Psychiatric Boarders on Pediatric Medical Floors: A Call for Action and Collaboration

Narpinder K. Malhi MD, Raman Marwaha MD, Raja K.S. Malhi MD

Clinical Vignette

A 14-year-old male patient with history of attention-deficit/hyperactivity disorder (ADHD), disruptive mood dysregulation disorder (DMDD), and autism spectrum disorder (ASD) was brought to the emergency department (ED) when he was found to be aggressive towards family members. He has history of multiple psychiatric hospitalizations relating to aggression and was taking a complex regimen of psychotropic medications. ED staff recommended inpatient psychiatric care. After waiting for hours in the ED, a decision was made to transfer him to a pediatric medical floor, and he was put on waitlist without immediate bed availability in any of the inpatient units in the area. Due to lack of child psychiatry consultation liaison services at our institution, an outpatient child and adolescent psychiatrist was called by pediatric hospitalists for "curbside consultation" to provide input on treatment for this patient while he waited placement at an inpatient psychiatric facility.

Lack of Resources

Most of us are very familiar with this presentation. While child psychiatrists are experienced and comfortable treating similar patients, pediatricians and general psychiatrists may find these clinical situations more challenging in their day. Mansbach *et al.*[1] found that approximately one-third of psychiatric boarders from the ED were transferred to inpatient pediatric units to continue boarding. Due to rapid rise in patients with mental health problems in the ED and insufficient pediatric psychiatric beds in the community,[2] this is happening more and more frequently.

Over the past decade, mental health systems have been progressively starved of the resources they need to provide the care to patients. Systematic defunding has led to hospitals closing inpatient psychiatric units, outpatient services are being downsized and agencies merged or closed, such that in many areas it is difficult to find care anywhere but in an emergency room.[3] This has led to an influx of psychiatric patients in the ED with fewer community psychiatric inpatient beds available for treatment. More than 3,000 general inpatient psychiatric beds were lost between 2009 and 2012. The average wait time for an appointment with a child and adolescent psychiatrist is estimated to be nearly 8 weeks.[4] The practice of holding patients in the ED after their provider has decided the patient requires inpatient placement for which a bed is not available is defined as creating a "boarder" by The Joint Commission,[5] who also recommend that boarding should not exceed 4 hours. Once these patients are transferred from the ED to the medical floor, we open the gate for another set of problems.

Characteristics of Psychiatric Boarders

McEnany *et al.*[6] reported average ED boarding times ranged from 5 to 41 hours whereas median inpatient boarding ranged from 48 to 72 hours. Factors that increase the likelihood of becoming boarded are younger age, payer type, female gender, and being of African American origin.[1] Suicidal and homicidal ideations were the most common presentations among boarders in addition to behavioral disorders (eg, disruptive behavior disorder).[1,7] Mansbach *et al.* also reported increased likelihood of boarding among patients presenting on a weekend and during school (non-summer) months.[1] Another study found boarding associated with seasonality with highest instances in February, March, April, May, and October.[8]

Challenges of Boarding

Psychiatric units are specifically designed to meet the needs of psychiatric patients regarding therapeutic

milieu and safety unlike their pediatric inpatient counterparts. Many pediatric units have accessibility to sharp objects and tangling cords, which pose the highest risk to suicidal and impulsive children. Suicide risk peaks in periods immediately after admission and discharge, and the risk is particularly high in patients with affective disorders and in those with short hospital stay.[9]

Claudius *et al.* reported that only 6.1% of youth admitted to medical floors for isolated psychiatric reasons had documented individual or family counselling; 20.1% received psychiatric medications.[10] The same group also reported the cost associated with boarding as $4,269 per patient over their 18-month period of measurement. Additionally, most staff members on pediatric floors are not comfortable taking care of mental health patients, which can lead to more apprehension, anxiety, and resentment. Constant observation or a "one to one" sitter is utilized to reduce risk of elopement and ensure safety of the patient; however, this intervention is costly and largely ineffective leading to more financial burden on the institutions.[11]

It is challenging to manage agitation on the floors with inadequate resources. About 65% of pediatricians surveyed by the American Academy of Pediatrics indicated that they lacked specialized training in recognizing and treating mental health problems.[12] At times, treatment decisions may be reactive and predicated more on provider comfort rather than an etiologically focused approach to pediatric agitation management.[13]

