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Parent Views on School-based Depression Screening: Findings from a National Survey

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Abstract

Purpose: This study explored parent views on school involvement in screening and identification of adolescent depression.

Methods: Cross-sectional internet-based survey with the C.S. Mott Children's Hospital National Poll on Children's Health. Of 2004 parents (63.4% response rate), 770 had a middle/high school student and were eligible for this module. Post-stratification weights were generated by survey vendor Ipsos. Descriptive and bivariate results were calculated; multinomial logit regression models controlled for parent sex, race/ethnicity, education, employment status, and school level.

Results: Parent respondents were 54.8% female, 57.5% white, 64.3% above a high school education, and 79.7% employed; 76.2% were answering based on a high school student. Most parents supported school-based depression screens starting in 6th (46.7%) or 7th (15.1%) grades, though 15.9% responded no screening should be done. Among parent respondents 93.2% wished to be informed of a positive screen. Regression analysis found parents of middle school students were 4.18 times more likely to prefer 6th versus 9–12th grade to start screening.

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Conclusions: Most parents support middle school depression screening, but overwhelmingly wished to be informed of a positive result. Guidelines for maintaining adolescent confidentiality in a school-based depression screening program will require careful consideration.

Keywords

depression; adolescents; adolescent parenting; screening; disclosure

The prevalence of annual major depressive disorder episodes (MDD) among United States (US) adolescents rose by 60% from 8.3% in 2008 to 14.4% in 2018.[1] Schools have responded with efforts to educate about MDD and provide adolescents opportunities to access services, but little information exists on parent perception of the school role in mental health.[2–5]

Screening in High Schools to Identify, Evaluate and Lower Depression is a randomized clinical trial (RCT) examining the effectiveness of universal school-based adolescent depression screening in partnership with fourteen Pennsylvania public high schools.[6] While parent response to the RCT has been overall positive, these views may not be representative of parents across the US.

To describe parent opinions about school-based depression screening on the national level, we partnered with the University of Michigan's C.S. Mott Children's Hospital National Poll on Children's Health (NPCH), a cross-sectional, recurring online survey about child health topics. Exploratory objectives included analysis of responses by parent self-reported sociodemographic factors and adolescent factors.

Methods

Study Design

The NPCH is fielded by Ipsos to its web-enabled KnowledgePanel®, the largest nationally representative probability-based sample of US households. Panel recruitment uses random selection of phone numbers and residential addresses with oversampling in census blocks with high-density minority communities. Individuals without Internet access are provided a laptop and Internet service connection at no cost. Participants provide demographic data, used for sampling, weighting, and to populate demographic variables included with survey data. Panel members receive email notification when a new survey is available. Ipsos operates a modest incentive program with panel members averaging two to three surveys monthly with durations of 10 to 15 minutes. Additional information on KnowledgePanel® can be found at https://www.ipsos.com/en-us/solutions/public-affairs/knowledgepanel.

The NPCH team develops and fields surveys about three times yearly with a sample of approximately 2,000 panel members with children. Each fielding includes multiple child health topics, with questions targeted based on family characteristics, e.g. child age. Recruitment emails do not specify survey topics.

This study was approved by both the University of Michigan Medical School and Penn State College of Medicine Institutional Review Boards. This NPCH wave was pretested

from August 2–5, 2019 with a separate convenience sample of 101 KnowledgePanel® members. The main survey was fielded from August 9 to September 2, 2019, to 3,163 adult KnowledgePanel® members, with a target of 2,000 completed surveys. Eligible respondents were self-identified parents or legal guardians of a child 0–18 years-old living in the same household (full or part-time). Eligibility for the adolescent depression module required parents to report at least one child 13–18 years-old enrolled in middle, junior high, or high school in the 2019–2020 academic year. For respondents with more than one child meeting those criteria, one was randomly selected to populate the child-specific questions in this module.

Statistical Analysis

Ipsos provided de-identified data with 2018 US Census Bureau's Current Population Survey based post-stratification weights used to match the US population distribution on sex, age, race/ethnicity, census region (Northeast, Midwest, South, and West), metropolitan status, education, and household income. Frequency distributions and descriptive statistics were calculated for all eligible participants. Bivariate analysis was performed using χ^2 tests to determine relationships between survey responses and demographic variables. The number of respondents was unweighted while all other estimates were calculated using sample survey weights. In an exploratory analysis, multinomial logistic regression used grade level grouped as 6^{th}, $7–8^{th}$ and $9–12^{th}$ as the baseline outcome categories. All analyses used survey commands in Stata version 15 (Stata Corp., College Station, Texas).

Results

Of 3,163 sampled KnowledgePanel® members, 2,004 (63.4%) completed the full NPCH survey, with an average response time of 8 minutes; 770 parents were eligible for the questions on school-based MDD screening. Parent demographics included 54.8% (410) female, 57.5% (539) white, 70.6% (536) under 50 years-old, 54.8% (402) household income under $100K, 64.3% (562) above a high school education, 78.3% (620) married, 79.7% (631) working, 87.8% (669) living in a metropolitan area, and 76.2% (590) answering on behalf of a high school student.

