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Title: Associations Between Parenting Behaviors and Child Mental and Behavioral Health Outcomes in a Longitudinal Cohort

Background

The ongoing national child mental health crisis necessitates the development and implementation of effective prevention and intervention strategies. Exposure to unhealthy parenting behaviors is a modifiable environmental risk factor for poor mental health outcomes in children. Validated screening tools are needed to help pediatric providers identify and address this risk. The Quick Parenting Assessment (QPA) is a 13-item instrument shown to have associations with concurrent child behavior problems. It is unknown if this new tool is associated with longitudinal outcomes.

Objective

To assess the associations between unhealthy parenting behaviors, as measured by QPA, and child behavioral and mental health outcomes over a five-year period.

Design/Methods

Caregivers (N=414) of 2-10-year-old children completed QPA at baseline. Child outcomes collected via chart review five years later included: 1) parent-reported behavior concerns, 2) referral to behavioral/mental health services, 3) psychotropic medication prescription, and 4) psychosocial function as measured by parent-reported Pediatric Symptom Checklist (PSC-17). PSC-17 total score and externalizing subscale score were assessed using standardized cutoffs to indicate significant problems. We used Chi-Square, negative binomial, and logistic regression methods to assess the associations between QPA scores and the child four outcomes.

Results

Parent-identified child race/ethnicity was 53% Black, 22% White, 11% Hispanic, and 14% other. Median (IQR) child age at baseline was 5.5 (3.0,8.0) years and 52% were male. Approximately 21% of QPAs were low-risk (QPA< 2), 64% medium-risk (QPA 2-5), and 16% high-risk (QPA>6). Compared to QPA < 2, QPA >6 was associated with increased likelihood of behavior concerns (OR 2.57, 95%CI 1.19-5.58, p=.017), referral to behavioral/mental health services (OR 4.79, 95%CI 1.24-18.55, p=.023), and psychotropic medication prescription (OR 4.36, 95%CI 1.69-11.23, p=.002). Expected mean PSC-17 total score and externalizing score increased with increasing QPA, as did the proportion of children with total and externalizing scores above the cutoff values (Table).

Conclusion(s)

A brief parenting assessment, scalable for use in pediatric primary care, is associated with longitudinal child behavioral and mental health outcomes, including the use of psychotropic medications. Findings provide preliminary evidence for the predictive validity of the QPA and have implications for how pediatric providers can play a larger role in identifying and intervening on a modifiable risk factor for poor behavioral and mental health outcomes.

Table: Expected mean PSC-17 scores and reported proportions of scores above cutoff values by QPA score.

QPA Score	PSC-17 Score							
	Expected Total Score		Expected Externalizing Score		Total Score 15+		Externalizing Score 7+	
	Mean (95% CI)	p	Mean (95% CI)	p	n/N (%)	p	n/N (%)	p
0-1	3.00 (1.76-4.24)		0.91 (0.34-1.44)		0/28 (0.0)		0/22 (0.0)	
2-6	8.34 (6.55-10.12)	<.001	3.08 (2.25-3.91)	0.002	17/86 (19.8)	0.007	13/75 (17.3)	0.036
>6	10.12 (5.31-14.93)		3.65 (1.63-5.66)		6/17 (35.3)		5/17 (29.4)	

Total PSC-17 scores of 15+ and externalizing subscale scores of 7+ indicate significant behavioral or emotional problems.