

# Notes from the Field: Results from the Parent Acceptance of Pediatric Integrated Care Survey

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## Abstract

**Objective:** To collect data and gain an understanding of parental satisfaction with and attitudes toward treatment in a pediatric integrated primary care (IPC) model. **Data Sources:** Primary data were collected across the United States over the course of a few months. **Study Design:** The 35-item, Parent Acceptance of Pediatric Integrated Care Survey (PAPICS) was developed by a panel of IPC experts. The survey was then distributed through the Qualtrics Panels Service with recruited participants (i.e., parents with children under 18-years-old) receiving a \$4.00 incentive for their involvement. **Data Collection/Extraction Methods:** A single exploratory factor analysis was performed along with four factor retention tests and clinical judgment to guide factor selection. A 5-factor structure was selected. **Principal Findings:** Parents reported a high level of comfort with an IPC model and a favorable attitude toward child therapy, with some concerns regarding psychological stigma and privacy. Notable variation in parents' beliefs regarding one-on-one psychological service delivery were observed. **Conclusions:** Results provided evidence for parental openness to an IPC model. Findings also highlighted potential fundamental misunderstandings regarding evidence-based psychological treatment methods for children and adolescents.

## Keywords

behavioral health, children, pediatrics, primary care, patient-centeredness

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## Introduction

Pediatric mental health problems present in up to 80% of primary care visits.<sup>1</sup> Despite the demand for mental health support within pediatric primary care, pediatricians lack the time and training to adequately address mental health concerns. Integrated primary care (IPC), where behavioral health providers (BHPs) are embedded within a medical home, offers an empirically supported solution that improves patient access to mental health services.<sup>2-5</sup> While behavioral health services may be provided by a range of professions (e.g., psychologists, psychiatrists, social workers, etc.), the model evaluated in this project focused on psychologists embedded in pediatric primary care clinics. Further, depending on the model, service provision may include adult, child or family-focused treatment; however, the nature of the current project aimed to assess parent perceptions of services provided only to a pediatric population.

The integration of mental health and medicine can be traced back to the 1960's, and these integrated models have demonstrated substantial growth over the last decade in adult and pediatric primary care settings.<sup>6</sup> Primary care providers endorse high levels of satisfaction with integrated models of care and prefer it to models that rely on off-site referrals.<sup>7-10</sup> In pediatric populations, parents generally initiate treatment; therefore, parent perceptions and acceptance of this treatment model are vital.<sup>11</sup> However, research on parent satisfaction and attitudes toward integrated mental

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health treatment is lacking. To address this gap in the literature, the *Parent Acceptance of Pediatric Integrated Care Survey (PAPICS)* was developed and piloted with a national sample. The PAPICS was used to identify and assess parent preferences for integrated care. The survey was developed to provide BHPs direct feedback on specific aspects of service delivery to ensure mental health treatment facilitated a parent accepted model of care.

## Method

The 35-item PAPICS was developed based on existing IPC literature and clinical experience by a panel of 6 expert IPC researchers/pediatric psychologists at a large, Mid western academic medical center. Questions were devised to reflect core aspects of the parent experience in a co-located model of pediatric IPC and was only available in the English language. Survey questions were rated using a Likert scale (1-5) with categories including *strongly disagree*, *disagree*, *neither agree nor disagree*, *agree*, and *strongly agree*. Participants were recruited through the Qualtrics Online Panels Service (see: <https://www.qualtrics.com/research-services/online-sample/> for more information on Qualtrics Panel Service), which surveys previously arranged subjects based upon specified characteristics (i.e., parents with children under 18-years old). Participants were provided a \$4.00 incentive for survey completion. Four-hundred twenty-two respondents completed the survey. One hundred-sixty surveys were eliminated as a result of an inattentive response style (4 survey items required a response of “strongly disagree”) or a failed attention check (survey completion in fewer than 105 seconds). This resulted in a final sample of 262 respondents with an 18.8% response rate. Participants came from the Northeast (17.9%), Midwest (22.1%), South (37.0%), and West (22.9%) United States and were all parents (50% female, 49.6% male) with education levels ranging from high school (26.0%), to community college/trade school (31.7%), to undergraduate (22.1%), and to postgraduate (20.23). Seventy-seven percent of the participants were white non-Hispanic, 11% black non-Hispanic, 5.7% Hispanic, 4.6% Asian-American, .8% Native American, and .8% other, ranging in age from 18 to 60 years old. To protect confidentiality no identifying information was collected, which guaranteed participant anonymity.

