Stephens J, Talbot A, Zhou A, Ryan N, Walker C, Gopalan P. Evaluation of an Information Guide on Pediatric Psychiatric Hospitalization to Improve Parent Satisfaction with Care. *JAACAP Connect*. 2024;12(1):7-13. doi:10.62414/001c.126365

Reports

Evaluation of an Information Guide on Pediatric Psychiatric Hospitalization to Improve Parent Satisfaction with Care

Jessica Stephens, DO, Alex Talbot, MD[1], Amanda Zhou, MD[2], Neal Ryan, MD[2], Courtney Walker, DO[2], Priya Gopalan, MD[2]

[1] University of Pittsburgh Medical Center, [2] Psychiatry, University of Pittsburgh Medical Center

Keywords: Satisfaction with Care, Quality of Care, Child and Adolescent Mental Health, Information Guide, COVID-19

https://doi.org/10.62414/001c.126365

JAACAP Connect

Vol. 12, Issue 1, 2025

INTRODUCTION

Optimizing parent satisfaction with care in pediatric populations is essential, given the current national state of emergency in pediatric mental health.[1] Studies have shown that parent satisfaction is associated with reduced parent stress and child problematic behavior,[2] significant improvements in child functional impairment,[3] and willingness to seek future care.[4]

During pediatric hospitalization, family-centered interventions that focus on optimizing communication, shared decision-making, and information sharing have resulted in increased parent satisfaction with care[5]; less is known about the effectiveness of interventions to increase parent satisfaction in the context of inpatient psychiatric settings. A recent study investigating the experience of parents with children awaiting psychiatric hospitalization suggested utilizing an informational resource on psychiatric hospitalization to reduce distress and enhance satisfaction with care.[6] However, to our knowledge, no such intervention has been evaluated in pediatric inpatient psychiatric settings. This quality improvement (QI) study examines implementing an information guide specific to pediatric inpatient units at a psychiatric hospital, with the objective of improving parent satisfaction with care and determining potential impact on subsequent engagement with care.

METHODS

This study was conducted at a large academic psychiatric hospital where 56 of 185 total beds are reserved for pediatric (ages under 18) patients. Beginning March 1, 2022, an information guide was provided to patients and families by either the evaluating clinician—if the patient was transferred from the emergency department (ED)—or a member of the behavioral health consultation-liaison team—if the child was a medical hospital transfer. The information guide (see Appendix) was developed by study team member J.S. in collaboration with the hospital's marketing team, unit team, and hospital leadership. Content includes specific information on unit guidelines, phone contacts, visitation policies, parking, general care and treatments provided, daily activities, and belongings allowed or prohibited on the unit. The information guide served to supplement routine admission discussions upon bed confirmation.

Parents were eligible for study participation if the patients were: (1) 4–17 years old, (2) admitted to pediatric inpatient psychiatric units, (3) admitted voluntarily, and (4) without prior hospitalization. A review of electronic health record information regarding patient discharges over two 3-month periods (October 01, 2021 to December 31, 2021—pre-guide implementation timeframe and March 01, 2022 to May 31, 2022—post-guide implementation timeframe) was completed to determine eligibility, contact information, and sociodemographic information. During January 2022 (pre-implementation) and June 2022 (post-implementation), a phone survey of parent/guardians was performed. Parents provided consent by verbally agreeing to participate in the phone survey. No incentive was provided. QI study procedures were approved by the institution's Quality Review Committee.

The pre-implementation phone survey included 8 questions assessing satisfaction with care and the opportunity for additional comments. Questions were structured as 4-point Likert scale questions ranging from *Strongly Disagree* (0) to *Strongly Agree* (4). The post-implementation phone survey used a similar format with an additional question asking if an information guide was received. Three study team members (J.S., A.T., A.Z.) conducted scripted phone calls of the survey items.

Pre- and post-Likert scale responses were compared using the Wilcoxon signed-rank test. A one-way ANOVA was performed to compare the effect of demographic variables on pre/post data. Pearson's chi-square analysis assessed responses for differences in distribution of categorical variables on groups. All analyses utilized a two-tailed alpha of 0.05. Qualitative data were analyzed by 3 authors (J.S., A.T., A.Z.) who independently reviewed additional comments, reached a consensus via group discussion regarding

any emerging themes, and categorized themes accordingly. Comments irrelevant to the hospital admission were excluded.

