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6-2020

Behavioral health: Summary

Children's Mercy Kansas City

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Specific Care Question

In non-psychiatric pediatric hospitals, what is best practice for a psychiatric nurse coordinator to manage patient care, and support patient care staff to achieve:

- Optimal care of patients
- Improved staff competency, skill, ability, and confidence
- Decreased staff stress, frustration, and safety concerns

Recommendations Based on Current Literature (Best Evidence) Only

A conditional recommendation based on expert review of the literature by the Department of EBP is made to consider policy, practice, support, and education functions in the role of a psychiatric nurse coordinator to support the care provided to patients with mental health or behavioral disorders who are cared for in non-psychiatric facility. See Characteristics of Studies Tables for specific functions. Examples of functions include:

- *A policy change to consider is uniform reduction in nurses' workload when caring for boarded patient.*
- *Steering the work of integrating principles of behavioral nursing care into the patient's care plan, such as establishing methods of communication with the patient as a first step might be a practice change.*
- *Supporting the non-psychiatric nurse as they work through feelings about caring for patients with behavior health diagnoses*
- *Providing education to nurses so they understand laws that impact caring for pediatric patients with behavioral health diagnosis.*

When there is lack of scientific evidence, standard work should be developed, implemented, and monitored.

Literature Summary

Background. Pediatric mental disorders are described as serious changes in the way children typically behave or handle their emotions which causes distress and problems getting through the day (Centers for Disease Control and Prevention, 2020). Recent data from the Centers for Disease Control and Prevention (2013) estimated that nationally there was a 24% increase in pediatric inpatient mental health and substance abuse hospital admissions during 2007-2010. Common disorders diagnosed in children are attention deficit hyperactivity disorder (ADHD), anxiety, or behavior disorders; depression is less commonly diagnosed.

Diagnosis	Age range, years	% of children	Approximate number
ADHD	2-17	9.4	6.1 million
Behavior problem	3-17	7.4	4.5 million
Anxiety	3-17	7.1	4.1 million
Depression	3-17	3.2	1.9 million

Note: (Centers for Disease Control and Prevention, 2020)

The need for pediatric inpatient psychiatric treatment outstrips the bed availability (Claudius, Donofrio, Lam, & Santillanes, 2014; Gallagher et al., 2017; Vallieres-Noel, Garcon, Rosmus, Goulnik, & Lavoie-Tremblay, 2016; Wharff, Ginnis, Ross, & Blood, 2011). Children with mental health or substance abuse diagnoses who present to the emergency department (ED) are frequently held, or boarded in the ED. They may be admitted to a non-psychiatric inpatient unit either for treatment or to wait for an inpatient psychiatric unit bed to become available (Wharff et al., 2011). Children with developmental disabilities (such as autism spectrum disorder (ASD), cerebral palsy, hearing loss, intellectual disability, developmental delays) may also exhibit challenging behavioral issues when hospitalized (Johnson 2012). The ability to communicate, or lack thereof has been identified as a barrier in caring for children hospitalized with developmental disabilities (Jolly, 2015; Sakai, Miller, Brussa, MacPherson, & Augustyn, 2014). Nurses working in non-psychiatric EDs and inpatient units desire to learn more to increase their confidence when providing care to children with behavioral health diagnoses as well as communicating with patients, families, and mental health providers.

Date Developed: June 22, 2020

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At Children's Mercy Kansas City, the role of Inpatient/ED Mental Health APRN Coordinator has been developed. This role coordinates the care of behavioral health patients, and supports, coaches, and educates staff caring for these patients. A request to the Department of EBP look at the published literature for program development opportunities to support nurses in optimizing care of patients with behavioral health diagnoses. No direct evidence on the role of a psychiatric nurse coordinator was identified. However, findings related to the needs of nurses in non-psychiatric units as well as nurses in pediatric psychiatric hospitals were identified and may inform items for role development. This review will summarize current literature on the topic.

