.g., access control, communication) in actual childcare environments, making the findings directly relevant to practice.

Qualitative and Quantitative Data

The use of both pre/post surveys and open-ended feedback provided a more

comprehensive view of the intervention's impact.

Positive Behavior Change

Clear improvements were observed in day-to-day security practices, such as better visitor management and reduced door-holding.

Limitations

Small Sample Size and Limited Generalizability

The project was limited to 25 participants in two childcare centers in North Carolina, which may not represent broader childcare populations or settings.

Lack of Formal Statistical Analysis

While trends were positive, no inferential statistics (e.g., t-tests) were used to determine the significance of the changes.

Selection Bias

Centers that agreed to participate may have already had an interest in safety or more resources, potentially inflating the perceived effectiveness of the intervention.

Observation Bias (Hawthorne Effect)

Staff may change their behaviors during observed drills or walk-throughs simply because they know they are being watched.

Parent Engagement Barrier

The project did not include direct parent training, even though parents were seen as essential for maintaining secure access and supporting safety protocols.

Short-Term Evaluation

The follow-up was limited to the 12-week intervention period, so long-term retention of knowledge and behavior change was not assessed.

Implications and Conclusions

Nurses play a vital role in advancing public health and safety beyond clinical settings. This project demonstrates how nurse-led education and quality improvement initiatives can build resilience and preparedness among childcare staff, fostering safer environments for children. The findings support ongoing, trauma-informed training for both staff and parents, integration of safety technology, and regular safety behavior monitoring.

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