RESULTS

One hundred and sixty-six patients met inclusion criteria within the pre-guide implementation timeframe. Seventy-two parents (43% response rate) consented to a phone survey and comprised the Pre-Implementation group. One hundred and forty-two patients met criteria for study inclusion within the post-implementation timeframe. Of these, 41 parents (29% response rate) consented to phone survey and comprised the Post-Implementation group. Within the Post-Implementation group, 20 parents (49%) recalled receiving a guide (Post-Guide group) and 21 parents (51%) did not recall receiving a guide (Post–No Guide group). No significant differences emerged between age (P = .66), sex (P = .59), most common diagnoses (P = .70), or average hospital length of stay (P = .27) among all groups (Table 1). Average psychiatric ED length of stay prior to admission significantly increased from 22.2 hours in the pre-guide implementation period to 33.9 hours during the post-guide implementation period ($F_{1,506}$ = 30.2, P < .0001). All patients who received a hospital-affiliated referral followed up with subsequent care.

Likert scale responses of parent satisfaction were analyzed, and means were compared pre- to post-information guide implementation (Table 2). Compared to those who did not recall receiving a guide (Pre-Implementation and Post–No Guide groups), parents who recalled receiving a guide (Post-Guide group) endorsed significantly higher satisfaction on all survey items. The Post–No Guide group reported significantly lower satisfaction with 2 survey items compared to the Pre-Implementation group: *I was provided information on specific unit numbers and contact information* (mean satisfaction = 2.05/4, P = .0065) and *I felt satisfied with the information I received prior to my child's admission* (mean satisfaction = 1.67/4, P = .032).

Eighty-two participants (73%) provided additional comments; however, 10 were excluded for irrelevance to admission. Comments were organized into 2 categories: recalled guide (n=12) and no guide recalled (n = 60). Common themes among the no guide recalled group included: desire for more information (n = 25, 42%), poor communication (n = 12, 20%), dissatisfaction regarding long wait times (n = 7, 12%), and participants who identified either a negative experience (n = 5, 8%) or desire for a resource at admission (n = 14, 23%). Within the recalled guide group, 4 individuals (33%) reported a positive experience and 2 identified the guide as helpful (17%).

DISCUSSION

This QI study explores use of an information guide to improve parent satisfaction with the adequacy of information provided regarding their child's inpatient psychiatric hospitalization. Overall, parents who recalled receiving an information guide prior to admission reported greater satisfaction and were more likely to identify the admission as a positive experience. Parents who did not recall receiving a guide more often elicited concerns regarding poor communication and dissatisfaction with long ED wait times. Regardless of receiving an information guide, there were no observed differences in engagement with subsequent mental health care.

About one-half of parents within the Post-Implementation group recalled receiving the guide, which suggests potential barriers to distribution such as increased staff workload burden and/or timing of circulation (family not present or delays awaiting bed availability). In the future, it will be important to determine the most feasible methods for distribution with possible use of reminders, incentives, and required documentation to enhance circulation and provide a method to validate receipt.

Despite overall trends of less satisfaction in groups not recalling receipt of an information guide (Post–No Guide and Pre-Implementation groups), average satisfaction scores from the Post–No Guide group were significantly lower than the Pre-Implementation group on multiple survey items. Longer ED wait times or differences in units patients were admitted to may have negatively impacted satisfaction. Other possible explanations not explored in this study include level of engagement with providers, staffing changes/shortages, burnout, and impact of COVID-19 on overall access, quality, and delivery of care.[7]

Qualitatively, the most prominent themes from all groups were poor communication, wanting more information, and long wait times, highlighting the desire for improved communication, quality, and availability of care. Many parents desired a resource with more information, reinforcing the importance of alternate sources of information in addition to direct communication with hospital staff.

Limitations of the QI study include that it was performed at a single site and, given its design, may not be generalizable to other psychiatric settings. Also, the relatively small sample size with low response rates introduces the potential for nonresponse bias and recall bias as participants were not contacted immediately upon discharge. While the phone survey used a predetermined script to maximize inter-rater reliability, no validated tools for parent satisfaction were used. In addition, parent responses pertinent to the hospital admission may be conflated with their satisfaction with care in general.

