Analysis of Emergency Room (ER) visits Reveals a Seriously Mentally III, Medically Fragile Population Requiring Policy Change for Dually Certified Nurse Practitioners

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BACKGROUND AND METHODS

- National Comorbidity Survey 34 million or 17% of the American adult population w/ comorbid mental and physical illnesses (Druss & Walker, 2011).
- "The Milliman Report" (analysis of 5.3 million Medicare and Medicaid patients), estimated that \$26 to \$48 billion could be saved annually with effective integration of mental and physical health care [APA], 2014).
- Retrospective review of invoices billed to Regional Psychiatric Hospital for non-psychiatric health services utilized by psychiatric inpatients revealed high costs of ER visits from July '16 June '17.
- Regional Psychiatric hospital with a daily census of 170 patients spent total of \$304,466.67 for the fiscal year on nonpsychiatric ER visits.
- Data extracted age, gender, race, mental health diagnoses, medical diagnoses, medications, symptoms 24 hours prior, reason for the referral, providers' orders, disposition + medications prescribed in the ER, and interventions for each episode.



28 PATIENTS WITH 41 ER VISITS

Number Of Patients	Number Of Visits Made To The Local ER	Total Number Of Visits Made To The Local ER
One	6 visits	6
Two	3 visits	6
Four	2 visits	8
Twenty-One	1 visit	21
28 Patients		41 visits

THE FIRST GROUP: MEDICATION SIDE EFFECTS (PREVENTABLE)

Categories		Number of Visits	Total Cost of Visits
a.	Gastrointestinal side effects: Vomiting and constipation caused partial or complete bowel obstruction	9	\$88,046.62
b.	Urinary Retention:	3	\$21,705.65
C.	Dizziness and Falls:	7	\$18,704.21
d.	Adverse Drug Reaction:	6	\$70,099.09
	Total	25	\$198,555.57

THE SECOND GROUP: NON-MEDICATION SIDE-EFFECTS BUT PREVENTABLE WITH NP MANAGEMENT

Categories		Number of Visits	Total Cost of Visits
a.	Patient/Patient Assault	4	\$15,982.55
b.	Chest Pain (non-cardiac)	3	\$5,404.23
C.	Right Lower Extremity Pain	1	\$852.21
d.	Skin Abscess or Cellulitis	2	\$877.20
e.	Chronic Condition (hyponatremia and leukopenia)	3	\$2473.05
	Total	13	\$25,589.24

TOTAL COSTS OF VISITS PLUS PERSONNEL

Preventable/non- preventable visit	Total visit cost for fiscal year 2016-2017	Total personnel salary for the fiscal year 2016-2017	Total cost for the fiscal year 2016-2017
Preventable visits - costs	\$224,144.81	\$34,523.34	\$ 258,668.15
Non-preventable visit cost	\$28,536.85	\$17,261.67	\$45,798.52
Total	\$ 252, 681.66	\$51, 789.01	\$304,466.67

RESULTS

- Retrospective review of invoices and patient medical records demonstrated fragmentation of care for comorbid mental and physical illnesses.
- This fragmentation of care resulted in overprescribing and polypharmacy to a health-compromised population resulting in increased side-effects and poor health outcomes and un-necessary expenditure for visits to the ER for hospitalized psychiatric patients.
- For details regarding results refer to the publication
 - Sahota, K. & Bennett, C. (2019, January). Analysis of emergency room visits reveals a seriously mentally ill, medically fragile population requiring strategic management. *Journal of American Psychiatric Nurses Association*, (Brief report). https://doi.org/10.1177/1078390318823972



POLICY AND ADVOCACY

- Dually certified Psychiatric Mental Health Nurse Practitioner (PMHNP) and Adult Nurse Practitioner (ANP) or Family Nurse Practitioner (FNP) has achieved excellence and proficiencies in two focused specialties to provide care to this seriously mentally ill, medically fragile vulnerable population (American Nurses Credentialing Center [ANCC], 2018).
- The dually certified Advance Practitioner Registered Nurse (APRN) is able to provide integrated care with strategic management in de-prescribing and reducing polypharmacy.
- Recognizing and minimizing drug-to-drug and drugillness interactions will prevent the development of sideeffects which cost Regional Psychiatric Hospital \$258,668.15 in ER visits to the cohort of 28 patients.



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