Supporting Pediatric Patients in Psychiatric Crisis: A Quality Improvement Initiative for Emergency Department Boarding

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Introduction: Health professionals have observed a sharp rise in mental health challenges among youth over the past decade. In 2021, multiple professional organizations declared a National State of Emergency in Children's Mental Health as the COVID-19 pandemic intensified the already existing crisis. A consequence of this crisis is the increasing pediatric mental health boarding in emergency departments (EDs) across the country. EDs, primarily designed to manage urgent physical health issues and determine disposition in psychiatric emergencies, often lack the resources and staffing to adequately meet the growing demand for mental health care. Although more studies are exploring patient-centered and effective treatments for youth in the ED, no standardized recommendations have been established to address this issue thus far

Aims/Objectives: Therapy is often a first-line treatment for children and adolescents with mental health disorders like anxiety, depression, and behavioral disorders. The emergency department can be a challenging place for provider-driven therapy. Thus, this study is a quality improvement project aimed to evaluate the effectiveness of providing tailored, self-directed therapeutic exercises to improve the care of pediatric patients during psychiatric boarding in the ED. The main outcome measure will be perceived feasibility and benefit by ED staff, patients, and parents/guardians.

Methods: To implement this quality improvement project, we applied the Plan-Do-Study-Act (PDSA) framework. In the planning phase, the need to enhance psychiatric care during ED boarding was identified, guided by the 2021 Joint Commission recommendations to initiate active treatment, such as therapy, for underlying psychiatric illnesses in the ED. The research team utilized the *Therapist Aid* website to collect free, uncopyrighted, age-appropriate therapy handouts. Handouts implementing cognitive behavioral and dialectical behavioral principles were selected and narrowed based on what may reasonably to comprehend by adolescents when working independently. Handouts were then categorized into the following themes: depression/anxiety, anger/impulsivity, and self-injury, enabling staff to select the appropriate packet based on the patient's chief complaint or symptoms.

In the implementation, or "Do," phase, ED staff were given anonymous pre-intervention surveys to evaluate staff's perceptions of current activities available for pediatric patients in the psychiatric ED. Then, the categorized handouts were placed in the nurses' station, available for staff to distribute if they had pediatric patients. Each folder had post-intervention a survey for patients and a survey for parents/guardians. After four months of implementation, ED staff were offered post-intervention surveys. Responses were analyzed using Likert scales to evaluate the intervention's effect on patient care and staff experience.

Results: Staff surveys served as a primary outcome for feasibility and perceived utility of this project. Survey response rates were drastically different between pre-intervention and post-intervention for staff (attending physicians, nurses, residents, and technicians), with 45 respondents for pre-intervention and 18 for post-intervention. The pre-intervention survey informed us that 91.1% of staff viewed pediatric boarding as a problem in the ED, solidifying the importance of addressing this topic. Pre-intervention dissatisfaction with current activity options was high, with 66.7% reporting they were very dissatisfied or dissatisfied. Notably, in the post-intervention survey, 77.8% of respondents felt the therapeutic packets enhanced already existing activity options. Regarding implementation, 77.8% of respondents found the handouts very easy or somewhat easy to implement, with no respondents finding them difficult to implement. There continued to be a strong positive modal response with 70.6% being extremely likely or very likely to continue distributing handouts.

Unfortunately, given the complex ED process, there was no feasible way to evaluate patient perspectives prior to the intervention. Patient and parent/guardian surveys response was limited with n=12 and n=7, respectively. The modal response among patients (58.3%) and parents/guardians (57.2%) indicated that handouts were very easy or somewhat easy to follow. Most patients (58.3%) and parents/guardians (57.2%) felt the handouts had a very positive or somewhat positive impact on the time in the ED. Regarding content, 66.7% patients strongly agreed or agreed that the information was helpful, while this was 57.2% for parents/guardians. No patients responded that the information was not helpful. The modal response regarding likelihood of future use of skills in the handouts differed among the two groups, with most patients (41.7%) responding they were definitely likely to utilize the skills and most parents/guardians (42.9%) responding that the child would probably engage in the skills.

Conclusion/Discussion: Feasibility for both staff and families was a key consideration given the already known high demands and stress of the ED. The results demonstrate that most staff who engaged in the intervention found it easy to implement and reported that it enhanced existing activity options, making them likely to continue using it in the future. Patients and parents/guardians also reported overall positive feedback, though notably, parent/guardian responses were less favorable than patient responses. This discrepancy may stem from the self-directed nature of the project and surveys, as families' responses could reflect their overall ED experience and elevated stress during a time of crisis rather than the specific intervention. This was challenging to account for and more data from families would be needed to better assess. A major limitation of this project was the low post-intervention survey response rate among staff, which may reflect low utilization or awareness of the intervention, staff turnover, and a short survey collection period. In the next phase of this project, the "Act" phase, we will address this problem by increasing the research team's involvement in staff meetings to bring more awareness and provide more education on how to implement this resource. Overall, the data from this project demonstrates that there was an overall positive impact for those who utilized the self-directed handouts, helping fill the gap in treatment while pediatric patients await disposition in the psychiatric ED.

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