A single exploratory factor analysis (EFA) was performed using an oblique rotation on the polychoric correlation matrix to examine the data structure of the survey. Four factor retention tests (scree test,<sup>12</sup> Guttman-Kaiser Criterion,<sup>13,14</sup> parallel analysis,<sup>15</sup> minimum average partial test<sup>16</sup> [MAP]) along with clinical judgment were used to guide factor selection. A range consisting of 3 to 7 factor solutions were analyzed with a 5-factor structure ultimately selected. Factors included Comfort with an Integrated Primary Care Model, Comfort

with a Co-Located Model of Care, Attitude Toward Child Therapy, One-on-One Psychological Service Delivery Beliefs and Psychological Stigma/Privacy Concerns. See Table 1 for the PAPICS questions and factor loading pattern and Table 2 for internal consistency reliability estimates.

## Results

Parents reported a moderately high level of comfort with an IPC model. The majority agreed/strongly agreed with having a psychologist work with their child’s pediatrician (68%), having their child’s pediatrician read notes from their child’s psychologist (64%), and having their insurance information on file before seeing the psychologist (71%). Parents were agreeable to a co-located model of care, with some reticence. They agreed/strongly agreed they would be more likely to take their child to a psychologist in their PCP’s office (51%), it would be easier if psychology visits were in their PCP’s office (58%), and they would feel good about taking their child to see a psychologist in their PCP’s office (56%). However, only 44% of parents reported their child would feel better about seeing a psychologist in their PCP’s office, with 39% neither agreeing/disagreeing.

Parents reported a favorable attitude toward child therapy. Specifically, 75% agreed a psychologist should work with them and their child to address behavior problems, and 73% agreed they would want to learn parenting skills to use with their child. There was notable variation in parents’ beliefs regarding one-on-one pediatric psychological service delivery and concerns surrounding psychological stigma/privacy. Almost half of parents (i.e., 45%) reported they neither agree/disagree whether their child’s behavior problem could be addressed through parent consultation alone. In contrast, 63% of parents strongly disagreed/disagreed behavior problems should be fixed at the office (e.g., child-centered play or talk therapy) and not at home (e.g., parent implemented or parent guided intervention). Thirty-five percent of parents neither agreed/disagreed and 29% agreed/strongly agreed they would be more likely to take their child to a psychologist somewhere other than their child’s doctor’s office. Lastly, 58% agreed/strongly agreed their child’s doctor should obtain parent permission to see their child’s psychology notes.

## Discussion

To ensure an IPC model is patient-centered and meets the needs of parents, parental expectations of mental health treatment must be understood and considered. The EFA revealed underlying factors addressing both the integrated care model and beliefs about therapy and psychological care— all of which are key constructs for providers to consider in order to assuage any parental hesitations or misunderstandings, and increase model acceptance. Based on the

