Abstract

Introduction. Delayed access to mental health services (MHS) has become a crisis in the United States. Children have the highest disproportionate rates of delayed psychiatric services in comparison to adults. There are greater demands for mental health professionals than the workforce can supply. Social workers (SW) have been identified as essential stakeholders for children needing access to mental health services. The shortage of social workers is more profound than nurses, especially in rural and underserved areas. Therefore, the Institute of Medicine (IOM) has recommended all educational institutions incorporate telemental health (TMH) training into interprofessional students' curriculums.

Target Population. The delays in MHS are directly related to the shortage of mental health professionals especially for nursing but is it is more apparent in social work. The United States Health Resource and Service Administration (HRSA) have projected there is a greater demand for mental health clinicians than the workforce is able to supply. ***Social workers*** are essential providers for navigating our nation's mental health system. They can also train to become licensed mental health therapists. HRSA predicts by 2025 the demand for SWs will be 157,760. However, the estimated supply will be 147,500 resulting in a shortage of approximately 10,260 social workers. ***Children*** have the greatest risk for lack of access amongst mental health patients in the U.S. An estimated 13–20 % of children in the United States have a diagnosable mental illness. Twenty-one percent of that amount are children who reside in rural or underserved areas. Strikingly, only 7% of children living in rural or underserved areas will receive a mental health appointment.

Purpose. The purpose of the George Mason University initiative was to develop a telemental health training model that would be incorporated into social work students' curriculum and meet the IOMs' recommendation. The GMU Population Health Center Initiative sought to identify how SW students, trained as TMH providers could be the resolution to the workforce shortage crisis.

Methods. This project design was a quality improvement initiative to assess social work students' perception of the telemental health training. The CTiBS framework was used to determine the level of competency SW students achieved upon completion of the TMH training. The Activity Theory was used as the methodological framework to assess social work students' readiness of change, engagement, and TMH technology.

Results. After reviewing quantitative data, 70% participants (n=7) declared novice competency. The remaining 30% (n=3) affirmed proficiency (SD= 0.46, V=0.21). Sixty percent (n=6) participants declared they would consider becoming TMH providers. Sixty percent (n=6) of the trainees stated they were satisfied with the training and would consider providing TMH services upon graduation (SD= 0.49, V=0.24). Ninety percent (n=9) of trainees stated they could successfully conduct a TMH visit and would consider working in rural and underserved areas (SD= 0.30, V=0.09). One hundred percent (n=10) of the participants stated the TMH training was a beneficial skill for their profession.

Conclusion. One hundred percent of the participants found TMH training beneficial and ninety percent would use it to conduct visits for children upon graduation. The workforce crisis will not improve unless the IOM recommendations are adapted by educational institutions. A telemental health-prepared labor force will help to reduce the rates of mental health disparities in children.

Funding. No Funding

Increasing Awareness of Naloxone-Induced Noncardiogenic Pulmonary and Peripheral Edema

Kimberly D. Conley, RN. CFRN, CEN[1],
Dana Murphy-Parker, MS, PMHNP-BC, CARN-AP, FIAAN[2]
and Virginia M. Conley, PhD, PMHMP-C, FNP-BC, FAANP[3]

[1]Frontier Nursing University, PMHNP Student, Lexington, KY, USA, [2]University of Colorado, Clinical Faculty, Denver, CO, USA and [3]Flowstate Health, LLC, Des Moine, IA, USA

Abstract

Introduction. Naloxone use has increased in recent years in response to the nation's opioid crisis. Once only available to health care professionals, it is now obtainable by prescription for persons at risk for substance overdose and their families. Increasing its availability is seen by some as an "over-the-counter solution" to the opioid problem. However, while naloxone has been viewed as relatively safe, with a low side effect profile when appropriately dosed and monitored, it is not without safety concerns that may go unrecognized or misattributed to other causes.

Methods. Here we present a case study of a 41-year-old female who presented to our medication-assisted treatment (MAT) clinic complaining of sudden onset weight gain, shortness of breath, upper and lower extremity peripheral edema, tachycardia, insomnia, and nocturnal enuresis. These symptoms made it difficult for her to work at her housekeeping job, resulting in missed workdays. She had seen a primary care provider for her symptoms and been prescribed a rescue inhaler for her shortness of breath. This patient had previously been treated for opioid use disorder with buprenorphine/naloxone and experienced similar symptoms, which disappeared when she relapsed on opioids. However, symptoms reappeared upon resuming her prescribed treatment.

Results. The patient was identified as experiencing side effects to naloxone, causing noncardiogenic edema. Her MAT medication was switched to buprenorphine. Within two weeks her heart rate had returned to normal, she had lost weight, and she no longer had nocturnal enuresis or needed the rescue inhaler. Her peripheral edema resolved so she was able to walk better and resume work. At the same time, buprenorphine continued to relieve her cravings.

There is a dearth of information related to naloxone-induced edema. Our patient had not received a formal evaluation of pulmonary edema, but her pulmonary and cardiac symptoms were consistent with that diagnosis. Although pulmonary edema is mentioned in the product literature, peripheral edema is not. A literature search indicates that the number of case studies on naloxone-induced pulmonary edema have increased since 2018, but only one other case of naloxone-induced peripheral edema was discovered.