Study characteristics. The search for suitable studies was completed on April 2, 2020. B. Austin-Morris, DNP, APRN, PMHNP-BC and A. Moog, LCSW (KS), LCSW (MO), MSW, ACM-SW reviewed the 10 titles and/or abstracts found in the search, three studies were shared by Ms. Austin-Morris. There were two duplicates. Eight single studies believed to answer the question. After an in-depth review, six single studies^a were selected (Claudius, Desai, Davis, & Henderson, 2017; Gallagher et al., 2017; Inoue, Del Fabbro, & Mitchell, 2012; Jolly, 2015; Vallieres-Noel, Garcon, Rosmus, GoulNIK, & Lavoie-Tremblay, 2016; Wharff, Ginnis, Ross, & Blood, 2011). Claudius et al. (2014) was a descriptive study that described the rate of boarding pediatric psychiatric patients, along with the type of care provided while boarded, and estimated costs. Gallagher et al. (2017) performed a retrospective cohort study that evaluated trends in pediatric boarding, and type of care provided. A qualitative study was reported by Inoue et al. (2012) that focused on the educational needs of nurses caring for patients in psychiatric setting. A qualitative study reported by Vallieres-Noel et al. (2016) explored the experience and needs for support of nurses who cared for behavioral health patients in a non-psychiatric hospital setting. Finally, Jolly (2015) and Sakai et al. (2014) were a narrative review and a case study respectively, that provided guidance for communication strategies.

Summary by Outcome

Six studies (Claudius et al., 2014; Gallagher et al., 2017; Inoue et al., 2012; Jolly, 2015; Sakai et al., 2014; Vallieres-Noel et al., 2016) elaborated on the needs of nurses caring for patients with behavioral health diagnoses

Needs for support of nurses caring for behavioral health patients. Patients who are boarded in non-psychiatric setting may be taking medications (Claudius et al., 2014; Gallagher et al., 2017) or have new medications started (Claudius et al., 2014). Counseling and or psychotherapy may continue throughout the boarding timeframe (Claudius et al., 2014; Gallagher et al., 2017). Nurses in non-psychiatric settings expressed a need to “know what to do” which included a deeper knowledge of the prescribed medications to understanding goals of counseling through better relations with mental health care providers (Vallieres-Noel et al., 2016). Nurses in a psychiatric setting expressed desire for increased knowledge of child and adolescent mental health disorders, and how to take care of families too (Inoue et al., 2012). Nurses in non-psychiatric settings relayed an overall feeling of being powerless when caring for children with mental health disorders (Vallieres-Noel et al., 2016). Increasing the accessibility of mental health resources, improving the integration of the non-psychiatric nurse into the patient's care plan, and lightening workload when caring for boarded patients are strategies proposed by Vallieres-Noel et al. (2016) to empower nurses in these settings.

Gallagher et al. (2017) reported length of boarding after medical clearance was 3.11 ± 3.34 days in their cohort of 437 patients. Nurses expressed a need to know various teaching approaches they might employ, such as: how to promote utilization of relaxation techniques, use precepts of trauma informed care in patient interactions, and promote positive thinking for prolonged hospital stays (Inoue et al., 2012). On a personal growth side, nurses stated strategies on how to control their own negative feelings about caring for patients with behavioral health diagnoses and to understand the law related to caring for patients with behavioral health disorders would be welcome (Inoue et al., 2012).

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Methods to improve communication with patients with pediatric behavioral health disorders were described. Jolly (2015) made the following suggestions: (a) use a checklist for parents/caregivers to select preferred means of communication, (b) maintain a schedule, and limit schedule changes as much as possible -this includes sleep schedules, and (c) maintain consistent staff caring for the patient. For patients with ASD, Jolly (2015) recommends an understanding of the type of communication difficulty is imperative. For example, does the patient have delayed speech, non-verbal, or word repetition behaviors (Jolly, 2015).

Sakai et al. (2014) agrees with Jolly (2015) and adds recording preferences in a central place so seamless hand off can occur decreases family/caregivers' distress as the same information is requested repeatedly from them. Also, consider a list of hospital staff that can assist in problem solving for patients with behavioral health disorders to include: (a) speech and language pathologists, (b) occupational therapists, (c) child life specialists, and (d) dietitians.

Certainty of the evidence for needs of nurses caring for behavioral health patients. The certainty of the body of evidence was very low. Cohort studies start as low certainty and can be upgraded for large effect size or dose response. The studies included in this review cannot be upgraded for either. The certainty in this evidence is decreased to very low due to heterogeneity; the studies vary widely in the populations evaluated, methods used for evaluation, and outcomes reported upon. Claudius et al. (2014) and Gallagher et al. (2017) reported upon descriptions of pediatric patients who were boarded and estimated costs of boarding. Secondary outcomes, such as types of care, or interventions provided are helpful in answering the question of the role of the Inpatient/ED Mental Health APRN Coordinator. The qualitative studies employed good methods however one study included nurses in a general pediatric hospital setting (Vallieres-Noel et al., 2016), while the other included nurses in pediatric psychiatric ward (Inoue et al., 2012). Regardless of setting, clear communication among the primary nurse, patient, family, mental health providers, and general medicine providers or consultants was a universal theme. Two very low-quality papers, a case study (Sakai et al., 2014) and a narrative review (Jolly, 2015) on best practices to establish and enhance communication with the patient and/or the family/caregiver are included.

