Implementation of Adverse Childhood Experiences Screening Tool for Providers in Primary Care Pediatrics

Pediatric Primary Care Screening for Adverse Childhood Experiences

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BACKGROUND

Adverse childhood experiences (ACEs) are traumatic experiences which, in the absence of mitigating factors, can lead to poor health outcomes in childhood and beyond.

The American Academy of Pediatrics (AAP) and the Centers for Disease Control and Prevention (CDC) recognize the negative impact of ACEs, and they support the pediatric provider's role in improving health outcomes through early identification and prevention of ACEs.

ACEs and toxic stress contribute to:

-Impaired memory and executive functioning, behavior problems, sleep disturbances, and trouble concentrating [1,2]

-Increased risk of developing mental illness and substance abuse [3,4]

-A heightened inflammatory response – contributing to allergies, asthma, and eczema [3]

-Chronic health conditions such as diabetes, hypertension, respiratory diseases, and cardiovascular disease.[3,4]

Vermont Statistics

21.5% of children 0 -17 years old in Vermont report experiencing 2 or more ACEs in their lifetime.[5]

Compared to the national average, children in Vermont experience higher rates of:

-parental separation

-witnessing violence in the home

-living with someone who has a mental illness or substance use disorder [6]

METHODS

This project took place at semi-rural pediatric primary care clinic which serves as a patient-centered medical home for approximately 15,000 patients.

Scan to view ACE-Q Child

Intervention 1: Families presenting for 3-, 5-, and 6-10-year-old health supervision visits for one provider over the 6-week period were offered the Center for Youth Wellness Adverse Childhood Experiences Questionnaire (CYW ACE-Q) at check-in.

Intervention 2: All 8 of the pediatric providers were invited to participate in an online *Veto Violence* training module through the CDC.[7] Pre-/post-intervention surveys using primarily Likert scales were created to assess provider knowledge and comfort in discussing ACEs at baseline and post-training.