Strategies to Address Psychiatric Boarding

Child and adolescent psychiatrists are well trained to take care of these children but are limited in their resources. Several strategies have been described to improve the quality of behavioral health care in the acute medical setting such as staff education, utilization of various de-escalation techniques, ensuring availability of behavioral response teams that respond to acute behavioral emergencies, security team initiatives and dialectical behavioral therapy (DBT) skills teaching for ancillary staff.[14] Some institutions have integrated Child Life specialists who work in close collaboration with behavioral health providers. Provision of such services facilitate smoother transition to medical floors in addition to reducing the stress and anxiety of patients and parents.[14]

Gallagher *et al.* studied the impact of providing daily psychiatry and psychology services to psychiatric boarders during their admission which showed reduced use (only 6.4%) of physical restraints or use of intramuscular psychotropic medications during admission with 33% improvement in Clinical Global Impression scale on discharge.[8] At the organizational level, child and adolescent psychiatrists can take a lead to provide education, support, and guidance to floor staff in effective and safe management of agitation, using both non-pharmacologic and pharmacological strategies.

A study by Zeller *et al.*, demonstrated the Alameda Model with a "regional dedicated emergency psychiatric facility" to significantly reduce the average length of stay (LOS) in emergency facility with only 24.8% requiring inpatient psychiatric admission.[15] Hasken and colleagues described the impact of building a new on-site 10 bed inpatient pediatric psychiatric unit in a pediatric emergency department (PED) which eventually led to overall reduced behavioral health patients in inpatient medical floors (22.2% before vs 8.5%).[16]

Access to child and adolescent psychiatrists through telepsychiatry has also gained momentum as it provides more access for primary care providers to collaborate.[17] In a study evaluating videoconference-based psychiatric emergency consultation program (telepsychiatry) at geographically dispersed ED sites, as compared to children who received usual care, children who received telepsychiatry consultations had significantly shorter median ED lengths of stay (5.5 hours and 8.3 hours, respectively, $p<.001$) and lower total patient charges ($3,493 and $8,611, $p<.001$).[18]

Take Home Summary

Due to limited number of child and adolescent inpatient psychiatric units across the country, psychiatric boarding has become very common among many hospitals in the United States. Boarding leads to multiple challenges including patients not getting appropriate quality psychiatric care, providers on the medical floor not being appropriately trained to manage these patients, and added financial burden on institutions. Child and adolescent psychiatrists play a very important role in not only advocacy to help increase inpatient psychiatric beds but also in educating their pediatric counterparts and becoming part of behavioral response teams in hospitals. Child and adolescent psychiatrists, through their knowledge and expertise, can have a significant impact in bringing about these changes in the American health care system.