Identification of Studies

Search Strategy and Results (see Figure 1)

PubMed, April 2, 2020

Search: ("involuntary psychiatric holds" OR "Psychiatric boarding" OR "psychiatric boarders") AND (pediatr* OR paediatr* OR child OR children)

Records identified through database searching *n* = 9

Additional records identified through other sources *n* = 3

Studies Included in this Review

Citation	Study Type
Claudius et al. (2014)	Cohort
Gallagher et al. (2017)	Cohort
Inoue et al. (2012)	Qualitative
Jolly (2015)	Narrative review
Sakai et al. (2014)	Case study
Vallieres-Noel et al. (2016)	Qualitative

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Studies Not Included in this Review with Exclusion Rationale

Citation	Reason for exclusion
Claudius, Desai, Davis, and Henderson (2017)	Describes features of patients, not needs of nurses
Rasmussen, Henderson, and Muir-Cochrane (2012)	Describes how to initiate and supports needed to create a Child Adolescent Mental Health nursing practice

Methods Used for Appraisal and Synthesis

- ^aRayyan is a web-based software used for the initial screening of titles and / or abstracts for this analysis (Ouzzani, Hammady, Fedorowicz & Elmagarmid, 2017).
- ^bThe Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram depicts the process in which literature is searched, screened, and eligibility criteria is applied (Moher, Liberati, Tetzlaff, & Altman, 2009).
- ^aOuzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan-a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), 210. doi:10.1186/s13643-016-0384-4
- ^bMoher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement*. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097 **For more information, visit www.prisma-statement.org.**

Question Originator

B. Austin Morris, DNP, APRN, PMHNP-BC, Inpatient/ED Mental Health APRN Coordinator

Medical Librarian Responsible for the Search Strategy

K. Swaggart, MLIS, AHIP

EBP Team or EBP Scholar's Responsible for Analyzing the Literature

N. H. Allen, MS, MLS, RD, LD, CPHQ

J. A. Bartlett, PhD, RN

J. Dusin, MS, RD, LD, CPHQ

EBP Team Member Responsible for Reviewing, Synthesizing, and Developing this Document

N. H. Allen, MS, MLS, RD, LD, CPHQ

Acronyms Used in this Document

Acronym	Explanation
ADHD	Attention deficit hyperactivity disorder
ASD	Autism spectrum disorder
CAT	Critically Appraised Topic
EBP	Evidence Based Practice
ED	Emergency Department
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses

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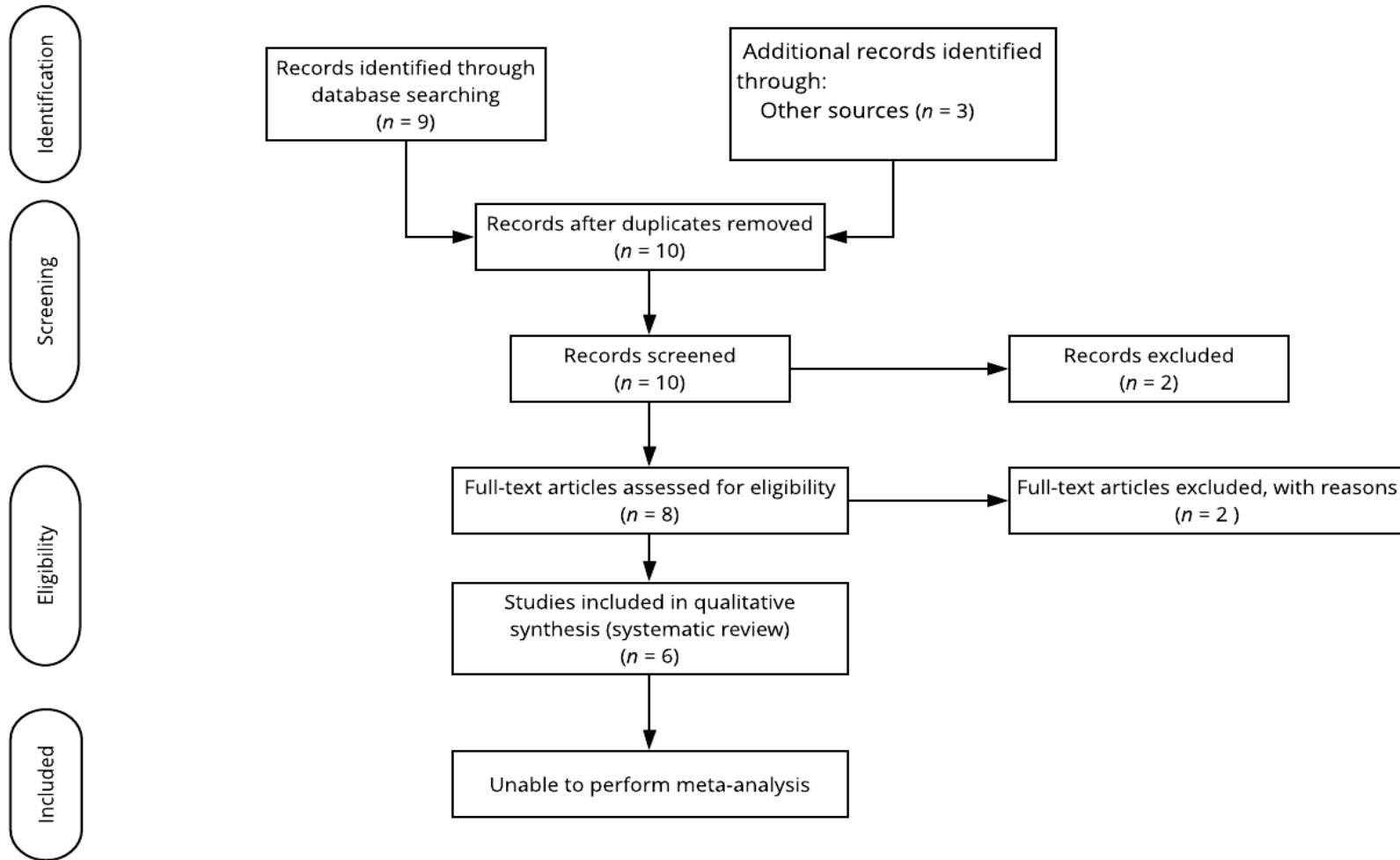


Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)^b

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Characteristics of Studies

Claudius et al. (2014)

<i>Characteristics of Study</i>	
Methods	Descriptive Retrospective Cohort
Participants	<p>Participants: Pediatric patients admitted to an inpatient medical unit for involuntary psychiatric boarding Setting: Los Angeles County + University of Southern California Medical Center Number enrolled into study: <i>N</i> = 523 Number completed: <i>N</i> = 523 Gender, males: (as defined by researchers)</p> <ul style="list-style-type: none"> • <i>n</i> = 276 (52.8%) <p>Race / ethnicity or nationality (as defined by researchers):</p> <ul style="list-style-type: none"> • The study occurred in Los Angeles County + University of Southern California Medical Center. The authors did not identify race or ethnicity of the participants. <p>Age, mean in years, ± SD</p> <ul style="list-style-type: none"> • 14.1 ± 3.0 <p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Patients admitted to an inpatient ward who were “medically cleared” or if failed attempts to transfer the patient to an inpatient psychiatric facility were documented. • Patients with any of the following ICD-9 discharge diagnosis codes (see article appendix for code terminology): <ul style="list-style-type: none"> ○ V70.1– V70.2 ○ 293.81–298.9 ○ 299.80–302.89 ○ 311–314.9 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Patients who were > 18 years of age • If visit was not related to the patient being of danger to themselves or others or grave disability • Transferred directly to an inpatient psychiatric facility • Medical records incomplete or not available <p>Covariates identified: Not reported</p>
Interventions	This was a descriptive study
Outcomes	<p>Primary outcomes:</p> <ul style="list-style-type: none"> • Assess psychiatric admission rates for boarding on an inpatient medical ward • Type of care provided • Estimated cost for boarding these patients <p>Secondary outcome:</p> <ul style="list-style-type: none"> • Not reported <p>Safety outcome</p> <ul style="list-style-type: none"> • Not reported <p>*Outcomes of interest to the CMH CAT development team</p>