**Table 1.** PAPICS 5-Factor Pattern Matrix.

Item#	Stem	Assigned factor number				
		1	2	3	4	5
27	It would be okay for my child's doctor to read notes from my child's psychologist.	<b>0.80</b>	0.03	-0.04	0.16	-0.09
26	It would be okay for my child's psychologist and his/her doctor to talk about my child.	<b>0.76</b>	0.02	0.04	0.21	-0.06
31	I would be okay with my child's psychology and medical records being in the same place.	<b>0.73</b>	0.19	0.01	-0.02	-0.01
25	It would be okay for my child's doctor and psychologist to talk about my child over the phone or in writing.	<b>0.69</b>	-0.15	0.00	0.36	-0.06
29	I would like it if a psychologist worked with my child's doctor.	<b>0.59</b>	0.20	0.19	0.14	-0.03
32	I would like it if my child's insurance information was already on file before seeing the psychologist.	<b>0.58</b>	0.08	0.32	-0.27	0.26
24	It would be best if my child's psychologist should talk with his/her doctor face to face.	<b>0.56</b>	0.22	0.08	-0.08	0.09
35	It makes sense to have a psychologist in my child's doctor's office.	<b>0.51</b>	<u>0.48</u>	0.05	-0.01	0.02
34	If needed, it would be easier to see my child's doctor and psychologist in the same office visit.	<b>0.50</b>	<u>0.43</u>	0.10	-0.14	0.14
30	I would be okay with trying to see a psychologist first before trying medication.	<b>0.49</b>	0.00	0.38	-0.26	0.23
11	My child would feel better about seeing a psychologist in their doctor's office.	-0.11	<b>0.75</b>	0.11	0.15	0.03
8	I would feel good if my child saw a psychologist in the same room as their doctor.	0.17	<b>0.70</b>	-0.06	-0.02	0.15
5	I would be more likely to take my child to a psychologist in my child's doctor's office.	0.10	<b>0.70</b>	0.06	0.09	0.12
4	I would trust a psychologist who shares an office with my child's doctor more than another psychologist.	0.02	<b>0.67</b>	-0.04	0.26	-0.03
9	It would be easier if a psychology visit were in my child's doctor's office.	0.29	<b>0.66</b>	0.05	-0.13	0.12
10	The rooms at my child's doctor's office are private enough to talk to a psychologist.	0.17	<b>0.63</b>	0.11	0.00	-0.01
3	I would feel good about taking my child to see a psychologist in a doctor's office.	0.06	<b>0.59</b>	0.29	0.25	-0.12
7	I would like it if my child's doctor had a psychologist in their office.	0.16	<b>0.57</b>	0.22	0.22	0.01
17	I would want to learn parenting skills to use with my child.	-0.02	0.18	<b>0.72</b>	0.04	0.00
16	I think parenting advice could help children with behavior problems.	-0.01	0.15	<b>0.69</b>	-0.07	0.15
13	Counseling is good for children with behavior problems.	0.21	0.04	<b>0.67</b>	-0.02	0.04
23	Therapy is best when it follows a plan.	0.13	0.08	<b>0.64</b>	0.00	0.05
18	A psychologist should work with me and my child to fix behavior problems.	0.26	0.04	<b>0.57</b>	0.06	0.04
21	I would want parenting advice from a psychologist to use at home.	0.24	0.04	<b>0.56</b>	0.16	0.01
22	I would like therapy for my child to focus on fixing a specific problem.	0.07	0.17	<b>0.51</b>	<u>0.47</u>	-0.04
12	I think a psychologist would talk to my child about their behavior.	0.29	0.01	<b>0.49</b>	<u>0.29</u>	0.04
15	I would prefer a child psychologist who gives advice that has been researched.	0.26	0.13	<b>0.47</b>	-0.08	0.19
19	Behavior problems should be fixed at the office, not at home.	0.02	0.19	-0.15	<b>0.78</b>	0.05
14	I would like it if a psychologist talked with my child alone, rather than working with us as a family.	0.16	0.05	-0.18	<b>0.67</b>	0.21
20	Children's behavior problems can be fixed by a psychologist talking to them.	0.03	0.21	0.28	<b>0.62</b>	0.08
1	I worry about what people would think if my child saw a psychologist.	-0.10	0.14	-0.31	0.11	<b>0.72</b>
28	My child's doctor should have to ask me to see my child's psychology notes.	-0.11	-0.04	0.36	-0.18	<b>0.71</b>
2	I would feel unsure about taking my child to a psychology clinic (e.g., hospital setting, private practice office).	0.02	0.23	-0.54	0.13	<b>0.58</b>
33	It would be too much for me and my child to see his/her doctor and a psychologist in the same day.	-0.01	-0.20	0.07	<u>0.42</u>	<b>0.51</b>
6	I would be more likely to take my child to a psychologist somewhere other than my child's doctor's office.	0.06	-0.40	0.27	0.37	<b>0.45</b>

Loadings formatted in bold denote assigned factor loading and underlined loadings denote factor loading  $>.40$ . Values represent standardized regression coefficients.