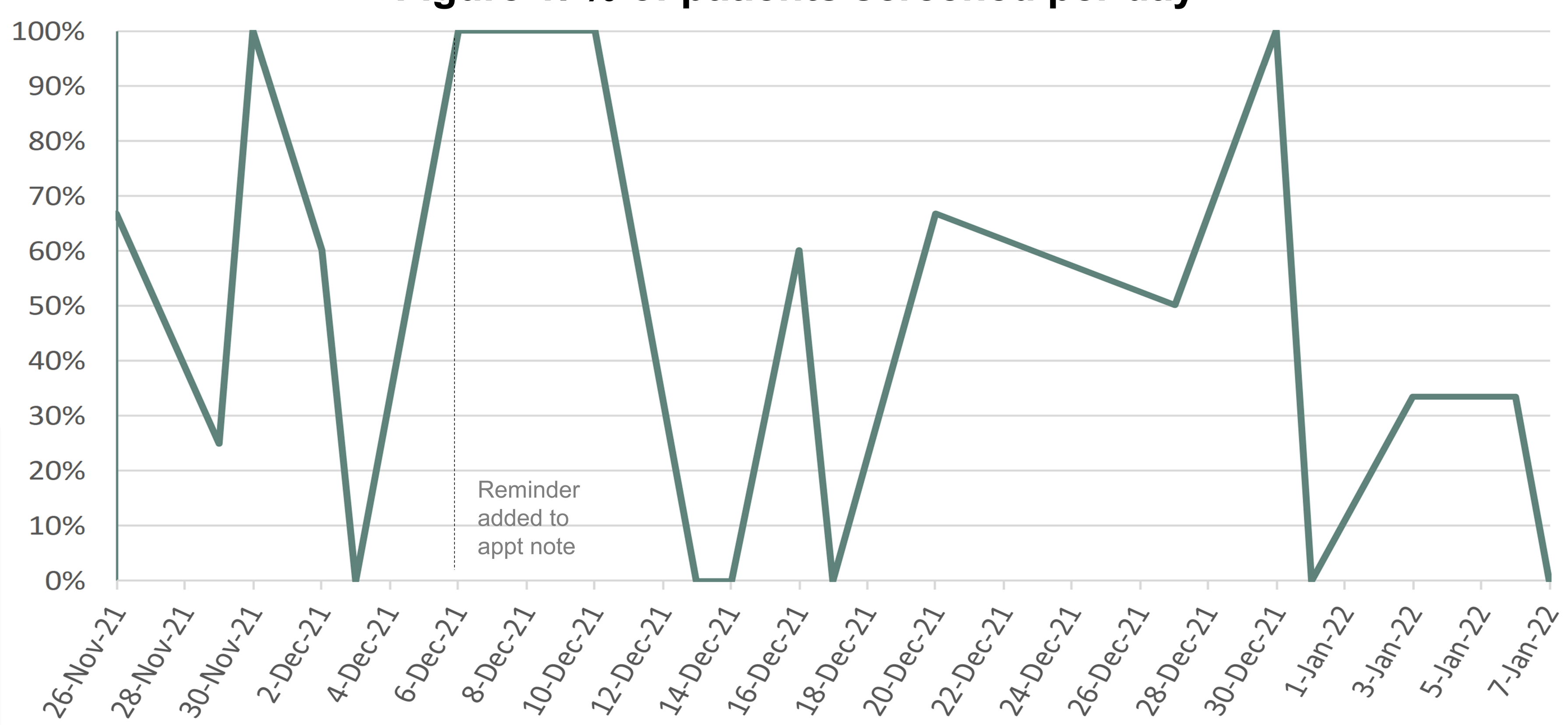
RESULTS

A total of 53 patients were eligible for screening. The ACE-Q was disseminated to 47.2% of eligible patients, and 100% of the screeners given were completed.

Fourteen (26.4%) screeners were not completed as they were not provided at check-in, and 11.3% (n=6) were not screened due to no-showing, late-cancelling or rescheduling their appointment.

During the first 2 weeks visits were to be scheduled for 30 minutes; however, 8 eligible visits (15.1%) were excluded as they were scheduled for 15 minutes. After the initial 2 weeks, screening was completed regardless of appointment length.