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Results	Involuntary psychiatric holds: <ul style="list-style-type: none">• Sixteen percent, $n = 87$, of these patients had their holds overturned during their medical unit hospitalization• Seventy six percent, $n = 395$, patients were transferred from the inpatient medical unit to a inpatient psychiatric facilities Description of population findings: <ul style="list-style-type: none">• The 523 patients admitted from the ED accounted for 15.2% of the overall ED admissions to the inpatient medical unit• While in the medical inpatient unit 20.1%, $n = 105$, received psychiatric medications (new prescription or a continuation of home prescriptions)• Thirty-two patients (6.1%) had documented individual or family counseling• Patients that were transferred to an inpatient psychiatric facility were significantly more likely ($p < 0.001$) to receive psychiatric medications and counseling• LOS:<ul style="list-style-type: none">○ ED median \pm SD: 7.0 \pm 4.1 hours○ Inpatient medical unit: 2.0 days (range 1 – 30 days)○ Cumulative inpatient medical unit: 1,169 resulting in an estimated hospital cost of \$2,232,790 or an average of \$4269/patient
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Gallagher et al. (2017)

<i>Characteristics of Study</i>	
Methods	Retrospective Cohort
Participants	<p>Participants: Pediatric patients admitted for psychiatric boarding Setting: Inpatient Boston Pediatric Hospital, 2011-2013 Number enrolled into study: <i>N</i> = 437 Number completed: <i>N</i> = 437 Gender, males: (as defined by researchers)</p> <ul style="list-style-type: none"> • <i>n</i> = 157 (35.9%) <p>Race / ethnicity or nationality (as defined by researchers):</p> <ul style="list-style-type: none"> • White, non-Hispanic, <i>n</i> = 289 (66.1%) • African American, <i>n</i> = 61 (14%) • Hispanic, <i>n</i> = 53 (12.1%) • Other, <i>n</i> = 24 (5.5%) • Asian, <i>n</i> = 10 (2.3%) <p>Age, mean (SD)</p> <ul style="list-style-type: none"> • 15.16 ± 2.8 years <p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Patients needing psychiatric boarding: <ul style="list-style-type: none"> ○ Patients were evaluated by psychiatry clinicians in the ED, determined to require psychiatric hospitalization, and transferred to an inpatient pediatric unit to await placement after ~24 hours of unsuccessful attempts at placement from the ED ○ Patients were admitted to an inpatient pediatric unit for medical evaluation and stabilization (e.g., because of altered mental status, after a suicide attempt, etc.) • Patients included in the study were identified by using existing Psychiatric Care Services patient tracking databases <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Patients for whom psychiatric placement was secured while boarding in the emergency department (ED) and not transfer to any inpatient pediatric units
Interventions	<ul style="list-style-type: none"> • Patients identified by using existing Psychiatric Care Services patient tracking databases. • Completion of two scales of global functioning <ul style="list-style-type: none"> ○ Clinical Global Impressions scale ○ Children’s Global Assessment Scale • Medical charts were reviewed and coded by the authors • Mental health supports (48.33 ± 28.57 minutes per patient per day) <ul style="list-style-type: none"> ○ Supportive or cognitive behavioral therapy ~ 90% ○ Psychotropic medication ~ 50% ○ One on one safety related observation ~ almost all