CONCLUSIONS

Given the growing demand for pediatric mental health care services and limited treatment availability, there is an increased need to determine the most effective ways to provide high-quality care to pediatric patients and families. This study supports the implementation of an information guide for pediatric psychiatric hospitalization as a tool with the potential to improve parent satisfaction. Future research should evaluate perceptions regarding the guide content, explore use of standardized satisfaction assessment to determine the impact of information guides on

Table 1. Characteristics of Pediatric Patients and Their Hospitalization Among Pre-Implementation, Post–No Guide, and Post-Guide Groups

Characteristic[a]	Pre-implementation (n = 72)		Post–no guide[b] (n = 21)		Post-guide[c] (n = 20)	
	Mean (SD)	*Range*	*Mean (SD)*	*Range*	*Mean (SD)*	*Range*
Age, y	14.2 (2.6)	10	13.5 (1.6)	10	13.8 (1.6)	6
Average length of hospital stay, d	8.5 (6.7)	42	9.1 (5.2)	18	13.5 (26.1)	120
	N	*%*	*N*	*%*	*N*	*%*
Sex assigned at birth						
Male	27	38%	9	43%	10	50%
Female	45	63%	12	57%	10	50%
Diagnosis						
Depression	42	58%	10	48%	14	70%
Anxiety	23	32%	3	14%	6	30%
Conduct	16	22%	4	19%	3	15%
ADHD	12	17%	5	24%	3	15%
Trauma	13	18%	7	33%	4	20%
Adjustment	5	7%	3	14%	1	5%
ASD	7	10%	3	14%	3	15%
Bipolar	3	4%	2	10%	1	5%
Psychosis	1	1%	0	0%	0	0%
Eating disorder	3	4%	0	0%	0	0%
Intellectual disability	3	4%	0	0%	0	0%
Substance use	0	0%	0	0%	0	0%
# of diagnoses						
1 Diagnosis	27	38%	9	43%	8	40%
>1 Diagnosis	45	60%	12	57%	12	60%
Inpatient unit[d]						
General unit	49	68%	10	48%	6	30%
Bipolar unit	19	26%	10	48%	13	65%
Autism unit	4	6%	1	5%	1	5%
AMA discharge	1	<1%	0	0%	0%	0%
Referral follow-up	72	100%	21	100%	20	100%

Abbreviations: ADHD, Attention Deficit Hyperactivity Disorder; AMA, against medical advice; ASD, Autism Spectrum Disorder; ED, emergency department.
[a]One-way ANOVA, no significant differences observed between groups.
[b]Post–No Guide, parents who did not recall receiving the information guide post-implementation.
[c]Post-Guide, parents who recalled receiving the information guide post-implementation.
[d]Chi-square test, significant difference ($P < .05$) between Pre-Implementation and Post-Implementation groups excluding results from Autism unit given too few patients (n < 5) for analysis; otherwise, no significant difference was observed between Post-Implementation groups.

overall satisfaction, and determine if utilization impacts subsequent engagement with care.

Take Home Summary

Providing patients and families with an information guide prior to pediatric psychiatric hospitalization has the potential to improve caregivers' satisfaction with care, which may ultimately lead to better health outcomes.

Table 2. Average Likert Scale Responses and Nonparametric Comparisons for Pre-Implementation, Post–No Guide, and Post-Guide Groups

	Pre-implementation (n = 72)		Post–no guide[a] (n = 21)		Post-guide[b] (n = 20)		Post–no guide vs pre-implementation	Post-guide vs pre-implementation	Post–no guide vs post-guide
Survey question	*Mean (SD)*	*% SA/A*	*Mean (SD)*	*% SA/A*	*Mean (SD)*	*% SA/A*	*P* value	*P* value	*P* value
1. *I felt satisfied with information on average length of stay prior to hospitalization.*	2.17 (1.73)	53%	2.05 (1.28)	48%	3.42 (0.69)	85%	NS	.011	.0005
2. *I felt prepared regarding visitation policies.*	2.56 (1.54)	68%	2.19 (1.47)	52%	3.53 (0.77)	90%	NS	.010	.0024
3. *I was provided information on structure of unit and groups/ activities offered.*	1.32 (1.55)	32%	1.57 (1.29)	24%	3.26 (0.81)	75%	NS	<.0001	.0001
4. *I was explained how a psychiatric unit differs from the medical hospital.*	1.46 (1.55)	28%	1.14 (1.06)	10%	3.1 (1.17)	70%	NS	<.0001	<.0001
5. *I was provided information on specific unit numbers and contact information.*	2.99 (1.44)	79%	2.05 (1.50)	52%	3.85 (0.37)	100%	.0065	.0062	<.0001
6. *I was provided information on unit restrictions to clothing/belongings.*	2.25 (1.68)	56%	1.95 (1.53)	43%	3.45 (0.94)	80%	NS	.0029	.0010
7. *I overall felt prepared for my child's hospitalization.*	2.11 (1.48)	50%	1.76 (1.26)	33%	3.5 (0.76)	95%	NS	.0001	<.0001
8. *I felt satisfied with the information I received prior to my child's admission.*	2.39 (1.45)	64%	1.67 (1.32)	38%	3.7 (0.47)	100%	.032	<.0001	<.0001

