Comparison of suicide risk identification in adult healthcare encounters with and without universal screening: Analysis of age group and reason for encounter

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Background/Significance

- Suicide is a public health concern requiring accurate screening and risk detection. The Joint Commission's (TJC) National Patient Safety Goal 15.01.01 requires suicide risk screening for patients in psychiatric care settings and patients in non-psychiatric settings with behavioral complaints.
- Suicide decedents often have healthcare encounters for non-psychiatric care just prior to their death, suggesting a missed opportunity for intervention [1]. Adults over 84 have the highest rates of suicide and often visit primary care physicians in the year before suicide [2].
- To improve risk detection, Parkland Health implemented universal suicide risk screening in the emergency department, inpatient units, and primary care clinics.

AIM: Compare rates of adult risk identification pre- and post-implementation by age group to examine opportunities for improved suicide prevention.

Methods

Suicide risk screening, demographic, and clinical data were extracted from the electronic health record.

Patients were grouped by required TJC suicide screening behavioral complaints (Psychiatric, Substance related, or Suicide/Self Harm), Non-Psychiatric, or Other related complaints.

Rates of positive suicide risk were compared from five years prior to program implementation (2010-2015; *N* = 2,793,005) to six years post (2015-2021; *N* = 3,656,555).

Patients were compared using developmental age:

18 - 35 Young Adulthood **36 - 64** Middle Adulthood

65 - 84 Later Adulthood **85+** Oldest Old

This study was determined to be exempt by the Institutional Review Board.

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Results

- The odds of a positive suicide risk screen increased by 12.26 times among all non-psychiatric encounters and by 9.39 in all psychiatric encounters.
- Positive screens more than doubled among non-psychiatric middle adulthood patients.
- The percentage of post-positive screens in later adulthood increased across all non-suicide encounters.
- Among psychiatric complaints, middle adults consistently had the highest odds of positive screens.
- Later Adults have the highest odds of overall positive screens when reasons for encounter are combined (OR = 8.64, $p < .001$) compared to all other developmental age groups.
- Non-behavioral encounters (Non-Psych/Other) represented the highest odds of positive risk identification in later adults compared to all other encounter reasons among developmental age groups.

Figure 1. ***Percentage of Positive Risk Identified in Pre-Cohort (2010-2014)***

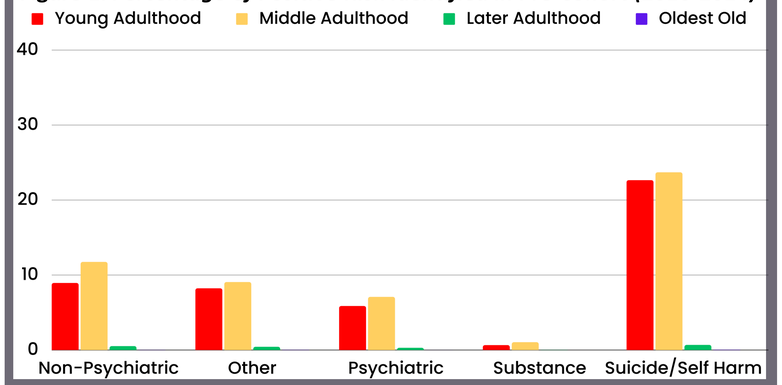

Figure 2. ***Percentage of Positive Screens in Post-Cohort (2015-2021)***

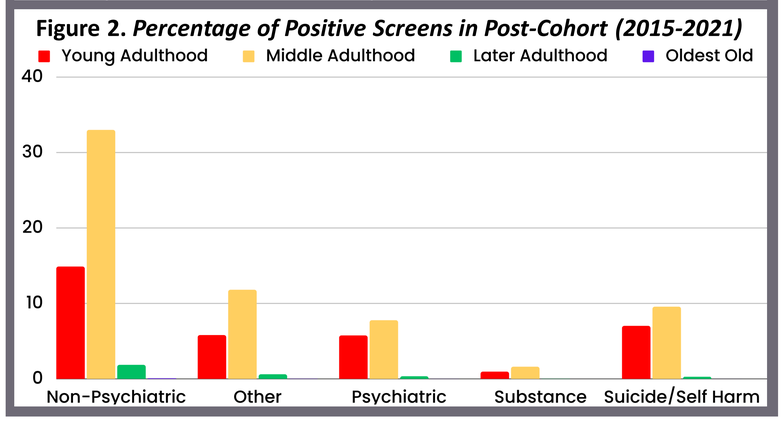

Table 1. ***Odd Ratios of Pre-Post Program Implementation Across Developmental Ages and Encounter Type***

	Encounter Type					
Developmental Age	**Non-Psychiatric**	**Other**	**Psychiatric**	**Substance**	**Suicide/ Self Harm**	**Encounter Combined**
Young Adulthood	8.35	3.97	6.28	7.18	3.42	3.86
Middle Adulthood	15.35	10.72	11.59	9.60	6.81	7.39
Later Adulthood	17.02	11.07	11.05	5.14	4.36	8.64
Oldest Old	17.72	9.04	10.00*	---	2.5**	6.90
Age Combined	12.26	7.19	9.39	8.52	4.84	

* denotes p value < .05, all other ORs have p values < .0001

** not-significant, $p = .6665$

Conclusion/Implications

- Universal screening significantly increased identification of suicide risk in healthcare encounters, especially those for non-psychiatric care.
- Results underscore the potential benefit of screening in all healthcare
- encounters, as 78,448 positive screens were for chief complaints that do not require standardized screening.

Discussion

- This longitudinal quality improvement program significantly increased suicide risk identification, highlighting the utility of universal screening protocols regardless of chief complaint.
- Implementing universal screening in non-psychiatric encounters yielded the highest overall risk identification in the overlooked later adult population aged 65-84 (OR = 17.02, $p < .001$).

References

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