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	<ul style="list-style-type: none"> ○ Seen daily by Psychiatric Care Services, either child psychiatry or psychology training and attending psychiatrist or psychologist. On weekends and holidays, on call psychiatry staff were responsible for the visits 																								
Outcomes	<p>Primary outcomes:</p> <ul style="list-style-type: none"> • Trends in boarding volume over 3 years • *Demographic and psychiatric and psychosocial characteristics of psychiatric boarders seen over a 1-year period with particularly high psychiatric boarding volume • *Interventions provided by Psychiatric Care Services and outcomes of boarding. <p>Secondary outcomes:</p> <ul style="list-style-type: none"> • Not reported <p>Safety outcomes:</p> <ul style="list-style-type: none"> • Not reported <p>*Outcomes of interest to the CMH CAT development team</p>																								
Results	<ul style="list-style-type: none"> • Average length of boarding after medical clearance was 3.11 ± 3.34 days. • Most psychiatric boarders (82.6%) boarded after medical clearance for 5 days or less • Psychiatric placement was secured within 24 hours for 82 patients (18.8%) • Clinical Global Impression Scale improved significantly from admission to discharge <ul style="list-style-type: none"> ○ Admission, = 5.30 ± 0.887 ○ Discharge, = 4.88 ± 0.972 ○ $p < .001$; 95% CI [0.2964, 0.6064] • Clinical Global Impression Scale improvement ratings indicated that 33% of psychiatric boarders ($n = 147$) showed clinical improvement during their hospitalization and 12% ($n = 53$) showed decline, with the remaining patients showing no change while boarding. • A significantly greater proportion of patients who boarded longer than 5 days showed clinical improvement than patients who boarded 5 days or less (66% vs 34%; $p < .001$). <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr style="border-top: 1px solid black; border-bottom: 1px solid black;"> <th style="text-align: center; padding: 5px;">Psychiatric Diagnoses</th> <th style="text-align: center; padding: 5px;"><i>n</i> (%)</th> </tr> </thead> <tbody> <tr><td style="padding: 2px 5px;">Depressive disorders</td><td style="text-align: right; padding: 2px 5px;">247 (56.5)</td></tr> <tr><td style="padding: 2px 5px;">Anxiety disorders</td><td style="text-align: right; padding: 2px 5px;">147 (33.6)</td></tr> <tr><td style="padding: 2px 5px;">Disruptive behavior disorders</td><td style="text-align: right; padding: 2px 5px;">105 (24)</td></tr> <tr><td style="padding: 2px 5px;">Bipolar disorders</td><td style="text-align: right; padding: 2px 5px;">79 (18.1)</td></tr> <tr><td style="padding: 2px 5px;">Eating disorders</td><td style="text-align: right; padding: 2px 5px;">70 (16)</td></tr> <tr><td style="padding: 2px 5px;">Pervasive developmental disorders</td><td style="text-align: right; padding: 2px 5px;">44 (10.1)</td></tr> <tr><td style="padding: 2px 5px;">Post-traumatic disorders</td><td style="text-align: right; padding: 2px 5px;">43 (9.8)</td></tr> <tr><td style="padding: 2px 5px;">Somatoform disorders</td><td style="text-align: right; padding: 2px 5px;">43 (9.8)</td></tr> <tr><td style="padding: 2px 5px;">Substance use disorders</td><td style="text-align: right; padding: 2px 5px;">40 (9.2)</td></tr> <tr><td style="padding: 2px 5px;">Psychotic disorders and delirium</td><td style="text-align: right; padding: 2px 5px;">24 (6.2)</td></tr> <tr style="border-bottom: 1px solid black;"><td style="padding: 2px 5px;">Adjustment disorders</td><td style="text-align: right; padding: 2px 5px;">10 (2.3)</td></tr> </tbody> </table>	Psychiatric Diagnoses	<i>n</i> (%)	Depressive disorders	247 (56.5)	Anxiety disorders	147 (33.6)	Disruptive behavior disorders	105 (24)	Bipolar disorders	79 (18.1)	Eating disorders	70 (16)	Pervasive developmental disorders	44 (10.1)	Post-traumatic disorders	43 (9.8)	Somatoform disorders	43 (9.8)	Substance use disorders	40 (9.2)	Psychotic disorders and delirium	24 (6.2)	Adjustment disorders	10 (2.3)
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No. of psychiatric diagnoses		n (%)
1		126 (28.8)
2		166 (38)
3		100 (22.9)
4		31 (7.1)
5 or more		14 (3.2)
Past treatment		n (%)
Any past treatment		380 (87)
Outpatient therapy		308 (70.5)
Psychotropic medications		289 (66.1)
Inpatient psychiatric hospitalization		170 (38.9)
Partial hospitalization program		53 (12.1)
Acute residential treatment		49 (11.2)
Long-term residential treatment		47 (10.8)
Psychosocial Support Provided While Boarding		n (%)
Psychoeducation		389 (91.1)
Psychotherapy		381 (87.2)
One-to-one care companion		316 (72.3)
Psychotropic medication		223 (51.0)
Collateral contact (outside providers)		207 (47.4)
Behavioral plan		120 (27.5)
Social work support		102 (23.3)
Security involvement		51 (11.7)
Protective actions (child protective services reporting)		36 (8.2)
Systems meeting (providers and outside agencies)		35 (8.0)