References

1. Mansbach JM, Wharff E, Austin SB, *et al.* Which psychiatric patients board on the medical service? *Pediatrics.* 2003; 111(6 Pt 1): e693-8. https://doi.org/10.1542/peds.111.6.e693
2. Blader JC. Acute inpatient care for psychiatric disorders in the United States, 1996 through 2007. *Arch Gen Psychiatry.* 2011;68(12):1276–1283. https://doi.org/10.1001/archgenpsychiatry.2011.84
3. Appelbaum PS. Starving in the midst of plenty: the mental health care crisis in America. *Psychiatr Serv.* 2002; 53:1247-1248-8. https://doi.org/10.1176/appi.ps.53.10.1247
4. Carubia B, Becker A, Levine BH. Child psychiatric emergencies: updates on trends, clinical care, and practice challenges. *Current Psychiatry Reports.* 2016;18(4):41. https://doi.org/10.1007/s11920-016-0670-9
5. The Joint Commission. The "patient flow standard" and the 4 hour recommendation. *Jt Comm. Perspect*. 2013; 33(6):1,3-4
6. McEnany FB, Ojugbele O, Doherty JR, *et al.* Pediatric mental health boarding. *Pediatrics.* 2020;146(4): e20201174. https://doi.org/10.1542/peds.2020-1174
7. O'Donnell EO, Yanek L, Reynolds E, *et al.* Characteristics of mental health patients boarding for longer than 24 hours in a pediatric emergency department. *JAMA Pediatr.* 2020; 174(12):1206-1208. https://doi.org/10.1001/jamapediatrics.2019.5991
8. Marshall R, Ribbers A, Sheridan D, *et al.* Mental health diagnoses and seasonal trends at a pediatric emergency department and hospital, 2015-2019. *Hosp Pediatr.* 2021;11(3):199-206. https://doi.org/10.1542/hpeds.2020-000653
9. Qin P, Nordentoft M. Suicide risk in relation to psychiatric hospitalization evidence based on longitudinal registers. *Arch Gen Psychiatry*. 2005;62:427-432. https://doi.org/10.1001/archpsyc.62.4.427
10. Claudius I, Donofrio JJ, Lam CN, *et al.* Impact of boarding pediatric psychiatric patients on a medical ward. Hosp Pediatr. 2014;4(3):125-32. https://doi.org/10.1542/hpeds.2013-0079
11. Wood VJ, Vindrola-Padros C, Swart N, *et al.* One to one specialling and sitters in acute care hospitals: A scoping review. *Int J Nurs Stud.* 2018;84:61-77. https://doi.org/10.1016/j.ijnurstu.2018.04.018
12. McMillan JA, Land M, Leslie LK. Pediatric residency education and the behavioral and mental health crisis: a call to action pediatrics. *Pediatrics.* 2017;139:e20162141. https://doi.org/10.1542/peds.2016-2141
13. Gerson R, Malas N, Mroczkowski MM. crisis in the emergency department: the evaluation and management of acute agitation in children and adolescents. *Child Adolesc Psychiatric Clin N Am.* 2018;27:367-386. https://doi.org/10.1016/j.chc.2018.02.002
14. Lelonek G, Crook D, Tully M, *et al.* Multidisciplinary approach to enhancing safety and care for pediatric behavioral health patients in acute medical settings. *Child Adolesc Psychiatric Clin N Am.* 2018; 27:491-500. https://doi.org/10.1016/j.chc.2018.03.004
15. Zeller S, Calma N, Stone A. Effects of a dedicated regional psychiatric emergency service on boarding of psychiatric patients in area emergency departments. *West J Emerg Med.* 2014;15(1):1-6. https://doi.org/10.5811/westjem.2013.6.17848
16. Hasken C, Wagers B, Sondhi S. The impact of a new on-site inpatient psychiatric unit in an urban pediatric emergency department. *Pediatr Emerg Care.* 2020. https://doi.org/10.1097/PEC.0000000000002177.
17. Goldstein F, Myers K. Telemental health: A new collaboration for pediatricians and child psychiatrists. *Pediatric Annals*. 2014;43(2):79-84. https://doi.org/10.3928/00904481-20140127-12
18. Thomas JF, Novins DK, Hosokawa PW, *et al*. The use of telepsychiatry to provide cost-efficient care during pediatric mental health emergencies. *Psychiatr Serv.* 2018; 69(2):161-168. https://doi.org/10.1176/appi.ps.201700140

About the Authors

Narpinder K. Malhi, MD, is a child and adolescent psychiatrist at ChristianaCare, Delaware. She is also Medical Director of Child and Adolescent Psychiatry Clinic and Multidisciplinary Autism Program at ChristianaCare. Her areas of interests include cultural psychiatry, neurodevelopment disorders and suicide in children and adolescents.

Raman Marwaha, MD, is a child and Aadolescent psychiatrist, Psychiatry Residency Training Director and assistant professor at Case Western Reserve University, MetroHealth Medical Center, Cleveland, Ohio. He is also President-Elect of North East Ohio Society of Child and Adolescent Psychiatry and Assembly Deputy Representative, Caucus of International Medical Graduates, American Psychiatric Association. He is interested in training, advocacy, integrated care, and LGBTQ+ mental health.

Raja K.S. Malhi, MD, is an Internal Medicine physician at ChristianaCare. His areas of interests include patient safety, patient experience and resource utilization.

The authors have reported no funding for this work.

Disclosure: Drs. N.K. Malhi, R. Marwaha, and R.K.S. Malhi have reported no biomedical financial interests or potential conflicts of interest.

Correspondence to Narpinder K. Malhi MD; e-mail: narpinder.kaur20@gmail.com

This article was edited by Adam Sagot, DO, and Robert R. Althoff, MD, PhD.