Conclusions/Importance. Naloxone is used in a variety of settings by differing types of health care providers. As the number of persons treated with naloxone increases, there will likely be a corresponding increase in incidences of pulmonary and/or

https://doi.org/10.1017/S1092852923001736 Published online by Cambridge University Press

peripheral edema as side effects. Providers and patients who are not aware of these manifestations and their relationship to naloxone treatment may easily attribute presenting symptoms to cardiogenic or other causes, as this case illustrates. It is important for providers in all settings to consider new onset shortness of breath and edema within the context of the person's whole health and to be aware of their implications for mental as well as physical health.
Funding. No Funding

Unique Considerations in the Treatment of Psychosis in DiGeorge Syndrome: A Case Report

Laura Williams, DO, Sree Jadapalle, MD and Kevin Lamm, MD

Cape Fear Valley, Fayetteville, NC, USA

Abstract

Introduction. DiGeorge Syndrome is a microdeletion of chromosome 22q11.2 and is most commonly *de novo*. Manifestations of DiGeorge are wide-spread including cardiac malformations, palatal abnormalities, intellectual disability, hypocalcemia, dysmorphic facial features, and psychiatric disorders (psychotic disorders, Autism, ADHD, etc). This case report highlights difficulties with diagnosis and treatment of psychosis in DiGeorge. This 29 yo male with history of DiGeorge and associated cardiac anomalies presented to the outpatient clinic with prior diagnoses of schizoaffective disorder, bipolar disorder, DMDD, autism, and ADHD. Patient denied all symptoms, though mother noted hallucinations for 5–6 years. He was previously on aripiprazole and divalproex and developed a resting tremor. With family history of Parkinson's disease (PD), increased risk of PD in DiGeorge, and no improvement in tremor with dose reduction of aripiprazole or discontinuation of divalproex, neurology diagnosed PD, which was later negated when tremor resolved with complete discontinuation of aripiprazole. In our clinic we slowly increased divalproex and olanzapine, though parent concern of sedation limited higher doses. Patient had moderate improvement in symptoms per parents, but after several months on moderate-dose olanzapine, he developed a tremor. Sensitivity to extrapyramidal symptoms limits medication selection. Furthermore, QT prolongation in a population with cardiac abnormalities poses a unique risk. Given complexity and poor response, we researched pathogenesis and treatment of psychosis in DiGeorge.
Methods. We reviewed literature on PubMed with keywords including "DiGeorge," "treatment," "psychosis." Specifically, we looked at articles addressing treatment response, efficacy, side effects, novel treatments, and the pathogenesis as it relates to treatment.
Results. Literature indicates that psychotic symptoms are more treatment resistant compared to psychotic disorders not associated with DiGeorge and there is little consensus on which antipsychotics are more effective. The 22q11.2 deletion contains the gene segment for catechol-O-methyltransferase (COMT) and the resulting COMT deficiency leads to excess catecholamines. The presence of the low activity COMT variant on the remaining allele is associated with possibly more severe psychiatric symptoms. Metyrosine may be a potential medication in the treatment of psychosis in DiGeorge by interfering with dopamine synthesis. Overall there is sparse research on treatment of psychosis in DiGeorge and a lack of firm recommendations.
Conclusion. This case study exemplifies the need for further research on DiGeorge Syndrome and treatment of psychosis. Treatment is complicated by cardiac abnormalities, comorbid neuropsychiatric conditions confounding diagnosis, and little research on treatments that target the unique pathogenesis. Research is inconsistent concerning recommendations and novel treatments are primarily anecdotal.
Funding. No Funding

Safety And Efficacy of Aripiprazole 2-Month Ready-to-Use 960 mg in Adult Patients With Schizophrenia

Pedro Such[1], Murat Yildirim[1], Jessica Madera-McDonough[2] and Leslie Citrome[3]

[1]H. Lundbeck A/S, Valby, Denmark, [2]Otsuka Pharmaceutical Development & Commercialization, Inc., Princeton, NJ, USA and [3]New York Medical College, Valhalla, NY, USA

Abstract

Background. Aripiprazole 2-month ready-to-use 960 mg (Ari 2MRTU 960) is a new long-acting injectable (LAI) antipsychotic formulation for gluteal administration every 2 months. This 32-week trial evaluated the safety, pharmacokinetics, and efficacy of multiple-dose administration of Ari 2MRTU 960 in clinically stable adults with schizophrenia or bipolar I disorder (BP-I), versus that of aripiprazole once-monthly 400 mg (AOM 400; an LAI indicated for the maintenance treatment of schizophrenia in adult patients stabilized with oral aripiprazole [indication varies by country]). Safety and efficacy outcomes in the subpopulation of patients with schizophrenia are reported here.
Methods. Patients with schizophrenia were randomized to receive Ari 2MRTU 960 every 56±2 days or AOM 400 every 28±2 days. Safety and tolerability assessments included adverse event (AE) reporting, Visual Analogue Scale [VAS] scores (scale range: 0–100) for patient-reported injection site pain, and extrapyramidal symptom (EPS) monitoring. Efficacy was evaluated at Week 32 using mean (standard deviation [SD]) Clinical Global Impression – Improvement (CGI-I) score, and mean (SD) change from baseline in Clinical Global Impression – Severity (CGI-S) score, Subjective Well-being under Neuroleptic Treatment – Short Form [SWN-S] Total score, and Positive and Negative Syndrome Scale (PANSS) Total score.
Results. Study completion rate was 79.3% (73/92 patients) in the Ari 2MRTU 960 group and 67.7% (63/93 patients) in the AOM 400 group. Demographics and disease characteristics were well

https://doi.org/10.1017/S1092852923001736 Published online by Cambridge University Press