Note: Likert scale responses included *Strongly Agree* (4), *Agree* (3), *Neutral* (2), *Disagree* (1), *Strongly Disagree* (0). Comparisons of pre/post-Likert scale responses made using the Wilcoxon signed-rank test with a two-tailed alpha of 0.05.
Abbreviations: A, agree; NS, not significant; SA, strongly agree.
[a]Post–No Guide, parents who did not recall receiving the information guide post-implementation.
[b]Post-Guide, parents who recalled receiving the information guide post-implementation.

ABOUT THE AUTHORS

Jessica Stephens, DO, is an Associate Professor of pediatrics at the University of Connecticut School of Medicine/Connecticut Children's Medical Center, Hartford, Connecticut, USA.

Alex Talbot, MD, is a Post-Graduate Year-1 (PGY-1) Resident at the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA.

Amanda Zhou, MD, is a Post-Graduate Year-2 (PGY-2) Resident Psychiatrist at the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA.

Neal D. Ryan, MD, is a Professor in child and adolescent psychiatry and Professor of clinical and translational science at the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA.

Courtney J. Walker, DO, is an Assistant Professor of psychiatry at the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA.

Priya R. Gopalan, MD, is an Associate Professor of psychiatry and Assistant Professor of obstetrics and gynecology at the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA.

Correspondence to: Jessica Stephens, DO; Department of Psychiatry; University Connecticut School of Medicine/Connecticut Children's Medical Center; 282 Washington St., Hartford, CT 06106; email: **jstephens@connecticutchildrens.org**, 860-837-9700.

FUNDING

The authors have reported no funding for this work.

DISCLOSURE

The authors have reported no biomedical financial interests or potential conflicts of interest.

ACKNOWLEDGMENTS

This study was presented as a poster at the 2023 American Academy of Child and Adolescent Psychiatry Annual Meeting, New York, NY and received the 2023 Beatrix A. Hamburg, MD, Award for Best New Research Poster by Child and Adolescent Psychiatry Residents.

Submitted: March 29, 2024 EDT. Accepted: November 15, 2024 EDT. Published: December 04, 2024 EDT.

REFERENCES

1. American Academy of Pediatrics. AAP-AACAP-CHA Declaration of a national emergency in child and adolescent mental health. 2021. Accessed January 5, 2023. https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/

2. Acri M, Bornheimer LA, Jessell L, Flaherty HB, McKay MM. The impact of caregiver treatment satisfaction upon child and parent outcomes. *Child Adolesc Ment Health*. 2016;21(4):201-208. doi:10.1111/camh.12165

3. Garland AF, Haine RA, Boxmeyer CL. Determinates of youth and parent satisfaction in usual care psychotherapy. *Eval Program Plann*. 2007;30(1):45-54. doi:10.1016/j.evalprogplan.2006.10.003

4. Bannon WM, McKay MM. Are barriers to service and parental preference match for service related to urban child mental health service use? *Fam Soc*. 2005;86(1):30-34. doi:10.1606/1044-3894.1874

5. Cetintas I, Akgun Kostak MA, Semerci R, Kocaaslan EN. The relationship between parents' perceptions of family-centered care and their health care satisfaction. *Euras J Fam Med*. 2021;10(3):125-134. doi:10.33880/ejfm.2021100303

6. Bowden CF, Worsley D, Pettit AR, Doupnik SK. Caregiver experiences during their child's acute medical hospitalization for a mental health crisis. *J Child Health Care*. 2022;26(1):123-138. doi:10.1177/13674935211001222

7. Bojdani E, Rajagopalan A, Chen A, et al. Covid-19 pandemic: Impact on psychiatric care in the United States. *Psychiatry Res*. 2020;289:113069. doi:10.1016/j.psychres.2020.113069

SUPPLEMENTARY MATERIALS

Appendix

Download: https://jaacapconnect.org/article/126365-evaluation-of-an-information-guide-on-pediatric-psychiatric-hospitalization-to-improve-parent-satisfaction-with-care/attachment/255179.pdf