Most (70.5%) parents responded favorably to school-based depression screening; the majority elected 6^{th} grade to start screenings (Table 1). If a school-based screening indicated depression, 93.2% of parents wished to be informed. Bivariate analysis of preferred grade to begin screening (6^{th} versus $7–8^{th}$ versus $9–12^{th}$) found parent sex, race/ethnicity, education and student's grade (middle vs. high school) were significant ($p<0.05$) with employment status as borderline significant ($p=0.52$).

Multinomial logit regression (Table 2) demonstrated parents with a middle school student were 4.18 times more likely to prefer 6^{th} grade versus $9–12^{th}$ to start screening. Respondents who self-identified as white were 2.70 times more likely to prefer 7^{th} or 8^{th} grade versus 6^{th} grade for middle school screening. Fathers were 2.68 times more likely to prefer screening in high school.

Discussion

A nationally representative sample of parents voiced strong support for school-based depression screening starting in middle school. Most supported screening beginning in 6th or 7th grade, i.e., eleven to twelve years-old, consistent with the US Preventive Services Task Force recommendations.[7] Fathers were more likely to support screening starting in high school. Challenges with school mental health screenings include confidentiality and adequate resources to follow-up at-risk students.[8] For example, while parents wish to be informed if their student is depressed, research has found confidentiality is a significant factor in adolescent willingness to disclose depressive symptoms.[9] Additionally, nearly half of parents were unaware of available school mental health services. This suggests a lack in parent understanding of how schools will handle screening results and the availability of mental health resources, or perhaps highlights parent expectation to directly manage results.

This survey did not include non-English speaking parents. Non-responders may have differed from those who did respond, though participants are not made aware of the survey topics in advance, limiting the ability to select survey topics of interest.

Conclusions

Parents voiced strong support for school-based depression screening starting in middle school, suggesting the desire for further support in recognizing adolescent depression and the need for additional services that begin in the middle school years.

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Abbreviations:

US	United States
MDD	major depressive disorder
RCT	randomized clinical trial

NPCH	National Poll on Children's Health

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Implications and Contribution:

In a national survey, parents were very supportive of school-based depression screening starting in middle school, but overwhelmingly wished to be informed of a positive result. Adolescent confidentiality will need to be thoughtfully balanced with parent involvement.

Table 1:

Survey items and responses (n[%])[a]

Depression screening in schools				
	Definitely yes	**Probably yes**	**Probably no**	**Definitely no**
Do you think your son/daughter's school should screen all students for depression? (n=766)	204 (28.6)	330 (41.9)	179 (22.4)	53 (7.1)
At what grade level should schools begin? (n=761)	6th		336 (46.7)	
	7th		121 (15.1)	
	8th		73 (8.7)	
	9th		70 (9.2)	
	10th		20 (2.7)	
	11th		8 (1.2)	
	12th		4 (0.5)	
	None- should not be done		129 (15.9)	
	Yes	**No**	**Student should decide**	**Not sure**
If a screening shows that a student (of any age) has signs of depression, should that student's parents be informed? (n=760)	710 (93.2)	4 (0.5)	21 (2.9)	25 (3.4)
	Yes	**No**	**Don't know**	
Do your son/daughter's school currently provide mental health services for students? (n=765)	241 (29.7)	172 (23.1)	352 (47.3)	

[a]The number of respondents provided is unweighted while percentages were calculated using sample survey weights

Table 2

Multinomial regression analysis of demographic factors affecting parent preference on grade to begin school-based depression screening[a]

	7–8th vs. 6th				9–12th vs. 6th			
	Odds Ratio	**95% CI**		**Overall *p* value**	**Odds Ratio**	**95% CI**		**Overall *p* value**
Parent Sex								
Male	1.250	0.833	1.877		2.682	1.589	4.524	
Female	Ref.	-	-	0.281	Ref.	-	-	**0.001**
Race/ethnicity								
White	2.696	1.407	5.166		1.408	0.704	2.814	
African American	1.992	0.829	4.783		1.415	0.547	3.661	
Other	6.015	2.326	15.555		2.994	0.999	8.969	
Hispanic	Ref.	-	-	**0.002**	Ref.	-	-	0.279
Parent education								
HS or less	Ref.	-	-		Ref.	-	-	
Some college	1.758	1.030	3.000		1.357	0.710	2.593	
Bachelor's or higher	1.476	0.887	2.455	0.112	0.911	0.492	1.685	0.411
Parent employment								
Not Working	0.598	0.333	1.075		0.714	0.348	1.465	
Working	Ref.	-	-	0.086	Ref.	-	-	0.358
School (selected adolescent)								
Middle School/Junior High	0.681	0.426	1.091		0.239	0.101	0.564	
High school	Ref.	-	-	0.110	Ref.	-	-	**0.001**

[a]Multinomial regression is based on 632 respondents as it excludes the 129 parents who answered that they did not feel screening should be done in school.