Implementing 'Ask Suicide Screening Questions' in a Pediatric Neurobehavioral Unit

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Problem

Suicide is the second leading cause of death among children and adolescents, with a 56% increase in suicide rates from 2007 to 2017 (Curtin, S., 2020), and 20% of youth reporting serious suicidal thoughts (CDC, 2025). Neurodivergent individuals, including those with autism spectrum disorder (ASD), ADHD, and learning disabilities, face a significantly higher suicide risk. Among 3,854 neurodivergent screenings, 6.8% were positive for suicide risk (Rybczynski et al., 2022). A study of 48,186 autistic individuals found 34.2% had suicidal ideation, 21.9% had suicide plans, and 24.3% attempted suicide (Newell et al., 2023). This elevated risk is often under-recognized, hindering targeted interventions.

In the setting for this QI project, a Pediatric Neurobehavioral Unit with a 4 to 6 months average length of admission, suicide screenings are conducted upon admission on patients 10 years and older using the ASQ tool, relying on parent reports, which may not fully capture the complexity of a patient's risk. However, the validated "Ask Suicide-Screening Questions" (ASQ) tool, integrated in the EHR, is used effectively for neurodivergent patients aged 8 and older. Evidence supports that ongoing screening is more effective in accurately identifying and addressing suicide risk (Rybczynski et al., 2022)

Purpose

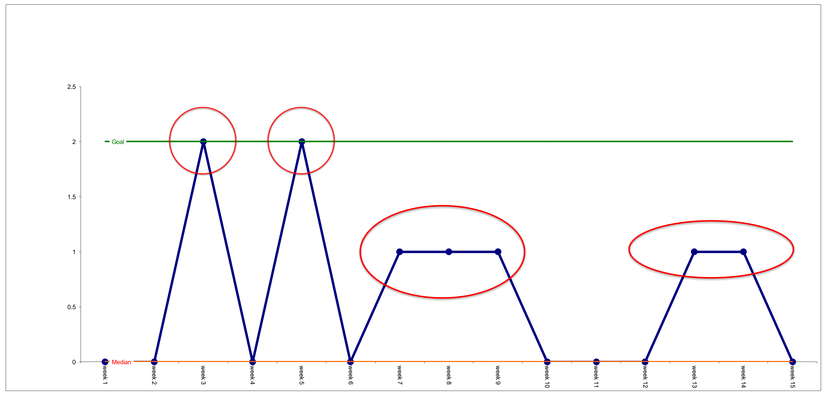
The purpose of this quality improvement project is to incorporate a biweekly suicide screening and referral protocols within 30 minutes of a positive response for patients aged 8 and older across the full admission process in the Pediatric Neurobehavior Unit.

Method

- **Intervention Duration**: The intervention took place over a 15-week period on a 16-bed pediatric Neurobehavior Unit.
- **Quality Improvement Framework**: The project was guided by the PARIHS Quality Improvement Framework, highlights the importance of available evidence, understanding the context of the project site, and engaging facilitators for a successful implementation a sustainability.
- **Screening Criteria**: Patients aged 8 and above, who were able to respond to the ASQ screening questions, were screened during the admission process and every two weeks throughout the 15-week period.
- **Education**: Training reinforced nurses' knowledge of the ASQ tool and referral protocol that was established for positive responses.
- **Referral Process**: A referral to the psychiatrist was made within 30 minutes for any positive response to the ASQ questions.
- **Data Collection**: A biweekly chart audit was conducted to collect and track screenings and referrals. A HIPAA VPN-secured server was utilized to ensure patient privacy and confidentiality.
- This project received HRPO determination from University of Maryland and Johns Hopkins University as a quality improvement project.

Results

Figure 1: Biweekly Suicide Screening



X- screening; Y- week

RESULTS:

- There are four runs because of the biweekly screening protocol and there were zero screenings some weeks. However, there were no data below the median.
- Two out of 13 patients (15%) were eligible for biweekly screening at the onset of screenings in weeks 3 and 5, resulting in 100% screening of eligible patients.
- One eligible patient was discharged by week 7.
- On a 16-bed unit, a total of 4 new admissions occurred during the 15-week period.
- 2 (100%) referrals were made for positive screening.

Figure 2: Total Number of Screenings and Referrals

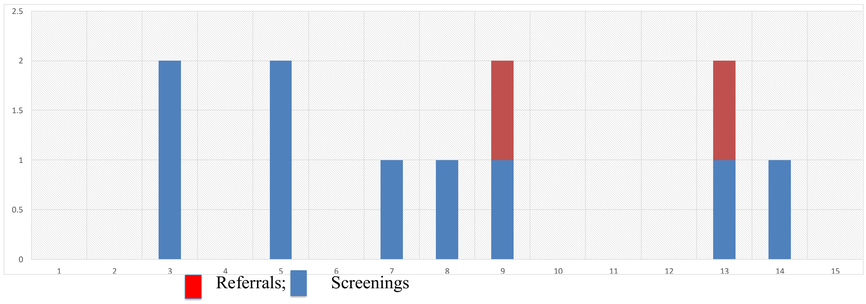


Table 1:Patients' Screening by Week

Week Screened	Patient 1	Patient 2	Patient 3	Patient 4	
3	●	●			
5	●	●			
7	●				
8			●		
9	●				
13				●	
14				●	

Discussion

- Biweekly suicide screening conducted for 100% eligible patients, total of 9 screenings, 2 of which were done during admission.
- On a 16-bed unit, 4 new patients were admitted during the project. 2 were eligible and screened during weeks 8 and 14 (Table1).
- The goals are to screen 100% of eligible patients and refer positive screenings (Figures 1 & 2).
- Most patients on the unit during the project were non-verbal (n=13).
- 100% of positive screenings (n=2) referrals were made to the Psychiatrist within 30 min and followed up by the Psychiatrist as seen in Figure 2.

Limitations:

- Variation in patient populations, including the fluctuating number of high-functioning and verbal patients, may impact the consistency of screening.
- Concerns regarding the interpretation of patient responses may influence results.
- The EHR team was unable to create a cue or alert.

Conclusion

- Biweekly screenings using the ASQ tool can be successfully performed in the patient population of individuals with autism or other neurologic disabilities.
- Difficulty with understanding the language and the need to determine if an individual will make quasi-suicidal statements for attention needs to be considered clinically for each individual undergoing suicide screening.
- The age of screening was changed to 8 years and above.
- The frequency of screening was increased to biweekly throughout the length of stay.

References

Please refer to the QR below for a list of references

Special thanks to my faculty, sponsor, and site representative for their support throughout this QI project.