Inoue et al. (2012)

<i>Characteristics of Study</i>	
Methods	Qualitative - needs analysis focus groups
Participants	<p>Participants: Psychiatric nurses Setting: Psychiatric hospital in Japan Number enrolled into study: <i>N</i> = 14 Number completed: <i>N</i> = 14 Gender, males: (as defined by researchers)</p> <ul style="list-style-type: none"> • Not reported <p>Race / ethnicity or nationality (as defined by researchers):</p> <ul style="list-style-type: none"> • The study occurred in Japan. The authors did not identify race or ethnicity of the participants. <p>Age: Not reported Inclusion criteria:</p> <ul style="list-style-type: none"> • All nursing staff was recruited <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • None reported
Interventions	<ul style="list-style-type: none"> • Nominal group technique was used to acquire feedback from nurses during focus groups • Nurses were divided into two focus groups (Group A and Group B), with those of similar age, years of nursing work experience, and nursing work experience • Each participant was asked to generate his/her own responses to the question: "What areas of your practice would you like to improve?" • Participants were asked to write down their ideas. During the focus group sessions, each participant, in turn, was asked to provide one or more areas • As a group, they collectively merged similar areas to develop a discrete master list • The group discussed all the identified areas, and as a group they were asked to prioritize in order
Outcomes	<p>Primary outcome):</p> <ul style="list-style-type: none"> • Needs analysis for psychiatric nurses <p>Secondary outcome:</p> <ul style="list-style-type: none"> • Not reported <p>Safety outcomes:</p> <ul style="list-style-type: none"> • Not reported <p>*Outcomes of interest to the CMH CAT development team</p>

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Results	<u>Areas of practice that participants wanted improvement</u>	<u>Rank</u>
	Knowledge of normal development, mental illness, and disorders in childhood and adolescence	1
	Understanding the psychology of family with children who have mental illness, responding to it, and education of patient's parents	2
	Nursing care of patients with developmental disorder	2
	Communication skill toward patients and families	3
	A way of nursing to promote patients becoming self-sufficient	4
	Making sense of a common purpose in nursing individual patients— Teamwork	4
	Relaxation methods for patient treatment	5
	Nursing care and techniques that promote understanding and knowledge of abused children and how they establish relationships with others	5
	Overcoming nurses' lack of confidence in caring for adolescent psychiatric patients	6
	Nursing technique to help engage patients in group play	6
	A way of controlling nurse's negative feeling toward patients	7
	Teamwork (mental health support among staff)	7
	A way of teaching suited to each patient's developmental stage	8
	Understanding the law regarding children and adolescents	9
	Nursing care of patients with various disorders	9
	The relation of one's department to other departments and specialties	9
	Social resources which children and adolescents can utilize	9
	Learning from and acquiring the skills of other staff to care for patients	10
	Promoting patients' positive thinking	10

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Jolly (2015)

<i>Characteristics of Study</i>	
Methods	Narrative review Of interest to the team are the items in Tip 3 (communication) and concepts included on the tool Figure 1.
Participants	None
Interventions	None
Outcomes	Establish a clear method of communication with patients with ASD
Results	<ul style="list-style-type: none"> • Tip 3 specifically addressed communication: <ul style="list-style-type: none"> ○ Ask family or caregiver best options for communication ○ Consider short succinct commands ○ Avoid saying “No” ○ If the patient uses visual aids, use them. Consider if using picture schedules, communication or labeling items in the room would enhance communication. ○ Request a Child Life consult to work with patient and staff to optimize communication. • Assistance from other Tips • Understand ASD- Communication deficits may include <ul style="list-style-type: none"> ○ Delayed speech ○ Inability to speak ○ Difficulty with comprehension of others’ speech, questions, directions, etc. ○ May repeat parts of words, words, parts of sentences (echolalia) ○ Abnormal tone of voice or speech rhythm. ○ All may increase the patient’s agitation • Dealing with Change <ul style="list-style-type: none"> ○ Keep to a schedule as best possible ○ Avoid interruptions to sleep, as best possible ○ Communicate schedule changes as soon as possible, and reinforce the information in the preferred format • Consistent Caregiver <ul style="list-style-type: none"> ○ Echoes keeping schedule the same. The same caregiver may increase the patient’s comfort and the caregiver can pick up information about the patient. • Handoffs <ul style="list-style-type: none"> ○ Great care should be used at shift change. Sharing information can prevent an oncoming caregiver to perform a task that may create stress for both the patient and the caregiver