Figure 1. % of patients screened per day



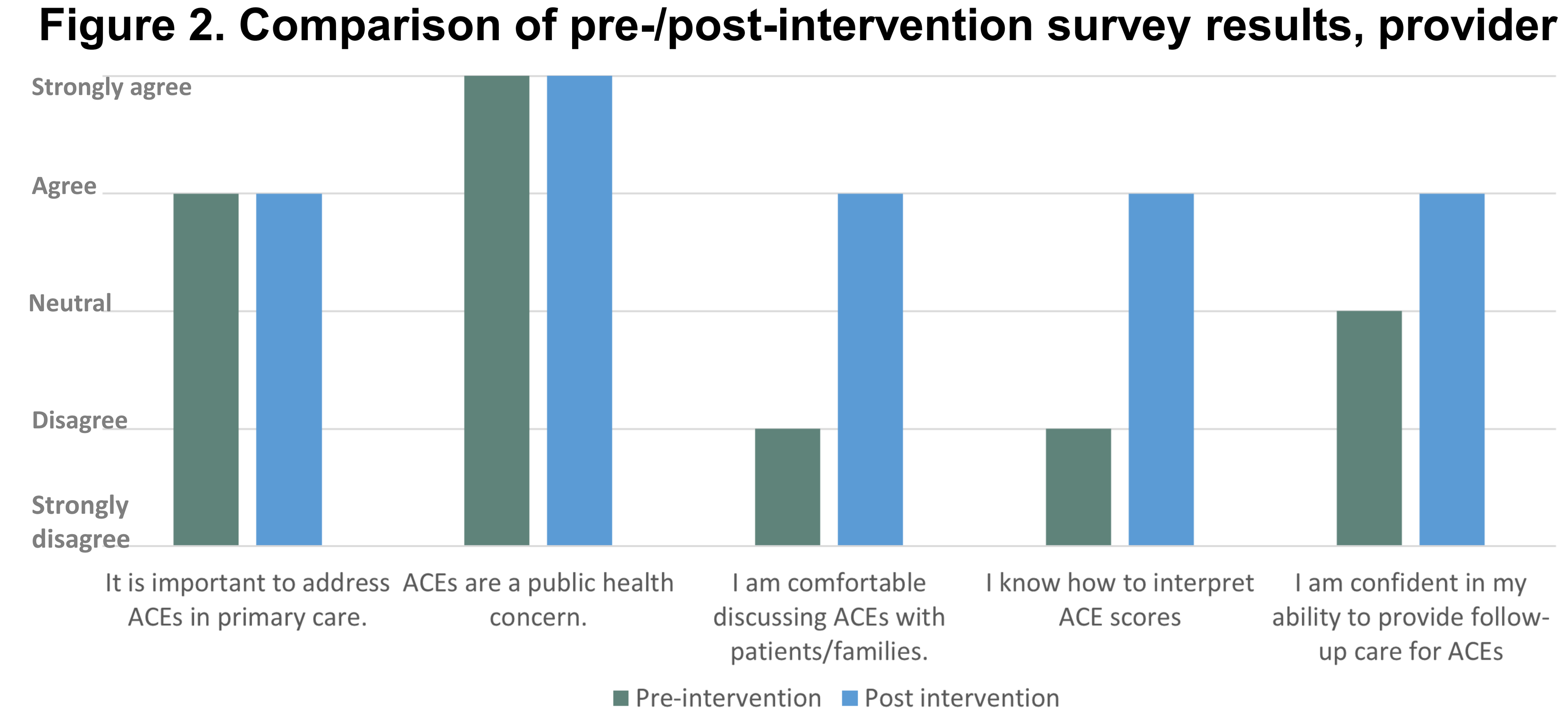
Pre-intervention Survey

Five of the 8 providers (62.5%) completed the survey:

- **80%** (n=4) felt comfortable discussing ACEs with families
- **80%** (n=4) were ***not*** confident in interpreting ACE scores
- **80%** (n=4) were ***not*** confident in their ability to create a follow-up care plan for a child with a high ACE score

There was a clear knowledge gap between discussing ACEs and actively identifying and addressing ACEs.

Figure 2. Comparison of pre-/post-intervention survey results, provider 1



Note: One provider completed the post-intervention survey. Their responses pre- and post-training are compared above.

CONCLUSION

Similar to previous studies, providers anticipated that time and lack of resources would hinder our ability to screen for ACEs; however, **screening resulted in no new referrals to Care Management or Behavioral Health** and time did not prove to be a significant barrier to completing screening.

This project achieved a screening rate slightly under the goal of 50%, which was comparable to prior studies.

Consistent with previous studies, families were willing to complete ACEs screening and the provider felt **screening helped strengthen the patient-provider relationship.**

Limitations

- This population was selected based on similar studies which suggested initial implementation could begin among age groups where children are due for fewer screenings and immunizations.
- Limiting screening to 3-, 5- and 6-10-year-old visits narrowed the generalizability of this study.
- The ACE-Q relies on self-report, so there is a risk of underreporting due to social desirability bias.

FUTURE RECOMMENDATIONS

Assess the impact of ACEs and screening on the demand for behavioral health and trauma informed services.

For this specific population, **40% of children screened reported one or more ACE.** The benefit of identifying specific ACEs should be considered in the future, which would allow for resources to be tailored to specific needs in the community.

Expand screening to all age groups and repeat at least annually at each health supervision visit to monitor for new ACEs.

Consider ACEs in the context of age – some ACEs may be more or less likely to occur based on the child's age and developmental stage. This should be accounted for when planning intervention and prevention strategies.

CDC strategies for preventing ACEs are evidence based and should serve as the framework for all local and national efforts in ACE prevention.[8]

Scan to view CDC's *Preventing ACEs*

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