**Table 2.** PAPICS Internal Consistency Estimates.

Factor	Factor name	Cronbach's alpha estimate
I	Comfort with an IPC model	0.89
II	Comfort with a co-located model of care	0.90
III	Attitude toward child therapy	0.88
IV	One-on-one psychological service delivery beliefs	0.74
V	Psychological stigma/Privacy concerns	0.61

national sample of responses to the PAPICS, the majority of parents were open to pursuing IPC services through their child's primary care clinic. Less than half of parents agreed their *child* would be more comfortable going to their primary care center for mental health treatment. Although more data is needed to determine the etiology of this difference between parent and perceived child comfort with IPC, it is possible this discrepancy reflects parents with older children or adolescents who may be less cooperative attending mental health appointments in general.<sup>17</sup>

The majority of parents reported they were agreeable to being involved in their child's treatment and reported value in learning parenting strategies. Evidence-based behavioral treatments for pediatric patients rely on parent involvement and implementation of strategies at home;<sup>18</sup> therefore, ensuring parents understand they will be involved in treatment at the outset is critical. Notably, the majority of parents surveyed reported an interest in learning parenting skills to address childhood behavior problems, while also indicating a psychologist would help simply by speaking with their child. Because of the variation in agreement surrounding the use of one-on-one therapy, which is often not indicated for externalizing concerns and typically only conducted with older patients,<sup>18</sup> BHPs should provide psychoeducation to parents who have expectations that one-on-one therapy will be conducted. BHPs may need to discuss the lack of evidence for *talk therapy* in pediatric mental health treatment, an expectation that may stem from popular culture and misinformation in the media. Results from the survey suggest that BHPs may need to establish buy-in from parents whose expectations may not match the treatment model. For example, over half of the respondents disagreed that behavior change happens at home, suggesting they expect that child behavior would change in response to the primary care visit. To align with this expectation, programs that rely on parent consultation as the mode of treatment delivery should consider a more hands-on or "in-situ" approach to allow for increased child involvement within the session.

This survey also suggests that parents may have concerns regarding privacy and confidentiality. Approximately one-third of respondents indicated they would be more likely to take their child to a BHP located somewhere other than their child's PCP's office and over half of respondents stated they believed their child's PCP should not have

access to their child's mental health record, without parent approval. It is possible many parents perceive physical and mental health as fundamentally different aspects of wellbeing, reflecting the continued stigma surrounding mental health treatment and the historic notion that mental health problems must be treated separately from physical health problems.<sup>6</sup> It would be important to educate all stakeholders (i.e., both primary care providers and parents) about the confluence of physical and mental health and the advantages of integrated models of care<sup>2</sup> as well as offering assurances of privacy to families who initiate treatment. The PAPICS offers an approach for assessing parent attitudes toward IPC. Data from the PAPICS indicate an overall interest in IPC services, but suggest it would be important to preemptively address parent and patient expectations, misconceptions, and attitudes toward mental health treatment to promote increased access to mental health services, provide patient-centered care, and improve pediatric mental health outcomes.

The study is not without limitations. Specifically, a larger sample would have allowed for more rigorous survey validation and completion of a confirmatory factor analysis (CFA). The current study does not incorporate parent attitudes regarding telehealth service delivery in an IPC collaborative care model, a likely key feature for mental health service delivery going forward. Future studies should include an expansion of the PAPICS to include items addressing parent attitudes and beliefs regarding IPC telehealth service delivery as well as consideration for child variables that may influence attitudes and perceptions such as age and presenting concern.

The results from the PAPICS reveal the majority of parents surveyed would be willing to attend behavior health appointments located in their child's primary care office. Though the current survey provides evidence of openness to the IPC model, it reveals some fundamental misunderstandings parents may hold about evidence-based mental health treatment approaches and the role BHPs play in the delivery of those treatments.