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Sakai et al. (2014)

<i>Characteristics of Study</i>	
Methods	Case Study
Participants	Tells the story of a patient with ASD who has a prolonged hospitalization after cancer diagnosis. The patient was getting intensive clinic-based therapy for ASD prior to cancer diagnosis. During the prolonged hospitalization, the patient's ability regressed. The paper is a narrative review of options to improve her ASD functioning.
Interventions	<ul style="list-style-type: none"> • Options • Overarching is parent involvement • Develop a checklist of items to ask parent/caregiver about how to communicate, stressors etc. • Schedule regular meetings with family/caregiver • Hospital professionals that might be helpful <ul style="list-style-type: none"> ○ Speech/language pathologist can provide communication boards ○ Occupational therapist can assess and treat sensory processing difficulties ○ Clinical care team can work to cluster care to decrease sensory input and minimize excessive environmental inputs ○ Child Life Specialist can provide plans to reduce the stress of hospitalization ○ Dietitian can assist with food preferences
Outcomes	<ul style="list-style-type: none"> • Did not report
Results	<ul style="list-style-type: none"> • Did not report

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Vallieres-Noel et al. (2016)

<i>Characteristics of Study</i>	
Methods	<p>Qualitative study. Method- Qualitative descriptive design, purposive sampling Research questions:</p> <ol style="list-style-type: none"> 1. In a non-psychiatric unit, what is the experience of a pediatric nurse caring for children with mental health disorders (depression, drug-induced psychosis, anorexia)? 2. What type of support is needed by nurses in this context?
Participants	<p>Participants: Pediatric nurses, on non-psychiatric units Setting: University teaching hospital in Canada Number enrolled into study: <i>N</i> = 17 Number completed: <i>N</i> = 17 Gender, males: (as defined by researchers) <i>n</i> = 1 (5.9%) Race / ethnicity or nationality (as defined by researchers):</p> <ul style="list-style-type: none"> • The study occurred in Quebec, Canada. The authors did not identify race or ethnicity of the participants. <p>Age, range</p> <ul style="list-style-type: none"> • 18-33 years: <i>n</i> = 12 (70.6%) • 34-54 years: <i>n</i> = 2 (11.8%) • >55 years: <i>n</i> = 3 (17.6%) <p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Speak English or French • Cared for a child with a mental health disorder on the unit under study in the last 12 months • Worked on the unit under study the last 6 months • Worked in a full or part time permanent position • Sign informed consent form • Agree to be audio-recorded <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Previously worked in a mental health setting <p>Covariates identified: Not reported</p>
Interventions	<ul style="list-style-type: none"> • Researchers developed an interview guide with questions and follow up questions to explore experience and perceptions of participating nurses and identify supports that would help them do their job better. Interviews were audio recorded. • Subjects completed a socio-demographic questionnaire, participated in individual semi-structured interviews (30 minutes)
Outcomes	<p>Primary outcomes:</p> <ul style="list-style-type: none"> • *The experience of pediatric nurses caring for mental health patients • *Type of support identified by pediatric nurses when caring for patients with mental health disorders <p>*Outcomes of interest to the CMH CAT development team</p>

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<p>Results</p>	<p>Themes and subthemes that emerged</p> <p>Ongoing powerlessness loop of care</p> <ul style="list-style-type: none"> • Not knowing what to do • Gaps in mental health resources • Ensuring safety and basic care • Feelings of helplessness, frustration, and injustice <p>Striving to break the powerlessness loop to ensure better care</p> <ul style="list-style-type: none"> • Education sessions and resources • Lighter workloads • Accessibility of mental health resources • Specific guidelines and individual patient plan • Nurses integration in patient's plan <p>In the discussion</p> <ul style="list-style-type: none"> • Use an individualized care plan on admission to emergency care, inpatient care. Have care plan flow to new location if hospital admission occurs • Create a "true liaison" between non-psychiatric nursing and the mental health care team to facilitate collaboration • Conduct regularly scheduled unit rounds where mental health admissions were reviewed, with goal of identifying and improving care and therefore outcomes • To increase non-psychiatric nurses' access to resources, employ an psychiatric APRN to serve as a bridge between psychiatric care givers and unit nurses • Resources: leadership guidance, development of educational tools and training modules.
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