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## References

- Asarnow JR, Kolko DJ, Miranda J, Kazak AE. The pediatric patient-centered medical home: innovative models for improving behavioral health. *Am Psychol*. 2017;72:13-27. doi:10.1037/a0040411
- Asarnow JR, Rozenman M, Wiblin J, Zeltzer L. Integrated medical-behavioral care compared with usual primary care for child and adolescent behavioral health: a metaanalysis. *JAMA Pediatr*. 2015;169:929-937. doi:10.1001/jamapediatrics.2015.1141
- Kolko DJ, Campo J, Kilbourne AM, Hart J, Sakolsky D, Wisniewski S. Collaborative care outcomes for pediatric behavioral health problems: a cluster randomized trial. *Pediatrics*. 2014;133:e981-e992. doi:10.1542/peds.2013-2516
- Kolko DJ. The effectiveness of integrated care on pediatric behavioral health: outcomes and opportunities. *JAMA Pediatr*. 2015;169:894-896. doi:10.1001/jamapediatrics.2015.1428
- Hodgkinson S, Godoy L, Beers LS, Lewin A. Improving mental health access for low-income children and families in the primary care setting. *Pediatrics*. 2017;139:e20151175. doi:10.1542/peds.2015-1175
- Cummings NA, O'Donohue WT, Cummings JL. The financial dimension of integrated behavioral/primary care. *J Clin Psychol Med Settings*. 2009;16:31-39. doi:10.1007/s10880-008-9139-2
- Hine JF, Grennan AQ, Menousek KM, Robertson G, Valleley RJ, Evans JH. Physician satisfaction with integrated behavioral health in pediatric primary care. *J Prim Care Community Health*. 2017;8(2):89-93. doi:10.1177/2150131916668115
- Lancaster B, Cook A, Bruni T, et al. Comparing primary care pediatricians' perceptions of clinics with and without integrated behavioral health. *Prim Heal Care Res Dev*. 2018;20:1-5. doi:10.1017/S1463423618000579
- Vickers KS, Ridgeway JL, Hathaway JC, Egginton JS, Kaderlik AB, Katzelnick DJ. Integration of mental health resources in a primary care setting leads to increased provider satisfaction and patient access. *Gen Hosp Psychiatry*. 2013;35:461-467. doi:10.1016/j.genhosppsych.2013.06.011
- Geissler KH, Zeber JE. Primary care physician referral patterns for behavioral health diagnoses. *Psychiatr Serv*. 2020;71:389-392. doi:10.1176/appi.ps.201900004
- Brown AM, Deacon BJ, Abramowitz JS, Dammann J, Whiteside SP. Parents' perceptions of pharmacological and cognitive-behavioral treatments for childhood anxiety disorders. *Behav Res Ther*. 2007;45:819-828. doi:10.1016/j.brat.2006.04.010
- Cattell RB. The scree test for the number of factors. *Multivariate Behav Res*. 1966;1:245-276. doi:10.1207/s15327906mbr0102\_10
- Guttman L. Some necessary conditions for common-factor analysis. *Psychometrika*. 1954;19:149-161. doi:10.1007/BF02289162
- Kaiser HF. The application of electronic computers to factor analysis. *Educ Psychol Meas*. 1960;20:141-151. doi:10.1177/001316446002000116
- Horn JL. A rationale and test for the number of factors in factor analysis. *Psychometrika*. 1965;30:179-185. doi:10.1007/BF02289447
- Velicer WF. Determining the number of components from the matrix of partial correlations. *Psychometrika*. 1976;41:321-327. doi:10.1007/BF02293557
- Weingarten N. Failed appointments in residency practices: who misses them and what providers are most affected? *J Am Board Fam Pract*. 1997;10:407-411. doi:10.3122/jabfm.10.6.407
- Wu MS, Hamblin RJ, Storch EA. Evidence-based psychological treatments of pediatric mental disorders. *Adv Pediatr*. 2015;62:165-184. doi:10.1016/j.yapd.2015.04.007